Scientific Evaluations of Approaches to Prevent Teen Pregnancy

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Summary

The long-awaited experimentally designed evaluation of abstinence-only education programs, commissioned by Congress in 1997, indicates that young persons who participated in the U.S. Department of Health and Human Services' Title V Abstinence Education block grant program were no more likely than other young persons to abstain from sex. The evaluation conducted by Mathematica Policy, Inc. found that program participants had just as many sexual partners as nonparticipants, had sex at the same median age as nonparticipants, and were just as likely to use contraception as nonparticipants. For many analysts and researchers, the study confirms that a comprehensive sex education curriculum with an abstinence message and information about contraceptives and decision-making skills is a better approach to preventing teen pregnancy. Others maintain that the evaluation examined only four programs for elementary and middle school students, and is thereby inconclusive. Separate experimentally designed evaluations of comprehensive sexual education programs found that some comprehensive programs, including contraception information, decision-making skills, and peer pressure strategies, were successful in delaying sexual activity, improving contraceptive use, and/or preventing teen pregnancy. This report will not be updated.

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Introduction

For many years, there have been divergent views with regard to sex and young persons. Many argue that sexual activity in and of itself is wrong if the persons are not married. Others agree that it is better for teenagers to abstain from sex, but are primarily concerned about the negative consequences of sexual activity, namely unintended pregnancy and sexually transmitted diseases (STDs). These two viewpoints are reflected in two teen pregnancy prevention approaches. The abstinence-only education approach centers on the abstinence-only message and exclusively funds programs that adhere solely to bolstering that message. The Title V Abstinence Education block grant administered by the Department of Health and Human Services (HHS) supports this approach. The comprehensive sexual education approach provides funding (through many other federal programs) for both prevention programs (that often include an abstinence message) and programs that provide medical and social services to pregnant or parenting teens.

Background

Since 1991, teen pregnancy, abortion, and birth rates have all fallen considerably. In 2002 (the latest available data), the overall *pregnancy* rate for teens aged 15-19 was 75.4 per 1,000 females aged 15-19, down 35% from the 1991 level of 115.3. The 2002 teen pregnancy rate is the lowest recorded since 1973, when this series was initiated.[1] However, it still is higher than the teen pregnancy rates of most industrialized nations.

After increasing sharply during the late 1980s, the teen *birth* rate for females aged 15-19 declined every year from 1991 to 2005.[2] The 2005 teenage birth rate of 40.4 per 1,000 women aged 15-19 is the lowest recorded birth rate for U.S. teenagers. In 2005, the number of births to teens was 421,123 (10.2% of the 4.1 million births in the U.S.), of which 6,717 births were to girls under age 15.[3] Nearly 23% of all nonmarital births were to teens in 2005. Although birth rates for U.S. teens have dropped in recent years, they remain higher than the teenage birth rates of most industrialized nations. According to a recent report on children and youth, in 2005, 34% of ninth graders reported that they had experienced sexual intercourse. The corresponding statistics for older teens were 43% for tenth graders, 51% for eleventh graders, and 63% for twelfth graders.[4] About 30% of female teens who have had sexual intercourse become pregnant before they reach age 20.[5]

[1] The Alan Guttmacher Institute, *U.S. Teenage Pregnancy Statistics: National and State Trends and Trends by Race and Ethnicity*, updated September 2006, p. 5.

[2] In 1970, the teen birth rate was 68.3 births per 1,000 women aged 15-19. The birth rate dropped to 50.2 in 1986 and rose back to 61.8 in 1991. Since 1991, the teen birth rate for women aged 15-19 has decreased each year, declining almost 35% during the 14-year period from 1991 to 2005 (from 61.8 births per 1,000 women aged 15-19 in 1991 to 40.4 births per 1,000 women aged 15-19 in 2005).

[3] National Center for Health Statistics, Births: Preliminary Data for 2005, by Brady E. Hamilton, Joyce A. Martin, and Stephanie J. Ventura, *National Vital Statistics Reports, Vol. 55, No. 11*. December 28, 2006.

[4] Centers for Disease Control and Prevention, *MMWR*, vol. 55, no. SS-05, *Youth Risk Behavior Surveillance: United States, 2005*, June 9, 2006, available at http://www.cdc.gov/mmwr/preview/mmwrhtml/ss5505a1.htm.

[5] The National Campaign to Prevent Teen Pregnancy, *How is the 34% Statistic Calculated?* Fact Sheet. February 2004.

An October 2006 study by the National Campaign to Prevent Teen Pregnancy estimated that, in 2004, adolescent childbearing cost U.S. taxpayers about $9 billion per year. Research indicates that teens who give birth are less likely to complete high school and go on to college, thereby reducing their potential for economic self-sufficiency. The research also indicates that the children of teens are more likely than children of older parents to experience problems in school and drop out of high school, and as adults are more likely to repeat the cycle of teenage pregnancy and poverty. The 2006 report contends that if the teen birth rate had not declined between 1991 and 2004, the annual costs associated with teen childbearing would have been almost $16 billion (instead of $9 billion).[6] In recognition of the negative, long-term consequences associated with teenage pregnancy and births, the prevention of teen pregnancy is a major national goal.

Scientific Evaluation of Teen Pregnancy Prevention Approaches

Although a number of different techniques are available to evaluate the impact of policy changes, there is widespread consensus that well-designed and well-implemented studies that require random assignment to experimental and control groups provide more reliable, valid, and objective information than other types of approaches. Random assignment experimental studies generally assign potential participants to two groups. Individuals assigned to a control group are subject to current policies or practices (no policy change); individuals assigned to the experimental or treatment group are subject to a different policy initiative (i.e., intervention), such as abstinence-only education. Individuals are randomly assigned to these two groups, and any differences between the experimental and control group are attributed to the policy initiative being examined.

The random assignment experimental approach attempts to estimate a program's impact on an outcome of interest. It measures the average difference between the experimental group and the control group. For a policy to have an impact, it must be determined that the impact did not just occur by chance. In other words, the difference must be determined to be "statistically significant." Differences between experimental and control groups that pass statistical significance tests are reported as policy impacts.[7] The random assignment experimental approach generally is considered to provide the most valid estimate of an intervention's impact, and thereby provides useful information on whether, and the extent to which, *on average*, an intervention causes favorable impacts for a large group of subjects. (For information about some of the problems with the experimental approach, see CRS Report RL33301, *Congress and Program Evaluation: An Overview of Randomized Controlled Trials (RCTs) and Related Issues*.)

Abstinence-Only Education

P.L. 105-33, the Balanced Budget Act of 1997, included funding for a scientific evaluation of the Title V Abstinence-Only Education block grant program (Title 510 of the Social Security Act),

[6] The National Campaign to Prevent Teen Pregnancy, *By the Numbers: The Public Cost of Teen Childbearing*, by Saul D. Hoffman. October 2006.

[7] U.S. House of Representatives. Committee on Ways and Means. *2004 Green Book: Background Material and Data on the Programs Within the Jurisdiction of the Committee on Ways and Means*. WMCP: 108-6. On p. Appendix L-31. March 2004.

originally authorized by P.L. 104-193, the 1996 welfare reform law. Mathematica Policy Research, Inc. won the contract for the evaluation.[8]

Two other programs—the Community-Based Abstinence Education (CBAE) program funded via HHS appropriations and the "prevention" component of the Adolescent Family Life (AFL) program—include the eight statutory elements of the Title V Abstinence-Only Education block grant program (see **Text Box** at right). For FY2007, total abstinence-only education funding amounted to $177 million: $50 million for the Title V abstinence program; $13 million for the AFL abstinence education projects; $109 million for the CBAE program (up to $10 million of which may be used for a national abstinence education campaign); and $4.5 million for an evaluation of the CBAE program.

A **Title V Abstinence Education program** (1) has, as its exclusive purpose, teaching the social, psychological, and health gains of abstaining from sexual activity; (2) teaching abstinence from sexual activity outside of marriage as the expected standard for all school-age children; (3) teaching that abstinence is the only certain way to avoid out-of-wedlock pregnancy, STDs, and associated health problems; (4) teaching that a mutually faithful monogamous relationship within marriage is the expected standard of human sexual activity; (5) teaching that sexual activity outside of marriage is likely to have harmful psychological and physical effects; (6) teaching that bearing children out-of-wedlock is likely to have harmful consequences for the child, the child's parents, and society; (7) teaching young people how to reject sexual advances and how alcohol and drug use increases vulnerability to sexual advances; and (8) teaching the importance of attaining self-sufficiency before engaging in sex.

Source: Section 510 of the Social Security Act. [Title 42 U.S. C. Section 710]

Mathematica's April 2007 report presents the final results from a multi-year, experimentally based impact study on several abstinence-only block grant programs. The report focuses on four selected Title V abstinence education programs for elementary and middle school students: (1) *My Choice, My Future!*, in Powhatan, VA; (2) *ReCapturing the Vision*, in Miami, FL; (3) *Families United to Prevent Teen Pregnancy (FUPTP)*, in Milwaukee, WI; and (4) *Teens in Control*, in Clarksdale, MS. Based on follow-up data collected from youth (aged 10 to 14) four to six years after study enrollment, the report, among other things, presents the estimated program impacts on sexual abstinence and risks of pregnancy and STDs.

According to the report:

> Findings indicate that youth in the program group were no more likely than control group youth to have abstained from sex and, among those who reported having had sex, they had similar numbers of sexual partners and had initiated sex at the same mean age.... Program and control group youth did not differ in their rates of unprotected sex, either at first intercourse or over the last 12 months.... Overall, the programs improved identification of STDs but had no overall impact on knowledge of unprotected sex risks and the consequences of STDs. Both program and control group youth had a good understanding of the risks of pregnancy but a less clear understanding of STDs and their health consequences.[9]

[8] The Title V Abstinence Education block grant program to states was originally provided $250 million in federal funds ($50 million per year for five years, from FY1998 to FY2002). Funds must be requested by states when they solicit Title V Maternal and Child Health (MCH) block grant funds, and must be used exclusively for teaching abstinence. To receive federal funds, a state must match every $4 in federal funds with $3 in state funds. This means that full funding for abstinence education must total at least $87.5 million annually. Although the Title V abstinence-only education block grant has not yet been reauthorized, the latest extension, contained in P.L. 110-48 (S. 1701), continues funding for the block grant through September 30, 2007. According to Mathematica, more than 700 Title V abstinence programs have been funded.

[9] Mathematica Policy Research, Inc., *Impacts of Four Title V, Section 510 Abstinence Education Programs*, by (continued...)

In response to the report, HHS has stated that the Mathematica study showcased programs that were among the first funded by the 1996 welfare reform law. It stated that its recent directives to states have encouraged states to focus abstinence-only education programs on youth most likely to bear children outside of marriage, i.e., high school students, rather than elementary or middle-school students. It also mentioned that programs need to extend the peer support for abstinence from the pre-teen years through the high school years.[10]

Comprehensive Sexual Education

Advocates of a more comprehensive approach to sex education argue that today's youth need information and decision-making skills to make realistic, practical choices about whether to engage in sexual activities. They contend that such an approach allows young people to make informed decisions regarding abstinence, gives them the information they need to resist peer pressure and to set relationship limits, and also provides them with information on prevention of STDs and the use of contraceptives.[11]

Experimentally Designed Studies of Effective Comprehensive Sexual Education Pregnancy Prevention Programs

(1) Aban Aya Youth Project—Chicago, Illinois: The study found that 78% of boys in the program/intervention group used condoms compared to 65% of boys in the control group. There were no significant findings for the girls.

(2) Children's Aid Society (CAS) Carrera Program—NY, MD, FL, TX, OR, and WA: The study found that the girls in the program group were 18% less likely to have had sex than girls in the control group; were 55% less likely to become pregnant; and were 80% more likely to use dual methods of contraception at last sexual encounter. There were no significant findings for the boys.

(3) Draw the Line/Respect the Line—Northern California: At the three-year follow-up, 19% of the boys in the program group had engaged in sexual activity compared to 27% of boys in the control group. There were no significant findings for the girls.

(4) Postponing Sexual Involvement, Human Sexuality, and Health Screening Curriculum—Washington, DC: Several months after the intervention, girls in the program were twice as likely as girls in the control group to delay sex; and girls in the program group were three to seven times more likely than girls in the control group to have used contraception at last sexual encounter. There were no significant findings for the boys.

(5) Safer Choices—Texas and California: At the 31-month follow-up, sexually active program participants (boys and girls) were 1.5 times more likely than control group participants to use a condom; and program participants were 1.5 times more likely than the control group to use a second method of birth control.

Source: The National Campaign to Prevent Teen Pregnancy. *Putting What Works To Work: Curriculum-Based Programs That Prevent Teen Pregnancy*. P. 4.

According to a recent report by the National Campaign to Prevent Teen Pregnancy, five random assignment experimentally designed studies (published since 2000) of teen pregnancy prevention programs have been proven to be effective in delaying sexual activity, improving contraceptive use among sexually active

(...continued)

Christopher Trenholm, Barbara Devaney, Ken Fortson, Lisa Quay, Justin Wheeler, and Melissa Clark. Final Report. April 2007. Contract No.: HHS 100-98-0010. http://aspe.hhs.gov/hsp/abstinence07/.

[10] U.S. Department of Health and Human Services (HHS), *Report Released on Four Title V Abstinence Education Programs*. HHS Press Office. April 13, 2007 http://aspe.hhs.gov/hsp/abstinence07/factsheet.shtml.

[11] Although more than 30 federal programs have authority to provide funding for pregnancy prevention services, the amount of federal funding actually spent on comprehensive sexual education programs or services for teenagers cannot be isolated. See a General Accounting Office (now Government Accountability Office) report, GAO/HEHS-99-4, *Teen Pregnancy: State and Federal Efforts to Implement Prevention Programs and Measure Their Effectiveness*, November 1998.

teenagers, or preventing teen pregnancy[12] (see the **Text Box** above). Many analysts and researchers agree that effective pregnancy prevention programs have many of the following characteristics:

- Convince teens that not having sex or that using contraception consistently and carefully is the right thing to do.
- Last a sufficient length of time.
- Are operated by leaders who believe in their programs and who are adequately trained.
- Actively engage participants and personalize the program information.
- address peer pressure.
- Teach communication skills.
- Reflect the age, sexual experience, and culture of young persons in the programs.

Although there have been numerous evaluations of teen pregnancy prevention programs, there are many reasons why programs are not considered successful. In some cases the evaluation studies are limited by methodological problems or constraints because the approach taken is so multilayered that researchers have had difficulty disentangling the effects of multiple components of a program. In other cases, the approach may have worked for boys but not for girls, or vice versa. In some cases, the programs are very small, and thereby it is harder to obtain significant results. In other cases, different personnel may affect the outcomes of similar programs.

An Abstinence-Only Intervention Versus an Abstinence Message

There is a significant difference between abstinence as a *message* and abstinence-only *interventions*. While the Bush Administration continues to support an abstinence-only program intervention (with some modifications), others argue that an abstinence message integrated into a comprehensive sex education program that includes information on the use of contraceptives and that enhances decision-making skills is a more effective method to prevent teen pregnancy. A recent nationally representative survey found that 90% of adults and teens agree that young people should get a strong message that they should not have sex until they are at least out of high school, and that a majority of adults (73%) and teens (56%) want teens to get more information about both abstinence and contraception.[13] The American public—both adults and teens—supports encouraging teens to delay sexual activity *and* providing young people with information about contraception. (For additional information on teen pregnancy prevention, see CRS Report RS20301, *Teenage Pregnancy Prevention: Statistics and Programs*, and CRS Report RS20873,

[12] The National Campaign to Prevent Teen Pregnancy, *Putting What Works To Work: Curriculum-Based Programs That Prevent Teen Pregnancy*. 2007. Note: The report lists 23 effective programs that used either an experimental or quasi-experimental design. The earliest program listed was based on a 1990 evaluation. See the **Text Box** above for a list of five programs with an experimental design that were evaluated in 2000 or later.

[13] The National Campaign to Prevent Teen Pregnancy, *With One Voice 2007—America's Adults and Teens Sound Off About Teen Pregnancy*, by Bill Albert. February 2007, p. 2. http://www.teenpregnancy.org/resources/data/pdf/WOV2007_fulltext.pdf.

Reducing Teen Pregnancy: Adolescent Family Life and Abstinence Education Programs, both by Carmen Solomon-Fears.)

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