

Executive Summary - Year 2 Report

Arizona's Abstinence Only Program Evaluation

Introduction

The Arizona Abstinence Only Education Program's mission is to increase awareness and adoption of abstinence from sexual behavior until marriage as a lifestyle choice. The long-term goals of the program are to reduce non-marital sexual behavior and non-marital birth rates. However, in the short-term, the program is designed to increase positive attitudes towards abstinence, and intentions to abstain. The evaluation is designed to assess the program's process and determine both the short-term and long-term outcomes of this statewide effort.

This summary provides highlights from the second annual report on the evaluation of the Arizona Abstinence Only Education Program. It provides results from both the process and outcome evaluation conducted in the fiscal year period from July 1, 1999 to June 30, 2000. However, the outcome results reported are based on data received from March 16, 1999 to January 10, 2000, which were the cut-off dates for this report's analysis. The results are from the analysis of the *short-term program outcomes only*, with analysis in future years to examine the program's long-term impact on sexual behavior and non-marital birth rates. Highlights of results from the evaluation of the second year of the public media campaign are also provided in this executive summary.

Scope of the Federal and State Funding

Currently, as a result of the federal abstinence only funding through the Welfare Reform Law, Section 510(b), there are 698 abstinence promotion grants to community-based organizations and education agencies across the country that did not exist prior to this funding. Also, there are 21 new abstinence media campaigns that were not in place prior to this new funding (Daley & Wong, 1999).

The State of Arizona applied for and received approval for the federal money and has committed the required matching funds to continue implementing the program into its second year. The Arizona Department of Health Services (ADHS) is responsible for the program oversight and administration. In FY 1999, \$2,147,137 was allocated to 17 program contractors to implement abstinence only education programs to school age children ages 10-17, adults who are at-risk for non-marital pregnancy, and parents. A public media consultant, Winward Cooley Advertising and Public Relations, was awarded a total of \$1,010,275 to continue implementing a statewide media campaign to promote the abstinence only message to parents and school-age children. Each of the 17 programs are required to provide a monetary match of 5% in year two, increasing by 5% each year, reaching a 20% match in year five. This monetary match is to permit ADHS to expand programs, fund additional program sites, and build a community base of support. At the end of March 2000, two program contractors had obtained the 5% matching funds, and the remaining

15 programs were still working on obtaining this match.

Trends in Live Birth Rates

National Trends. The national teen birth rate (15-19 year-olds) dropped 2% in 1998, continuing a steady decline that began in 1991. Overall, the teen birth rate dropped 18% from 1991 to 1998. The birth rate for the youngest children (10-to 14-years-old) is at its lowest level since 1969, with a decline of 6% between 1997 and 1998 (National Vital Statistics Reports, 1999).

Arizona Trends. In Arizona, teens ages 15-19 and adults ages 20-24 show the highest risk for non-marital births. Non-marital birth rates are the total number of non-marital births per 1,000 females in the specific age group of interest. The following are the trends in these rates.

For teens, 15-19 years old:

- C 21% decline in the non-marital birth rate, from 62.5 per 1000 teens in 1994 to 49.1 in 1997*
- C 3% decline in the non-marital birth rate, from 50.5 per 1000 teens in 1997 to 49.1 in 1998*
- C There were increases in the non-marital birth rates in seven counties from 1997 to 1998. Gila, LaPaz, and Yavapai counties showed the largest increases.*

For adults, 20-24 years old:

- C 18.4% increase in the non-marital birth rate, from 61.5 per 1000 female adults in 1991 to 72.8 in 1998*
- C 4% increase in the non-marital birth rate, from 70.1 per 1000 female adults in 1997 to 72.8 in 1998*
- C There were increases from 1997 to 1998 in non-marital birth rates in all Arizona counties. The largest increases were in Graham, Apache, and Yavapai counties.*

Program Components in Year Two

Diverse Curriculum Choices. The major component of the Abstinence Only Education program is the delivery of a curriculum over varying time periods which focuses on increasing knowledge and skills, and changing attitudes and values that are theorized to prevent participants' sexual risk-taking.

Currently 17 different curricula are being used with children, teens, and adults. The majority of the curricula are copyrighted, and have been implemented and evaluated at other sites around the nation (for example: *Managing the Pressures Before Marriage*, *Sex Can Wait*, *FACTS*, *Choosing the Best*, *Facing Reality*, and *WAIT Training*). *Managing the Pressures Before Marriage* is the most frequently used

curriculum by the program sites (36%) for the pre-teen and teen populations. Two curricula were created by program contractors: *Passion and Principles* and *Girl Talk/Guy Talk*. Also, the Arizona State University contractor, who serves high-risk adults in Salvation Army drug rehabilitation centers, has extensively revised the *FACTS* curriculum (called "*Healthy Relationships*") to fit the adult target group needs. The choices were expanded by adding the *WAIT Training* curriculum in Year Two.

Program contractors frequently do not use all of the lessons included in the copyrighted curricula, and they also supplement the curricula with other lessons and activities. Many of them are also implementing the curricula in a shorter time frame than recommended by the program developers.

Diversity in Settings and Staff. The program settings and staff of the Abstinence Only Program in Year Two continue to look diverse. Programs are delivered in various settings:

- C schools,
- C after-school programs,
- C detention centers,
- C group homes, and
- C residential treatment centers.

The majority (82%) of the programming occurred in 105 schools during school hours as part of an elective class, or as part of the health curriculum. In-school programming has increased by 11% this year, and services in residential treatment and detention centers have decreased by 30%. Some programming is being delivered in all of the counties except for Apache, Graham, Greenlee, and LaPaz. Service provision also occurs on the Navajo, Tohono O'Odham, Pascua Yaqui, White Mountain Apache and San Carlos Apache Native American nations.

The program staff are primarily paid educators who have experience working with children or working in the public health field. Three program sites utilize unpaid adolescent peer educators.

Participants' Exposure to the Program

Total served. A total of 11,891 participants received at least one or more abstinence only sessions as reported from the attendance forms. Of this number, 7,670 attended all of the program sessions (65%). Of the diverse age groups targeted in this program mostly (89%) adolescents in grades 5 to 12 are being served. Participants who receive children's programming (grade 4) comprise 3% of the target population, adults 2%, and parents 6%.

Program Intensity Varies. The program length ranges from one day to 25 weeks, from 5 to 30 hours. *However, the average program exposure is five hours over a period of one week.* There is variation in the amount of service across the sites and this is due to the different program length and number of program delivery hours.

Despite this variation in program delivery, it appears that participants are receiving a range of 76% to 100% of the program sessions delivered.

A More Focused Look at the Education Process

In the second year, the evaluation has built upon the existing information collected from the study of the program implementation in the first year. Multiple methods of data collection were used to obtain the fullest picture of the education process and context. The methods used were interviews, focus groups, and surveys.

Educators Continue to Modify the Curriculum. Regarding the education content, the abstinence only curricula continue to be modified to address local participants' needs. *Educators modify the curricula to address the developmental level of students being taught, their cultural values, or their experience with sex and other risk behaviors.* For example, they alter language, add exercises, games and interactive activities to engage their students. Educators translate the curriculum into Spanish and add content that is considered culturally relevant for Spanish-speaking and other ethnic/racial groups. To reach older and more sexually experienced youth, information about sexually transmitted diseases has been added and sometimes educators share their personal experiences about relationships and intimacy.

Curriculum Content and Emphasis Depends on the Target Group. *While different curricula may emphasize different concepts and skills, all focus in varying degrees and intensity on increasing knowledge and awareness of abstinence as a healthy lifestyle choice, the negative consequences of pre-marital sexual activity, and how to refuse unwanted sexual advances.* To further understand the influence of the curriculum content on the different age groups, educators were asked to rate the intensity they placed on 15 concepts derived from the curricula analysis conducted by the evaluation last year. Not surprisingly, the concepts educators emphasized vary with age and the type of student group. For example, those teaching young children heavily emphasize self-esteem and either do not cover or do not emphasize the positive gains of abstinence, risks of sexual involvement or refusal skills. In contrast, with older students, these topics are heavily emphasized. Educators emphasize a *wider range of* concepts with high risk groups than with any other group.

Educators Face Challenges in the Classroom. Self report data about the education process show that educators are generally satisfied with the program content and delivery. However, other sources of data from interviews, observations, and focus group discussions, indicate that educators face challenges that can hinder their success in the classroom. *These challenges include: uninterested or unruly students, unhelpful teachers or other adults, the need for better program material or teaching strategies, and short periods for program delivery.* The abstinence educators, due to their dedication and genuine caring about their students, have been resourceful in modifying program content and delivery to achieve greater success in the classroom. They continue to look for better ways to get the message

across to their students. In this vein, the educators desire more training in curriculum content, teaching, and classroom management.

Participants Like the Program but Have Specific Educational Needs. Multiple sources of data from the program participants show that they are generally satisfied with the program, and that it increases their knowledge, and affects their attitudes about sexuality. For example, 80% of children and pre-teens said they like being part of the program. Sixty-percent (60%) of the teens, and 66% of the adult group said they were satisfied with the program. However, there is some indication that adolescent students may respond more favorably when the program is delivered in small interactive group formats, the teacher is respectful and “connects” with the students, and information deemed necessary by the students is provided. Students have requested more of the following information: facts about sexually transmitted diseases, contraception, and sexuality in general. The pattern of results show that these considerations are important for sexually experienced and high-risk youth.

Participant Characteristics

The program participants’ characteristics are based on the results from the pre-tests. Only those participants who responded to both a pre-test and post-test are included in the results, except for the parent group, who only completed a post-test. The total number of participants for which the evaluation has complete survey data is 7,670. Participants’ sexual behavior levels at the pre-test period are only reported for the preteen, teen, and adult age groups because the young age groups were not asked these questions.

Children. The average age of the child respondents was 9 years old, and the majority were in the 4th grade. Over half (55%) were female. Nearly 60% were Hispanic, 19% Caucasian, 4% African American, and 1% Native American. Nearly 80% reported living in a two-parent household, and 56% reported they received a free school lunch.

Pre-teens and Teens. The average age of this group was 13, and over 60% were in the 6th through 8th grades. Regarding ethnic and racial background, 45% were Hispanic, 33% Caucasian, 5% African American, 4% Native American, 1% Asian, and 12% identifying themselves as “mixed ethnicity.” Nearly 70% reported living in a two-parent household, and 53% reported receiving a free school lunch. About 50% said they received good grades in schools (A’s & B’s), and 34% said they received B’s and C’s. Sixty-percent (60%) *never* received a prior abstinence education class, and 67% said they had received sex education.

Pre-teens and teens were asked a series of questions about their sexual behaviors. Only older adolescents (grades 7-12) were asked about sexual intercourse. As expected, the frequency and type of sexual behavior increased with age. Before starting the program, the majority of pre-teens and teens reported kissing someone (63%). Nearly half (49%) said they tongue kissed someone, 34% explored or touched someone above the waist, and 29% explored or touched someone below

the waist. Twenty-five percent (25%) or 1,119 teens reported ever having had sexual intercourse in their lifetime. The frequency of sexual intercourse increased with age, as shown in the following table:

Grade	% who ever had sexual intercourse
7	9%
8	13%
9	32%
10	43%
11	57%
12	70%
Graduated	79%

Adults. The average age of the adults was 34 years old, with a range from 18 to 64. Most were male (71%) and Caucasian (59%). Over 80% were single, divorced or separated. Sixty-five percent (65%) were employed in the last year in full-time jobs, and about 50% earned less than \$10,000 per year. Nearly two-thirds of the adults were residents at the Salvation Army drug rehabilitation center in Phoenix.

Most of the adults reported they had engaged in sexual intercourse (92%). The average age of their first sexual intercourse was 15 years old. The median number of lifetime sexual partners was 10. Another 25% had 11-39 sexual partners, and the remaining 25% had over 40 partners. Over thirty percent (30%) of the adults said they had births outside of marriage. Of this number, 50% had two or more births.

Parents. Most of the parents in the program were female (77%) and 52% were married. The majority were Caucasian or Hispanic. Nearly 60% reported working full-time jobs. Half of the parent group reported a yearly gross household income ranging from \$10,000 to \$29,999. The majority of the parents had two to three children. When asked about their sexual behavior, 31% said they had waited until they were married before they had sexual intercourse.

The Results from the Analysis of Short-Term Program Outcomes

The following results are *preliminary*. Outcome data will be collected in the next two years that will further strengthen the evaluation's ability to determine the program's effectiveness. The results are based on a survey administered to program participants before and after they receive the abstinence only program. It was designed to measure the attitudes, beliefs, and behaviors theorized to affect the program outcomes of reducing sexual behavior and non-marital births. This survey was fully described in the Year One evaluation report. All of the target age groups were analyzed for changes in their responses from before the program (pre-test) to after the program (post-test), except for the parent group who were only administered a post-test. Only the pre-teen and teen responses were examined

using a comprehensive multivariate statistical analysis. A different approach was used for this age group because they comprise 89% of the participants, and because the abstinence only curricula were created primarily for pre-teen and teen groups.

Children's Results. A total of 239 children completed both a pre- and post-test. Before the program started, children said they had good decision-making skills, fairly high self-esteem, and felt accepted and liked by their friends. The majority engage in typical activities for their age, such as spending time with their friends, playing games and sports, and spending time with their families. Most of them report never engaging in troublesome behaviors, although some report these behaviors "sometimes." After the program, children showed small (1-3%) but statistically significant increases in their mean scores from the pre-program to the post-program period on self-esteem and their feelings of being accepted socially, such as being liked by friends. Three measures were not found to have statistically significant increases from the pre- to post- assessment periods. These were decision-making skills, and pro-social and risk taking activities.

A major limitation to these findings are that the positive changes cannot be fully attributed to the program because there was no comparison group of children employed in the evaluation design. It is also questionable whether the type of programming currently employed with this age group could have the desired long-term impact of reducing teen and adult non-marital sexual behavior. This is because the children's programming is primarily a self-esteem and social skills building class and does not directly teach concepts about abstinence.

Adult Group Results. A total of 145 adults completed both a pre- and post-test. After the program, adults showed a statistically significant increase in their reasons to abstain from sex. For example, at the post-program period their endorsements of avoiding STDs and AIDs as a reason to abstain from sex increased. Adults also showed a statistically significant increase in their acceptance of abstinence, and showed slight increases in beliefs that they could have a relationship without having sex before marriage. They also showed a statistically significant difference in their likelihood to reject risk-taking behavior. That is, adults said they were more likely to reject risky sex behaviors, such as failure to use contraception or not discussing contraception with one's partner, and having multiple partners with little or no commitment.

A major limitation of these results is that the adult sample had a high attrition rate for the abstinence only program (35%). This is primarily due to the fact that 66% of the sample were residents in a substance abuse treatment center, where high participant attrition is common and expected. It is likely that the adults who dropped out of the program had more difficulties and were less motivated to complete treatment. The small but positive results found on the short-term program outcomes could also be attributable to the substance abuse treatment the respondents were receiving at the time they were in the abstinence only program.

Parent Group Results. A total of 448 parents completed a survey after they received a program or workshop designed to increase their communication skills with their children about sexuality and waiting to abstain from sex until marriage. In the past year, prior to taking the workshop, parents reported that they communicated

with their children about a range of topics related to sexuality and healthy decision-making. Communication about how to make healthy decisions, male-female relationships, and about being a parent while a teenager were more frequently discussed (once a month to once a week). Less frequently discussed topics were about specific sexual topics such as 'wet dreams' and 'masturbation.'

Over 90% of the parents indicated high satisfaction with the program, and said that it might help them communicate *better* with their children. Over 90% felt the program clarified their attitudes and values about their child's sexual behavior, and increased their comfort in talking with their children about postponing sex until marriage. Because these parent workshops are usually held over a period of one to two days, it is unclear whether these increased feelings of comfort and confidence to talk with their children about sensitive sexual topics can be retained over time.

Preteen and Teen Results. The outcome analysis of the pre-teens' and teens' survey responses was conducted on 6,995 who took both a pre-test and post-test. The analysis was conducted in three major steps based on the following questions:

1) Does the abstinence only program model predict existing sexual attitudes, intentions and behaviors before program participants enter the program?

This question was important to answer as a first step in the analysis in order to know if the abstinence only programs are targeting factors that are likely to affect behaviors intended for change in the participants.

The conceptual program model reflects features common to several prominent social science theories (e.g. health belief models, theory of reasoned action) that are supported by a number of lines of research looking at health-related behaviors, including adolescent sexual behaviors.

This model suggests that intention to abstain is a primary determinant of adolescents' sexual behavior. Intention, in turn, is affected by the individual's perceptions about:

- the benefits of abstinence, from both a health and social (value) perspective;
- the level to which abstinence is consistent with his/her attitudes and self-standards;
- how others close to him/her view the value of abstinence;
- perceived social norms about teen sexual behavior;
- his/her self-efficacy in postponing sexual involvement,
- and by background participant characteristics.

Abstinence only programs target these beliefs, attitudes and intentions. The analyses indicate that these factors are indeed related to participants' sexual behavior when they enter the program. *Therefore, this confirms that the program is focusing on changing variables that could potentially have an effect on changing sexual behavior.*

2) Were there changes in the participants' attitudes, beliefs, and intentions after receiving the abstinence only program?

Pre-teen and teen participants showed changes in attitudes, beliefs, and intentions to abstain from sexual activity after receiving the program. Changes were found in 11 of the 13 areas measured on the outcome survey. *These changes were statistically significant and reliable, most were in a positive direction, small in magnitude, but only represented average changes in the program participants.*

3) Was the abstinence only program responsible for any of the reported changes in the participants?

An examination of the changes before and after the program is not sufficient to determine whether the program affected the participants. There are many factors that could influence pre-teen and teen responses besides the abstinence only program. Some of these participant factors are: age, natural developmental changes, risk behavior history, and gender. The outcome survey was designed to measure some of these areas. In order to rule out these competing explanations for why the pre-teens and teens changed, an analysis was conducted that statistically controls these factors. This enables a better determination of whether the program worked.

Measures of the program elements likely to affect change were based on an assessment of all the curricula that were implemented across the program sites. This assessment identified what concepts the curricula shared that are theorized to affect the attitudes, beliefs and behaviors related to sexual abstinence. The concepts identified were:

Motivation to abstain from sex: This included ideas such as risks of sexual involvement, positive gains of abstinence, the importance of marriage as the endpoint for abstinence, and reducing permissive attitudes toward pre-marital sex.

Information: This included content on the effectiveness of abstinence versus other forms of birth control, other health risks; and discussions of human biology.

Skills: This includes a focus on how to develop healthy relationships, developing refusal skills; resisting peer pressure; improving parent-child communication about sex.

Self-efficacy: This includes resisting media pressure and how to make decisions about sexual activity.

Other program elements measured included the amount of diversity of teaching

techniques used in the course, the amount of programming hours received (*dosage*), whether peer educators were used, and whether the program was offered in a metro or non-metro location.

The results from this final step in the analysis of short-term outcomes were:

- Age, gender and engaging in risk behaviors are participant characteristics that affect the amount of change in beliefs and attitudes that adolescents report.
- Program characteristics also had an effect on the magnitude of change seen on various program variables. The effects tended to be reliable, but small.

The program characteristics most involved in changing beliefs and attitudes were:

- < Motivational program emphasis
- < Informational program emphasis
- < Skills program emphasis
- < Classes using a diversity of techniques
- < Peer educators
- < Program dosage

There is no single pattern of program characteristics that clearly emerges to point to an “effective” program at this point in time. The different elements work differently on different variables. For instance, the preliminary results show that a program with a high informational emphasis is related to more change in sexual efficacy and health reasons to abstain, but it is reliably less related to value reasons to abstain.

A program that stresses informational content would be expected to increase the first two areas, but the other programs with different emphases would be expected to increase the third area more. At this point, it is unclear why these differential relationships exist, other than the explanation that the program elements work differently for different people. In the future, it will be necessary to look more closely at the relationships between the program model factors and sexual behavior to understand what elements best influence sexual behavior.

Media Campaign Evaluation

Winward Cooley Advertising and Public Relations was contracted by the Arizona Department of Health Services to conduct marketing and media services to promote the Abstinence Only programs. The agency proposed to communicate the message of abstinence through a variety of media, primarily television and radio, which would supplement and support the programs offered by the State’s program contractors. The new feature of Year Two media strategy is the development of four new TV ads, two of which are specifically targeting male teens. Like last year, Winward Cooley’s strategy also includes a 1-888-toll-free number and a website to provide additional information on the abstinence option. On-going public relations support was provided to individual program contractors to help them promote their abstinence-only programs.

Media Campaign Evaluation in Year Two

The evaluation of Year Two's media campaign involved the following: 1) analysis of the marketing strategy; 2) assessment of the program participants' response to the ads; and 3) a survey of the program contractors about the media campaign and public relations assistance provided by Winward Cooley.

Marketing Strategy Reach and Effectiveness

The reach and frequency of the ads suggests adequate exposure of the target audience to these ads. The media strategy has focused on the development of new TV ads. This choice appears well directed since teen and pre-teen program participants showed significantly higher recall rates for TV ads (60%) than for other types of promotional materials such as radio ads, billboard signs, posters, and pamphlets (rates ranged from 28% to 35%). In addition, reported numbers of inquiries to both the toll-free number and the website show significant increases between March and December 1999. This demonstrates a greater awareness among the target audience of these two information links, which suggests greater exposure to the media campaign from the cumulative effect of the ads.

Program Participants' Response to the Ads

A media survey, targeted at participants of the abstinence-only programs was administered as part of the post-program outcome survey. The media survey focused on participants' recall of and responses to the TV ads. It does not address the four new TV ads because they were not yet released during the time of this reporting period.

Recall of the Ads is High. A majority (64%) of teens and pre-teens who received the media survey recalled seeing a TV ad that talked about waiting until marriage to have sex. Females were significantly more likely to recall the ads than males, and participants with prior exposure to a sexual education program or an abstinence-only education program showed significantly greater recall of the ads.

Mixed Attitudes about the Ads. Over half (58%) of the program participants reported that they liked the ads either "a lot" or "some." Of this number, a majority of those participants were females. The remaining 42% indicated they did not like the ads or they liked them "a little." As for the impact of the ads on participants' attitudes towards abstinence, 49% of participants reported that they felt "the same" after seeing the ads, while 47% indicated they felt "more like waiting to have sex." The remaining 4% reported they "felt less like waiting."

Limitations of the Results. The recall rates are much higher than last year which could be due to the following: 1) Respondents were recipients of the program and are already sensitized to the abstinence only message; 2) Some of the respondents who reported recall of the ads may have only seen them in the abstinence education class and not through other media. In fact, a majority of program providers reported showing the TV ads in class.

Program Provider Views about the Media Campaign and Public Relations Assistance

High Satisfaction with the Media Campaign. Each program provider completed a comprehensive questionnaire about their perceptions of the media campaign. The two ads which received the highest satisfaction ratings were the “backpack” ad and the new “ritual (baseball)” ad. All (100%) program coordinators reported that the ads were targeted to the appropriate age group, and that the ads were adequately conveying the abstinence message. The majority of program coordinators (82%) also agreed that the ads were tasteful and were good support materials for their curricula.

High Satisfaction with Assistance. Program providers reported on the additional assistance they were provided with by Winward Cooley, mainly regarding press releases and brochure development. More than half of the program sites used these services. Overall, program coordinators reported high degrees of satisfaction with the public relations efforts of the media campaign.

Recommendations

The following recommendations are given based on the cumulative information from the evaluation so far. They are divided into recommendations for the program, the evaluation, and the media campaign:

Recommendations for the Program

Based on the findings from the process evaluation the following recommendations are:

1. Make certain curriculum materials are real and relevant, especially for high risk or sexually active students. Explore other ways to recruit and retain these groups. Educators said that high risk youth will not take the program seriously if they cannot relate to the content, language and audio-visuals used. The outcome results show that female youth participants who are more high risk show changes on their value reasons to abstain, and that youth in detention centers who received a higher dosage of programming showed more positive changes on their value reasons to abstain from sex. Although these changes were small, perhaps with further refinement of the curricula and teaching methods, a greater impact on high risk youth can be made.
2. Continue to identify what the specific needs are for the abstinence only education curricula to be more culturally relevant for Hispanic and Native American target groups. While the preliminary outcome analysis has not found that ethnic or racial identity has influenced the outcome results, there is still concern expressed from the abstinence only educators about the relevance of the materials and the abstinence only message for certain groups. Last year, program contractors expressed the need for a Spanish translation of the

curricula and program-related materials. But beyond language translation, it was frequently described that some curriculum videos were not inclusive of all racial and ethnic backgrounds. Also, the abstinence only until marriage message was considered incongruent for some Native American tribes. Short of developing a new curriculum that is culturally sensitive, it is recommended that more concrete mechanisms continue to be used to understand the issues about cultural sensitivity, such as a forum for program contractors to share their experience and skills in this area, and an in-depth training from experts in this field.

3. *Provide training for educators not receiving it.* A majority of the educators reported receiving no targeted training for the abstinence only program and only receive on-the-job training.
4. *Provide training for educators that focuses on classroom management techniques and team-building.* Results from questionnaires and the focus groups suggest that one of the most likely obstacles to successful program delivery are disinterested and disruptive students. Educators frequently requested this training in classroom techniques that might help them better manage these types of students.
5. *Provide training to program staff on how to work successfully with the schools, teachers and administrators, how to insure buy-in, and how to create an atmosphere where the abstinence educators feel welcome.* This recommendation stems from discussions of the role of other adults in the participants' lives, and how they can influence the success of the program. Many educators were working on ways to successfully incorporate other adults, and had already experienced success with strategies they would be willing to share.
6. *Provide training that allows educators to share their classroom experiences of teaching in a variety of settings with different target groups.* This recommendation is based on comments made during focus group discussions with the educators. Some educators suggested that a "master teacher" training model could be used whereby new educators could follow a master teacher and learn from their effective techniques.
7. *Explore gender differences in classroom composition.* Where curriculum materials require open discussion and sharing, coed environments may be conducive to more honest expression among program participants (particularly with the boys). Information based content, such as presentation of material on puberty/physiology, may be delivered most successfully to single gender groups.
8. *Consider discontinuing programming to young children age 10.* ADHS should consider whether the effort expended on targeting this age group is worthwhile given the type of programming and the numbers served so far. The children's programming emphasizes self-esteem and social skills and are very similar to other life skills/social skill building programs delivered in schools and after-school settings, and does not emphasize abstinence concepts. The data also showed

that programs serving this age group includes children who are younger than the ADHS specified target group of age 10 or older. Furthermore, there are few findings from previous evaluations and research that support this strategy for such young populations in reducing sexual risk behaviors. It is questionable whether this approach is effective for achieving the Arizona Abstinence Only Education Programs' long-term goal of reducing non-marital sexual behavior among teens and adults.

Based on the findings from the analysis of the short-term program outcomes the following recommendations for the program are:

9. *Abstinence only program should continue to address the psychological variables they target.* The abstinence only programs are targeting variables—sexual beliefs, attitudes, perceived norms, self-efficacy, and intentions—that are related to sexual behavior and that are modifiable. They should continue to address these psychological variables.
10. *Multiple factors should continue to be targeted.* Because the effects of any one of the program variables is quite small, programs should continue to address multiple factors.
11. *Recognize the complexity of changing human sexual behavior.* The variables that programs are targeting are also affected by other factors that are more difficult to change, such as family structure, school achievement, and the adolescent's involvement in other problem behaviors and delinquency. This means that changing the beliefs, attitudes and intentions is likely to be even more difficult because of factors outside of the control of the programs.

Recommendations for the Evaluation

1. *Continue to examine the links between the program model constructs and change in sexual behavior.* The personal and societal costs of adolescent pregnancy and birth may mean that even small effects that represent a delay of sexual behavior for a relatively few number of participants may still be cost-effective. Therefore, it is important to examine the links between change in the program model variables, and change in behavior.
2. *Continue further attempts to better measure the characteristics that make up the Arizona Abstinence Only Education Program.* There are aspects of the various abstinence programs that seem to have an effect on the targeted program variables, particularly motivational and informational curricular emphases. This suggests that it may be possible to identify particular curriculum features that are optimally effective with particular groups of adolescents, and thereby to develop a “best practice” template for curricula to reduce the variation in what is taught across the State. Further attempts to better measure relevant program characteristics more systematically would be valuable, for example measuring such program elements as: motivation, information, skills, self-efficacy and class size.

3. *Implement follow-up assessments to strengthen the evaluation design.* The results from the Year Two outcome analysis only examine the effects on the short-term outcomes or intermediate variables that lead to the longer-term outcome of delay in sexual behavior. The short-term outcomes were only examined because the education programs are not of sufficient duration to determine credible change in sexual behavior. Follow-up assessments of some program participants will help to determine whether the program does delay sexual behavior.
4. *Follow up on unexpected findings through focus groups, interviews, and literature searches.* The unexpected findings in the Year Two analysis were:
 - C Controlling for all other factors, girls, and participants who report higher levels of self-efficacy, were more likely to report having had intercourse.
 - C An average decline in the perceptions of social norms to be abstinent were found. This scale measured such concepts as rejecting the need to have sex in order to be popular and feel important, and knowing about birth control and its importance.

These unexpected findings should be examined to further understand the complex relationships between the program model factors and the participants' attitudes, intentions, and behaviors.

Recommendations for Media Campaign

1. As long as media funds are available, continue the emphasis on running TV ads, as this is the media format that produces the greatest degree of exposure.
2. Continue to assess the responsiveness of the target population to the ads, since this is critical to the impact of the ads. More focus groups should be conducted with teens, possibly with participants in the abstinence only programs, in order to discover even better ways to reach out to their peers.
3. Since this year's ads were specifically designed for adolescent males, future ads may want to target parents more directly.
4. The public relations effort has been well received by providers and greater participation from providers who have not used assistance should be encouraged.
5. Continued effort should be directed at providing media messages through the programs that use a social marketing strategy. A social marketing strategy would use media to influence the social acceptability of an idea. For example, the abstinence media campaign could direct some of its effort to communicating normative data about the large percentage of students that do remain abstinent.