STATE OF THE NATION 2005

Challenges Facing STD Prevention in Youth

research

review

recommendations

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The American Social Health Association (ASHA) is a 91-year-old nonprofit organization that is dedicated to improving the health of individuals, families, and communities, with a focus on sexually transmitted diseases. ASHA provides important services to consumers and to health care professionals through a variety of programs. Through its offices in Washington, DC, and Research Triangle Park, NC, ASHA: leads advocacy efforts for proper attention and funding to STD research and programs; creates state-of-the-art educational materials for patients, providers, policymakers, and the press; conducts survey and evaluation research in the area of sexual health; and operates key national call centers, including Web-based interactive services, to provide information, counseling, and referrals on sensitive health topics such as STDs and cervical cancer prevention.

A tax-exempt organization, ASHA relies on charitable contributions to support this important work.

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Overview

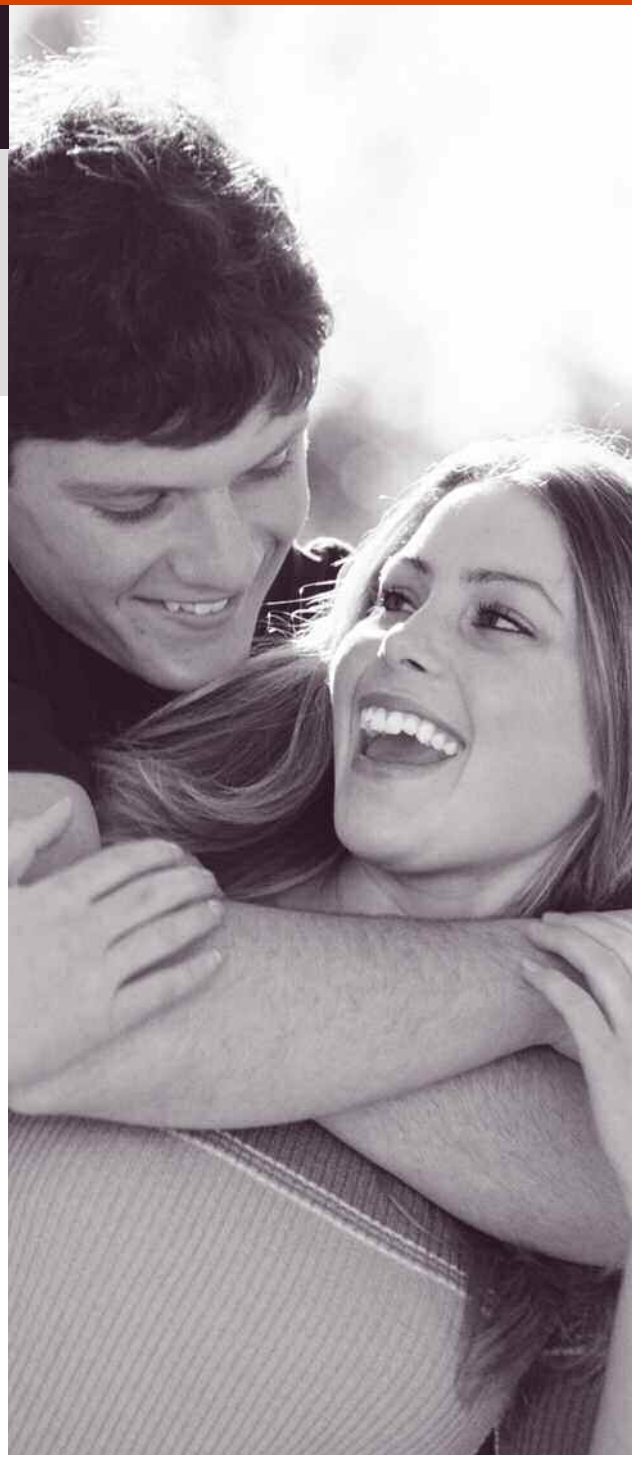
In recent years, the prevalence of sexually transmitted diseases (STDs) among adolescents has become a serious public health issue. Although this problem has been widely acknowledged in the health care community, the public has a limited understanding of this growing epidemic and of public health strategies that might bring it under control.

The U.S. Centers for Disease Control and Prevention (CDC) reports that overall incidence of STDs have increased dramatically in recent years. Of particular concern are the increases among those between the ages of 15 and 24. A paper published in February 2004 by researchers at the CDC and Family Health International estimates that nearly half of the nation's new STD cases occur each year among adolescents and young adults[1]. According to their estimates, in the year 2000, 9.1 million cases of STDs occurred in sexually active Americans in this age group. In particular, human papillomavirus (HPV), trichomoniasis, and chlamydia were and continue to be the most prevalent—causing 88% of the new STD cases in those between the ages of 15 and 24. In a corresponding article, the associated lifetime medical costs were tallied for an estimated $6.5 billion bill from these infections[2].

With STD rates so high among teens and young adults, one prominent response has been the call for an increase in abstinence-only sex education. This issue made headlines when President George W. Bush cited STD rates in his 2004 State of the Union address and announced plans to increase government appropriations for abstinence-only education programs in an effort to address the problem[3]. But does abstinence-only education actually decrease the number of cases of STDs among teens? Many say no[4, 5], and the debate over the efficacy of this approach heated up yet again when researchers Peter S. Bearman and Hannah Brückner unveiled the results of their research, showing that young adults who made virginity pledges (to abstain from sexual intercourse until marriage) as teens ultimately have rates of STDs similar to young adults who did not make such promises as teens[6] and that they are less likely to use contraception or protection when they do become sexually active[7].

Press coverage of the issue of STDs in young Americans is heavily influenced by the political tides of the day. While national attention is focused on the debate over sex education, ASHA recognizes that controlling STDs in youth has many answers—not one. Often lost in the national debate is the potential for basic progress against STDs by investing in traditional public health approaches. As an example, chlamydia is the bacterial STD with the highest prevalence among youth, and routine screening for chlamydial infection in young women has been demonstrated to work in reducing infection rates and lowering the cost of this STD to society[8]. Data published in the last year, however, makes it clear that this recommended screening is frequently being overlooked[9, 10]. The failure to capitalize on this important preventive strategy has gone largely unremarked in the press and has made few if any ripples in the health policy community.

Often lost in the national debate is the potential for basic progress against STDs by investing in traditional public health approaches.



This report seeks to highlight four critical challenges this nation must confront in solving the problem of STDs among youth:

- **Access to care for adolescents is a major barrier to reducing STD rates among youth.**
- ***Proven* public health approaches to leading STDs are being neglected and underfunded.**
- **Communication surrounding, and awareness of, STDs is limited.**
- **Social and cultural factors block the promotion of responsible sexual behavior.**

Access to Care for Adolescents—Especially Preventive Care—Is a Major Barrier

Health care delivery is problematic; structural and financial issues complicate care for STDs.

At the most fundamental level, adolescents frequently lack access to health care, and this problem is especially acute in the area of reproductive health. Financial barriers, such as not having or knowing about health insurance or free services, can prevent access. Questions of who pays for an adolescent's health care naturally lead to confidentiality concerns. "Many adolescents who seek confidential care end up sharing their experiences with their parents, but they need to be able to be in control of those choices," says Susan L. Rosenthal, PhD, Director of the Division of Adolescent and Behavioral Health and Professor of Pediatrics at the University of Texas Medical Branch. "It is crucial that we reduce the barriers to care-seeking for adolescents and provide them with an adolescent-friendly experience once they do come for care. Remember, if adolescents don't come for care, we lose our opportunity to provide anticipatory guidance and counseling, and to avoid future adverse outcomes."

Attitudes can also be a significant barrier to care. Some adolescents fear the specimen collection process or have concerns about confidentiality. Many report that they would stop coming in for services or delay testing and treatment of STDs if their parents were notified[11, 12].

Health care providers need better training and should initiate discussions with teens.

When teens do seek care, health care providers often fail to initiate discussions with teens about sexual activity or STDs[13, 14]. In addition to time constraints created by a capitated care system, embarrassment and social stigma can inhibit health care interactions for providers as well as adolescents. Health care providers need better training in this area so that all primary care providers are comfortable initiating discussions about STDs and human immunodeficiency virus (HIV) with their adolescent patients[15–18]. The CDC has published screening and treatment recommendations for adolescents, and clinicians working with adolescents are encouraged to implement these practice standards[19–21].

High rates of chlamydia are a perfect example of the failure of preventive care.

About half of the estimated three million total cases of chlamydia each year occur in young women between the ages of 15 and 19, and while chlamydia is curable with antibiotics, it is often a silent disease that, left untreated, can cause pelvic inflammatory disease (PID), infertility, and increased risk of contracting HIV[22, 23]. Only small percentages of teens get counseling, education, and screening[24–29].

Fast Facts

- One in two sexually active youth will contract an STD by age 25.
- Half of all new HIV infections occur among adolescents.
- Almost half of high school students nationwide and about 62% of students in the twelfth-grade have had sexual intercourse.
- Less than half of high school students reported discussion of sex or STDs during their preventive health visits, and males were less likely to have such discussions.
- Chlamydia—an often asymptomatic, yet easily curable, bacterial infection—is most prevalent among persons ages 15 to 24.
- Guidelines for annual chlamydia screening among sexually active young women are not adequately followed. Only an estimated 30-45% of eligible young females were screened in 2003.
- Parents often find it difficult to discuss STDs and preventive measures with their children and may be lacking in knowledge of topics including condom efficacy.
- Youth exposed to sexual content on television are more likely to overestimate the frequency of sexual activity among peers and have more permissive attitudes toward premarital sex.

Male adolescent health care needs to be addressed.

While females are biologically more susceptible to acquisition of many STDs, studies suggest adolescent males have earlier onset of sexual activity and more partners on average than females, which increase the risk of acquiring STDs[30]. The lower reported rates of chlamydia and gonorrhea among adolescent men may, in part, suggest a statistical illusion, masking the fact that males are less likely to seek care and receive testing and treatment—and less likely to produce a reported case[31, 32]. Since male adolescents who are asymptomatic account for a large part of infection in the general population, current recommendations for screening, which mostly exclude males, may be inadequate. Screening for adolescent males was included as a recommendation in the 1998 CDC guidelines, but this recommendation was omitted in the more recent 2002 guidelines[33].

Communities of color are disproportionately affected by STDs, and efforts to reach them will require increased resources and tailored outreach.

Teens from communities of color are disproportionately affected by STDs. Young African American women experience at least 14 times the reported gonorrhea rates and about 6 times the chlamydia rates of young white women[34], an elevated risk not easily explained with reference to variables such as sexual risk behaviors[35, 36]. Chlamydia rates among African American males ages 15 to 24 were 12 times higher than rates among young white males[37].

Although African Americans comprise about 13% of the U.S. population, they accounted for over 50% of new HIV diagnoses reported in 2002[38] and 49% of AIDS diagnoses in 2003[39]. Among women ages 13 to 24, African American and Hispanic females account for over 75% of reported HIV infections, although together they represent only about 26% of U.S. women in this age group[40]. HIV was the leading cause of death among African American women ages 25 to 34 in 2001[41].

The Insurance Gap

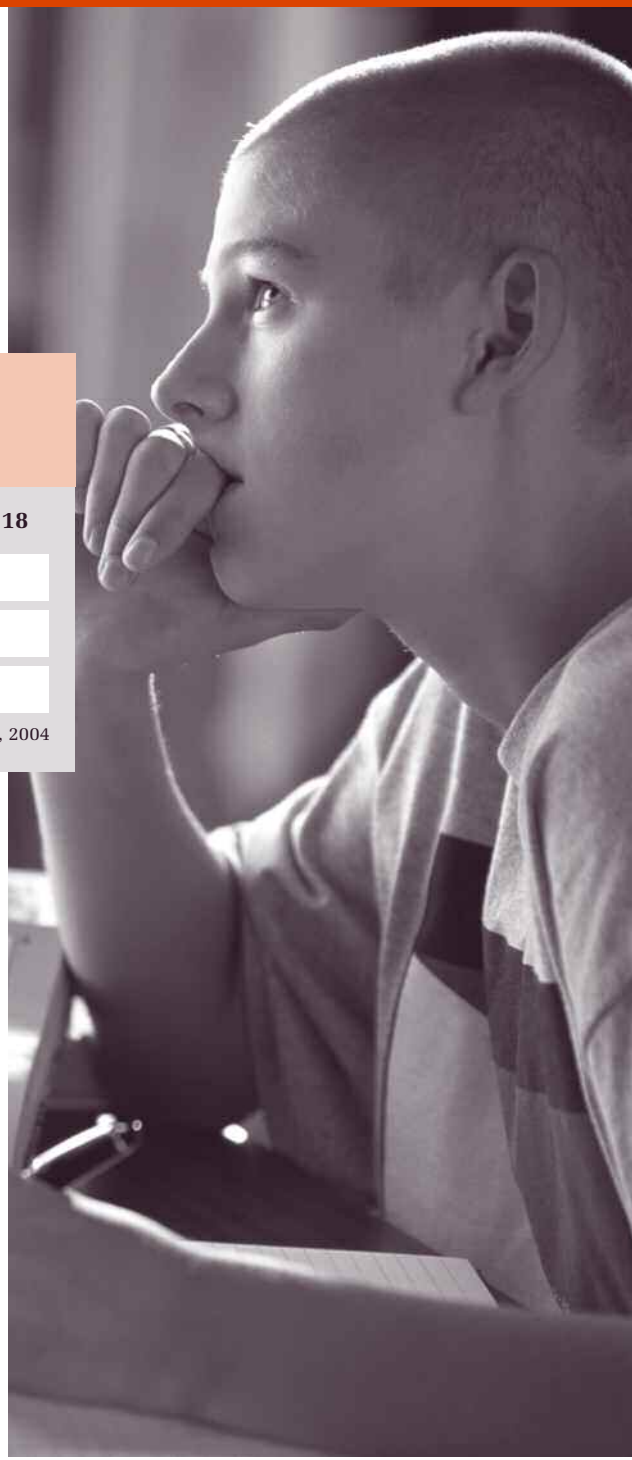
Percentage of Population Lacking Insurance

	Total	Under 18
Hispanic	33%	21%
African American Non-Hispanic	20%	15%
White Non-Hispanic	11%	7%

U.S. Census, 2004

Disparities in part may reflect that youth of color especially experience reduced access to health services. Among all Hispanics, about 33% lacked health insurance (the highest rate of any other group), and about 20% of African Americans were uninsured compared to 11% of whites[42]. Among youth under 18 years of age, 21% of Hispanic children did not have any health insurance in 2003, compared to about 15% of African American children and only 7% of white children[43].

"In communities of color, STDs may be fueled by poverty, lack of access to health care, distrust of health systems, inadequate resources, and myriad other social factors and inequities," says Deborah Arrindell, Senior Director of Health Policy for ASHA. "Often, our national discomfort in discussing race combines with the stigma associated with STDs to create a barrier to the development of effective strategies to address the epidemic."



Other populations are especially vulnerable to reduced access to preventive services and health care and may experience great difficulty talking about sexual health issues. These include runaway and homeless youth and those who do not identify themselves as heterosexual—for example, lesbian, gay, bisexual, transgender, queer, or questioning (LGBTQ) youth.

Runaway and homeless youth are in danger of engaging in survival sex (the exchange of sex for financial or other resources such as shelter, food, or clothing), and therefore are at increased risk for STDs, HIV, sexual abuse, and assault. However, they seek care less often, their health care experiences lack continuity, and few health care providers are equipped to identify and address their unique needs.

LGBTQ youth often face inaccurate assumptions about their behavior and risks by health care providers, and there are few educational interventions tailored to this population. For example, providers often underestimate or fail to recognize the STD risk among young women who have sex with women (YWSW), since it is not widely understood that many of these females, or their partners, have had sex at some point with a male. Furthermore, data on HIV prevalence and risk behaviors suggest that young men who have sex with men (YMSM) continue to be at high risk[44].

Other barriers to care, aside from access to preventive care and adequate health insurance coverage, include language differences and lack of cultural awareness among health care providers[45]. Efforts to close or eliminate these disparities will require increased resources, education, and targeted efforts to provide the care every adolescent needs.

Rates of compliance with screening for the leading bacterial STD, chlamydia, are lower than compliance rates for all other women's health services measured by HEDIS.

Proven Public Health Approaches Are Being Neglected and Underfunded.

Political sparring over abstinence-only versus comprehensive sex education distracts policymakers from a simple idea. We can make progress against STD epidemics by investing in traditional public health approaches, including STD screening and treatment when appropriate.

Many adolescents wrongly assume that health care providers are routinely testing them for STDs.

Testing and Treatment

Chlamydia, the most common bacterial STD among youth, provides an obvious target for public health efforts in that highly accurate testing and effective treatment regimens are available. Unfortunately, guidelines for routine screening for chlamydial infections are too often being ignored or these clinical services are not funded[46–51].

The CDC and the National Committee for Quality Assurance have both issued guidelines that stipulate a minimum of annual screening for female adolescents who are sexually active (see sidebar, page 6). Compliance with these recommendations would increase the detection of risk and improve rates of STD screening, diagnosis, treatment, and counseling in the adolescent population.

Voluntarily reported performance measures of health plans under Health Plan Employer Data and Information Set (HEDIS)* show only 30% of females ages 16 to 25 in commercial plans and 45% of females ages 16 to 25 in Medicaid plans were screened for chlamydia in 2003. Although these numbers are subject to limitations and may under- or over-estimate actual rates of screening, these rates are lower than rates for all other health services for women measured by HEDIS[52].

High rates of chlamydial infection provide an example of systemic health care limitations. "It is a national embarrassment that over one in twenty-five sexually active American women age 26 or less has chlamydial infection," states Edward W. Hook, III, MD, Professor of Medicine, Division of Infectious Diseases, at the University of Alabama at Birmingham. "Rates are even higher among subgroups such as women of color or adolescents of all racial/ethnic subgroups. We have effective, affordable tools to address this threat to women's health but fail to use them. As a result, U.S. chlamydial infection rates are amongst the highest in the developed world."

Improved adherence to the CDC and HEDIS guideline for annual chlamydia screening of sexually active women 25 years of age and younger and increased efforts to screen young men for infection remain important to the health of adolescents as complications of untreated chlamydia include possible PID, infertility, and increased risk of contracting HIV.

Adolescent Beliefs about STD Testing

"Doctors routinely test sexually active teens for which of the following STDs?"	Percentage of youth 13 to 24 who agree testing is routine **Total**
Gonorrhea	69%
Chlamydia	67%
Herpes	65%
HIV	61%
Syphilis	58%
Human papillomavirus (HPV)	54%
Hepatitis B	53%
Trichomoniasis	43%

ASHA, 2004

* HEDIS is a set of standardized performance measures designed to compare the performance of managed health care plans. The performance measures in HEDIS are related to many significant public health issues, and annual reports are sponsored, supported and maintained by the National Committee for Quality Assurance.

Many adolescents wrongly assume that health care providers are routinely testing them for STDs when such testing is generally not done. In a recent survey among adolescents, ASHA found adolescents have major misperceptions about testing (see table, page 5)[53]. Adolescents believe they are tested for many, if not most, STDs during routine medical exams.

Barriers to testing among patients include lack of privacy, confusion about confidentiality, limited access, and stigma. Stigma surrounding STDs has a chilling effect on honest dialogue and blocks public health measures including testing and proper management by clinicians. "Another significant barrier to screening," explains Charlotte A. Gaydos, DrPH, Associate Professor of Infectious Diseases at Johns Hopkins University in Baltimore, Maryland, "is the medical provider's lack of knowledge of the significance of STDs in adolescents." In spite of federal and professional screening recommendations, less than one-third of physicians from a national survey routinely screened patients for STDs[54].

Perhaps empowering young women to collect their own urine or vaginal samples at home may circumvent some of these issues of privacy, confidentiality, fear of providers, and aversion to pelvic examinations among adolescents. Testing these alternative samples with highly sensitive nucleic acid amplification tests (NAATs) now makes this possible[55].

The Why and How of Chlamydia Testing

Chlamydia trachomatis (CT) is the most common and costly bacterial STD in the U.S. with about three million new cases each year, and health care costs for the infection and its consequences exceed an estimated $3.5 billion per year[56]. Consequences can include pelvic inflammatory disease (PID) and infertility, yet most young women don't know they have chlamydia due to its asymptomatic nature. Effective treatment is available to cure the infection and prevent complications if administered early.

Researchers consistently find that young age is a strong predictor of infection[57–62]. CDC guidelines recommend screening sexually active women 25 years of age and younger annually for chlamydia. Furthermore, the *2002 CDC STD Treatment Guidelines* recommend that all women be retested three to four months after treatment for chlamydia due to the high incidence of re-infection. Unfortunately, screening levels fall well below recommendations. Results of inadequate screening are large numbers of infected, perhaps asymptomatic, individuals who continue, unknowingly, to transmit STDs to others, and who are at increased risk of vertical transmission during pregnancy, complications including PID, and acquiring HIV[63].

The advent of nucleic acid amplification tests (NAATs), the most sensitive chlamydia testing available, facilitates the testing of asymptomatic individuals through non-invasive sampling techniques such as urine-based screening or self-administered vaginal swabs[64]. Non-invasive screening for adolescents is a high priority, as this technology also allows screening to take place in nontraditional settings such as schools or the privacy of one's home[65]. NAATs, produced by several major diagnostic companies, have been licensed by the FDA for both gonorrhea and chlamydia testing.

Such advances in technology have resulted in innovative methods of screening young women for STDs including chlamydia. Charlotte Gaydos, DrPH, Associate Professor of Infectious Diseases at Johns Hopkins University in Baltimore, Maryland, has started a new program to help women get free testing for chlamydia infection easily. 'I want the kit' [www.iwantthekit.org] uses the Internet to recruit young women, who are then sent a test kit to collect a specimen in the privacy of their own home to test themselves for chlamydia and gonorrhea. The women call to get their test results and are encouraged to come to the clinic for treatment if they are infected. "This project assists young women in starting to think about their own health," says Gaydos. "Everything they need—the kit, the test and especially treatment, if needed—is free."

To date, the project has distributed more than 1,100 kits in the surrounding Maryland communities. Of 1,084 kits requested and mailed to households, more than 419 kits were returned by mail. Researchers found 10.25% chlamydia prevalence in samples submitted for testing.

Gaydos's project indicates young women will use the Internet and email to request free home test kits for chlamydia testing, and many will return samples through the mail. Equally important, substantial prevalence has been documented by the project and all but one person has been treated. Gaydos hopes to expand the program nationally as data is gathered to weigh its effectiveness.

Education

Our youth today are growing up in a culture that surrounds them with sexual imagery and messages—but one in which marriage is often delayed until the late twenties or later. Historically, public health prevention messages have singled out abstinence as the most effective way to remain free of sexually transmitted infections. "We must continue to send this fundamentally sound message," says James R. Allen, MD, MPH, President and CEO of ASHA. "But experience shows us the challenge here is complex. Just as it's vital to understand the benefits of abstinence, it is also vital for young people to fully understand risks and prevention approaches."

Federal appropriations for abstinence-only education programs have exceeded $1 billion since 1982 and over $200 million was proposed by President Bush for federal fiscal year 2006 alone[66]. Eleven states with abstinence-only education programs have conducted evaluations; however, a review of them finds none of the programs has shown a positive impact on sexual behavior or STDs over time[67]. Furthermore, some research shows that young adults who made virginity pledges (to abstain from sexual intercourse until marriage) as teens ultimately have rates of STDs similar to young adults who did not make such promises as teens[68] and are less likely to use contraception or protection when they do become sexually active[69].

"Adolescents who make virginity pledges continue to need guidance as the nature of their relationships change," explains Susan L. Rosenthal, PhD, Director of the Division of Adolescent and Behavioral Health and Professor of Pediatrics at the University of Texas Medical Branch. "An adolescent who made a chastity-until-marriage pledge at 16 may not be prepared for his or her feelings at 21, and will need the skills to make appropriate choices about both intercourse and protection. It cannot be assumed that those skills develop spontaneously."

Research surrounding abstinence messages and virginity pledges has pointed up potential confusion[70] about non-coital behaviors, such as oral sex. Consistent definitions and uses of the terms "abstinence" and "monogamy" are needed to clarify behaviors that create risk. It is also important for the actual rates of adolescent sexual activity (oral, vaginal, and anal sex) as well as the high rates of STDs to be publicized.

Abstinence is a fundamentally important aspect of preventing STDs, but this message alone does not serve well in the absence of comprehensive sexual education and a supportive environment. Based on over fifteen years of research, the American Psychological Association notes, "The evidence shows that comprehensive sexuality education programs for youth that encourage abstinence, promote appropriate condom use, and teach sexual communication skills reduce HIV-risk and also delay the onset of sexual intercourse."

Condoms

Condom use among adolescents as recorded in 2003 has increased over reported rates in 1991[71]. Information regarding condoms, however, can be contradictory and confusing. A government report issued in 2001 cited clinical data to support condoms in the prevention of some sexually transmitted infections but called into question the evidence for condom effectiveness against a number of others[72]. Ensuing press coverage reflected divided opinions among experts. More recently published studies have provided additional evidence of the protective role of condoms.

Consistent condom use has been shown in published research to provide substantial protection against acquisition of many STDs, including statistically significant protection of both men and women against HIV, chlamydial infection, gonorrhea, herpes simplex virus type 2 (HSV-2) and syphilis[73–75].

The effectiveness of condoms against transmission of HPV infection remains a controversial topic, and has not been well defined in all circumstances. There are many reasons for the challenge in evaluating condoms and HPV infection. One is that condoms may not cover all areas of the genitals that can be infected with HPV. In addition, there are few studies designed with the intention to evaluate condom use, and it is difficult to measure the infection status of a partner. Some studies have found that for those who already have a clinically apparent genital HPV infection, using condoms promotes the regression of HPV lesions in both women and men, as well as the clearance of HPV infection in women[76, 77]. For these reasons—as well as for the reason that other asymptomatic infections may be present—people who choose to be sexually active can benefit from using condoms even if they are not 100% effective against all HPV transmission.

Furthermore, in the U.S. more than a million women have an episode of acute pelvic inflammatory disease (PID) each year, with highest rates among adolescents. Consistent condom use protects against recurrent PID and related complications: significantly, women who reported regular use of condoms were 60% less likely to become infertile[78].

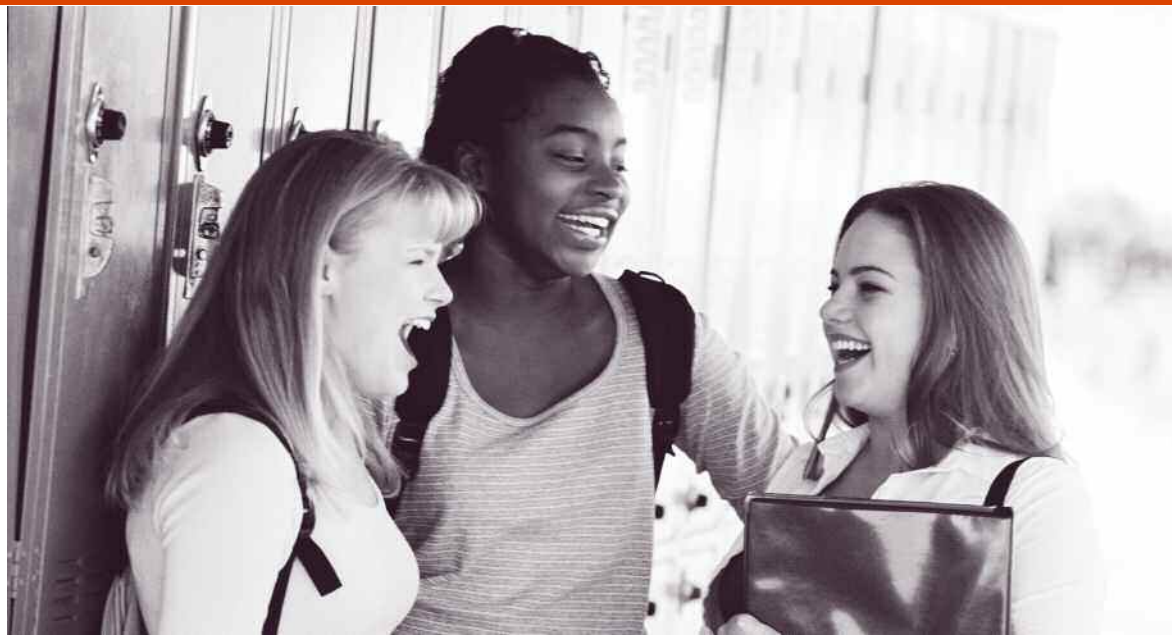
Teen attitudes about condoms reflect the sometimes contradictory messages they receive on this subject. In ASHA's recent survey among 428 adolescents, results indicated adolescents understand that condoms are not a perfect solution in all cases or for all STDs. Females were more likely than males to mention important facts, such as the need for correct and consistent use or that condoms do not provide as much protection for STDs transmitted from skin-to-skin contact. Some adolescents expressed the misconception that condoms are intended to prevent pregnancy and *not* STDs. Of concern, only 116 of 270 adolescents (43%) who differentiated condom efficacy among STDs felt that condoms were very effective for HIV, although research proves condoms to be highly effective against HIV based on lab and epidemiological findings[79].

"For people who choose to be sexually active, condoms are currently the best product available to protect against STDs and HIV," emphasizes James R. Allen, MD, MPH, President and CEO of ASHA. "The effectiveness of condoms depends on the users knowing how to use them and doing so consistently. Undermining youth's confidence in condoms can only lead to public harm. In sexually active populations, two important goals must be to increase knowledge about the effectiveness of condoms and levels of consistent and correct condom use."

Vaccines

Sexually transmitted diseases have been prevalent throughout recorded history, and the advent of vaccines against STDs signals what is potentially a revolutionary change in our approach to these infections. The hepatitis B vaccine, the first vaccine for a sexually transmitted disease, is already implemented in many national vaccination efforts for newborns and mandated by many states for school or college entry.

Great strides have been made in reducing the incidence of hepatitis B among youth; for example, rates of hepatitis B among youth ages 15 to 24 have declined by 80% since 1990, and rates have dropped by 94% among youth under 15[80]. However, some states still have no mandates requiring hepatitis B vaccinations for entry into middle school or college, and a handful have no prenatal screening or childhood vaccination requirements either. Changing the laws in these states as well as initiating research to guide the introduction of other sexual health vaccines would improve vaccine usage with current hepatitis B vaccine and others as they become available.



Clinical trials are under way for vaccines against HPV and genital herpes, both of which will almost certainly require vaccination of adolescents. Survey data suggest acceptance of sexual health vaccines by most adolescents as well as by parents:

- Most college students would accept STD vaccination. Acceptance would be positively affected by health policies encouraging universal vaccination[81].
- Most parents would approve of their children receiving vaccines for STDs, including herpes or a cervical cancer prevention vaccine that protects against high-risk HPV types[82, 83].
- Another study found 87% of parents approved of a vaccine for genital herpes being offered in School-Based Health Centers, and 62% of parents surveyed would have their teen vaccinated against genital herpes[84].

Communication Surrounding—and Awareness of—STDs is Limited on Many Levels.

Adolescents lack education and skills regarding STD prevention.

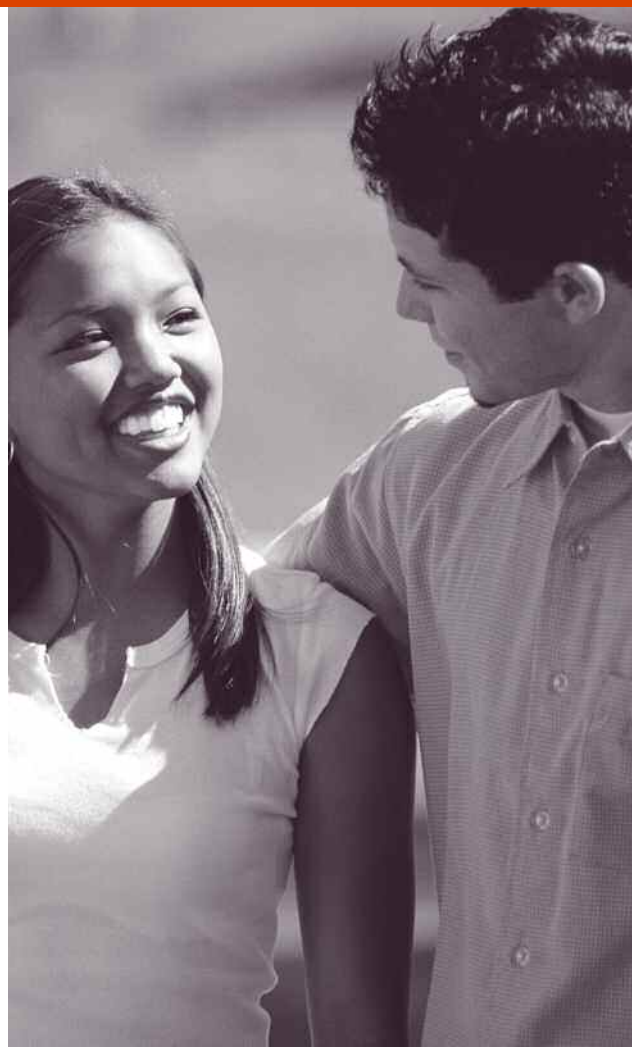
Many adolescents remain poorly informed about the risk of STDs and about prevention measures. Knowledge deficits are alarming. For example:

- 40% of older adolescents surveyed by the Kaiser Family Foundation incorrectly believe that the contraceptive "pill" and "shot" protect against STDs and HIV[85].
- Some young people, including those who had abstinence education, consider oral and anal sex to be abstinent behaviors and do not realize these behaviors present risks of STD transmission[86–88].

The risks to fertility posed by STDs are a potentially valuable teaching tool, yet this point is often lost. A telephone survey of African American adolescents found that females were more likely than males to understand the link between fertility problems and STD-related conditions such as chlamydia, gonorrhea, and PID. However, over half of females surveyed thought they had little or no control over whether they would develop fertility problems in the future. Researchers concluded that fertility would be a valuable teaching tool and social marketing agent for STD prevention and for improving participation in STD screening programs for asymptomatic adolescents[89]. Fear of pregnancy is a large motivator for behavior change and a topic of frequent interest among teens while risk of STDs can often rank lower[90]. Integration of these messages may be a major opportunity.

Efforts to tailor interventions and skill-building to the groups most in need are especially germane as racial and ethnic group disparities among adolescents are significant. For example:

- Hispanic teens were least likely to discuss contraception with their partners prior to sexual activity[91].
- Among students reporting sexual intercourse in the past three months, 43% of Hispanic teens and 37% of white teens did *not* use a condom at last sexual intercourse compared to only 27% of African American teens[92].
- Hispanic females had the lowest rate of reported condom use at last sexual intercourse (52.3%) compared to other racial and ethnic groups[93].
- Sexual intercourse among high school students was more common among African American teens (67.3%) than Hispanic (51.4%) and white (41.8%) teens[94].
- About 30% of African American teens reported a history of four or more sexual partners compared to approximately 16% of Hispanic teens and 11% of white teens[95].



The risks to fertility posed by STDs are a potentially valuable teaching tool, yet this point is often lost.

It is difficult for adults and youth alike to talk about sexual health, intimacy, and responsibility. Adolescents often lack specific skills for reducing STD transmission, including negotiation and refusal skills, the ability to communicate with one's partner prior to sexual activity about prevention intentions, and the correct use of condoms[96]. Skill-building is needed so that adolescents can: accurately assess their risk; communicate with their partners, parents and health care providers; negotiate abstinence or condom use; detect symptomatic STDs; and, make sexually healthy decisions.

Finally, adolescents need referrals to additional comprehensive resources such as hotlines or interactive websites, so that all of their questions can be answered. "Because so few avenues exist for teens to ask and receive answers about their sexual health," explains Lisa Gilbert, PhD, Director of Research for ASHA, "it is imperative that organizations such as ASHA, Planned Parenthood, and others continue to maintain websites that inform and interact with youth. This has become a greater priority in light of the emphasis on non-comprehensive sexual health education."

Recent Findings Regarding Adolescent STD Prevention

ASHA conducted research to fill in the gaps of what is known about adolescent perceptions of STD prevention by examining a number of questions that had not been well studied. Visitors to the ASHA teen website www.iwannaknow.org were invited to complete a 20-item survey during summer 2004.

The final sample consisted of 428 U.S. adolescents. Baseline knowledge was higher than predicted overall, which may be explained in part because data were collected from a sample of adolescents who were actively seeking information about STDs, and, as such, may know more about STD prevention than a broader sample of adolescents.

Adolescents were more likely than not to know the true rates of STDs, and, to correctly identify STD risk behaviors, symptoms, consequences, and prevention behaviors. In addition, this sample was somewhat knowledgeable about the relative effectiveness of condoms for preventing common STDs, and they reported high rates of discussing STD prevention with partners.

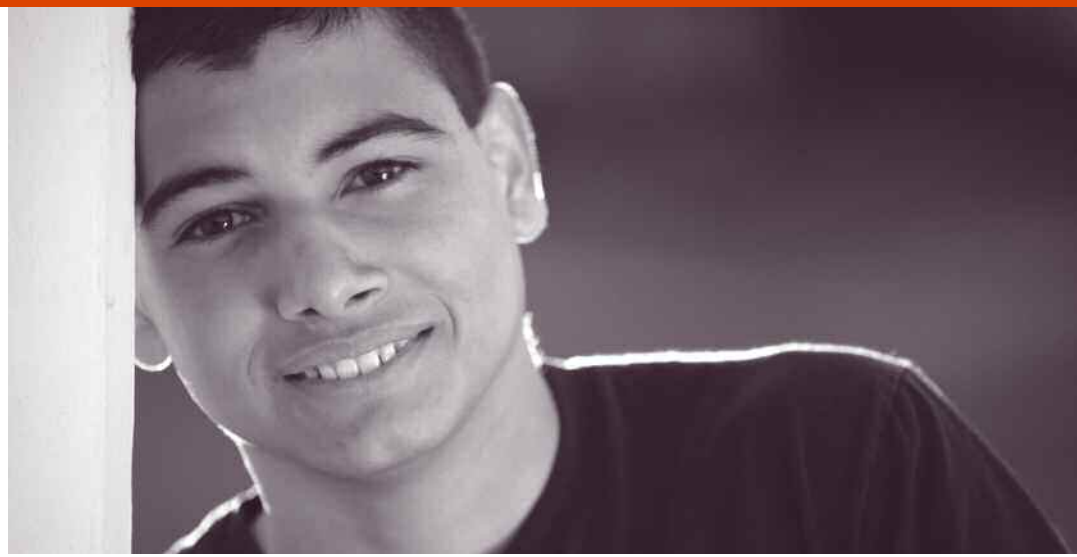
Despite this baseline knowledge, the survey data pointed up a number of misperceptions, especially in relation to testing and condom efficacy:

- Adolescents believed they are tested during routine medical examinations for major STDs: chlamydia, gonorrhea, HIV, hepatitis B, herpes, HPV, syphilis, and trichomoniasis.
- Only 116 of 270 adolescents (43%) who differentiated condom efficacy among STDs felt that condoms were very effective for HIV, although research has proven condoms to be highly effective against HIV based on lab and epidemiological findings.
- Over half believed that their partner would have been tested for STDs, yet only one-third thought their partner would tell them if they had an STD.
- Discussing STDs with a partner was associated with STD preventive behaviors.
- Data indicated younger adolescents and Hispanic youth were disproportionately lacking in knowledge compared to older adolescents and non-Hispanic youth, respectively.

"This study, and several others conducted by ASHA, have found a disparity in knowledge levels when Hispanic youth were compared to non-Hispanic youth," explains Lisa Gilbert, PhD, Director of Research with ASHA. "This highlights the need for additional emphasis and focused educational efforts for Hispanic youth in our country, as well as culturally appropriate information about symptoms, consequences, preventive strategies, and other STD facts."

Amid greater restrictions on sexual education, adolescents are voicing their need for comprehensive information, particularly about consequences of STDs and how these diseases affect their peers. In addition to sexual health education in schools, adolescents are open to many sources of such information, including parents, school nurses, television, and peers.

ASHA, 2004



The parent–child connection

Parents in many cases also lack information about STDs and preventive measures, and they lack skills to counsel adolescents about these infections. A national survey of parents of high school students conducted by the Society for Adolescent Medicine found almost 60% were concerned about the consequences of adolescent sexual behavior, but 84% of parents did not believe their own child was sexually active[97]. Parents must understand true rates of adolescent sexual activity and be willing and able to interact with children about entertainment media portrayals of relationships in which the complexity of sexual relationships are trivialized and risks are seldom, if ever, addressed. The Heritage Foundation found that 75% of parents believe schools should teach children about abstinence and contraceptives, including condoms[98], but parents and family members also have important roles to play and should be incorporated in prevention education.

"Parents play many roles in helping their teens make healthy decisions," says Susan L. Rosenthal, PhD, Director of the Division of Adolescent and Behavioral Health and Professor of Pediatrics at the University of Texas Medical Branch. "They accomplish this by clearly communicating their values, helping teens to be more resistant to peer pressure, and helping teens with good health care decision-making. One should not assume that because adolescents want confidential care and desire to be in control of their information that parents are not active participants and highly influential." Parents, through their influence and involvement, can have powerful effects on adolescents' behaviors, and parent–adolescent sexual risk communication can serve as a means of STD prevention.

Social and Cultural Factors Block Promotion of Responsible Sexual Behavior.

The issues of cultural mores and social norms affect STD prevention behaviors of teens, including the onset and frequency of sexual activity and the decisions to remain abstinent or use protection[99, 100].

While peer norms can positively influence health outcomes (for example, peer norms about refraining from sex can be protective against the onset of sexual activity[101]), peer pressure also remains an important factor driving early initiation of sex and other risk behaviors. Of note, the Kaiser Family Foundation found 60% of teens cited "many of their friends had already done it" as a factor influencing their decision to have sex[102], and a similar number believed that their peers think having sex by age 15 is socially acceptable[103].

From a cultural standpoint, sexual behavior and STDs remain highly stigmatized. Stigma and shame about STDs have been shown to discourage adolescents from seeking needed health care and from discussing sexual risk behaviors with health care providers[104, 105]. "Stigma creates an important barrier to STD prevention because concealment and secrecy are commonly used methods of avoiding

stigma," explains J. Dennis Fortenberry, MD, MS, Professor of Pediatrics, Division of Adolescent Medicine, Indiana University School of Medicine. "Adolescents who feel that sex must be a secret have difficulty in seeking prevention and treatment services. One problem with the current emphasis on abstinence-only prevention approaches is that stigma may be heightened for the large proportion of teens who are or become sexually active. Paradoxically, stigma then perpetuates the cycle of disease transmission."

Gender differences and expectations

Adolescent females are particulary at risk, biologically and socioculturally, for STDs and tend to have sex for different reasons than males. Certain motives for sex, including pleasure and enjoyment (more common among male adolescents) were related to greater sexual risk-taking compared to motives such as intimacy, strengthening emotional bonds, or love[106]. Other studies document that demographically or socially dissimilar partnering among female teens—for example, dating someone three years older—was associated with increased risk of STD[107–109]. Gender differences and norms warrant further attention from researchers, health care providers, educators, and parents.

Entertainment media present unrealistic portrayals of sex and relationships.

The third biennial report from the Kaiser Family Foundation, *Sex on TV3,* found over 80% of shows popular with teen viewers contained sexual content, a rate higher than shows for other audiences; however, only 15% of sexual encounters on TV alluded to the possible risks or responsibilities of sexual activity[110].

Television can have serious negative effects on the sexual behavior of youth. Youth exposed to sexual content on television were more likely to overestimate the frequency of sexual activity among peers and have more permissive attitudes toward premarital sex[111, 112]. Adolescents who watched television with high levels of sexual content were twice as likely to initiate sexual intercourse and also more likely to initiate other sexual activities[113].

Television can play a constructive role in providing information and referrals. For example, MTV and the Kaiser Family Foundation provided a public education campaign on sexual health from 1999 to 2002. Over half of teens said they learned something new about STDs, and it promoted behavior changes such as increased discussion with partners about STDs and higher rates of STD testing and condom use compared to a control group which did not see the campaign[114]. However, the value of these efforts can be undermined when such messages conflict with other television programming, including suggestive music videos. In one study, for example, teens with high levels of exposure to rap videos, which often promote drug use, violence, and sex, were significantly more likely to acquire an STD[115].

Conclusion

Over the past several years, numerous reports—both academic and journalistic—have brought attention to the problem of high STD rates among American youth. This issue is taken seriously by many, and it has generated dialogue and debate in communities across the country. Questions of appropriate policy on school-based sexual health education are especially divisive.

While the national debate has become increasingly political and polarizing, it is the purpose of this report to pose a public health perspective on the problem, reflecting the experience of ASHA's 90 years as a nonprofit organization dedicated to STD prevention and control.

As such, the report seeks to shed light on several fundamental challenges often overlooked in news reports and TV specials. Despite our society's fascination with sex, we are not well-informed about its risks. The entertainment media, in particular, have the potential to educate and promote responsible behavior but generally fail to play this constructive role. The survey data covered in these pages reveal that we have knowledge gaps to address not only with youth but with parents, health care providers, policy makers, and the news media.

Access to care for adolescents is also a critical need. Without it, we lose our opportunity to provide anticipatory guidance and counseling, and we fail to identify and treat new infections. Health care delivery systems must heed longstanding medical recommendations regarding screening for the most common STDs, such as chlamydia, the leading preventable cause of infertility.

This review of the literature suggests that solutions to the challenge of STDs in our adolescent populations will take many forms. But whether the focus is on educational initiatives, improved health care delivery, vaccine development, or targeted campaigns to reach communities disproportionately affected, it is clear that success will depend on a greater commitment of resources to this underserved area of public health.

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