

Condom Availability in Middle Schools: Evidence and Recommendations

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Adolescent, condom availability program, condoms, middle schools

Literature on condom availability in middle schools is sparse, because most publications focus on high

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schools and colleges. However, the age of pubertal onset has continually decreased during the past several decades because of improvements in nutrition and overall health (Rosen, 2004). Early onset of puberty has been shown to be associated with a variety of risk-taking behaviors, such as alcohol and drug use before age 14 years and sexual debut and unprotected sex before age 16 years (Deardorff, Gonzales, Christopher, Roosa, & Millsap, 2005; Downing & Bellis, 2009). Sexual maturation normally occurs before cognitive maturation. Thus early adolescents engaging in sexual activity are at risk for unwanted health outcomes, such as unintended pregnancy and sexually transmitted infections (STIs), which they are not cognitively mature enough to prevent or manage.

This policy brief will examine the adolescent development trajectory, the context of early sexual debut, and current policies in some middle schools to address these issues. Evidence-based recommendations for stakeholders to consider in creating and revising policies on condom availability are then offered.

EARLY ADOLESCENT DEVELOPMENT

Early adolescence, generally defined as 10 to 13 years of age, is a developmental turning point that involves pubertal, cognitive, and psychosocial maturation. The onset, timing, and tempo of puberty vary among adolescents, with contributing factors including gender, ethnicity, nutritional status, and genetics (Parent et al., 2003). The National Health and Nutrition Examination Survey III (1997) study found a 12.5 year median age of menarche in girls and a 10.5 year median age of Tanner stage G2 in white boys. Interwoven with these physical changes are changes in thought processes, namely the ability to transcend the concrete thinking of childhood (Halpern-Felsher, 2010). Future-oriented and abstract thinking typically do not begin to

manifest until middle adolescence (ages 14 to 16 years), with full establishment and application in late adolescence (ages 17 to 21 years; Halpern-Felsher, 2010). Alongside the physical and cognitive maturation that occur in early adolescence is psychosocial development, orienting adolescents in the context of their social environment.

EARLY ADOLESCENT SEXUAL ACTIVITY AND ITS CONSEQUENCES

Data from a 2005 survey of 4557 sixth-, seventh-, and eighth-grade students at 14 public schools in southern California revealed that approximately 1 in 10 students had reported having sexual intercourse (De Rosa et al., 2010). Nearly one third of those younger teens did not use a condom at last intercourse, and almost half had had multiple partners (De Rosa et al., 2010). A study of 1279 seventh-grade students from 10 middle schools in a large southeastern U.S. public school district found that 12% and 7% of students had reported ever engaging in vaginal and anal intercourse, respectively (Markham, Fleschler Peskin, Addy, Baumler, & Tortolero, 2009). These results are consistent with those of a recent national study conducted by Indiana University (Herbenick et al., 2010). Although a significant number of individuals do not use condoms with sexual intercourse, rates of condom use among younger adolescents are higher than those of high school seniors and young adults, suggesting that condom availability to younger youth may be an effective strategy in preventing unintended pregnancies and STI transmission (Reece et al., 2010).

The consequences of unprotected sexual intercourse among adolescents affect the involved individuals, their families, and the community. Unintended pregnancy is a major problem in the United States. According to the National Association of School Nurses (2011), adolescents who become parents have a lower chance of finishing school, advancing their education, and securing employment. The most recent national data on pregnancy, birth, and abortion rates in early adolescents show that U.S. youth age 14 years and younger had a pregnancy rate of 7.1 per 1000, representing 14,790 pregnancies in this age group, with birth and abortion rates at 3.1 per 1000 for each (Guttmacher Institute, 2010).

STI transmission is another concern. Whereas the prevalence of chlamydia and gonorrhea infections in early adolescents in the United States is quite low (Gavin et al., 2009), evidence indicates that youth who initiated sex before age 14 years were more likely to be infected with chlamydia in later adolescence and early adulthood compared with youth who initiated sex after age 14 years (Datta et al., 2007). The presence of rectal chlamydia or gonorrhea infection increases the likelihood of human immunodeficiency virus (HIV) acquisition and transmission (King, Kent, Samuel, &

Klausner, 2003). Taken together, these findings suggest that youth who initiate sex before age 14 years (i.e., middle school students) may benefit from interventions geared toward safer sex, such as condom availability programs, to prevent STI and HIV transmission.

Adolescents with disabilities are at least as likely as their nondisabled peers to engage in sexual activity (Suris, Michaud, Akre, & Sawyer, 2008). They may be more likely to experience unwanted sexual activity (Turner, Vanderminden, Finkelhor, Hambry, & Shattuck, 2011), may not have received adequate education about sexuality, and may be more likely to desire pregnancy at first intercourse than youth without disabilities (Shandra & Chowdhury, 2012). These characteristics, combined with disability-related mobility restrictions, lower the likelihood of off-campus condom acquisition.

ROLE OF ADVERSE CHILDHOOD EXPERIENCES AND FUTURE RISK

Accumulating evidence demonstrates that sexual debut before age 15 years is associated with prior adverse childhood experiences and worse health outcomes in adolescence and adulthood. Women who experienced at least one such adverse experience, including physical, sexual, or verbal abuse; living with a mother who was treated violently; living with household members who were substance abusers, mentally ill, or suicidal; or having a household member incarcerated had a greater likelihood of sexual debut before age 15 years, multiple partners, and unintended pregnancies (Hillis, Anda, Felitti, & Marchbanks, 2001). Greater numbers of adverse childhood experiences were associated with worse health outcomes in adolescence and adulthood, including higher rates of depression, substance abuse, and a variety of chronic diseases (Dube, Felitti, Dong, Giles, & Anda, 2003).

Commercial sexual exploitation of minors is both a risk factor for and potential outcome of early-onset sexual activity. Although accurate prevalence statistics are difficult to gather, the average age of entry into sexual exploitation is 12 years, with some children being as young as 9 years (Office of the Inspector General, 2009). Youth who have been sexually abused, are in foster care, or are runaways are especially vulnerable to exploitation. School nurses and staff in school-based health centers may be caring for undisclosed commercially sexually exploited minors who present as middle school students seeking services for consensual sexual activity. Condom availability may decrease their high risk for pregnancy and STIs and provide a context for interaction with health care providers that can facilitate disclosure.

Strong relationships with parents consistently have been found to be protective against early sexual activity among adolescents (Jayakody et al., 2011). Some parents of teens who initiate sexual activity at an early

age may be too overwhelmed by their own adverse life circumstances to offer preventive support and protection (Hillis et al., 2001). For other teens, a close and open relationship with a parent may not be enough to deter initiating sexual activity during middle school, because neighborhood contexts and norms around adolescent sexual activity also are highly influential (Warner, Giordano, Manning, & Longmore, 2011).

INTERVENTION CONSIDERATIONS

Some parents and school administrators who oppose condom availability programs argue that such programs lead students to believe that schools condone sexual activity (Strauss, 2010). Other adults oppose contraceptive services in schools on moral and religious grounds (Macaluso, 2011). In an effort to avoid promoting adolescent sexual activity, many school districts decide against condom availability programs and choose to provide referrals to community clinics for family planning and sexual health services. However, research by Blake et al. (2003) demonstrated that sexual activity rates among adolescents in schools with condom availability programs were no higher than those in schools without such programs. Further, students frequently do not follow through with off-site referrals because of transportation issues, confidentiality concerns, or not comprehending their urgency (Dailard, 2000). Moreover, some adolescents may be in abusive relationships, restricting their out-of-school mobility. On-site condom availability would eliminate many of these access barriers.

Health care providers must consider numerous factors when reviewing contraceptive options with adolescents, including maturity level, access to prescriptions, confidentiality, and medical risks and benefits. Even if hormonal contraceptive methods are accessible, many adolescents will voice concerns about adverse effects such as weight gain, the development of acne (Gordon & Pitts, 2012), or impairment of future fertility, even though these apprehensions may not be evidence-based. Providing condoms in school-based health centers addresses STI prevention and contraceptive and access issues.

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EXISTING CONDOM AVAILABILITY PROGRAMS IN MIDDLE SCHOOLS

In 2003, approximately 50 school districts representing more than 425 schools in the United States had condom availability programs (Blake et al., 2003). Although current nationwide estimates are not available, two recent examples illustrate different ways the programs can be implemented. Provincetown School District in Massachusetts implemented a condom availability policy in September 2010 after the recommendation of the town's health advisory committee and a unanimous school board vote. Students may request condoms from a school nurse, who must first provide counseling, including information on abstinence. The policy was written intentionally with no minimum age limit for students and therefore is inclusive of middle school students (Sexuality Information and Education Council of the United States, 2010). The Springfield School Committee, also in Massachusetts, recently approved a policy effective September 2012 that will allow the provision of condoms to students age 12 years and older. In accordance with the policy, school nurses will provide condoms to students who request them after providing counseling, including a discussion on abstinence and the proper storage and usage of condoms. To appeal to the concerns of those opposed to the policy, parents and guardians may sign a form that denies permission for their children to access condoms from school nurses (Goonan, 2012). In contrast, Provincetown and other districts do not offer parents this option. The most recent available national data demonstrated that nearly 60% of school-based health centers were prohibited from dispensing contraception in the 2007-2008 academic year, most often because of school district policy (Strozer, Juszczak, & Ammerman, 2010).

RECOMMENDATIONS

The American Academy of Pediatrics (2001) policy statement on condom use urges pediatricians to "support and encourage the correct and consistent use of reliable contraception and condoms by adolescents who are sexually active or contemplating sexual activity" (p. 1467). Both the American College of Obstetricians & Gynecologists (1996) and American Medical Association (1997) support having communities make condoms available to teens. The Centers for Disease Control and Prevention (1997) has included condom availability among an array of effective approaches to reducing HIV and other STIs. Finally, the Institute of Medicine (2001) recommends that "Congress, as well as other federal, state, and local policymakers, eliminate requirements that public funds be used for abstinence-only education, and states and local school districts implement and continue to support age-appropriate comprehensive sex education and condom availability" (p. 120).

Advanced practice nurses and other health care providers caring for adolescents in middle schools should open a dialogue with school district administrators about making condoms available in developmentally tailored programs for early adolescents who are engaging in or at risk for initiating sexual activity. School districts should develop condom availability policies as part of broader prevention programs including comprehensive sex education and contraceptive counseling after consultation with stakeholder groups. School nurses, advanced practice nurses, and health care providers in school-based health centers should use their assessment of health information from patient encounters and their clinical judgment in issuing condoms to youth engaging in or at risk for initiating sexual activity. Lastly, policy makers should be encouraged to support funding for national health statistics to include youth age 12 years and older in surveys addressing sexual attitudes and behaviors to determine sound policy in providing comprehensive reproductive health services for adolescents in schools.

REFERENCES

- American Academy of Pediatrics. (2001). Condom use by adolescents. *Pediatrics*, 107, 1463-1469.
- American College of Obstetricians and Gynecologists. (1996). Condom availability for adolescents. *Journal of Adolescent Health*, 18, 380-383.
- American Medical Association. (1997). *Update on AMA Policies on human sexuality and family life education*. HOD Policy 1997. Chicago, IL: American Medical Association.
- Blake, S. M., Ledsky, R., Goodenow, C., Sawyer, R., Lohmann, D., & Windsor, R. (2003). Condom availability programs in Massachusetts high schools: Relationships with condom use and sexual behavior. *American Journal of Public Health*, 93, 955-962.
- Centers for Disease Control and Prevention (CDC), Committee on Prevention and Control of Sexually Transmitted Diseases. (1997). *The hidden epidemic: Confronting sexually transmitted diseases*. Washington, DC: National Academy Press.
- Dailard, C. (2000). School-based health centers and the birth control debate. *The Guttmacher Report on Public Policy*, 3, 5-8.
- Datta, D. S., Sternberg, M., Johnson, R. E., Berman, S., Papp, J. R., McQuillan, G., & Weinstock, H. (2007). Gonorrhea and chlamydia in the United States among persons 14 to 39 years of age, 1999 to 2002. *Annals of Internal Medicine*, 147, 89-96.
- De Rosa, C. J., Ethier, K. A., Kim, D. H., Cumberland, W. G., Afifi, A. A., Kolterman, J., ... Kerndt, P. R. (2010). Sexual intercourse and oral sex among public middle school students: Prevalence and correlates. *Perspectives on Sexual and Reproductive Health*, 42, 197-205.
- Deardorff, J., Gonzales, N. A., Christopher, F. S., Roosa, M. W., & Millsap, R. E. (2005). Early puberty and adolescent pregnancy: The influence of alcohol use. *Pediatrics*, 116, 1451-1456.
- Downing, J., & Bellis, M. A. (2009). Early pubertal onset and its relationship with sexual risk taking, substance use and anti-social behaviour: A preliminary cross-sectional study. *BMC Public Health*, 9, 446-456.
- Dube, S. R., Felitti, V. J., Dong, M., Giles, W. H., & Anda, R. F. (2003). The impact of adverse childhood experiences on health problems: Evidence from four birth cohorts dating back to 1900. *Preventive Medicine*, 37, 268-277.
- Gavin, L., MacKay, A. P., Brown, K., Harrier, S., Ventura, S. J., Kann, L., ... Ryan, G. (2009). Sexual and reproductive health of persons aged 10-24 years—United States, 2002-2007. *MMWR Surveillance Summaries*, 58, 1-58.
- Goonan, P. (2012, April 5). *Condom access for students gets 4-3 Springfield School Committee approval*. Retrieved from <http://www.masslive.com>
- Gordon, C. M., & Pitts, S. A. (2012). Approach to the adolescent requesting contraception. *Journal of Clinical Endocrinology and Metabolism*, 97, 9-15.
- Guttmacher Institute. (2010). *U.S. teenage pregnancies, births and abortions: National and state trends and trends by race and ethnicity*. Retrieved from <http://www.guttmacher.org/pubs/USTPTrends.pdf>
- Halpern-Felsher, B. L. (2010, October). *Cognitive and psychosocial development*. San Francisco, CA: Division of Adolescent Medicine, Department of Pediatrics, University of California, San Francisco.
- Herbenick, D., Reece, M., Sanders, S. A., Schick, V., Dodge, B., & Fortenberry, J. D. (2010). Sexual behavior in the United States: Results from a national probability sample of males and females ages 14 to 94. *Journal of Sexual Medicine*, 7(suppl 5), 255-265.
- Hillis, S. D., Anda, R. F., Felitti, V. J., & Marchbanks, P. A. (2001). Adverse childhood experiences and sexual risk behaviors in women: A retrospective cohort study. *Family Planning Perspectives*, 33(5), 206-211.
- Institute of Medicine. (2001). *No time to lose: Getting more from HIV prevention*. In M. S. Ruiz, A. R. Gable, E. H. Kaplan, M. A. Stoto, H. V. Fineberg, & J. Trussell (Eds.). Washington, DC: National Academy Press.
- Jayakody, A., Sinha, S., Tyler, K., Khadr, S. N., Clark, C., Klineberg, E., ... Viner, R. M. (2011). Early sexual risk among black and minority ethnicity teenagers: A mixed methods study. *Journal of Adolescent Health*, 48, 499-506.
- King, J., Kent, C., Samuel, M., & Klausner, J. D. (2003). *Recent early syphilis, gonorrhea and chlamydia among men who have sex with men increases risk for HIV seroconversion—San Francisco, 2002-2003 [abstract T2-L203]*. Program and abstracts of the 2003 National HIV Prevention Conference (Atlanta). Atlanta, GA: Centers for Disease Control and Prevention.
- Macaluso, T. *Clash over condom availability in city schools*. Retrieved from <http://www.rochestercitynewspaper.com/news/articles/2011/10/Clash-over-condom-availability-in-city-schools/>
- Markham, C. M., Fleschler Peskin, M., Addy, R. C., Baumler, E. R., & Tortolero, S. R. (2009). Patterns of vaginal, oral, and anal sexual intercourse in an urban seventh-grade population. *Journal of School Health*, 79, 193-200.
- National Association of School Nurses. (2011). *Pregnant and parenting students: The role of the school nurse*. Retrieved from <http://www.nasn.org/PolicyAdvocacy/PositionPapersandReports/NASNPositionStatementsFullView/tabid/462/ArticleId/120/Pregnant-and-Parenting-Students-The-Role-of-the-School-Nurse-Revised-2011>
- National Health and Nutrition Examination Survey III. (1997). *Reference manuals and reports (CD-ROM). Analytic and reporting guidelines: The Third National Health and Nutrition Examination Survey (1988-94)*. Hyattsville, MD: National Center for Health Statistics, Centers for Disease Control and Prevention.
- Office of the Inspector General. (2009). *The Federal Bureau of Investigation's efforts to combat crimes against children: Federal Bureau of Investigation*. Retrieved from <http://www.justice.gov>
- Parent, A. S., Teilmann, G., Juul, A., Skakkebaek, N. E., Toppari, J., & Bourguignon, J. P. (2003). The timing of normal puberty and the age limits of sexual precocity: Variations around the world, secular trends, and changes after migration. *Endocrine Reviews*, 24, 668-693.
- Reece, M., Herbenick, D., Schick, V., Sanders, S. A., Dodge, B., & Fortenberry, J. D. (2010). Condom use rates in a national

- probability sample of males and females ages 14 to 94 in the United States. *Journal of Sexual Medicine*, 7, 266-276.
- Rosen, D. (2004). Physiologic growth and development during adolescence. *Pediatrics in Review*, 25, 194-199.
- Sexuality Information and Education Council of the United States. (2010). *Provincetown, Massachusetts passes new condom availability program*. Retrieved from <http://www.siecus.org>
- Shandra, C. L., & Chowdhury, A. R. (2012). The first sexual experience among adolescent girls with and without disabilities. *Journal of Youth & Adolescence*, 41, 515-532.
- Strauss, V. (2010). *New school condom policy sparks uproar*. Retrieved from <http://voices.washingtonpost.com/answer-sheet/health-1/schools-giving-condoms-to-kids.html>
- Strozer, J., Juszcak, L., & Ammerman, A. (2010). *2007-2008 National school-based health care census*. Washington, DC: National Assembly on School-based Health Care.
- Suris, J. C., Michaud, P. A., Akre, C., & Sawyer, S. M. (2008). Health risk behaviors in adolescents with chronic conditions. *Pediatrics*, 122, e1113-e1118.
- Turner, H. A., Vanderminden, J., Finkelhor, D., Hamby, S., & Shattuck, A. (2011). Disability and victimization in a national sample of children and youth. *Child Maltreatment*, 16, 275-286.
- Warner, T. D., Giordano, P. C., Manning, W. D., & Longmore, M. A. (2011). Everybody's doin' it (right?): Neighborhood norms and sexual activity in adolescence. *Social Science Research*, 40, 1676-1690.

CORRECTION

In the article, "Assisting With School Absences for Pediatric Health Conditions: Written Information for Families" (*Journal of Pediatric Health Care*, 26[5]:374-379), the authors intended to thank Lee Elliott, RN, instead of Lee Howard, RN, in the acknowledgements at the end of the article.