



Position paper

Condom Availability in Schools: A Practical Approach to the Prevention of Sexually Transmitted Infection/HIV and Unintended Pregnancy



The Society for Adolescent Health and Medicine

A B S T R A C T

Adolescents and young adults are highly impacted by sexually transmitted infections (STIs) and unplanned pregnancy in the United States and globally. Consistent and correct use of male latex condoms is associated with protection against both STIs and pregnancy. Providing adolescents and young adults with access to free condoms in schools may increase the use of condoms by improving condom availability, eliminating cost, and decreasing embarrassment associated with purchasing condoms. Studies demonstrate that condom availability in schools is associated with the increased use of condoms and improved overall sexual health. The Society for Adolescent Health and Medicine encourages schools to make condoms available to students as part of efforts to decrease rates of STIs and unplanned pregnancy in adolescents and young adults. The Society for Adolescent Health and Medicine also encourages health care providers to advocate for and support the availability of condoms in local schools.

© 2017 Society for Adolescent Health and Medicine. All rights reserved.

Positions

The Society for Adolescent Health and Medicine supports the following positions:

1. Condoms should be available to students free of cost at secondary schools.
2. Condoms should be available in unobtrusive locations, such as school health clinics, nurses' offices, or bathrooms.
3. It is recommended that condom availability programs be accompanied by education and skills training; however, inability to provide education should not preclude making condoms available.
4. Health care providers should advocate for the availability of condoms in schools and support local districts and administrators in developing condom availability policies and practices.

Sexually transmitted infections (STIs) and unplanned pregnancy continue to disproportionately impact youth in the United States and globally. Adolescents and young adults are the age groups most heavily burdened by STIs in the United States [1]. Globally, over one third of new human immunodeficiency virus

(HIV) infections occur in youths aged 15–24 years [2]. In the United States in 2011, 75% of pregnancies among 15- to 19-year-old young women were unintended [3]. Latex condoms have been well-proven to provide protection against bacterial and viral STIs and reduce the risk of pregnancy, particularly among adolescents who are not using hormonal contraception. However, limited access to condoms continues to be a barrier for many teens. Schools provide an ideal setting for access to condoms and are therefore a practical and important resource in the battle against the epidemics of STIs and unplanned pregnancy in youth.

Methods

This position statement was developed through (1) review of the literature related to effectiveness of condoms, barriers to condom use among adolescents, and condom availability programs in schools in the United States and internationally and (2) the consensus of a team of experts in the field of adolescent sexual health.

Statement of Problem/Summary of Information

Condom effectiveness for STI and pregnancy prevention

Condoms effectively reduce STI transmission. Findings of a meta-analysis of well-designed studies demonstrate that consistent

Position Paper approved by the Society for Adolescent Health and Medicine's Board of Directors, March 2017.

condom use reduces the risk of HIV transmission by approximately 80% [4]. The effectiveness of condoms for prevention of nonviral STIs, especially gonorrhea and chlamydia, is well-documented. A multi-site prospective study found no incident infections with consistent and correct condom use [5], and a larger cross-sectional study of adolescents demonstrated a 90% risk reduction for gonorrhea and a 60% risk reduction for chlamydia among those who used condoms consistently and correctly [6]. In the largest study, consistent and correct condom use reduced the odds of gonorrhea, chlamydia, and trichomonas infection by 59% [7]. Consistent condom use was also associated with a decreased risk of syphilis acquisition [8], a 30% decrease in herpes simplex virus-2 acquisition [9], and a 70% decreased likelihood of acquiring human papillomavirus infection among women [10]. Therefore, significant evidence demonstrates the importance of consistent and correct condom use in the prevention of STIs, particularly in high-risk populations such as adolescents and young adults. In addition to preventing STIs, condoms can significantly reduce the rate of unplanned pregnancy. Latex male condoms are highly efficacious with perfect use, with only a 2% rate of unintended pregnancy; this rate increases to 18% with “typical use,” likely due to incorrect and inconsistent condom use [11].

When condoms are not used correctly, the likelihood of breakage or slippage increases, thus increasing the risk for HIV, other STIs, and unintended pregnancy. Most breakage and slippages are caused by user errors, not device-related problems; user errors decrease significantly with greater condom use experience. Better education and training for correct condom use has the potential to increase condom efficacy, both for STI prevention and pregnancy prevention. Pregnancy prevention is greatly enhanced with the use of dual contraceptive methods, which is recommended for adolescents and young adults. Thus, making condoms available to adolescents and young adults already using hormonal birth control may further reduce their risk of pregnancy, in addition to affording users protection against HIV and other STIs.

Barriers to condom use among youth

Adolescents and young adults may fail to use condoms during sexual activity for various reasons. Lack of availability of condoms is a frequently cited barrier [12]. Although school-based health centers often provide assessment and treatment of STIs, fewer centers provide students with access to condoms [13]. Adolescent condom use is also affected by relationship dynamics and anticipated length of time to sexual activity (i.e., little time between the decision to have sex and actual sexual activity) [12]. In addition, many adolescents report embarrassment when purchasing condoms, and those with greater embarrassment may purchase fewer condoms and purchase them less often [14]. Cost is another barrier to condom use for youth. Condoms are expensive, ranging in price per unit from \$0.20 to \$1.00 USD when bought in bulk or more if bought individually from dispensing machines. Providing adolescents and young adults with access to free condoms in schools may improve their rates of condom use by increasing availability, eliminating cost, and decreasing embarrassment associated with purchasing condoms.

Condom availability in schools leads to increased condom use and improved sexual health

Over the last few decades, many schools in the United States have developed reproductive health programs in which condom availability is an integral part. As of 1996, 2.2% of U.S. schools

reported having a condom availability program; 98% of these programs included an educational component [15]. Students at schools with such programs accessed and used the condoms [16,17], and overall, students were more likely to obtain condoms from baskets and school clinics, and least likely to obtain condoms from school vending machines [15,17]. The few studies that examined the effect of condom availability programs on rates of STIs or condom use during sexual activity showed promising results. Youth with access to condoms at school were more likely to use condoms at their last sexual intercourse [16,18]. Gonorrhea and chlamydia rates declined significantly among adolescent males in schools with a condom availability program, whereas rates of STIs increased among those in schools without such a program [19]. In another study of school-based condom provision, although the overall rate of condom use decreased compared with a national sample, it was associated with an increase in oral contraceptive use, keeping the overall use of contraception unchanged [17]. Critics of school condom availability programs have argued that the increased availability of condoms will lead to an increase in sexual activity, but, to date, no studies have shown such an increase [16,18,20]. Moreover, several studies suggest that condom availability programs may be associated with a decrease in recent sexual activity or delayed onset of sexual activity [16,18,20].

Although the media, government, and local school boards often present school-based sexuality education and sexual health services in a controversial light, schools are a natural place for youth to receive such education and services. Evidence shows broad public support for school-based education programs and health interventions, as well as positive outcomes associated with them. For example, school-based vaccination programs are acceptable to parents, financially feasible, and effective. Such programs are associated with increased rates of adolescent vaccination, including human papillomavirus vaccination, demonstrating that the school-based setting provides an excellent venue for these and other public health interventions targeting school-aged youth [21,22]. Although public policy around sexuality education in schools has not always been concordant with public opinion—highlighting the significantly political nature of this issue in the United States—most parents and voters in the United States favor the provision of comprehensive sexuality education in schools [23], and many U.S. adults support provision of condoms in schools to middle and high school students [24]. Moreover, studies have shown that comprehensive school-based sexual education programs support healthy behaviors and decrease risky behaviors among students [25,26]. Various locally administered STI prevention and treatment interventions have been implemented in schools and have been both acceptable and effective [27,28]. In addition, making condoms available in schools may lead to condom use with sexual activity being a socially normative behavior among adolescents in that school.

It is important to note that while school-based interventions can miss some of the most high-risk youth who may not be matriculated in or attending school, most U.S. youths are engaged in some school setting. Therefore, schools, with or without school-based health centers, are an excellent venue for provision of reproductive health services to teens.

Condom availability in schools—A global perspective

Internationally, very few regions of the world have national policies explicitly recommending condom availability in schools.

The exception is in northern and some parts of western Europe, for example Sweden and Switzerland, where condom availability has been part of routine school health services since the 1980s. All western European countries have lower teen pregnancy rates, higher mean age of first intercourse, and lower rates of STIs than the United States, as do many developing nations [29]. Despite the absence of formal policies, many countries have local sex education programs and/or school nurse services that might include condom availability or strategies for facilitating access to condoms, but very few such programs outside of the United States have been evaluated for behavioral or health outcomes [30]. When sexual health services were provided in New Zealand secondary schools, condom availability was part of these services, and female students were significantly more likely to report contraception use at their last sexual encounter [31].

The role of health professionals in advocating for condom availability in schools

The changes that are recommended in this position statement require professionals to engage in advocacy beyond the typical individual patient encounter. Health care providers are trusted and given more credibility by the public when compared with many other professions, including clergy, journalists, attorneys, and legislators [32]. Health professionals are in a unique position to use this credibility, and their expertise, to move forward policies that support adolescents and young adults. They also possess specialized technical and scientific knowledge, access to and understanding of research, and direct experience with patients and clients that can all serve to uniquely inform discussions around policy change. Finally, health care providers have an ethical obligation to support those for whom they provide care [33]. Because local laws and politics can be a barrier to making condoms available in schools, health care providers should advocate locally, nationally, and globally for the provision of condoms in schools and support local school districts and administrators in developing condom availability policies and practices.

Prepared by:

Anita Brakman, M.S.
Physicians for Reproductive Health
New York, New York

Claudia Borzutzky, M.D.
Children's Hospital Los Angeles
Los Angeles, California

Sasha Carey, M.D.
Rockwood Pediatrics
Spokane, Washington

Melissa Kang, M.B.B.S., M.C.H., Ph.D.
Department of General Practice
University of Sydney – Westmead
Westmead, New South Wales, Australia

Tanya Kowalczyk Mullins, M.D., M.S.
Cincinnati Children's Hospital Medical Center
Cincinnati, Ohio

Nadja Peter, M.D.
Department of Pediatrics
St. Christopher's Hospital for Children
Philadelphia, Pennsylvania

Taraneh Shafii, M.D., M.P.H.
Seattle Children's Hospital
Seattle, Washington

Diane M. Straub, M.D., M.P.H.
Department of Pediatrics
University of South Florida
Tampa, Florida

References

- [1] Centers for Disease Control and Prevention. Sexually transmitted disease surveillance 2015. Atlanta: U.S. Department of Health and Human Services; 2016. Available at: <http://www.cdc.gov/std/stats>. Accessed January 30, 2017.
- [2] Joint United Nations Programme on HIV/AIDS. Global AIDS Update; 2016. Available at: http://www.unaids.org/sites/default/files/media_asset/global-AIDS-update-2016_en.pdf. Accessed January 30, 2017.
- [3] Finer LB, Zolna MR. Declines in unintended pregnancy in the United States, 2008–2011. *New Engl J Med* 2016;374:843–52.
- [4] Weller S, Davis K. Condom effectiveness in reducing heterosexual HIV transmission. *Cochrane Database Syst Rev* 2002;CD003255.
- [5] Warner L, Newman DR, Kamb ML, et al. Problems with condom use among patients attending sexually transmitted disease clinics: Prevalence, predictors, and relation to incident gonorrhea and chlamydia. *Am J Epidemiol* 2008;167:341–9.
- [6] Paz-Bailey G, Koumans EH, Sternberg M, et al. The effect of correct and consistent condom use on chlamydial and gonococcal infection among urban adolescents. *Arch Pediatr Adolesc Med* 2005;159:536–42.
- [7] Crosby RA, Charnigo RA, Weathers C, et al. Condom effectiveness against non-viral sexually transmitted infections: A prospective study using electronic daily diaries. *Sex Transm Infect* 2012;88:484–9.
- [8] Koss CA, Dunne EF, Warner L. A systematic review of epidemiologic studies assessing condom use and risk of syphilis. *Sex Transm Dis* 2009;36:401–5.
- [9] Martin ET, Krantz E, Gottlieb SL, et al. A pooled analysis of the effect of condoms in preventing HSV-2 acquisition. *Arch Intern Med* 2009;169:1233–40.
- [10] Winer RL, Hughes JP, Feng Q, et al. Condom use and the risk of genital human papillomavirus infection in young women. *New Engl J Med* 2006;354:2645–54.
- [11] Trussell J. Contraceptive failure in the United States. *Contraception* 2011;83:397–404.
- [12] Bauman LJ, Berman R. Adolescent relationships and condom use: Trust, love and commitment. *AIDS Behav* 2005;9:211–22.
- [13] Santelli JS, Nystrom RJ, Brindis C, et al. Reproductive health in school-based health centers: Findings from the 1998–99 census of school-based health centers. *J Adolesc Health* 2003;32:443–51.
- [14] Dahl DW, Gorn GJ, Weinberg CB. The impact of embarrassment on condom purchase behaviour. *Can J Public Health* 1998;89:368–70.
- [15] Kirby DB, Brown NL. Condom availability programs in U.S. schools. *Fam Plann Perspect* 1996;28:196–202.
- [16] Furstenberg FF Jr, Geitz LM, Teitler JO, Weiss CC. Does condom availability make a difference? An evaluation of Philadelphia's health resource centers. *Fam Plann Perspect* 1997;29:123–7.
- [17] Kirby D, Brener ND, Brown NL, et al. The impact of condom availability [correction of distribution] in Seattle schools on sexual behavior and condom use. *Am J Public Health* 1999;89:182–7.
- [18] Blake SM, Ledsky R, Goodenow C, et al. Condom availability programs in Massachusetts high schools: Relationships with condom use and sexual behavior. *Am J Public Health* 2003;93:955–62.
- [19] Wretzel SR, Visintainer PF, Pinkston Koenigs LM. Condom availability program in an inner city public school: Effect on the rates of gonorrhea and chlamydia infection. *J Adolesc Health* 2011;49:324–6.
- [20] Charania MR, Crepaz N, Guenther-Gray C, et al. Efficacy of structural-level condom distribution interventions: A meta-analysis of U.S. And international studies, 1998–2007. *AIDS Behav* 2011;15:1283–97.

- [21] Daley MF, Kempe A, Pyrzanowski J, et al. School-located vaccination of adolescents with insurance billing: Cost, reimbursement, and vaccination outcomes. *J Adolesc Health* 2014;54:282–8.
- [22] Kelminson K, Saville A, Seewald L, et al. Parental views of school-located delivery of adolescent vaccines. *J Adolesc Health* 2012;51:190–6.
- [23] Bleakley A, Hennessy M, Fishbein M. Public opinion on sex education in US schools. *Arch Pediatr Adolesc Med* 2006;160:1151–6.
- [24] Moore MJ, Barr E, Wilson K, Griner S. Support for offering sexual health services through school-based health clinics. *J Sch Health* 2016;86:660–8.
- [25] Mueller TE, Gavin LE, Kulkarni A. The association between sex education and youth's engagement in sexual intercourse, age at first intercourse, and birth control use at first sex. *J Adolesc Health* 2008;42: 89–96.
- [26] Vivancos R, Abubakar I, Phillips-Howard P, Hunter PR. School-based sex education is associated with reduced risky sexual behaviour and sexually transmitted infections in young adults. *Public Health* 2013;127:53–7.
- [27] Han JS, Rogers ME, Nurani S, et al. Patterns of chlamydia/gonorrhea positivity among voluntarily screened New York City public high school students. *J Adolesc Health* 2011;49:252–7.
- [28] Nsuami M, Elie M, Brooks BN, et al. Screening for sexually transmitted diseases during preparticipation sports examination of high school adolescents. *J Adolesc Health* 2003;32:336–9.
- [29] Lottes IL. Sexual health policies in other industrialized countries: Are there lessons for the United States? *J Sex Res* 2002;39:79–83.
- [30] Owen J, Carroll C, Cooke J, et al. School-linked sexual health services for young people (SSHYP): A survey and systematic review concerning current models, effectiveness, cost-effectiveness and research opportunities. *Health Technol Assess* 2010;14:1–228, iii–iv.
- [31] Denny S, Grant S, Galbreath R, et al. Health services in New Zealand secondary schools and the associated health outcomes for students. Auckland, New Zealand: University of Auckland; 2014.
- [32] Gallup Inc. 2012 Gallup Honesty and Ethics in professions Poll; 2012. Available at: <http://www.gallup.com/poll/1654/honesty-ethics-professions.aspx#1>. Accessed January 30, 2017.
- [33] American Medical Association. Declaration of professional responsibility: Medicine's social contract with humanity; 2001. Available at: <http://www.cms.org/uploads/Declaration-of-Professional-Responsibility.pdf>. Accessed January 30, 2017.