

## Studies Reporting Significant Results

Abstinence Program	Author(s)	Publication	Peer Reviewed	Program Population	Evaluation Design	Statistical Method	Behavioral Outcome Measured	Findings*
1 <b>Abstinence-only intervention</b>	Jemmott et al (2010)	<i>Archives of Pediatrics and Adolescent Medicine</i>	✓	6th and 7th grade students in four public middle schools serving low-income communities in a northeastern city (N=662)	Randomized controlled trial. Study randomly assigned students to receive an 8-hour abstinence-only intervention, an 8-hour "safer sex" intervention that promoted contraception only, an 8- or 12-hour comprehensive sex education program that contained both abstinence and contraception content, or an 8-hour general health intervention without any sex education content, which served as the control group. Students were surveyed over 24 months.	Generalized linear regression and Poisson generalized estimating equations	Initiation of sexual activity	Positive
							Recent sexual activity (last 3 months)	Positive
							Multiple sexual partners	NS
							Unprotected sex in the last 3 months	NS
							Consistent condom use	NS
2 <b>Reasons of the Heart</b>	Weed et al. (2008)	<i>American Journal of Health Behavior</i>	✓	7th grade students in suburban Northern Virginia (N = 492).	Quasi-experimental. Study controlled for pre-intervention differences between program participants and nonparticipants. Limitations to the study's design include observed differences between program group and control group, although the study accounted for these differences and the possibility of unobserved differences between the two groups.	Logistic regression	Initiation of sexual activity	Positive
3 <b>Sex Can Wait</b>	Denny and Young (2006)	<i>Journal of School Health</i>	✓	Upper elementary, middle school, and high school students from 15 unspecified school districts (upper elementary: N = 295; middle school: N = 595; high school: N = 279).	Quasi-experimental. Pretest, posttest, and follow-up surveys were conducted on program youths and on nonparticipants. As the authors noted, limitations include the reliability of the scaled measures, attrition at 18-month follow-up, and comparison group contamination.	ANCOVA and logistic regression	Abstinence (overall)	
							Upper elementary	NS
							Middle school	Short term: NS; 18 months: positive
							High school	Short term: positive; 18 months: NS
							Abstinence (last 30 days)	
							Upper elementary	Short term: NS; 18 months: positive
Middle school	Short term: NS; 18 months: positive							
High school	Short term: positive; 18 months: NS							
4 <b>Heritage Keepers</b>	Weed et al. (2005)	Paper presented at a conference sponsored by HHS-OPA	✓	7th through 9th grade students from 34 South Carolina schools. The sample consisted of students from a variety of demographic and geographic backgrounds (N = 1,535).	Quasi-experimental. Pretest, posttest, and 12-month follow-up surveys were conducted. The authors noted limitations such as high attrition and unobserved differences between program group and comparison group.	Logistic regression	Rate of sexual initiation	Positive

Continued on next page

\* "Positive" indicates positive outcomes in the desired direction, e.g., delayed initiation of sexual activity, reduced levels of recent sexual activity, or fewer sexual partners. "NS" indicates non-significant results. "Negative" indicates adverse outcomes. Findings are statistically significant at or above the 95 percent statistical confidence level.

## Studies Reporting Significant Results (continued)

Abstinence Program	Author(s)	Publication	Peer Reviewed	Program Population	Evaluation Design	Statistical Method	Behavioral Outcome Measured	Findings*
5 For Keeps	Boraskwi et al. (2005)	<i>American Journal of Health Behavior</i>	✓	7th and 8th grade students from five urban and two suburban middle schools in the Midwest (N = 2,069).	Quasi-experimental. Pretest and 16- to 25-week follow-up surveys were conducted. Program group and control group were comparable. The authors listed several limitations to the evaluation design: small size effects that might be influenced by measurement issues, an evaluation model more suited for traditional sex education programs, a sample that is not representative of all 7th grade students, potential contamination between program participants and non-program participants, one-time outcomes, and a follow-up interval that was less than six months.	Binary logistic regression or linear regression	Sexual activity between the pretest and posttests	All students (N = 2,069) NS
							Sexually inexperienced students at the pretest (N = 1,462)	NS
							Sexually experienced students at the pretest (N = 439)	NS
							Among students who reported having engaged in sexual activity during the study period (N = 311)	Frequency Positive
							Multiple encounters (> 6 versus < 5)	Positive
2+ sexual partners	Positive							
Consistent condom use	NS							
6 Best Friends	Lerner (2005)	<i>Adolescent and Family Health</i>	✓	Program participants included 6th–8th grade girls from six of the 20 middle schools in the District of Columbia. Comparison data came from a survey of middle school youths in the District in general (N = 2,730).	Pretest and posttest with comparison survey data. The study controlled for age, school grade, and race and ethnicity of the respondents and conducted further analyses that tested alternative explanations for the results. One significant limitation of the study is its use of survey data as comparison data.	Logistic regression	Initiation of sexual activity	Positive
7 Not Me, Not Now	Doniger et al. (2001)	<i>Journal of Health Communication</i>	✓	Middle school and high school students in Monroe County, New York (N = 1,395 to 1,737 for sexual initiation).	Cross-sectional time series. Data on sexual initiation rates came from the Youth Risk Behavior Surveys for Monroe County, NY. Data on pregnancy rates came from the New York State Department of Health, Office of Vital Statistics. Sexual initiation rates in 1992 (pre-program), 1995 (second year of program), and 1997 (fourth year) were compared. Pregnancy rates from 1993–1996 were compared among Monroe County, two counties in upstate and western New York and New York state. Having only one pre-intervention data point is a limitation of the study.	Test of difference in proportions; chi-square for trend test; t-test for differences in regression slopes	Rate of sexual initiation	Positive
							Pregnancy rate	Positive

\* See first page of Appendix.

Continued on next page

## Studies Reporting Significant Results (continued)

Abstinence Program	Author(s)	Publication	Peer Reviewed	Program Population	Evaluation Design	Statistical Method	Behavioral Outcome Measured	Findings*
8 Abstinence by Choice	Weed (2001)	Report to Arkansas Department of Health		7th through 9th grade students in Little Rock, AR (N = 329).	Quasi-experimental. Pretest and 12-month posttest were conducted. The study did not control for differences between program and control groups, which is a major limitation.	Test of difference in initiation rate	Rate of sexual initiation	Positive
9 HIV Risk-Reduction Intervention	Jemmott <i>et al.</i> (1998)	JAMA	✓	6th and 7th grade African-American youths in Philadelphia. Students attended schools that served primarily low-income communities. Of the students participating in the initial survey, 53 percent were female, 26.5 percent lived with both parents, and 15.4 percent reported having recently engaged in sexual activity (N = 659).	Experimental. Pretest and 3-, 6-, and 12-month follow-up surveys were conducted. Youths volunteered to participate in a weekend health promotion program, and volunteers were randomly assigned to receive one of the three interventions: abstinence, safer sex, and general health. The researchers cited self-reported data and limited generalizability of the results as limitations to the study.	Analysis of covariance and logistic regression	Sexual activity in the last 3 months	
							3-month follow-up	Positive (vs. control) NS (vs. safer sex)
							6- and 12-month follow-ups	NS (vs. control and safer sex)
							Frequency of sexual activity in the last 3 months	
3-month follow-up	NS (vs. control) NS (vs. safer sex)**							
6- and 12-month follow-ups	NS (vs. control) NS (vs. safer sex)**							
10 Stay SMART	St. Pierre <i>et al.</i> (1995)	Family Relations	✓	Participants came from 14 Boys and Girls Clubs across the country. Participants and youths in the control group came from comparable demographic and socioeconomic neighborhoods. Sample respondents averaged 13.6 years in age and were three-fourths male (N = 152, 27-month posttest).	Quasi-experimental. Pretest and 3-, 15-, and 27-month posttests were conducted. Some differences were detected between youths who completed the program and those who did not. Non-virgins in the stand-alone program reported, on average, more favorable attitudes toward sexual behavior than non-virgins in the booster and control groups. The study controlled for the pre-program differences. Limitations include selection bias, attrition, small sample size, unobserved differences between program and control groups, and differences in program sites.	ANCOVA	Virgins at pretest	
							Recency and frequency of sexual activity (3-, 15-, and 27-month follow-ups)	NS
							Non-virgins at pretest	
							Recency and frequency of sexual activity	
3-month follow-up	NS							
15-month follow-up	NS							
27-month follow-up	Positive							
11 Project Taking Charge	Jorgensen <i>et al.</i> (1993)	Family Relations	✓	7th grade students in Wilmington, DE, and West Point, MS, from disadvantaged socioeconomic backgrounds (N = 50).	Quasi-experimental, random assignment at class-room level. Study included a pretest, posttest, and 6-month follow-up with no attrition. Study limitations include a small sample and a short-term follow-up period. The study did not control for differences between the two groups at baseline.	ANCOVA	Rate of sexual initiation	Positive

Continued on next page

\* See first page of Appendix.

\*\* Except among youth with prior sexual experience, in which case results favored safer sex.

## Studies Reporting Significant Results (continued)

Abstinence Program	Author(s)	Publication	Peer Reviewed	Program Population	Evaluation Design	Statistical Method	Behavioral Outcome Measured	Findings*
12 Teen Aid and Sex Respect	Weed (1992)	Report to HHS and Utah Department of Education		7th and 10th grade students from three districts in Utah (N = 336, more "permissive attitudes" sub-sample).	Quasi-experimental. Pretest, posttest, one-year follow-up conducted. Students who completed either the pretest or follow-up were more at-risk for engaging in sexual activity than those who completed both surveys. Comparison group students attended schools in the same school district. The study controlled for group differences. The authors noted that the findings may be generalizable only to youths with similar characteristics and in similar geographic locations as the sample.	MANOVA	Rate of sexual initiation Entire sample "Permissive attitude" sub-sample High school Middle school	NS  Positive NS
13 Virginity Pledging	Resnick et al. (1997)	JAMA	✓	Nationally representative sample of 7th–12th grade students from the National Longitudinal Study of Adolescent Health, Waves 1 and 2 (N = 4,982).	Longitudinal survey. Study controlled for key demographic characteristics.	Cox regression	Age at sexual initiation	Positive
14 Virginity Pledging	Bearman and Brückner (2001)	American Journal of Sociology	✓	Nationally representative sample of 7th–12th grade students from the National Longitudinal Study of Adolescent Health, Waves 1 and 2 (N = 5,679).	Longitudinal survey. Study controlled for a host of demographic characteristics, religiosity, and other protective factors.	Proportional hazards models	Initiation of sexual activity Contraceptive use at initiation	Positive Negative
15 Virginity Pledging	Rector et al. (2004)	Center for Data Analysis Report		Nationally representative sample of 19- to 25-year-olds in 2001 from the National Longitudinal Study of Adolescent Health, Wave 3 (N = 5,679).	Longitudinal survey. Study controlled for a number of factors, including gender, race, age, family income, religiosity, self-esteem, and school performance.	Multivariate logistic regression	Initiation of sexual activity Pregnancy rate Out-of-wedlock birth rate	Positive Positive Positive
16 Virginity Pledging	Rector and Johnson (2005a)	Paper presented at the 8th Annual National Welfare Research and Evaluation Conference, sponsored by the HHS-ACF		Nationally representative sample of 19- to 25-year-olds in 2001 from the National Longitudinal Study of Adolescent Health, Wave 3.	Longitudinal survey. Study controlled for gender, age, race, family structure, and religiosity.	Multivariate logistic regression	STD rates	Positive

Continued on next page

\* See first page of Appendix.

## Studies Reporting Significant Results (continued)

Abstinence Program	Author(s)	Publication	Peer Reviewed	Program Population	Evaluation Design	Statistical Method	Behavioral Outcome Measured	Findings*
17 <b>Virginity Pledging</b>	Rector and Johnson (2005b)	Paper presented at the 8th Annual National Welfare Research and Evaluation Conference, sponsored by the HHS-ACF		Nationally representative sample of 19- to 25-year-olds in 2001 from the National Longitudinal Study of Adolescent Health, Wave 3	Longitudinal survey. Study controlled for gender, age, race, family structure, and religiosity.	Multivariate logistic regression	Risky sexual behavior	Positive

## Studies Reporting No Significant Results

1 <b>My Choice, My Future!</b> <b>ReCapturing the Vision</b> <b>Families United to Prevent Teen Pregnancy</b> <b>Teens in Control</b>	Trenholm <i>et al.</i> (2008)	<i>Journal of Policy Analysis and Management</i>	✓	Two programs targeted upper elementary students, and two targeted middle school students. The four program sites were Powhatan, VA; Miami; Milwaukee; and Clarksdale, MS. Many of the students come from lower socioeconomic backgrounds (Powhatan: N = 448; Miami: N = 480; Milwaukee: N = 414; Clarksdale: N = 715).	Experimental. The final follow-up surveys were conducted 42 to 78 months after program enrollment.	Tests of difference in regression-adjusted means	Abstinence (overall and last 12 months)	NS
							Number of sexual partners	NS
							Contraceptive use (first experience and last 12 months)	NS
							Pregnancy, birth, and STD rates	NS
2 <b>WAIT Training</b>	Rue and Weed (2005)	Paper presented at the 2005 Abstinence Evaluation Conference		The program was delivered to students, mostly 9th graders between the ages of 15 and 17 in four Colorado high schools (N = 318).	Quasi-experimental. Pretest, posttest, and 12-month follow-up conducted. The analysis did not control for baseline differences in characteristics between students in the program and those in the control group—a significant limitation.	Not specified	Initiation of sexual activity	NS

*Continued on next page*

\* See first page of Appendix.

## Studies Reporting No Significant Results (continued)

Abstinence Program	Author(s)	Publication	Peer Reviewed	Program Population	Evaluation Design	Statistical Method	Behavioral Outcome Measured	Findings*
3 California's Postponing Sexual Involvement	Kirby et al. (1997)	<i>Family Planning Perspective</i>	✓	Californian youths averaging 12.8 years old and in the 7th grade. The samples were racially and ethnically diverse (N = 7,340).	Experimental, three levels (classroom, school, and individual youth). Pretest and 17-month follow-up survey were conducted. In the sample based on school-level randomization, the control group was less likely to speak English at home and more likely to be Hispanic, have higher grades, have mothers with less education, have engaged in sexual activity ever, and have had more sexual partners. The study controlled for these differences. Study limitations include a lack of a strict no-treatment comparison group.	T-tests and chi-square tests of differences in changed outcome. Due to the large sample size, only findings at or above the 99 percent confidence level were considered statistically significant.	Initiation of sexual activity, sexual activity in past 3 and 12 months, and number of sexual partners	NS
							Contraceptive use	NS
							Pregnancy rates	Negative
							STD rates	NS
4 Will Power/ Won't Power	Postrado and Nicholson (1992)	<i>Youth and Society</i>	✓	12- to 14-year-old girls who were involved with four Girls Incorporated member organizations (N = 412).	Pretest and one-year follow-up. Study participants who voluntarily enrolled in the program became the "treatment" group. The control group consisted of those who did not enroll. Program and control groups matched on a number of characteristics.	Chi-square tests, logistic regression	Initiation of sexual activity	NS
5 Virginity Pledging	Brückner and Bearman (2005)	<i>Journal of Adolescent Health</i>	✓	Nationally representative sample of 19- to 25-year-olds in 2001 from the National Longitudinal Study of Adolescent Health, Wave 3 (N = 1,788 to 11,471, depending on the STD measure).	Longitudinal survey.	Cross-tabulations, tests of difference in the distribution of frequency (Wald test), and Kaplan-Meier	STD rates	NS
							Initiation of sexual activity and number of sexual partners	Positive
							Risky behaviors	Negative
							Condom use	
First experience	Negative							
Previous 12 months, last episode	NS							

\* See first page of Appendix.