UCSF Center for AIDS Prevention Studies
AIDS Research Institute

what works best in sex/HIV education?

revised 9/06

why sex/HIV education?

Sex and HIV education programs have multiple goals: to decrease unintended pregnancy, to decrease STDs including HIV and to improve sexual health among youth. In 2005, almost two-thirds (63%) of all high school seniors in the US had engaged in sex, yet only 21% of all female students used birth control pills before their last sex and only 70% of males used a condom during their last sexual intercourse.[1] In 2000, 8.4% of 15-19 year old girls became pregnant, producing one of the highest teen pregnancy rates in the western industrial world.[2] Persons aged 15-24 had 9.1 million new cases of STDs in 2000 and made up almost half of all new STD cases in the US.[3]

There are numerous factors affecting adolescent sexual behavior and use of protection. Some of these factors have little to do with sex, such as growing up in disadvantaged communities, having little attachment to parents or failing at school. Other factors are sexual in nature, such as beliefs, values, perceptions of peer norms, attitudes and skills involving sexual behavior and using condoms or contraception.[4] It is these sexual factors that sex/HIV education programs can potentially affect, thereby impacting behavior. Sex/HIV education programs alone cannot totally reduce sexual risk-taking, but they can be an effective part of a more comprehensive initiative.

do sex/HIV education programs work?

Yes. Some sex/HIV education programs delay initiation of intercourse, reduce the frequency of sex, reduce the number of sexual partners and increase use of condoms or other forms of contraception. Also, research indicates that sex/HIV education programs–even those that encourage condom and contraceptive use–do not increase sexual activity. In a recent review, almost two-thirds of the programs evaluated within the US significantly improved one or more of these behaviors.[5] The results were even more positive in developing countries. Thus, many programs are effective, but others may not be and communities should implement either those programs that have been demonstrated to be effective or those programs that incorporate common characteristics of effective programs.[5]

can effective programs be replicated?

Yes. Several curricula have been implemented and evaluated up to five times in different states and consistently produced positive changes in sexual behavior when implemented as designed. One of them was even replicated in more than 80 CBOs and found to be effective.[6] However, when the curricula are greatly shortened, when condom lessons are cut, or when programs designed for the community are implemented in the classroom, they are less likely to significantly change behavior.

which curricula are most likely to significantly change behavior?

- In a randomized trial of young women, SiHLE (sistering, informing, healing, living, and empowering) significantly increased condom use, reduced the pregnancy rate and reduced the STD rate.[7]
- In four different studies, Reducing the Risk delayed the initiation of sex and/or increased condom use for up to 18 months.[8,9]
- In a randomized trial, Safer Choices delayed sex among some youth and increased condom and contraceptive use among sexually active youth over a 31 month period.[10]
- Finally, in multiple randomized trials, Making Proud Choices[11] and Becoming a Responsible Teen[12] increased condom use for at least one year.

These and other effective programs share 17 characteristics that contribute to their success. Characteristics are divided into development, the curriculum itself, and implementation.[5]

Says who?

1. Centers for Disease Control and Prevention. Youth risk behavior surveillance – United States, 2005. *Surveillance Summaries.* June 9, 2006.

2. Alan Guttmacher Institute. U.S. teenage pregnancy statistics: Overall trends, trends by race and ethnicity and state-by-state information. New York: The Alan Guttmacher Institute, 2004.

3. Weinstock H, Berman S, Cates W. Sexually transmitted diseases among American youth: incidence and prevalence estimates, 2000. *Perspectives in Sexual and Reproductive Health*. 2004;36:6-10.

4. Kirby D, Lepore G, Ryan J. Sexual risk and protective factors: Factors affecting teen sexual behavior, pregnancy, childbearing and sexually transmitted disease: Which are important? Which can you change? Washington DC: National Campaign to Prevent Teen Pregnancy. 2005. www.teenpregnancy.org/product/pdf/13_10_2005_13_31_12Kirby_Riskandprotectivefactor_paper.pdf

5. Kirby D, Laris BA, Rolleri L. Sex and HIV education programs for youth: Their impact and important characteristics. Washington DC: Family Health International, 2006. www.etr.org/recapp/programs/SexHIVedProgs.pdf

6. Jemmott III, JB. Effectiveness of an HIV/STD risk-reduction intervention implemented by non-governmental organizations: A randomized controlled trial among adolescents. Presented at the American Psychological Association Annual Conference. Washington DC: August, 2005.

10ER A publication of the Center for AIDS Prevention Studies (CAPS) and the AIDS Research Institute, University of California, San Francisco. Funding by the National Institutes of Mental Health. Special thanks to the following reviewers of this fact sheet: Forrest L. Alton, Suzan Boyd, Karin Coyle, Glenn Dodd, Polly Edwards, Erin Johnson, Barbara Richardson-Todd, John Santelli, William Smith, Katherine Suellentrop, Mary Martha Wilson, Paulina Zamudio.

how are effective programs developed?

Effective programs can be developed by teams of people with backgrounds in psychosocial theory, adolescent sexual behavior, curriculum design, community culture and/or teaching sex/HIV education. They review local data on teens' sexual behavior, pregnancy rates and STD rates and often conduct focus groups with teens and interviews with adults. Using a logic model framework, they identify the behaviors they want to change, the risk and protective factors affecting them and activities that would change them. They then design activities consistent with community values and resources and finally pilot-test and revise the curricula.

what do effective curricula look like?

Effective curricula really focus on reducing unintended pregnancy, STD/HIV or both. They do this by emphasizing the consequences of unintended pregnancy, STDs or HIV, and the risk of experiencing them; by giving a very clear message about sexual behavior; and by discussing situations that might lead to sex and how to avoid or get out of those situations.

Particularly important are the behavioral messages. Effective curricula most commonly emphasize that abstinence is the safest and best approach and encourage condom/ contraceptive use for those having sex. Sometimes other values, such as being proud, being responsible, respecting yourself, sticking to your limits and remaining in control, are also emphasized, and are clearly linked to particular behaviors.

Effective curricula incorporate activities, instructional methods and behavioral messages that are appropriate to the youths' culture, developmental age, gender and sexual experience. All actively involve youth to help them personalize the information.

- **To increase basic knowledge** about risks of teen sex and methods of avoiding intercourse or using protection, effective programs can use: short lectures, class discussions, competitive games, skits or videos and flip charts or pamphlets.
- **To address risk**, programs can use: data on the incidence or prevalence of pregnancy or STD/HIV among youth and their consequences, class discussions, HIV+ speakers, and simulations such as the STD handshake.
- **To change individual values and peer norms** about abstinence and condom use, programs can use: clear behavioral messages, forced choice value exercises, peer surveys/voting, peer role plays, discussions of effectiveness of condoms and visits to drug stores or clinics where condoms are sold or distributed.
- **To build skills** to help avoid unwanted or unprotected sex and insist on and use condoms or contraception, programs can use: role playing including describing the skills, modeling the skills and repeated individual practice role playing the skills.
- **To use condoms properly,** youth can practice opening the package and putting a condom over their fingers, or talking through all the steps for using condoms.

how are effective programs implemented?

When effective programs are implemented, they typically obtain necessary support from appropriate authorities, select educators with desirable traits and train them, implement activities to recruit and retain youth if needed, and implement the curricula with fidelity. Programs can be effective with either adult or peer educators.

what needs to be done?

Policy makers should fund and encourage the implementation of sex/HIV education programs that have been demonstrated to be effective. If a new program is used, it should have the common characteristics of effective programs.[5] Untested programs should be evaluated for effectiveness. Although programs should be implemented everywhere, they especially should be implemented in the locations and among populations where youth are at highest risk for HIV, STDs and unplanned pregnancy.

In order for evidence-based sex/HIV education programs to be implemented broadly, they should have support from appropriate authorities such as directors of youth-serving organizations, school districts, principals and teachers. Staff or teachers conducting programs should be trained and supported to implement programs with fidelity. This includes allowing enough time in the classroom or organization to deliver the program.

PREPARED BY DOUGLAS KIRBY PHD, ETR ASSOCIATES

7. DiClemente RJ, Wingood GM, Harrington KF, et al. Efficacy of an HIV prevention intervention for African American adolescent girls: a randomized controlled trial. *Journal of the American Medical Association.* 2004;292:171-179.

8. Kirby D, Barth RP, Leland N, et al. Reducing the risk: Impact of a new curriculum on sexual risk-taking. *Family Planning Perspectives*. 1991;23:253-263.

9. Hubbard BM, Giese ML, Rainey J. A replication of Reducing the Risk, a theory-based sexuality curriculum for adolescents. *Journal of School Health.* 1998;68:243-247.

10. Kirby DB, Baumler E, Coyle KK, et al. The "Safer Choices" intervention: its impact on the sexual behaviors of different subgroups of high school students. *Journal of Adolescent Health.* 2004;35:442-452.

11. Jemmott JB, Jemmott LS, Fong GT. Abstinence and safer sex: A randomized trial of HIV sexual risk-reduction interventions for young African-American adolescents. *Journal of the American Medical Association.* 1998;279:1529-1536.

12. St. Lawrence JS, Brasfield TL, Jefferson KW, et al. Cognitive-behavioral intervention to reduce African American adolescents' risk for HIV infection. *Journal of Consulting and Clinical Psychology.* 1995;63:221-237.