

Executive Summary

YEAR FOUR EVALUATION FOCUS

This summary is of the fourth annual report on the evaluation of the Arizona Abstinence Only Education Program. It summarizes evidence from multiple sources for answering the question of whether the program has positive outcomes for the program participants, and it also provides updated results on the program's implementation. Previous years' findings show that there were statistically significant but small program effects. In order to verify that these program effects are valid, the evaluation has focused on incorporating multiple strategies for addressing threats to the outcome findings. These threats, or "competing alternative explanations" for the changes observed in the participants are: 1) testing—Does taking the survey twice affect the results? 2) selection bias--Are those who take the program different from those who do not take the program? 3) social forces or social drift--Has the program population shifted in its views toward abstinence and have sexual behaviors reduced over time? and; 4) participant's background—Does a participant's background and experience influence the outcome results?

The primary outcome analyses and findings are from the preteen and teen data, since they comprise the majority of the participants served. Findings for adult and parent programming are also summarized. A separate but companion annual report is published on the evaluation of the Abstinence Only public media campaign.

PROGRAM DESCRIPTION

Abstinence education arose out of a societal concern about the number of teen pregnancies and non-marital births. Abstinence education programs funded through the Temporary Assistance to Needy Families Act (Public Law 104-193) and state matching funds, must teach that abstinence is the only effective means for avoiding pregnancy, non-marital births, and sexually transmitted diseases (STD's). These programs do not endorse or promote contraceptive use.

The State of Arizona applied for and received this funding and has committed the required matching funds to continue implementing the program into its fourth year. The Arizona Department of Health Services (ADHS) is responsible for the program oversight and administration. In Fiscal Year 2002, \$2,421,709 was allocated to 17 program contractors to implement Abstinence Only Education Programs to school age children ages 10-17, and adults who are at-risk for non-marital pregnancy, and to parents. A public media consultant, Cooley Associates, was awarded a total of \$1,232,231 to continue implementing a statewide media campaign to promote the "abstinence only until marriage" message to parents and school-age youth.

UPDATE ON PROGRAM IMPLEMENTATION FINDINGS

Enrollment Continues to Increase for School-Aged Populations

The State of Arizona has been funding 17 non-profit, profit, and government organizations around the state to implement Abstinence Only Education Programs since 1998. Year 2001 enrollment increased 22% from 22,712 in 2000 to 29,378 total participants enrolled during the year. These increases are due largely to the program providers' diligent recruitment efforts in the schools.

Participants' Attendance Has Remained High

Over 70% of the participants across all program types completed *all* of the program sessions. The program's length varies depending on the curriculum used and school location. An average abstinence education program offers five to six sessions at an hour each.

Satisfaction with the Program Has Remained High, but Participants with Sexual Experience (Non-Virgins) Show Lower Levels of Satisfaction

In general, participants indicate relatively high satisfaction with the abstinence educator and the program content. Teens and adults also indicate that the program has created some change in their knowledge and attitudes about sexuality. However, teen participants who report having had sex (non-virgins) report lower satisfaction scores relative to virgin teens in all areas except the propensity to talk about sex with their friends.

Enrollment of Adults Remains Low; Adults Still Respond Favorably to Program

Parents. In contrast to the youth population, programming for adults and parents has not shown the same dramatic increases. In particular, the number of parent participants has declined since 1999, with a high of 448 parents in 1999 to 204 parents participating in 2001. Results from the evaluation of the program's implementation indicate that it is difficult to recruit and retain parents due to their schedules and competing priorities. Similarly, the national evaluation of abstinence has found that promoting and sustaining active involvement in parent programs has been difficult, even when the program focus has been on the entire family (Devaney, et al. 2002). For those few parents who do participate in the offered programs, the response is positive, and they report an increased motivation to communicate with their children about sexual risk behaviors.

Unmarried Adults. Abstinence only programming for unmarried adults has shown enrollment increases but has primarily stayed focused on a unique program population, adults (mostly single males) residing in a substance abuse treatment center. The numbers have increased from 151 in Year Three to 241 in Year Four. These adults seem receptive to the programming, but it is difficult to distinguish program effectiveness from the treatment program without the use of a comparison group. Past efforts to recruit comparison subjects from other residential treatment programs have been unsuccessful.

PROGRAM OUTCOME FINDINGS

Using Multiple Strategies, the Major Competing Explanations or Threats to the Outcome Results Were Ruled Out, Giving Stronger Indication that the Program's Effect on the Observed Participant Changes on Attitudes, Values, and Intentions about Abstinence Were Valid

The table below outlines the major evaluation questions about the threats and influences on the outcome results, the strategies employed to answer the questions, and the major findings for each strategy used. The results were shown for preteens and the teens. What follows this table are highlights and discussion of some of these major findings.

Table 1. Overview of Evaluation Questions, Outcome Findings, and Design Strategies

Evaluation Question	Finding	Design Strategy
1. Testing Threat—Are observed participant changes due to taking the survey twice?	No, the changes observed are not due to taking the test twice, giving more evidence to indicate it might be a program effect.	Delayed Treatment Comparison Group
2. Selection Bias Threat—Are observed participant changes due to the fact that they might be different from those youth who don't take the program?	No, it appears that the abstinence sample is similar to the Arizona adolescent school-based population.	Youth Risk Behavior Comparison Tables
3. Social Forces/Social Drift—Are participant changes observed due to larger social forces? Has the evaluation sample shifted in its baseline attitudes, intentions, and behaviors over time?	Yes, it appears that the participants are changing in baseline attitudes and values however, they are not changing their sexual behaviors.	Annual Baseline Survey Score Comparison Tables—“Baseline Comparison Tables, 1998-2001”
4. Participant's Background-- Does a participant's background and sexual experience when they enter the program influence their response to the program?	Yes, participant background and sexual experience influences change on outcomes after receiving the program.	Subgroup analysis testing the effect of ethnic background, and sexual experience on the outcomes.
5. Does the program affect the participants' rate of live births?	Preliminary and limited results indicate that program birth rates are similar to the State of Arizona non-abstinence birth rates.	Vital Records Match
6. Does the program reduce sexual behavior?	Result not available yet.	Results will be available in Final Year.

Participants' Ratings of Their Attitudes, Values, and Intentions at Each Year Before They Start the Program Indicate a Gradual Change Toward the Support of Abstinence

The gradual change to the support of abstinence is evident primarily among the school, community, and after-school populations, not youth who received the program in detention or probation programs.

The results also show some promising trends in the areas of pregnancy rates and exposure to abstinence education. Self-reported pregnancy rates have decreased, and more of the service population has been exposed to prior abstinence education before they enter a new abstinence only program. This increased and possible "multiple" exposure to the program could serve to reinforce attitudes and intentions to abstain.

Participants' Reports of Birth Control Use Before They Start the Program Indicate a Gradual Increase Since 1999

Participants are asked about whether they used birth control the last time they had sex. Their reports about usage of different types of birth control (condoms or pills) have increased each year since 1999. Only youth in schools, community and after-school programs show this result, not youth on probation or in detention centers. Also, there has been a consistent result found both within each program year, and across the years that participants' perceptions about the importance of birth control has decreased. This appears to contradict the increased use of birth control. This apparent contradiction between attitudes and behaviors could be due to the fact that participants make socially desirable responses to the items that ask about the importance of birth control. This may be because the program emphasizes the failure rates of birth control rather than its benefits. These findings must be considered in the entire context of trying to understand whether teens are accepting and practicing abstinence. It is possible that teens who endorse abstinence are more motivated to use a variety of risk-reduction strategies.

Sexual Behavior Rates Do Not Appear to Be Changing

With the limited available evidence so far, the baseline ratings of sexual behavior items across the program years from 1998 to 2001 indicate that the behavior rates are not decreasing, nor increasing. About 20% of teens from school and community locations and about 75% of teens who are on probation or in detention, engage in sexual intercourse. The non-marital birth rates of the Abstinence program population are not different from the State's rates of teens who did not receive the abstinence program in Arizona. However, more data will be available in 2003 that will help to determine whether sexual behavior is delayed as a result of the program.

Participants' Diverse Backgrounds Have an Influence on the Findings

A closer look was given to how the participants' diverse backgrounds influence the outcome results. Participants' backgrounds influence the results, both at the pre-program period and at the post-program period. Participants with different backgrounds change differently, and it could be that they are responding in different ways to the abstinence program. For example, the results from the delayed treatment comparison analysis showed that teens who have not had sex (virgins) show more program change, and conversely, non-virgins change very little. This has been a consistent evaluation finding, both from the process and preliminary outcome results from last year.

Youth from different ethnic backgrounds and with different language usage also appear to show differences. Although the results showed differences based on ethnicity and language, the similarities between the ethnic subgroups may be more compelling than the differences. Yet, some patterns are worth noting. When Hispanic youth are categorized into three subgroups based on their use of English and Spanish (i.e. Hispanic-English speaking; Hispanic-Bilingual; Hispanic-Spanish speaking) Hispanic-English speakers show more risk characteristics. Hispanics who primarily speak Spanish, however, show a lower than average amount of risk on the outcome measures. African American youth also appear to show more risk in their baseline responses, yet they also appear higher than average on protective factors such as religiosity and refusal skills.

The importance of these findings is yet to be determined due to the analytic complexity of these comparisons. More work will be conducted in this area in the last year of the evaluation.

Small Program Outcomes are to be Expected Due to the Characteristics of Program Implementation and the Complexity of Human Sexual Behavior

The small changes found from pre-program to post-program over a short period of time raise several questions and considerations for future program planning and evaluation. First, the Arizona program is a diverse set of curricula focused on the sexual antecedents of teen pregnancy. Program providers' priorities were to make the curricula more suitable to the community's needs and values by making changes to the originally selected curricula. This aspect of program implementation makes it difficult for the evaluation to identify what specific program models are effective across the state.

The small participant changes seen from the pre-program to post-program period also raises the question of whether they can be considered meaningful and of sufficient magnitude for ultimately changing the long-term outcome of interest, sexual behavior. It is worthy to note, that the small magnitude of change found for this outcome evaluation are similar to results shown for other types of primary and secondary prevention program evaluations of delinquency and pregnancy prevention. It may be that for the types of programs implemented in the Arizona initiative that target complex human behaviors such as sex, only small changes can be expected.

In the final year of the evaluation, 2003, more evidence will be available to address the following questions: Does the program affect sexual behavior and ultimately the non-marital live birth rates of the program participants? What program characteristics (e.g., curriculum content areas) are related to the program outcomes?

RECOMMENDATIONS

1. Consider a more targeted population approach for abstinence only programming

The evaluation data show that sexual behavior increases with age while abstinence attitudes, values and intentions decrease with age. The outcome findings have consistently found that the abstinence program has better effects on youth who are not sexually experienced. Therefore, program staff and developers should consider targeting only 6th to 9th grade students with abstinence only approaches.

Related to this are the findings that the probation and detention center youth have engaged in significantly more sexual risk behaviors and show more negative outcomes from engaging in sexual behavior, such as higher rates of pregnancy and STD's. They also use birth control methods at lower rates than the school, after-school, and community youth. Therefore, program developers and staff should consider whether abstinence only is the most appropriate strategy for reducing non-marital pregnancy and STD's in this group.

2. Begin to reexamine statewide program components, goals, and evaluation strategies for the future

The participant changes due to the program are of very small magnitude and raise the question of whether they will ultimately lead to behavior change. Also, it does not appear thus far that the various curricula have differential effectiveness. The Arizona Abstinence Only Initiative may be too diverse and variable in nature to adequately identify approaches that are more effective than another. That is, program contractors use 13 different types of curricula across the 17 program sites, and many frequently have not maintained fidelity to the original curriculum, either modifying the content or omitting lessons. It is also unclear whether some of the curricula in use are based on a clear theoretical and program model foundation. Therefore it is recommended that ADHS consider using the following strategies for future program planning:

- Require that future program contractors demonstrate that their proposed programs are research-based and proven to be effective, or that they have the characteristics found for the most effective sex and HIV education programs outlined by Mann, McIlhaney, and Stine (2000) and Kirby (2001).

- Consider developing a logic model for the future Arizona Abstinence Only Initiative. A logic model is a concise, causal description of exactly how certain program activities can be expected to affect particular behaviors. A logic model usually results in programs that have clear goals and orderly and plausible plans for reaching those goals.
- Consider requiring that future program contractors provide a logic model for their proposed programs, so that ADHS has a clear and plausible model of what the contractor plans to do and what program outcomes are expected.
- Implement a more rigorous evaluation approach that employs an experimental design, which is the best method for determining program effectiveness. Consider using abstinence-based programming or other programming approaches as control groups in the design. This approach would allow ADHS to know what teen pregnancy prevention approaches are more effective than others.

3. Reexamine strategies and goals for targeting parents

Parent involvement and communication with their children is considered to be an important component for mediating the sexual pressures adolescents face from peers and other social forces. No matter how important parents are, it is difficult for community-based programs in general to recruit and retain parent involvement. This has been evident for the Arizona initiative, as indicated by the small and decreasing number of parents recruited into parent programs. Also, those parents who do participate are likely not to have children involved in an abstinence only program. Therefore, it is recommended that ADHS and program staff reexamine their strategies and goals for targeting parents.

4. Reexamine the focus of the Adult Abstinence Only Programming

The Arizona Abstinence Only Initiative spans a target age group of 10 to 45 years old. In 2001, only three program contractors have focused on unmarried adults for abstinence only education. The majority of the adults who received programming have been residents in a substance abuse treatment center. This population is considered to be at-risk for not only substance abuse, but also for engaging in non-marital sex and other sexual risk behaviors. Due to the location of the programming, it has been difficult to determine the effects of abstinence education from the regular treatment and education residents received at the center. Similar to the detention center youth, it is also up for question whether this type of programming is appropriate for this high-risk population, and whether other risk-reduction strategies should be considered.