

Five Years of Abstinence-Only-Until-Marriage Education: Assessing the Impact

By Debra Hauser, MPH, Vice President, Advocates for Youth

Introduction

Since 1991, rates of teenage pregnancy and birth have declined significantly in the United States. These are welcome trends. Yet, teens in the United States continue to suffer from the highest birth rate and one of the highest rates of sexually transmitted infections (STIs) in the industrialized world. Debate over the best way to help teens avoid, or reduce, their sexual risk-taking behavior has polarized many youth-serving professionals. On one side are those that support comprehensive sex education—education that promotes abstinence but includes information about contraception and condoms to build young people's knowledge, attitudes and skills for when they do become sexually active. On the other side are those that favor abstinence-only-until-marriage—programs that promote "abstinence from sexual activity outside marriage as the expected standard" of behavior. Proponents of abstinence-only programs believe that providing information about the health benefits of condoms or contraception contradicts their message of abstinence-only and undermines its impact. As such, abstinence-only programs provide no information about contraception beyond failure rates.

In 1996, Congress signed into law the Personal Responsibility & Work Opportunities Reconciliation Act, or "welfare reform." Attached was the provision, later set out in Section 510(b) of Title V of the Social Security Act, appropriating \$250 million dollars over five years for state initiatives promoting sexual abstinence outside of marriage as the only acceptable standard of behavior for young people.

For the first five years of the initiative, every state but California participated in the program.² (California had experimented with its own abstinence-only initiative in the early 1990's. The program was terminated in February 1996, when evaluation results found the program to be ineffective.³) From 1998 to 2003, almost a half a billion dollars in state and federal funds were appropriated to support the Title V initiative. A report, detailing the results from the federally funded evaluation of select Title V programs, was due to be released more than a year ago. Last year, Congress extended "welfare reform" and, with it, the Title V abstinence-only-until-marriage funding without benefit of this, as yet unreleased, report.

As the first five-year funding cycle of Title V came to a close, a few state-funded evaluations became public. Others were completed with little or no fanfare. This document reviews the findings from the 10 evaluations that Advocates for Youth was able to identify. Advocates for Youth also includes evaluation results from California's earlier attempt at a statewide abstinence-only initiative.

Available Evaluations

Ten states made some form of evaluation results available for review. For Arizona, Florida, Iowa, Maryland, Minnesota, Oregon, Pennsylvania, and Washington, Advocates was able to locate evaluation results from state Title V programs. For Missouri and Nebraska, Advocates located evaluation findings from at least one program among those funded through the state's Title V initiative. Finally, the evaluation of California's abstinence-only program was published in a peer-reviewed journal and readily available.

Funding*

During the first five years of abstinence-only-until-marriage Title V programming, the 10 states received about \$45.5 million in federal funds. To further support the initiatives and to cover their required funding match, these states appropriated about \$34 million in additional funds over the five years. In addition, California spent \$15 million in state funds between 1991 and 1994 to support its abstinence-only initiative. In sum, the program efforts discussed in this paper cost an estimated \$94.5 million in federal and state dollars.

*In federal fiscal year 2003, the 10 states discussed here with evaluations of Title V programs received \$8,810,281 in federal funds. Under the law, states are required to provide matching funds of three state-raised dollars for every four federal dollars received. Thus in 2003, the 10 states supplied \$7,268,060 in state dollars, bringing the total of public monies to Title V funded abstinence-only-until-marriage programs to \$16,078,341.

Program Components

For the most part, Title V funds were administered through states' departments of health and then sub-granted to abstinence-only contractors within each state. Program components varied from state to state and from contractor to contractor within each state. However, all programs discussed in this document included an abstinence-only curriculum, delivered to young people in schools or through community-based agencies. Popular curricula included: *Education Now Babies Later* (ENABL), *Why Am I Tempted?* (*WAIT*), *Family Accountability Communicating Teen Sexuality* (*FACTS*), *Choosing the Best Life, Managing Pressures before Marriage*, and AC Green's *Game Plan*, among others. Some programs included peer education, health fairs, parent outreach, and/or *Baby Think it Over* simulators. Some states supplemented their educational programs with media campaigns, also funded through Title V.

Evaluation Designs

The 11 evaluations summarized in this document represent those Advocates for Youth could uncover through extensive research. The quality of the evaluation designs varied greatly. Most evaluations employed a simple pretest/posttest survey design. Slightly fewer than half (five) assessed the significance of changes from pre- to posttest, using a comparison group. Additionally, seven evaluations included some form of follow-up to assess the program's impact over time, although results are not yet available for two. Three of these seven also included a comparison group. For those programs that included follow-up, surveys were administered at three to 17 months after students completed their abstinence-only-until-marriage program.

Evaluation results are summarized in Table I (page 5), which also includes studies' design elements. Because the quality of the evaluation designs varied from state to state, Advocates relied heavily on the evaluators' own analyses and words to describe each program's impact.

Summary of Results

Evaluation of these 11 programs showed few short-term benefits and no lasting, positive impact. A few programs showed mild success at improving attitudes and intentions to abstain. No program was able to demonstrate a postive impact on sexual behavior over time. A description follows of short- and long-term impacts, by indicator.

Short-Term Impacts of State Abstinence-Only Programs

In 10 programs, evaluation measured the short-term impact of the program on at least one indicator, including attitudes favoring abstinence, intentions to abstain, and/or sexual behavior. Overall, programs were most successful at improving participants' attitudes towards abstinence and were least likely to positively affect participants' sexual behaviors.

Attitudes endorsing abstinence—10 evaluations tested for short-term changes in attitudes.

- Three of 10 programs had no significant impact on attitudes (Maryland, Missouri, and Nebraska);
- Four of 10 showed increases in attitudes favorable to abstinence (Arizona, Florida, Oregon, and Washington);
- Three of 10 showed mixed results (California, Iowa, and Pennsylvania).*

Intentions to Abstain—Nine evaluations measured short-term changes in intentions.

- Four of nine programs showed no significant impact on participants' intentions to abstain (California, Maryland, Nebraska, and Oregon);
- Three of nine programs showed a favorable impact on intentions to abstain (Arizona, Florida, and Washington);
- Two of nine programs showed mixed results (Iowa and Pennsylvania).*

Sexual Behaviors—Six evaluations measured short-term changes in sexual behavior.

- Three of six programs had no impact on sexual behavior (California, Maryland, and Missouri).
- Two of six programs reported increases in sexual behavior from pre- to posttest (Florida and Iowa). It was unclear whether the increases were due to youth's maturation or to a program's effect, as none of these evaluations included a comparison group.
- One of the six programs showed mixed results (Pennsylvania).*

^{*}Mixed results indicated that attitudes changed in both desired and undesired directions, either by survey questions within one initiative, or by individual programs within an initiative.

Long-Term Impacts of State Abstinence-Only Programs

Seven evaluations included some form of follow-up survey to assess the impact of the abstinence-only programs over time. Results from two of these are not yet available (Nebraska and Oregon). Of the remaining five, three were of statewide initiatives (Arizona, California, and Minnesota). Two were evaluations of programs within statewide initiatives (Missouri's *Life Walk* Program and Pennsylvania's LaSalle Program). All five evaluations included questions to assess changes in participants' attitudes and behaviors between pretest/posttest and follow-up. Four also measured changes in intentions to abstain. Three evaluations included a comparison group.

Attitudes Endorsing Abstinence—Five evaluations included assessment of changes in attitudes.

Four of five evaluations showed no long-term positive impact on participants' attitudes. That is, participants' attitudes towards abstinence either declined at follow-up or there was no evidence that participating in the abstinence-only program improved teens' attitudes about abstinence relative to the comparison groups, at three to 17 months after taking the abstinence-only program (Arizona, California, Missouri, and Pennsylvania's LaSalle Program).

Follow-up surveys in Minnesota showed mixed results.

Intentions to Abstain—Four evaluations measured long-term intentions to abstain.

Three of four evaluations showed no long-term positive impact on participants' intentions to abstain from sexual intercourse. That is, participants' intentions either declined significantly at follow-up or there was no statistically significant difference in participants' attitudes relative to controls at follow-up (Arizona, California, and Minnesota).

In one of the four (Pennsylvania's LaSalle Program), evaluation showed a positive impact at follow-up on program participants' intentions to abstain relative to comparison youth.

Sexual Behavior—Five programs measured long-term impacts on sexual behavior.

No evaluation demonstrated any impact on reducing teens' sexual behavior at follow-up, three to 17 months after the program ended (Arizona, California, Minnesota, Missouri, or Pennsylvania's LaSalle Program).

Comparisons of Abstinence-Only-Until-Marriage versus Comprehensive Sex Education

Two evaluations—Iowa's and the Pennsylvania Fulton County program—compared the impact of comprehensive sex education with that of abstinence-only-until-marriage programs.

- In Iowa, abstinence-only students were slightly more likely than comprehensive sex education participants to feel strongly about wanting to postpone sex, but less likely to feel that their goals should *not* include teen pregnancy. There was little to no difference between the abstinence-only students and those in the comprehensive sex education program in understanding of why they should wait to have sex. Evaluation did not include comparison of data on the sexual behavior of participants in the two types of programs.
- In Fulton County, Pennsylvania, results found few to no differences between the abstinence-only and comprehensive approaches in attitudes towards sexual behavior. Evaluators found that, regardless of which program was implemented in the seventh and eighth grades, sexual attitudes, intentions, and behaviors were similar by the end of the 10th grade.

Discussion

These evaluation results—from the first five-year cycle of funding for abstinence-only-until-marriage under Section 510(b) of Title V of the Social Security Act—reflect the results of other studies. In a 1994 review⁵ of sex education programs, Kirby *et al* assessed all the studies available at the time of school-based, abstinence-only programs that had received peer review and that measured attitudes, intentions, *and* behavior. Kirby *et al* found that none of the three abstinence-only programs was effective in producing a statistically significant impact on sexual behaviors in program participants relative to comparisons. In a 1997 report for the National Campaign to Prevent Teen Pregnancy, Doug Kirby reviewed evaluations from six abstinence-only programs⁶, again finding no program that produced a statistically significant change in sexual behavior. This was again confirmed in 2000⁷, when another review by Kirby found no abstinence-only program that produced statistically significant changes in sexual behaviors among program youth relative to comparisons. This failure of abstinence-only programs to produce behavior change was among the central concerns expressed by some authors of the evaluations included in this document. [For examples of authors' remarks on behavior change, see quotations under Arizona, Florida, Missouri, and Pennsylvania in the state-by-state analyses that follow.] It is important to note that a great deal of research contradicts the belief that changes in knowledge and attitudes alone will necessarily result in behavior change.⁸

A few evaluators also noted the failure of abstinence-only programs to address the needs of sexually active youth. Survey data from many of the programs indicated that sexually experienced teens were enrolled in most of the abstinence-only programs studied. For example:

- In Erie County, Pennsylvania, researchers found that 42 percent of the female participants were sexually active by the second year of the program.
- In Clinton County, Pennsylvania, data collected from program participants in the seventh, eighth, and ninth grades showed a dramatic increase in the proportion of program females who experienced first sexual intercourse over time (six, nine, and 30 percent, respectively, by grade).
- In Minnesota, 12 percent of the eighth grade program participants were sexually active at posttest.
- In Arizona, 19 percent of program participants were sexually active at follow-up. Concurrently, Arizona's evaluators found that youth's intent to pursue abstinence declined significantly at follow-up, *regardless of whether the student took another abstinence-only class*. Eighty percent of teens reported that they were likely to become sexually active by the time they were 20 years old.

Abstinence-only programs provide these youth with no information, other than abstinence, regarding how to protect themselves from pregnancy, HIV, and other STIs.

A third, related concern of evaluators was abstinence-only programs' failure to provide positive information about contraception and condoms. Evaluators noted more than once that programs' emphasis on the failure rates of contraception, including condoms, left youth ambivalent, at best, about using them.

- In Clinton County, Pennsylvania, researchers noted that, of those participants that reported experiencing first sexual intercourse during ninth grade, *only* about half used any form of contraception.
- Arizona's evaluation team found that program participants' attitudes about birth control became less favorable from pre- to posttest. They noted that this was probably a result of the "program's focus on the failure rates of contraceptives as opposed to their availability, use and access."

Table I follows on the next page. It includes information about the evaluation design, short-term impacts, and long-term impacts of the 11 programs summarized in this document. After Table I, individual state-by-state summaries follow, ordered alphabetically by state.

Conclusion

Abstinence-only programs show little evidence of sustained (long-term) impact on attitudes and intentions. Worse, they show some negative impacts on youth's willingness to use contraception, including condoms, to prevent negative sexual health outcomes related to sexual intercourse. Importantly, only in one state did any program demonstrate short-term success in delaying the initiation of sex; *none* of these programs demonstrates evidence of long-term success in delaying sexual initiation among youth exposed to the programs or any evidence of success in reducing other sexual risk-taking behaviors among participants.

Table I. Short and Long Term Impact of State Abstinence-Only Programs

-	Evalu	Evaluation Design		Short-Term Impact	npact		Long-Term Impact	Impact	
	Pretest-	Follow-	Comparison	Attitudes	Intent	Sexual	Attitudes	Intent	Sexual
State	Posttest?	dn	Group?	Towards	To	Behavior	Towards	To	Behavior
	DO2x	Survey?	Ç	Abstinence	Abstain	*	Abstinence	Abstain	000000000000000000000000000000000000000
7	S S	51.01.5	IIO	IIICI cased	IIICIcased		uecieaseu	uccicased	IIICI cascu
CA	pre- only	at 3 and	yes	mixed	no impact	no impact	no impact	no impact	no impact
FI.	yes	no no	no	increased	increased	increased	*	*	*
IA^2	yes	no	no	mixed	mixed	increased	*	*	*
MD	yes	unclear ³	unclear ³	no impact	no impact	no impact	*	*	*
MN ⁴	yes	at 1 year	no	*	*	*	mixed	decreased	increased
МО	yes	at 4 months	yes	no impact	*	no impact	no impact	*	no impact
NE _°	yes	not yet available	yes	no impact	no impact	*	not yet available	not yet available	not yet available
OR	yes	not yet available	no	increased	no impact	*	not yet available	not yet available	not yet available
PA	varied	only one program	varied	mixed	mixed	mixed	no impact ⁷	$increased^7$	no impact ⁷
WA	yes	, ou	yes	increased	increased	*	*	*	*
indicates	that the existing	chidy did not ren	* indicates that the explication etildy did not remort on this indicator						

* indicates that the evaluation study did not report on this indicator.

1. Evaluation results are with teens only.

Results in this chart reflect the pretest/posttest survey with abstinence-only programs. (A comparative analysis of Iowa's
abstinence-only program with the state's comprehensive sex education program is discussed on p. 10.)
 Advocates was unable to secure the report from the Maryland evaluation and so was unable to assess the study's design.

4. Evaluation results are from follow-up surveys.

5. Results are from the second evaluation (using follow-up and comparison group) of Life's Walk program.
6. Results are from the evaluations of FACTS and WAIT programs in Nebraska.
7. Results are from the long-term evaluation of the La Salle University program.

STATE: ARIZONA

Name of Program: Arizona Abstinence-Only Education Program

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (entitlement for abstinence-only-until-marriage programs established under "Welfare Reform" in 1996)

Funds Allocated: In federal fiscal year (FY) 2003, Arizona received \$1,056,905 in federal Title V funding. Arizona allocated \$893,000 of its state funds to the initiative in FY 2003, bringing the total allocation to the program to \$1,949,905.² Between 1998 and 2003, Arizona appropriated \$12 million in state funds (from the Arizona Department of Economic Security Welfare Reform Block Grant) to support its abstinence-only-until-marriage program.⁹ [p.1-5]

Program Reach/Program Components: By 2001, 17 contractors had funding for 18 local program sites in 12 Arizona counties. In 2002, the program was offered in 168 schools, nine after-school programs, and 10 community, three probation, and 43 detention and residential centers. In total, the Arizona program served over 123,000 people—mostly preteens and teens—during the five years studied in the evaluation.

Program components varied by site, but over the five years, 14 different curricula were used, including *Sex Can Wait, Managing Pressures before Marriage, Choosing the Best Path, Choosing the Best Life*, AC Green's *Game Plan*, AC Green's *I've Got the Power, Choosing the Best Way, WAIT Training, Passion and Principles Abstinence-Only Program, FACTS, Healthy Relationships*, and *Girl Talk/Guy Talk*, as well as blends of some of these curricula. Arizona also implemented a statewide media campaign.⁹

Target Population: Children in grades four through 12 and also adults; this document focuses only on results with school-based, after school, and community-based programs serving teens and preteens; the chart on page 5 reflects findings only with teens.

Timing of Program/Evaluation: The program was conducted from 1998 to 2003, and final evaluation results were published in June 2003.

Evaluation Design: Pre- and posttest surveys of program participants; two pretest surveys, administered to a delayed treatment group in year four; one-time follow-up survey of 737 select, year four participants, three to 13 months after their program participation; and supplemental data from the national Youth Risk Behavior Survey. Follow-up participants were ages 13 to 18 (average age 15.1).

Findings: Posttest surveys, administered immediately after the intervention, showed statistically significant positive changes in all 10 short-term outcomes for teens, including health reasons to abstain, value reasons to abstain, attitudes about abstinence and premarital sex, norms about teen sexuality, intent to pursue abstinence, refusal skills, social information seeking, personal values exploration, and decision making abilities. Preteens' intentions to abstain were generally favorable at both pre- and posttest. **Teens' attitudes toward birth control became more negative from pre- to posttest.**⁹

Follow-up found statistically significant declines in teens' attitudes favoring abstinence, norms about teen sexuality, and social information seeking. Results showed that scores on intent to pursue abstinence declined significantly among participants, regardless of subsequent abstinence-only classes.⁹

Among abstinent youth at follow-up, the proportions reporting they were likely to become sexually active by a given time included:

- 47 percent within the next year;
- 55 percent before high school graduation;
- 57 percent before being in a serious relationship;
- 66 percent before marriage; and
- 80 percent by the age 20.9

The proportion of participants who had sex increased between posttest (14 percent) and follow-up (19 percent).9

Quotes from Authors of the Evaluation Study:

- Research literature suggests abstinence-only education works best for youth who have not engaged in sexual intercourse rather than as a remedial program for those who have become sexually active. [p. 4-3]
- No significant change occurred over the years in the proportion of program participants reporting sexual experience at entry to the program. [p. 2]
- Among those who had sex since the program, their post-program intentions to pursue abstinence were brought in line with their post-program behavior; they indicated little to no intention of remaining abstinent. [p. 4-12]
- The direction of change on attitudes toward birth control was toward a less favorable view at posttest. This might be explained by the program's focus on the failure rates of contraceptives as opposed to their availability, use and access. [p. 4-8]

STATE: CALIFORNIA*

Name of Program: Education Now And Babies Later (ENABL) Initiative

Funding Source: California state legislature

Funds Allocated: The California state legislature appropriated \$15 million for ENABL's first three-year funding cycle.³

Program Reach/Program Components: California's Office of Family Planning administered California ENABL, including 28 projects managed by numerous local organizations. Collectively, the program delivered the curriculum to 187,000 youth in schools and community settings in 31 California counties. At the time, it was the largest statewide pregnancy prevention effort ever initiated.¹⁰

ENABL used the *Postponing Sexual Involvement* (PSI) curriculum (without a contraceptive component). The curriculum focused on the risks of early sexual involvement and was delivered in five sessions, each 45 to 60 minutes in length. The intervention included class discussion, group activities, a video (in some settings), and some role-playing. Other ENABL components included referral for health and social services, school- and community-wide activities, and a statewide media campaign. ¹⁰

Target Population: Middle or junior high school, 7th and 8th graders

Timing of Program/Evaluation: Officially launched in June 1992, ENABL was terminated in February 1996, because evaluation showed the program to be ineffective. Data collection and analysis occurred from 1992 through 1994.³

Evaluation Design: Pretest survey and follow-up surveys three and 17 months after the program; participants included 10,600 youth who received parental permission to participate and who were randomly assigned to intervention or control groups in schools and community-based organizations statewide; 7,340 students completed baseline and 17-month follow-up survey; 3,834 of these also completed the three-month follow-up. The control group received instruction in another topic (not sexual health related).¹⁰

Findings: Short-term (at three-month follow-up): The intervention had no impact on seven beliefs and attitudes, on four measures of intentions to have sex, or on five measures of sexual behavior. The intervention had a small, positive impact among some groups on several attitudes related to sexual decision making, on perceptions about the media's presentation of sexual images, and on feelings of self-efficacy and intentions to refuse sex. "**These attitudinal shifts did not translate into positive behavioral changes.**" [p. 106-7]

Long-term: At 17 months, the intervention has no significant and positive effect upon any mediating variable [attitudes and intentions], upon sexual or contraceptive outcomes, or upon pregnancy or STD rates." [p. 106-7]

"Youth in treatment and control groups were equally likely to have become sexually active, and youth in treatment groups were not less likely than youths in control groups to report a pregnancy or sexually transmitted infection." [p. 100]

- Overall we feel it is unlikely that the interventions produced programmatically important effects that were not detected. In the context of a strong design and methodology, we examined many subgroups of youth and searched at length for significant, positive and consistent behavioral effects. We found insufficient change in the mediating variables to suggest that there could be significant change in behavioral outcomes. ¹⁰ [p.107]
- Finally, behavioral results frequently were not in the desired direction, were not programmatically significant and were not close to statistical significance. [p.107]
- In Atlanta, PSI was implemented in addition to a five-session reproductive health unit that included basic human sexuality, decision making and contraception, and the [original] evaluation actually measured the impact of both PSI and this five-session reproductive health unit. 10 [p. 108]

^{*}This program is the only one included in this document that was not implemented with funds from Section 510(b) of Title V of the Social Security Act ("Welfare Reform"). Advocates for Youth included California ENABL in this document, however, as it was the first evaluation to analyze the impact of a statewide abstinence-only program.

STATE: FLORIDA

Name of Program: Florida Abstinence-Only Program

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (entitlement for abstinence-only-until-marriage programs established under "Welfare Reform" in 1996)

Funds Allocated: Florida received \$2.2 million in federal Title V funding for federal fiscal year 2003. The state did not match this grant, requiring sub-grantees to provide matching funds. Still, Florida allocated a separate \$3.5 million in state funds to support abstinence-only-until-marriage programs in FY 2003, bringing the total allocation of public funds to \$5.7 million.²

Program Reach/Program Components: Florida's abstinence-only-until-marriage program, funded through Title V and state funds, includes efforts of 22 sub-grantees across the state. Program components vary by site but all rely on abstinence-only curricula, such as *Managing Pressures Before Marriage, ENABL, WAIT Training, Sex Can Wait, Choosing the Best Life, FACTS, Go APE, Reasonable Reasons to Wait, ABS Works, SHARE, Capturing the Vision, Vessels of Honor, Smart Moves, Responsible Social Values, AC Green's The Game Plan, or Teen Outreach Program.*¹¹

Target Population: Varies by provider, but ages range from seven to 25; the behavior survey was conducted with youth ages 11 to 15.

Timing of Program/Evaluation: Spring 2003

Evaluation Design: Florida State University's School of Social Work conducted the Florida Abstinence Evaluation study. The study includes participant surveys measuring changes in attitudes from pre- to posttest and one behavioral survey of a small number of students. Responses on pre- and posttest attitudes surveys were collected using: a) an 11-item survey instrument in January 2002 (students n=17,776; ages seven to 19; mean age 13.7); July 2002 (n=6,461; ages seven to 20; mean age 13); January 2003 (n=13,044; ages 10 to 19; average age 13); and undated (n=12,117; ages eight to 22; average age 13.1); or b) a 27-item survey in July 2002 (n=1,634; ages 13 to 20; average age 15.5) and January 2003 (n=4,281; ages 10 to 25; average age 15). In all these attitude surveys, mean scores were compared from pre- to posttest. A behavior survey was conducted between February and May 2003 (n=53 students; ages 11 to 15; average age 13). No comparison group was used for any survey.¹¹

Findings: Attitudinal Survey. Comparisons of mean scores between pre- and posttest surveys show slight changes in a desired direction. Evaluators did not perform analysis to determine the statistical significance of any change. Since the amount of change in attitudes on many of these items is so small, success cannot be claimed in these areas. For example, from the 11-item survey analysis of July 2002, the statement "I plan to wait until marriage to have sex" changed in the desired direction (-0.3716 from 2.35 to 1.98, where 2 indicates "somewhat believe"); the same statement on the 2003 11-item survey changed in a desired direction (-0.3527 from 2.38 to 2.03, where 2 indicates "agree"). Other examples from the July 2002, 11-item survey included:

- "I believe having sex as a young person could mess up my future" (shifted -0.3162 from 1.88 to 1.57, with 1 indicating "strongly believe");¹¹
- "Sex at any age is a natural part of life" (shifting 0.2158 from 3.28 to 3.50 with 4 indicating "somewhat do not believe" and 3 indicating "unsure");¹¹
- "I can refuse to have sex with someone" (yielding only a -0.1307 change from 1.48 to 1.35 with 1 indicating "strongly believe")¹¹;
- "There are many different ways to show that you care about a boyfriend or girlfriend without sex" (yielding only a -0.1141 change from 1.44 to 1.33 with 1 indicating "strongly believe")¹¹; and
- "Having a baby (or fathering a baby) at my age can mess up my chances of being able to do things in the future, like going to the prom, school activities, or college like other teens" (yielding only a -0.0652 change in mean response from 1.37 to 1.30). 11

Although most of these examples are drawn from only one survey, the other attitude surveys found similar, small changes, usually in the desired direction.

Behavioral Survey: Although results reflected little change from pre- to posttest, a majority of those surveyed (n=53) agreed with the statement "I plan to wait until marriage to have sex" and disagreed that "its okay for teens to have sex." A review of the remaining attitudinal items revealed somewhat ambiguous attitudes regarding premarital abstinence. At the same time, participants reported increases in seven sexual behaviors from pre- to posttest, including an increase in the number reporting that they had sex.¹²

STATE: IOWA

Name of Program: Abstinence Education Program, Iowa Department of Public Health

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (entitlement for abstinence-only-until-marriage programs established under "Welfare Reform" in 1996). 1

Funds Allocated: In federal fiscal year 2003, the Iowa Department of Public Health received \$424,908 in federal Title V funds. In prior years, the state provided its three-to-four match for the Title V funds; but because of budget shortfalls, it was unable to do so in FY 2003. Instead, sub-grantees provided one-to-one matching funds for federal monies.²

Program Reach/Program Components: Community and educational programs were delivered through several contractors. The Empower project involved community programs in Atlantic, Clarinda, Eagle Grove, Knoxville, and Pleasantville and an educational program in Pella. The Linn Country project involved a community program throughout the county and an educational program at the College Community Middle School. The Bethany project involved three types of educational programs in several schools. Finally, the I-35 project involved a middle school program for students. Program components varied by site but all included an abstinence-only curriculum, such as *Game Plan*, *Empower*, *Choosing the Best*, *Creating Positive Relationships*, or *Managing Pressures*. ¹³

Target Population: Populations targeted varied by program site, with the largest range including youth 10 to 17 years of age.

Timing of Program/Evaluation: Year five of the initiative; 2002-2003 academic year

Evaluation Design: Pre- and posttest surveys of abstinence-only participants' attitudes and behaviors at several sites and posttest only at one site; 1,438 students participated in the year five assessment. For *this* pretest/posttest assessment, lower mean scores indicated more positive attitudes.

A separate analysis used posttest surveys from 1,928 participants and from 4,954 comprehensive sex education students (comparison group). Abstinence-only and APP/comprehensive program surveys included 19 shared questions—which were used as the basis of comparison. For *this* assessment, higher mean scores indicated more positive attitudes about abstinence as well as increased knowledge and understanding.

Findings: Abstinence-only (pre- and posttest): Of the five programs evaluated, one showed no statistically significant effect on seven of nine measures of attitudes favorable to abstinence. One showed statistically significant positive effects on five of nine attitude measures; two, on seven of nine attitude measures; and one, on eight of nine attitude measures. Regarding intent to abstain, one program showed decreased intent from pre- to posttest; one program had mixed results; and three showed a desired impact on intent to abstain. At the same time, the number of participants reporting ever having had sex increased from pre- to posttest in four of the five programs.¹³

Abstinence-only versus comprehensive sex education (posttest): Abstinence-only students were slightly more likely than comprehensive program students to feel strongly about wanting to postpone sex (mean scores, 1.58 versus 1.53, respectively) and were more likely to feel comfortable saying no to sex (1.62 versus 1.58, respectively). **There was little to no difference between the two groups in their understanding of why they should wait for sex (1.61 versus 1.60, respectively).**¹³

At the same time, abstinence-only students were less clear than comprehensive students about the meaning of "No means No" (1.47 versus 1.60, respectively), less clear about their attitudes towards pregnancy (1.32 versus 1.51), and less likely to feel their goals shouldn't include teen pregnancy (1.51 versus 1.68). Abstinence-only students were also less likely to know about body changes during puberty (1.23 versus 1.59), less likely to be comfortable asking questions about sex (0.97 versus 1.10, respectively), and less likely to know the costs of unwanted pregnancy (1.34 versus 1.70).¹³

- An examination of these comparisons shows that where mean responses from youth in abstinence-only programs were higher than the mean responses of students in the APP [comprehensive] programs, these differences were small, (ranging from .02 to .10). Where mean scores for those in abstinence-only programs were lower than those in APP programs, those differences were somewhat greater (ranging from .12 to .36). These comparisons suggest that abstinence-only programs appear to provide more information about 'why' young people should wait to have sex, but APP [comprehensive] program participants are more clear about their attitudes towards sex. 13 [p. 79-80]
- APP [comprehensive] programs also had higher scores among youth who understood how their decisions about sex could change their futures and felt their goals should not include teen pregnancy. [p. 80]

STATE: MARYLAND

Name of Program: Maryland Abstinence Education and Coordination Program (MAECP)

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (entitlement for abstinence-only-until-marriage programs established under "Welfare Reform" in 1996)

Funds Allocated: In federal fiscal year 2003, Maryland received \$535,712 in federal Title V funding. Maryland provided an additional \$320,000 in state funds for the abstinence-only initiative, bringing the total allocation of public funds to \$855,712 for the fiscal year. An additional \$81,784 was secured from private sources to help meet Maryland's state matching requirement.²

Program Reach/Program Components: MAECP is administered by the Center for Maternal and Child Health. The program focuses on youth between ages nine and 18, living in areas of the state that have adolescent pregnancy rates higher than the statewide average. The program's components include a media campaign, after school programs, and an annual conference. The private funds, secured to help the state meet its matching funds requirement, support the *Best Friends* program, implemented in Baltimore City schools.² Approximately 800 students participated in the state's after school programs.¹⁴

Target Population: Youth nine through 18 years of age

Timing of Program/Evaluation: 1998 to 2002 (first four years)

Evaluation Design: Evaluation focused on four years of cumulative data from pilot programs implemented during the first four years of Maryland's abstinence-only initiative. About 400 students completed a pre- and posttest survey.*

Findings: Preliminary findings for pre- and posttest scores on overall knowledge, attitudes, and practices showed no significant change. There was a slight, but not statistically significant, increase in the percentage of students who indicated that they could stick to a decision not to have sex. There was a three percent increase in the number of students who indicated they definitely would remain abstinent for the remainder of the year. The proportion of students who indicated that they would probably remain abstinent until they completed high school or got married declined. The proportion of students reporting abstinent behavior in the year prior to the survey declined from pretest to posttest (80 to 70 percent).¹⁴

Quote from Authors of the Evaluation Study:

The State of Maryland did not release the final report, so we were not able to publish anything related to it. 15

^{*} Note: Advocates attempted numerous times, without success, to contact the administrators of the Maryland Abstinence Education and Coordination Program (MAECP) to obtain the full evaluation study. The first author of the evaluation replied to a query about the full report as quoted above. Thus, Advocates was unable to study the full evaluation, its design, or the data it yielded. The results presented here are from the abstract of a presentation at the 130th Annual Meeting of the American Public Health Association.

STATE: MINNESOTA

Name of Program: Minnesota Education Now and Babies Later (ENABL)

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (the state entitlement for abstinence-only-until-marriage programs established under "Welfare Reform" in 1996)

Funding Allocated: In 1996, the Minnesota legislature authorized and funded the Minnesota Department of Health to administer Minnesota Education Now and Babies Later (MN ENABL). Two years later, the state's Department of Health received federal abstinence-only funds through Section 510(b) of Title V and set up the Minnesota Abstinence Education Community Grant Program, based on MN ENABL. In 2003, the programs were merged and called MN ENABL. ¹⁶

In federal fiscal year 2003, the federal government allocated \$613,756 in Title V abstinence-only-until-marriage funds to Minnesota. The state allocated an additional \$460,317 in state funds to support the initiative, bringing the total allocation to the program in federal fiscal year 2003 to \$1,074,073.² From 1996 (when the initiative began) through 2002, over five million dollars from state and federal sources was allocated to the program.¹⁶

Program Reach/Program Components: Since the program's inception, 117 grants were awarded for programs reaching 45,500 junior high students. ¹⁶

The goal of MN ENABL was to reduce adolescent pregnancy by decreasing the number of adolescents who engage in sexual activity and by promoting abstinence-until marriage. The program was based on the curriculum *Postponing Sexual Involvement* (without the contraceptive information included in the original program) and included: the curriculum promoting abstinence-only; community organizing activities, including community forums to promote abstinence and youth development, informal presentations, and networking; and statewide and local media campaigns.¹⁶

Target Population: Middle school youth in grades seven and eight (ages under 14)

Timing of Program/Evaluation: 1998 to 2002

Evaluation Design: Pre- and post-intervention surveys with follow-up one year later; survey data from five school sites among students who had attended ENABL (n=468) and who also completed the follow-up survey one year later (n=316). Generalized comparisons were drawn using data from the 2001 MN Student Survey (a youth risk behavior survey).¹⁶

Findings: The program increased the reported frequency of communication and helped youth feel more comfortable talking with their parents about sex. "There was little impact of the curriculum on youth's attitudes, sexual intentions, and behaviors after one year." Specifically, the percentage of students who endorsed three of four refusal skills declined significantly in the year following the curriculum. The percentage of students who endorsed reasons to postpone sex also declined significantly. Significant increases in sexual intentions and behaviors occurred.¹⁶

- There is concern about the ability of the initiative to reach students and families of color. The profile of the core group members over the years was predominately female (85%) and White (89%). ¹⁶ [p. 10]
- It is noteworthy that Minnesota has among the lowest rates of Caucasian teen pregnancy in the nation, but the highest rates for African American, American Indian and Hispanic populations. ¹⁶ [p.10]
- The weaknesses that surfaced in the evaluation results reported here were not due to treatment implementation failure, but to the constraints of the treatment itself. [p. 10]
- Based on the findings it appears that a comprehensive approach provides the most promising prevention of teen pregnancies and STDs. ¹⁶ [p. 10]

STATE: MISSOURI

Name of Program: Life's Walk*

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (the state entitlement for abstinence-only-until-marriage programs established under "Welfare Reform" in 1996)

Funding Allocated: Missouri received \$713,665 in Title V abstinence-only federal funding in FY 2003. Missouri sub-grantees makeup the state's match (three state dollars for every four federal dollars) required by federal law. Life's Walk is funded under this program; Advocates for Youth was unable to ascertain the exact amount of Title V funds allocated to the Life's Walk Program.

Program Reach/Program Components: *Life's Walk* is administered in public schools in six rural counties of northwest Missouri. Goals are to improve adolescent-parent communication about sex, increase factual knowledge about sex, increase students' understanding of the realities of teen parenthood, and foster the belief that abstinence is the best way to avoid the negative consequences of early sexual activity.¹⁷

Each program implements an abstinence-only curriculum, including *Choices I*, taught in eighth grade, and *Choices II*, taught in 10th grade. Classes last approximately three weeks and include lectures, videos, topics for research and discussion, role-playing and experience with the Baby Think It Over infant simulators.¹⁷

Target Population: 8th graders and 10th graders

Timing of Program/Evaluation: 1999-2000 academic year

Evaluation Design: Two evaluations were conducted. The first was a pre- and posttest design, with 191 eighth graders and 80 tenth graders (total n=271) from 17 schools. The second evaluation was a quasi-experimental design, with 56 eighth grade students receiving the intervention and 30 eighth grade students serving as wait-list comparisons (total n=86). Students were assigned ("mostly" at random) to take Health Class (*Life's Walk*) in the fall or to receive Health in the spring (comparison group). Assessment occurred four months after the experimental group took the class and one day prior to the comparison group's beginning the course.¹⁷

Findings: Pre- and Posttest Design/First Evaluation: There was no overall change in student attitudes, although the evaluation found two changes that had marginal statistical significance: eighth grade girls became somewhat less abstinence-oriented and 10th grade boys somewhat more abstinence-oriented. There were gains in knowledge. There was a statistically significant increase in sexual behavior from pre- to posttest; the increase occurred for both genders, but was larger for males than for females.¹⁷

Quasi experimental Design: The experimental group scored higher than the comparison group on the knowledge scales. There were no statistically significant effects of the intervention on participants' communication or attitudes. There were no statistically significant differences between the experimental and comparison group with respect to reported sexual behavior.¹⁷

- At this point... it seems clear that the abstinence-only philosophy and the Baby Think it over technique may have popular support, but lack evidence of effectiveness. [p. 6]
- These results confirmed previous research that found no evidence that abstinence-only programs change adolescent sexual behavior. [p. 267]

^{*} Life's Walk is a part of the Missouri Abstinence-Only Program, administered by the Missouri Department of Health. There are 13 sub-grantees, using a variety of curricula. Advocates for Youth found published evaluation results only for the Life's Walk program.

STATE: NEBRASKA

Name of Programs: Family Accountability Communicating Teen Sexuality (FACTS) and/or Why Am I Tempted? (WAIT)*

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (entitlement for abstinence-only-until-marriage programs established under "Welfare Reform")

Funding Allocated: In federal fiscal year 2003, Nebraska received \$246,177 in federal Title V funding for abstinence-only-until-marriage programs. The state provided an additional \$184,633 to support the full abstinence-only initiative, bringing the total public funds allocated to \$430,810.² Advocates for Youth was unable to ascertain the amount of federal and state funds allocated to Nebraska's WAIT and FACTS programs.

Program Reach/Program Components: Nebraska's abstinence-only program is comprised of a media campaign and programs administered by sub-grantees, using a variety of abstinence-only-until-marriage curricula. *FACTS* and *WAIT* are two of the abstinence-only curricula used with seventh and eighth graders. *FACTS* is a "values and character-based educational program that teaches about premarital abstinence as a health issue and human development goal." Its goal is to increase teens' knowledge and parent-teen communication regarding sexuality, including emotional aspects, consequences, managing relationships and dating experiences, making decisions, and planning the future. The program includes youth as role models. *WAIT* focuses on "love education rather than sex education." Its goal is to teach respect for self and others, build assertiveness, and help students analyze the difference between needs and desires. Each curriculum is supplemented with *Unmasking Sexual Con Games*, a curriculum that "teaches youth about 'groomers' who manipulate the emotions of the 'victim' to gain control."

Target Population: 7th and 8th graders

Timing of Program/Evaluation: 1998 through 2001

Evaluation Design: This evaluation was part of a larger, ongoing, longitudinal, quasi-experimental evaluation study designed to measure the impact of the abstinence-only curricula on seventh and eighth graders enrolled in two schools that use *WAIT* or *FACTS*. The current evaluation reported on short-term outcomes, comparing treatment youth with seventh and eighth graders from three schools without abstinence-only curricula or funding. Students in the comparison group received only their regular health and sexuality curricula.¹⁹

Pre- and posttest surveys were administered in treatment and comparison communities. The posttest was conducted four months after the pretest (immediately after the conclusion of the abstinence-only program). Mean scores were compared for treatment (n=87 at pretest; n=85 at posttest) and comparison (n=45 at pretest; n=40 at posttest) groups. McNemar's statistical tests were used to determine changes in responses due to the intervention.¹⁹

Findings: Evaluation revealed no statistically significant change for the treatment group from pre- to posttest on attitudes about premarital sex or on intentions to engage in premarital sexual activity. For example, statistical analysis of responses from treatment group participants on the statement "It is okay for people my age to have sexual intercourse" revealed no significant change from pre-to posttest. For the question "Do you think that you will have sexual intercourse while you are an unmarried teenager?" pretest/posttest analysis of treatment group responses again revealed no statistically significant change. Both treatment and comparison group subjects expressed favorable attitudes towards abstinence at pre- and at posttest, although treatment group expressed somewhat more favorable attitudes on one item (commitment to abstinence until marriage). Attitudes favorable to abstinence could not be attributed to the intervention.¹⁹

Significant Quote from Authors of the Evaluation Study:

• Abstinence-only education did not significantly change young adolescents' (7th and 8th grades) values and attitudes about premarital sexual activity, nor did it significantly change their intentions whether or not to engage in premarital sexual activity.

19 [p. 12]

^{*} FACTS and WAIT are two of the curricula used by sub-grantees of Nebraska's abstinence-only program, administered by the Nebraska Department of Health and Human Services. Nebraska's program includes a media campaign and programs implemented by six sub-grantees, using a variety of curricula. Advocates for Youth found published evaluation results only for Nebraska's WAIT and FACTS programs.

STATE: OREGON

Name of Program: Students Today Aren't Ready for Sex (STARS)

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (entitlement for abstinence-only-until-marriage programs established under "Welfare Reform")

Funds Allocated: In federal fiscal year 2003, Oregon received \$460,076 in Title V abstinence-only until marriage funds. The state allocated an additional \$345,057 in state funds to the program. Thus a total of \$805,133 in federal and state funds was allocated in fiscal year 2003.²

Program Reach/Program Components: STARS is an abstinence-only program aimed at sixth and seventh graders and taught by youth four to six years older. The curriculum is adapted from *Postponing Sexual Involvement* (without a contraceptive component) and includes classroom sessions presented once a week over a five-week period. The program was implemented in 18 cities and delivered in elementary and middle schools throughout Oregon.²⁰

Target Population: Sixth graders (primarily) and seventh graders, average age 12

Timing of Program/Evaluation: Spring 2000

Evaluation Design: Pretest/posttest survey design with the same group of 1,396 students, drawn from a random sample of 20 schools across Oregon. No comparison group was used. (Results of a follow-up survey may be available in late 2004 but were not available at the time of publication of this document.) Of students surveyed, 63 percent were sixth graders and 37 percent were seventh graders.²⁰

Findings: Survey results demonstrated statistically significant improvement in knowledge and in attitudes concerning peer pressure and refusal of unwanted sexual pressure. **There was no evidence of a program effect on students' intention to be sexually involved in the future,** possibly because such a large proportion of participants (90 percent) indicated at pretest that they intended to wait until they were older to have sex. However, three questions were asked about behavioral intentions: 1) *I want to wait until I am older to have sex* (slight increase in the desired direction from pre- to posttest); 2) *If someone wanted to have sex with you before you start high school, what would you do?* (slight decrease in the percent answering they definitely or probably would not); and 3) *How likely do you think it is that you will have sex while you are a teenager?* (slight increase in the percent indicating "won't"). "These changes were small over time and no clear pattern emerged over the three items."

- There was no evidence that the STARS program had an influence on the group of items measuring behavioral intention related to sexual involvement... In fact, it may be very difficult for [sixth grade] students to project what they will do in the future compared with their current knowledge, attitudes, or behaviors... Of course, another explanation is that the program doesn't have as large an influence on intention as it does on knowledge and attitudes.²⁰ [p. 16-17]
- "There are negligible differences over time ... which suggests that the STARS program had no influence on behavioral intentions ..." [p.10]

STATE: PENNSYLVANIA

Name of Program: Abstinence Education and Related Services (AERS) Initiative

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (the state entitlement for abstinence-only-until-marriage programs established under "Welfare Reform" in 1996)

Funds Allocated: In federal fiscal year 2003, the federal government allocated \$1,820,070 in Title V abstinence-only-until-marriage funds to Pennsylvania. The state allocated an additional \$1,365,053 of its funds to support the program, bringing total program allocation for federal fiscal year 2003 to \$3,185,123. Further, Senator Arlen Specter (R-PA) secured earmarks of approximately \$3.15 million within the federal fiscal year 2003 Omnibus Appropriations Bill for individual Pennsylvania abstinence-only-until-marriage programs.

ProgramReach/Program Components: The goal of AERS was the prevention of out-of-wedlock births to teenagers through the promotion of sexual abstinence. Twenty-eight different abstinence-only programs were delivered to youth in Pennsylvania to address this goal. Curricula included: *Sex Can Wait*; *Me, My World, My Future*; *Postponing Sexual Involvement* (without its contraceptive component); *Managing Pressures before Marriage*; *WAIT*; and a few locally developed curricula. An average of 22,000 youth per year received the abstinence-only programming.²¹

Target Population: youth 12 and older

Timing of Program/Evaluation: August 1998 through September 2002.

Evaluation Design: 13 of 28 programs participated in a survey-based, quantitative evaluation design; a comparison group was the required minimum criterion for participating in the quantitative evaluation. Eleven programs were evaluated only through focus groups with youth; four programs were not evaluated.²¹

Findings: Of the 13 programs quantitatively evaluated, seven had no effect, two had a negative effect on reducing early sexual onset, and four had a positive effect. Effects diminished by the time youth reached ninth grade.

Urban Sites: Of the four urban sites, the program had no effect in two sites and some modest behavioral and attitudinal effects in two sites. Both more effective sites served high risk youth and offered fairly intensive programs with multiple, complementary components. **Even in these two programs between 11.5 and 25 percent of participants reported sex at posttest, and at one site (La Salle), most had initiated sex between pre- and posttest.**²¹

Semi Rural/Non Urban Sites: There were three semi-rural sites. Perry and Verango counties' programs showed little or no effect on the youth served; participants in these programs were no more likely to be sexually abstinent than comparison youth and there were no measurable effects on participants' attitudes, skills, intentions, or knowledge. By the end of eighth grade, 15 to 18 percent of participants were sexually active.²¹

In Beaver County, the multi-year program produced more positive results; but by the end of the 11th grade, 50 percent of male and 40 percent of female participants were sexually active.²¹

Rural Sites: There were six rural sites. Four programs had no positive effect and two had mixed results. For example,

- Bradford County's program was evaluated twice; the first evaluation showed some modest, positive effects on sexual onset (males only) and on intentions; the second demonstrated a positive impact only on refusal skills; **no behavioral effects were found**.
- Eric County's program had some limited success at changing specific attitudes, but showed mixed effects on behaviors. There was a slight impact on males' behavior (27 percent of male participants with two years of programming were sexually active versus 38 percent of comparison males), but the impact on young women's behavior was negative (42 percent of female participants with two years of programming were sexually active, versus only 27 percent of comparison females).
- Clinton County noted dramatic negative shifts in participants' attitudes and behaviors by the ninth grade. Positive attitudes towards abstinence declined significantly and there was "a concomitant increase in the proportion of young people who experienced sexual intercourse for the first time. Unfortunately, only about half of these sexually active youth used any form of contraception."²¹ [p.7]

- Youth expressed frustration ... when staff attempted to tell them what was right and wrong. Youth wanted to be respected for their ability to weigh information ... in arriving at their own decisions regarding sex.²¹ [p. 9]
- Youth expressed frustration with the lack of information regarding contraception. They ... expected reliable information. Instead, they heard mostly about the potential failures of condoms. [p.9]
- Some programs instilled fear ... Many younger youth expressed the concern that sexual involvement could lead to death.²¹ [p. 9]
- Sexual violence is real. Many females reported that sexual abstinence was unrealistic in their world. Without prompting, they described episodes of forced sex.²¹ [p.9]
- Taken as a whole, this initiative was largely ineffective in reducing sexual onset and promoting attitudes and skills consistent with sexual abstinence. ²¹ [p.10]
- The evidence from this evaluation indicates that even if the most effective programs are replicated and the proportion of sexually abstinent youth increases, a substantial proportion of youth will continue to become sexually active before graduating from high school in every Pennsylvania community.²¹ [p.11]
- For those youth who do not remain abstinent the reduction of teenage pregnancy, STDs, and HIV/AIDS requires an alternative strategy. ²¹ [p.1]

STATE: WASHINGTON

Name of Program: Washington State's Abstinence Education Projects, including *Teen Aware* and the Abstinence Education Program

Federal Funding Source: Section 510(b) of Title V of the Social Security Act (the state entitlement for abstinence-only-until-marriage programs established under "Welfare Reform" in 1996)

Funding Allocated: In federal fiscal year 2003, Washington received \$739,012 in Title V, abstinence-only funding. The state provided a match of \$200,000, bringing the total allocation to the state's abstinence-only programs in FY 2003 to \$939,012.²

Program Reach/Program Components: Washington's abstinence-only project includes the school-based program, *Teen Aware*, and the community-based initiative, the Abstinence Education Program.

- The Abstinence Education Program (AEP) includes educational and skill building activities, media campaigns, literacy training, social/recreational activities, and mentoring opportunities.²²
- *Teen Aware* focuses on educating students to generate peer-targeted media campaigns promoting sexual abstinence. Activities include producing TV public service announcements (PSAs), commercials, and videos as well as producing posters and banners, buttons, stickers, and T-shirts. During the 2001-02 and 2002-03 school years, 55 schools across the state received *Teen Aware* funding; 13 schools received the funding in both academic years.²³

Target Population: AEP participants' average age, 13; Teen Aware participants' average age, 14.6

Timing of Program/Evaluation: AEP: five years of program data, 1998-2003; *Teen Aware*, evaluation data from the 2002-2003 academic year

Evaluation Design: AEP: Most program sites used a pretest/posttest survey and comparison group; 963 youth in the treatment group and 469 in the comparison group completed both pre- and posttests.²²

Teen Aware: The evaluation design also included pretest/posttest surveys and a comparison group; 302 students completed a pretest and 232 completed a posttest. Researchers used covariate adjustment statistical models for analysis.²³

Findings: The evaluations of both community-based AEP and the school-based *Teen Aware* measured short-term changes in participants' attitudes towards sex and dating and their intentions to abstain.

AEP: Evaluation in seven sites across Washington State assessed changes in attitudes towards dating and sex. Evaluation found that the sites appeared to have a desired effect on participants' attitudes toward sex and dating. Each item on the scale was statistically significant at one or more of the AEP sites. Each of the four items and the total scale showed statistical significance. That is, AEP participants held attitudes more favorable towards abstinence, relative to those in the comparison groups from pre- to posttest. **A site-by-site analysis of changes in intent to abstain indicated that none of the projects was able to show a statistically significant difference between comparison and treatment groups for all sexual intention questions, combined. However, when the results from all the AEP sites were combined, intent to abstain was significantly greater among AEP participants than among comparisons.²²**

Teen Aware: Evaluation showed that *Teen Aware* program participants were more likely to hold attitudes favorable to abstinence relative to the comparison group from pre- to posttest. Teens in the program were more likely than comparisons to respond favoring abstinence on three of four questions related to intent. For two of the questions, the differences were statistically significant. The difference between the *Teen Aware* participants and comparison youth for the total score on intent to abstain was also statistically significant.²³

Significant Quote from Authors of the Evaluation Study:

• Two-thirds of the students reported liking <u>Teen Aware</u>. Reasons given were that the program was informative or increased their knowledge of the consequences of sex; many said it was fun ... About one-third of the students reported that they did not like the program or that they had mixed feelings. Reasons for this included that they found the program boring, they did not learn new information, they did not like being forced to participate, or they found the program hypocritical.²³ [p. 6]

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© Advocates for Youth, 2004 2000 M Street, NW, Suite 750 Washington, DC 20036 USA Phone: 202.419.3420

Fax: 202.419.1448



Advocates for Youth 2000 M Street, NW, Suite 750 Washington, DC 20036 USA www.advocatesforyouth.org Phone: 202.419.3420

Fax: 202.419.1448