Conference Compendium
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Welcome

Welcome to the Second National Conference on the Evaluation of Abstinence Education Programs. This conference sponsored by the Office of Population Affairs (OPA) and the Administration for Children and Families (ACF) at the U.S. Department of Health and Human Services (DHHS), is a unique opportunity for abstinence program experts, evaluators, policy makers, and other youth professionals to share information about the important topic of evaluation of abstinence education programs.

The conference features presentations by evaluation experts and showcases papers and posters that have undergone a rigorous peer-review process. The conference theme envisions evaluation as a journey that unites program staff and evaluators in effective collaboration.

This conference offers wide exposure to and understanding of many ideas and tools. Over the next two days, both practical and technical information on evaluation will be emphasized. The conference presents selected papers that address: strengthening evaluations; theory driven evaluations, and abstinence education for Latino youth. Examples of other sessions include: using the tool kit to develop your program evaluation; evaluation check-up; and qualitative research methods. There will also be a session on evaluations of programs that focus on other types of prevention for youth, including alcohol and drug prevention and juvenile delinquency prevention, as well as a special session about brain development in adolescents. The ending session will provide useful information about Federal resources for abstinence education evaluation.

“Strengthening Programs through Scientific Evaluation” comes from knowing what strategies work so that we can carefully design successful programs. It is a key element in our commitment to abstinence education, and adolescent health and well-being.

We look forward to sharing with you the latest information available to support high-quality abstinence education programming and evaluation. We hope you will return home with tangible ways to enhance the design and evaluation of abstinence education programs.
The Review Process for Manuscripts and Poster Abstracts

Overview
The manuscripts and posters presented at this conference were selected after a thorough review that sought to identify work that addressed important evaluation issues and illuminated the state of evaluation of abstinence education programming. By highlighting important evaluation issues, the manuscripts and abstracts that have emerged from the review process will contribute to an informative learning process for the field.

Objectives of the conference and the call for submissions
In 2006, the Office of Population Affairs (OPA) and the Administration for Children and Families (ACF) announced their sponsorship of a second national conference on evaluation of abstinence education. They called on past and current grantees of federally funded abstinence projects to submit manuscripts and poster abstracts for possible presentation at the conference and outlined the purposes of the event:

- To broadly disseminate information about evaluations of abstinence programs
- To provide insights for the development and implementation of effective abstinence programs
- To assist evaluators and program directors by providing suggestions and strategies for conducting quality evaluations
- To facilitate submissions of high-quality evaluations to peer-reviewed journals.

Manuscripts and posters were sought from entities operating programs that focused exclusively on abstinence as a prevention message (that is, programs operating within the context of the legislative definition of abstinence education as contained in Section 510(b)(2) of Title V of the Social Security Act, P.L. 104-193). A general announcement soliciting papers and abstracts was made to former and current grantees supported under four Federal abstinence education programs: (1) Title V Abstinence Education grants; (2) Community Based Abstinence Education (formerly known as Special Projects of Regional and National Significance, or SPRANS) grants; (3) Adolescent Family Life prevention grants; and (4) United States Agency for International Development Abstinence Education grants. Competitive grantee lists compiled by the AFL, ACF, and USAID program staffs were utilized in making the call.

Interested grantees were invited to submit a manuscript (using the formatting style of peer-reviewed journals such as the APA, AMA, or Index Medicus) for presentation at the conference, or an abstract to be featured at the conference poster session. The submitters were encouraged to highlight evaluation design, discuss measures and statistics, and display program results. Because the conference is intended to assess the state of the field, critically examine current evaluation practice in the field, and offer a learning experience to evaluators and program administrators, presenters have been encouraged to be prepared to answer questions and offer advice to their colleagues. Papers and abstracts presented at last year’s conference were not eligible for inclusion, though previous presenters who had developed new analyses or had collected new data on the same program were permitted to submit papers and abstracts for this year’s conference. In addition, individuals that presented in last year’s poster session were welcome to develop and submit paper manuscripts.
Review process
In response to the initial announcement, 29 programs expressed an interest in presenting either a paper or a poster about their evaluation efforts. Those programs received additional details about developing and submitting a manuscript or abstract. Included in that guidance was a detailed description of the review criteria for judging paper and poster submissions. Paper manuscripts were evaluated based on four major categories:

- Introduction, with subcategories such as “clear statement of research question,” “clear brief literature review or theory,” and “clear program description”
- Methods, with subcategories such as “sample/participants,” “data collection methodology,” “appropriate analytic techniques,” “design based on research question,” and “appropriate follow-up period and response rate”
- Results, with subcategories such as “clear statements/depiction,” and “description of sample characteristics and study outcomes”
- Conclusions/discussion, with subcategories such as “conclusions supported by results,” “positive and negative findings described,” “study limitations,” and “recommendations based on results”

Manuscripts
A multi-disciplinary team of ten reviewers (Federal and non-Federal) with evaluation expertise was selected to review the sixteen paper manuscripts that were eligible for consideration. Two experts were assigned to review and score each manuscript. The reviewers were blinded to the identity of the submitting organization and the associated manuscript authors. The reviewers were asked to score each paper according to eighteen separate review criteria (scores ranged from 1 for inadequate to 4 for very good, on each criterion), grouped by the four major categories of: Introduction; Methods; Results; and Discussion. In addition, the reviewers provided an overall summary assessment: appropriate for journal submission; appropriate for oral presentation at conference; appropriate for poster presentation at conference; or not appropriate for presentation at conference. Embry Howell, Ph.D., and Brigette Courtot of the Urban Institute oversaw the selection of reviewers and managed the review process for manuscript submissions. Dr. Howell reviewed all of the manuscripts and the reviewer assessments, and made recommendations to OPA regarding which of the sixteen should be selected for oral presentations. Ten were recommended for oral presentations and the remaining six for poster presentations.

Poster abstracts
Submissions of abstracts for poster sessions were reviewed by a single evaluation expert, who made recommendations to OPA regarding the submissions. Twenty-seven abstracts were eligible for consideration, and the reviewer recommended twenty-three abstracts for poster presentation at the conference. Feedback from external reviewers and federal staff was shared with submitters. Those critiques provided suggestions about areas that could be strengthened. Conference participants were encouraged to revise their work in response to the suggestions.
Manuscript and Poster Abstract Reviewers

- Martha Burt, PhD
- Brenda Donnelly, PhD
- Embry Howell, PhD
- Meredith Kelsey, PhD*
- Lisa Lieberman, PhD
- Christine Markham, PhD
- Dennis McBride, PhD
- Susan Newcomer, PhD*
- Leslie Raneri, MSSW, MPH*
- Leah Robin, PhD*
- Christopher Trenholm, PhD

*Federal Government Employee
Manuscript Abstracts

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Evaluation of Why kNOw Abstinence Education Core Curriculum and Road to Excellence Programs 2005-2006

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Lesley Scearce, MPA and Amber Cathell
Why kNOw Abstinence Education Programs, Chattanooga, TN

This paper reports the results of the second year evaluation of WhykNOw Abstinence's Core Curriculum and Road to Excellence programs. The Core Curriculum is offered in Southeast Tennessee and Northwest Georgia area schools to all eligible middle and high school students over a one-week period each year. The Road to Excellence is a voluntary program that meets after school throughout the academic year.

The evaluation is based on multiple administrations of two questionnaires. Core Curriculum students completed a pretest survey, a posttest survey, and a post-posttest survey. Road to Excellence students completed the Peer Evaluation Questionnaire upon entry into the program and again at the end of the school year.

The Core Curriculum evaluation compares results at each of the three intervals and finds a strong initial response to the program with some, in most cases inconsequential, decrease in program effects over time. Statistical analysis indicates differences in response based on race and gender. These results are contrasted with the previous year's evaluation.

Road to Excellence results generally indicate positive responses. However, the analysis shows that most Road to Excellence students enter the program with strong positive attitudes, thus diminishing the apparent impact of the program. These results may be explained by prior participation in the program.

*Please note that a PowerPoint presentation, including more details about this evaluation, is also available on the conference mini-disc.*
That early sexual involvement may have negative consequences has long been claimed. In response to concerns, government funding for abstinence education has been provided—with a most noteworthy instance being Section 510(b) of Title V of the Social Security Act. However, few scientific evaluations of these programs have been conducted. Results are reported from one evaluation that aimed to determine program impact focusing on eight legislative priorities federally mandated for Title V abstinence education interventions. An equally important aim is to describe the development and psychometric properties of a measure—the only one of its kind—designed specifically for use in the evaluation of Title V programs.

Participants \((N = 1425)\) randomly assigned to intervention or comparison condition were assessed via the Youth Survey, the measure designed specifically for Title V evaluations which proved to be reliable (internally consistent) and valid (content, instructional, and criterion-related validity). Choosing the Best Life was the curriculum implemented in 66 seventh- and eighth-grade classrooms. Seventh- and eighth-grade modules were presented by a trained abstinence educator on 5 consecutive days during the academic year with 1 day being used for either the pretest or posttest and the remaining 4 days being used for the actual delivery of the curricular lessons.

Comparison and intervention groups were significantly and meaningfully different on the legislative priority scale scores from the Youth Survey, with the intervention group reporting increased agreement with the abstinence message. These results provide support for abstinence interventions and for a measure uniquely suited for use in the evaluation of such programs.

*Please note that a PowerPoint presentation, including more details about this evaluation, is also available on the conference mini-disc.*
The Heat is On.....Self-Efficacy for Sexual Abstinence and Gender Differences in a Rural Adolescent Population

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Although teenage pregnancy rates in the United States have declined since 1991, specific geographic areas of the country may be more at risk. Certain risk behaviors are more likely to occur among subpopulations defined by gender, race/ethnicity and age. An integrative review of adolescent sexual decision-making (Hulton 2001) confirmed gender differences as an important variable in adolescent sexual decision-making. Previous research on sexual abstinence programs has concluded that more rigorous studies using theory-based evaluations and instrument scales with stronger psychometric properties are needed. The purposes of this study were (1) to further construct, define the dimensionality, and determine the reliability and validity of a Adolescent Self-Efficacy Scale for Sexual Abstinence (ASESSA) and (2) to determine if there are significant gender differences in adolescent self-efficacy for sexual abstinence using the ASESSA.

This study was part of a larger cross-sectional investigation to evaluate a school-based sexual abstinence curriculum in various groups, including middle-school and high school populations and an alternative school population in a Mid-Atlantic state. Middle school students (n= 80), high school students (n = 62), and alternative school students (n = 10) in a rural community received a 10 session abstinence-based, character building curriculum. Four demographic questions (age, gender, racial/ethnic background, family composition) were summarized with descriptive statistics. The AFL Core Instrument was used with the additional ASESSA scale added for the purposes of this investigation. Previous work on the ASESSA reported concurrent validity and Cronbach’s alpha of .91.

The ASESSA scale demonstrated strong psychometric properties and was easily understood by the target populations. Using independent sample T-tests, significant differences were seen between the genders in the variable of self-efficacy for sexual abstinence in all age categories of middle school, high school, and alternative school students. Overall, males reported lower scores on Self-Efficacy for Sexual Abstinence.

Sexual abstinence programs continue to face difficult challenges of providing meaningful programs that educate and encourage behavioral changes for both genders. A greater understanding and measurement of gender differences in adolescent sexual decision-making can assist parents and educators to address the health and social issues associated with adolescent sexual activity and provide a basis for more effective programming.

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The Effects of an Abstinence Education Program in Tucson, Arizona on Adolescent Hispanic Males

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Pima Prevention Partnership, Tucson, AZ

The B-Unique abstinence education program implemented in school based settings with 8th-12th grade students in Tucson, Arizona seeks to enable students to remain sexually abstinent. In depth statistical analysis of the pre program and post program survey data for the 2005-2006 school year is presented in this paper. Utilizing research questions bolstered by previous research and literature, this paper hypothesizes the B-Unique program impacts students differently based on their ethnicity.

This study explores the differences in program impact on Caucasian and Hispanic males as it relates to their increased knowledge of the physical, emotional, and social risks associated with sexual behavior. Data analyses for this study consisted of the creation of index variables, bivariate and univariate analysis, and focus group data analysis.

Results indicated statistically significant differences in pre-sexual and sexual behaviors of Hispanic male students and their Caucasian peers as assessed from pre test to post test. Important findings include statistically significant improvements in pro abstinence knowledge and refusal skills, attitudes toward abstinence and increased commitment to abstinence until graduation and marriage by Hispanic male students upon program completion. Statistically significant increases obtained by Caucasian males are also noted, including improvements in pro abstinence attitudes, and knowledge and refusal skills. While positive gains are made in commitment to abstinence until graduation and marriage, Caucasian male students do not make the large gains seen by Hispanic male students. Results indicate that the socio-demographic status of students, including living arrangement, average grade earned in school, and age at first dating is not as much of a factor in students' sexual behavior as may be expected. However, results do indicate that the B-Unique program is significantly impacting Hispanic male students to make positive choices, enabling them to remain sexually abstinent.

*Please note that a PowerPoint presentation, including more details about this evaluation, is also available on the conference mini-disc.*
The Pure & Simple Lifestyle (PSL) Project curriculum, The Pure & Simple Choice (PSC), was developed and implemented in Sedgwick and McPherson County, Kansas, by Abstinence Education, Inc. Development of each of the eight A-II abstinence education criteria provides central themes for eight dramatic episodes, presented by abstinent high school mentors to audiences 12 to 18. The project purpose is to promote abstinence until marriage as primary prevention to adolescents, parents, and community members.

First year evaluation purposes were to 1) assess teen participants' knowledge, beliefs, attitudes and intentions before and after curriculum instruction by pre-, immediate post-, and 6 months post-intervention surveys; 2) assess survey administration protocol; and 3) disseminate findings to the community through community mobilization activities.

In the first four months, four to eight episodes of the curriculum were attended by 535 participants in urban and rural settings, and 216 completed pre-/post-surveys. A paired sample t-test was conducted to assess pre-/post-instruction in four categories including sexual activity, drug and alcohol use, pregnancy, and relationships with parents.

The project reached groups in all targeted geographical areas. Twenty-three of 63 survey items demonstrated a statistically significant change in pre-/post-assessment, generally supportive of an abstinent lifestyle. Evaluation findings enhanced curriculum fine-tuning, program delivery, and survey administration protocol to better accommodate at-risk participants.

Participants' immediate changes toward abstinence demonstrate effectiveness of the PSC curriculum in both urban and rural areas. Six-month post-surveys will demonstrate long-term curriculum effects. Continued efforts should be directed at reaching more at-risk youth and increasing participant pre-/post-survey completion. Participants’ identification of parents as the greatest source of accurate, truthful information supports the project’s efforts to engage and empower parents as influencers of teens to choose and maintain an abstinent lifestyle.

*Please note that a PowerPoint presentation, including more details about this evaluation, is also available on the conference mini-disc.*
Increasing Protective Factors for Mexican-American Female Adolescents

Lisa Rue, PhD
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After conducting focus groups with Mexican-American adolescents, parents and professionals, a community based non-profit developed a culturally competent curriculum known as the FRIENDS FIRST Quinceañera Program. This primary prevention-mentoring program seeks to delay the onset of sexual activity in Mexican-American adolescents by linking a 24-hour curriculum intervention to the popular Quinceañera celebration widely practiced in the United States.

Adolescents (N = 120) 11 - 15 years participated with their parents for 24 hours of prevention education delivered in a faith-community setting. The program concluded with a graduation ceremony. Evaluation methods included a pre- and post-test questionnaire for parents and youth. Pre and post variables were calculated to measure percentage point increases for program target variables from baseline to posttest.

The 3-year pilot and formative evaluation demonstrated that the FRIENDS FIRST Quinceañera program was well received by participants and increased protective factors such as parent/child communication about sexuality and sexual boundaries during a key developmental stage.

*Please note that a PowerPoint presentation, including more details about this evaluation, is also available on the conference mini-disc.*
Abstinence Education Program Evaluation: An Application of Structural Equation Modeling and Social Theory

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Mark A. Carrozza
Institute for Policy Research, University of Cincinnati, Cincinnati, OH
Valerie Huber
Ohio Department of Health, Columbus, OH

Structural Equation Modeling (SEM) is a very general, very powerful multivariate analysis technique that includes specialized versions of a number of other analysis methods including factor analysis, regression, and path analysis. In the present research, using matched pretest and posttest data, Structural Equation Modeling and the Integrated Theory of Planned Behavior are used to evaluate Ohio’s Abstinence Education Program during 2005-2006. The research illustrates significant research application of Structural Equation Modeling and social theory to evaluating the impact of abstinence until marriage programming on teen attitudes and behavior regarding sex and other high risk behaviors.

Data was collected with a pilot questionnaire. The statistical analysis is based on complete matched data from 2,199 middle school and 1,507 high school participants affiliated with 11 of the 13 participating Ohio sub-grantees. Pre-test and post-test survey data were first analyzed through descriptive statistics and measures of association which indicate how strongly two variables are related to each other. When statistically appropriate, interpretations based on the descriptive statistics were extended through the use t-tests and multivariate statistical procedures such as factor analysis, Cronbach’s alpha and regression.

Preliminary results suggest that participation in abstinence education programs for students in grades six through eight improved short-term outcomes regarding the above components of the abstinence education initiative. Of particular importance, participation in sub-grantee programming increased the overall statewide number of students intending to remain sexually abstinent. Additionally, there was no statistically significant increase in overall participation in the Risky Behavior scale measures, which included alcohol use and sexual activity. In contrast, analysis showed no statistically significant improvement between the pre-test and post-test on measures of authoritative parenting style and decision-making and refusal skills.

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Latina youth in middle and high school and their parents were the target population for community programs and 110 youth responded to pre- and post-intervention surveys. The school programs targeted all youth, regardless of ethnicity, but schools with 12% or more of enrolled students with Latino backgrounds were recruited. By the end of the abstinence education program, 69% of participants who attended the Intensive in-school intervention \((n = 575)\) reported that they intend to be sexually abstinent until marriage. After the Intensive intervention, 77% of the respondents reported that they either agreed or strongly agreed that they could “say no” if “someone tries to get me to have sex.” Latino parents \((n = 38)\) reported being more comfortable in talking with their child about sex and that their values were more in agreement after the intervention. In the pre- to post-intervention comparison, changes were in the direction of more agreement with positive and healthy attitudes.

Students gave high ratings to specific ways the curriculum titled *Family Accountability Communicating Teen Sexuality* (FACTS) in English and *Datos y Razones* (DATOS) in Spanish, helped them in handling problems and resisting peer pressure. Of the 16 items targeted in the area of developing personal and social support for Latino youth in the community, all were identified by a greater percentage of students at Time 2, which was about 4 to 6 weeks after Time 1. Eight had statistically significant increases in the 95% confidence range or higher. For the Intensive intervention, the percentage of respondents reporting they had sexual intercourse did not show a statistically significant \((p < .05)\) increase.

*Please note that a PowerPoint presentation, including more details about this evaluation, is also available on the conference mini-disc.*
The Influence of Moral Competence on Abstinence Education For Pre and Early Adolescent Females

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Cheryl Anagnopoulos, PhD
Black Hills State University, Spearfish, SD

The Too Young For Two program of the Girls Incorporated of Rapid City provides pre and early adolescent girls with an abstinence education program addressing risk behaviors, making healthy decisions and delaying the early onset of sexual activity. Embedded within program is a character education component intended to improve the moral development of young girls.

One research problem and question in this study examines the impact of a character education program on the authentic moral decisions of pre and early adolescent girls regarding early sexual initiation or abstinence. Using a randomized pre/post comparison group design (N= 2,496), quantitative and qualitative data probed both frequency of risk-taking behaviors, other inappropriate behaviors (e.g., cheating, stealing, and lying), girls’ attitudes regarding their moral obligations toward others and the acceptability of immoral behaviors if they did not harm others. Moral behaviors were highly correlated to each other.

In the three-year study moral cognition (self-promotion about moral consequences) was a significant predictor of moral behavior in the pre-intervention girls. Moral behaviors (lying, cheating, and destructive action) in the post-intervention girls were found to be a significant predictor of the level of sexual activity. Hierarchal regression analysis with the four identified moral competence factors (behavior, responsibility, cognition, and beliefs) as predictors, show that the girls who had the most immature moral competence changed significantly from the pre intervention to post intervention suggesting that the character education program had impacted their decisions about sexual activity and other risk behaviors.

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An Evaluation of an Abstinence Only Education Curriculum Series: An 18-Month Follow-up

Michael Young, PhD and George Denny, PhD
University of Arkansas

This study examined the results from an 18 month follow-up evaluation of an abstinence education curriculum. Participants were students from 15 school districts recruited to participate in the project. The intervention was the Sex Can Wait curriculum series consisting of upper elementary, middle school, and high school components.

The process evaluation involved using teacher reaction sheets and teacher checklists. The evaluation of the impact of the program on student outcomes involved the use of a voluntary student self-report questionnaire. The questionnaire for students in grade seven and lower included two questions addressing sexual behavior. The questionnaire for students in grade 8 and above included five additional sexual behavioral questions.

The research design for the study was a quasi-experimental, pretest-posttest-follow-up control-group design. Analyses of covariance used the pretest as the covariate and compared adjusted means for the two groups (treatment and comparison) for all interval-level variables. Logistic regression was used to analyze data for the two behavioral questions to determine whether group membership (treatment-comparison) had a significant relationship with sexual behavior at posttest and at follow-up, when controlling for virgin status and behavioral intent at pretest.

Results indicated short-term effectiveness as follows: Upper elementary intervention students indicated higher levels of knowledge, hopefulness and self-efficacy than did comparison students. Middle school intervention students did not differ from comparison students. High School intervention students reported lower participation rates than comparison students in sexual intercourse (ever and in last month), a more positive attitude toward abstinence, and greater intent to remain abstinent. Results indicated long term (18 month) effectiveness as follows: Upper elementary intervention students had greater knowledge and were less likely than comparison students to report participation in sexual intercourse in the last month. Middle school intervention students were less likely than comparison students to report participation in sexual intercourse (ever and in last month). High School intervention students evidenced greater knowledge and intent to remain abstinent than did comparison students. Results indicate the program did produce positive results that should be considered by those interested in abstinence education.

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Poster Abstracts

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Assessing the Effectiveness of an Abstinence-Based School/Community Intervention

Eileen Mazur Abel, PhD and Michele Greco, MSW
BETA Center, Orlando, FL

Introduction
F.A.M.E. (Family Action Model For Empowerment) is a multi-dimensional school and community-based program with two primary goals: 1) promoting and strengthening healthy family functioning, and 2) increasing the awareness of sexual abstinence as a positive choice for youth.

The program serves adolescents, enrolled in grades five through nine, and their families in numerous community-based venues. It targets two specific zip-code rural areas that have the highest teen birth rates in the tri-county area of Florida. Participants come from a variety of ethnic/racial backgrounds including African-American, Latina/o, Haitian, Asian, Mixed Race, and Caucasian.

The intervention dosages are provided in one-hour sessions in three primary formats: 1) a 12 week curriculum administered within the public school system given in a psycho-educational format; 2) an after-school program that continues for 12 sessions that also employs a psycho-educational mode; and 3) a nine week parent education program that is provided at a variety of community-based locations. Art, music, dance, group activities, role-play, audio-visual aids, and written materials are included in all of the aforementioned venues.

Content focuses on asset building, parent-teen communication and relationship, self-esteem, healthy relationships, dealing with peer-pressure, and the benefits of valuing sexual abstinence. The ultimate goal of F.A.M.E. is for parents and teens to develop more open communication, be able to discuss health relationships and sexual relationships, and for both to parent and child to value the choice of abstinence.

Methods
A non-equivalent group pre-test/post-test quasi-experimental design was employed to evaluate the effectiveness of the F.A.M.E. program. Both the intervention group and comparison group were drawn from the public school system, grades five through nine.

A one-way ANOVA was computed comparing the post-test scores of the treatment youth with both their post-test scores and the scores of a non-equivalent comparison group.

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Results
Four of the five study hypotheses were supported. Below is a summary of each hypothesis and related findings.

H1. Hypotheses were that there would be a statistically significant difference between comparison group participants and treatment group participants in the area of reported self-esteem. Hypothesis 1 was supported. A statistically significant difference between comparison group participants and treatment group participants in the area of reported self-esteem was found at the .000 level. (F=90.860, df=2, 303).

H2. Hypotheses were that there would be a statistically significant difference between comparison group participants and treatment group participants in the area of reported ability to resist peer pressure. Hypothesis 2 was supported. A statistically significant difference between comparison group participants and treatment group participants in the area of reported ability to resist peer pressure was found at the .000 level. (F=18.388, df=2, 297).

H3. Hypotheses were that there would be a statistically significant difference between comparison group participants and treatment group participants in the area of reported communication with parents. Hypothesis 3 was supported. A statistically significant difference between comparison group participants and treatment group participants in the area of reported communication with mother was found at the .000 level. For mother (F=108.077, df=2, 296) and father (F=61.297, df=2,288).

H4. Hypotheses were that there would be statistically significant difference between comparison group participants and treatment group participants in the area of reported attachment to parents. Hypothesis 4 was supported. A statistically significant difference between comparison group participants and treatment group participants in the area of reported attachment to parents via “Do I Matter” was found at the .000 level. For mother (F=136.099, df=2, 298) and father (F=98.003, df=2,289).

H5. Hypotheses were that there would be a statistically significant difference between comparison group participants and treatment group participants in the area of reported attitudes toward abstinence. Hypothesis 5 was not supported.

Discussion
Overall, findings indicate that the intervention appears to be effective in increasing attitudes and behaviors, among adolescents and their families, associated with reduced incidence of high-risk sexual behaviors among teens.

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Teens Taking Charge (TTC): A Youth Development Approach to Abstinence Education

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Introduction
Based on youth development theory and funded by DHHS, Office of Adolescent Pregnancy Programs (AFL), Teens Taking Charge (TTC) promotes adolescent sexual abstinence. TTC evaluates how a mix of intervention strategies affects participants’ knowledge of risks and development of skills to avoid early sexual activity; personal leadership skills; achievement motivation; and “connectedness” to family and community. Interventions tested are: school and community-based abstinence education groups in grades 6th through 12th; youth leadership/peer education; and family and community involvement.

Since 2001, TTC has worked with an average of 400 teens/year with a retention rate of over 70%. TTC participants’ annual face-to-face contacts averages 11, ranging from 3 to 44.

Methods
Evaluation design uses multi-pronged/layered methods; each directly tied to a specific objective measuring changes in knowledge, behavior, attitudes, intentions, academic progress, and program and community involvement. It uses a quasi-experimental design using a pre/post testing with a comparison group (Year 04 N=360); tracking communication with family/friends about abstinence; participant feedback surveys; and parent focus groups.

The evaluation addresses the following questions:

- Do TTC participants increase factual knowledge and skills needed to maintain abstinence from sexual activity and other high-risk behaviors?
- Do TTC participants have an increased self-awareness of personal leadership abilities and skills?
- Do TTC participants increase achievement motivation?
- Do TTC participants increase “connectedness” to family/community?
TTC pre-/post-test instruments have been well tested for over nine years. Using the self-report Communication Tally, TTC pioneered measuring teen communication about abstinence with family and friends, and has begun to compare this to parent perceptions about communication with their teens. The Youth Report Card produced rich quantitative and qualitative information about program impact.

**Results**

TTC participants learn and maintain positive attitudes about avoiding high-risk behaviors that have been associated with the choice to abstain. Analysis of changes between the pre- and post-tests for TTC participants showed significant improvement on all knowledge-based and key attitude questions. The comparison group showed significant improvement on only three (3) knowledge-based questions dealing with reproductive health and no improvement on questions related to STI attitudes toward or indicative of early sexual activity. Based on comparison of post-test results, TTC participants are more likely to: view dating someone three or more years older negatively (p=.00); feel comfortable talking with a parent/trusted adults about personal issues (p=.00); and report support for abstinence from family and friends versus the comparison group (p=.01). All results are based on analysis of matched pre/post-test responses using the McNemar test.

Participants reported over 28,000 conversations on TTC-related topics during the past program year, averaging 67 conversations per participant. Participants most often talk with mom, followed by friends, dad, siblings, and cousins.

Responses (275) from the TTC Youth Report Card showed high degrees of satisfaction with program participation as well as excellent communication and understanding of program “core values”. TTC respondents reported that TTC: helped them: avoid risky sexual behaviors (88%), avoid drugs and alcohol (90%); gain leadership and decision-making skills (95%); and stand up for their views (91%). 75% of respondents graded TTC with an “A.”

**Discussion**

The TTC evaluation results show that teaching abstinence using a youth development approach is successful. TTC participants gain knowledge to make informed decisions about early sexual activity and other high-risk behaviors. Comparison group results confirm this. Other measures indicate a strong internalization of the concepts taught by the program.

The program consistently uses evaluation results to guide program adjustments and enhancements. The most noteworthy, was the development of a successful grant to

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implement an academic support center for participants in response to low academic achievement.

There are several challenges in carrying out the evaluation plan. The evaluation design is quasi-experimental and findings must be viewed within this limitation. Collection and analysis of some data has been difficult. While the participant retention rate is strong, it stretches resources so that some planned activities have not been fully implemented.
For Which Students is *Sex Can Wait* Most Effective?

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**Introduction**

This study is a secondary analysis of 5-year evaluation results of the *Sex Can Wait (SCW)* curriculum conducted in Arkansas school districts. Previous analyses found differences both at posttest and at 18-month follow-up between the treatment group and comparison groups in student knowledge, attitudes, behavioral intent, sexual behavior—ever and sexual behavior—last month. The purpose of this study is to test the moderator variables (a) gender, (b) race, (c) who the student lives with, (d) religious practice, (e) religious feeling, and (f) past sexual activity, to determine if the *SCW* curriculum was especially effective for any of these subgroups.

**Methods**

Groups. We used three levels of the *SCW* curriculum: Upper Elementary (grades 5-6), Middle Level (grades 7-8), and High School (grades 9-12) with treatment and comparison groups.

Instrumentation. Students in both groups with parental consent completed a questionnaire at pretest, posttest, and 18-month follow-up that assessed the outcome variables and the moderator variables with matching IDs.

Analysis. We dichotomized each moderator variable and created a group-by-moderator interaction variable for each. Continuous outcomes (Knowledge, Attitude, Behavioral Intent) were tested with ANCOVA, and dichotomous outcomes (sexual behavior—ever and last month) were tested with logistic regression using *SPSS* (*p*<.05).

**Results**

With three levels of curriculum, five outcomes, and seven moderator variables, 105 statistical procedures were conducted. These findings showed a significant interaction effect (*p*<.05):

**Upper Elementary**

Race: On posttest knowledge *SCW* positively affected White students more than others.

**Middle Level**

Gender: On follow-up behavioral intent, *SCW* positively affected females more than males.

Race: On sexual behavior—ever, at both posttest and follow-up *SCW* had a greater positive effect on white students.

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Religious practice: On posttest attitudes, SCW had greater positive effect on those who did not attend church weekly.
Past sexual activity: On posttest sexual behavior–last month, SCW had more positive effect on students who were virgins at pretest.

High School
Gender: On follow-up attitude, SCW had a greater positive effect for females.
Race: On follow-up knowledge, SCW had a greater positive effect on white students. At posttest, SCW had a greater positive effect for white students on behavioral intent and on sexual behavior–last month.
Lives with both parents: On follow-up behavioral intent, SCW positively affected students from a two-parent home more than others.
Religious practice: On posttest sexual behavior–ever, SCW had a greater positive effect on those who did not attend church weekly.
Religious feeling: On follow-up behavioral intent, SCW positively affected students who rated themselves as religious more than others.

Discussion
The effectiveness of SCW depended on the outcome of interest.
For knowledge, the only moderator variable that mattered was race, with the program having a greater effect on white students than on nonwhite.
For attitudes, SCW made more a difference for females and for those who did not attend church weekly.
For behavioral intent, SCW had more impact on females, whites, students from a two-parent home, and on those who rated themselves more religious.
For sexual behavior–ever, the program had more effect on whites and students who did not attend church weekly.
For sexual behavior–last month the program showed greater effectiveness for white students in high school and for students who had not had sex before.
Findings suggest that the program is more effective for those subgroups less at risk, in keeping with social inoculation theory. A notable exception was program effectiveness for those who did not attend church weekly.

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Evaluation Results From The Choice Game™ Abstinence Education Program

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Introduction
The purpose of the paper is to report evaluation results from The Choice Game™ abstinence education curriculum. The federal government is spending a substantial amount of money to promote abstinence only education. A legitimate concern regarding this approach is whether abstinence education programs are effective in helping young people avoid risky sexual behavior. There are, however, a limited number of evaluations of such programs. Thus, this study is important, because it provides an opportunity to document the effectiveness of one federally funded abstinence only education program.

The Choice Game™ was developed and this evaluation of the program was funded by the Office of Maternal and Child Health under a SPRANS grant. The data collection for this study was conducted during the 2005-2006 academic year.

Intervention - The intervention in this study was The Choice Game™, an interactive computer-based, abstinence education curriculum. The Choice Game provides simulated real-life situations exploring various topics which include dating, premarital sex, peer pressure, drugs and alcohol, teen pregnancy, STDs and others for students to explore and navigate.

The curriculum was implemented in regularly scheduled health education classes by trained volunteer instructors. The curriculum consisted of six 45-minute core lessons which included the topics “My Family, My Self”; “Influences”; “Communication & Refusal Skills”; “STDs & AIDS”; “Alcohol, Drugs, Tobacco Use”; and “Teen Pregnancy.” Time was also allotted for evaluation and a graduation/awards session.

Students received this material one day per week. Students also received audio and game CDs to share with family and friends to reinforce curriculum messages, and to assist in the completion of journal assignments. Students in the comparison group received standard health education information which reflected the New Jersey Core

Methods

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This was a quasi-experimental design. Participants in this study were students from 17 schools in New Jersey that responded to an invitation to participate in the program. Eight of these were public schools and nine were Catholic schools. Schools were assigned to curriculum (13 schools) or comparison (4 schools) conditions. Students from these schools participated in a pretest-posttest evaluation. Five of the public schools (3 curriculum, 2 comparison) also participated in a 10 week follow-up.

The testing instrument was a self-report questionnaire that included five scales: Knowledge (6 items), Family communication (5 items), Attitude Toward Abstinence (3 items), Behavioral Intent (8 items), and Abstinence Until Marriage (1 item). The last “scale”, Abstinence Until Marriage is actually a single item, worded “I plan to be sexually abstinent (not have sex) until marriage.” It was part of the behavioral intent measure, but was also considered separately as an outcome because it is a central focus of the program.

Students voluntarily, and with parental consent, completed the questionnaire before and after curriculum implementation in their regular classroom setting. Students were each assigned an identification number, which allowed student responses to be matched over time. At pretest 1,516 students completed the questionnaire and 1,444 (95%) of these students completed the posttest. At the five schools participating in the 10-week follow-up, 527 students completed the pretest questionnaire. Of these students 515 (98%) of these students completed the posttest, and 483 (92%) completed the follow-up questionnaire. To assess the impact of the program, gain scores for each scale were computed, and then compared by group (treatment/comparison) using an independent t-test.

Results
When considering students from the 17 schools participating in the pretest-posttest evaluation, all five outcomes showed significantly (p<.01) greater gains for the treatment group than for the comparison group. The treatment group made greater gains in knowledge, family communication, attitude toward abstinence, and intent to practice abstinence, including remaining abstinent until marriage.

When considering students from the five schools participating in the pretest-posttest-10 week follow-up evaluation, all five outcomes showed significantly (p<.01) greater gains from pretest to posttest for the treatment group than for the comparison group. The treatment group made greater gains in knowledge, family communication, attitude toward abstinence, and intent to practice abstinence, including remaining abstinent until marriage. At follow-up, four of the five outcomes (all except attitude toward abstinence)
continued to show significantly (p<.05) greater gains for the treatment group than for the comparison group.

Discussion
These results indicate that The Choice Game™ curriculum did produce positive gains in student outcomes (both studies) and that these gains were maintained over the 10-week follow-up period (Study Two). Limitations of the research include the fact that these were self-report data, a substantially reduced number of students participating in the follow-up, and a relatively short follow-up period. Additionally, while behavior intent was measured, actual behavior was not. Nevertheless, these results are encouraging and should be considered by those interested in abstinence education programs.
South Carolina Parents Involved in Abstinence Education
Community and School Initiatives Evaluation

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Introduction
In 2005-6, South Carolina Parents Involved in Education (SC PIE) coordinated, with
financial assistance from a grant, implementation of an abstinence until marriage
curriculum for grades 6-9 in Marlboro County public schools. SC PIE also provided
training for the adults in the community by sponsoring events in both African American
churches and white faith churches and provided training for their teachers.

Methods
Assessment of the Marlboro County program consisted of three parts: testing teacher
preparation, testing students, and attendance in outreach events. Assessment of teacher
training and student learning consisted of administering surveys or tests with knowledge­
based, attitude/behavioral and demographic items.

The subjects for the teacher-training workshop were given a paired, anonymously
administered pre- and post-test to measure knowledge gained, accompanied by an
attitudes survey. Before-and-after scores were computed, and a pair-difference T-test
was used for analysis.

An assessment of the Marlboro County students was done using tests provided by the Worth
the Wait organization with slight modifications. Testing was administered before and after
curriculum instruction. These were not paired by student, to ensure anonymity. Non-paired
t-tests were used for analysis.

The knowledge items were scored based on an answer key. Behavioral items were scored
using a subjectively assigned weighting. The weights are designed to show whether a student
has positive behaviors and attitudes (self-reported), or negative ones. The scores for each
response ranged from -2, -1, 0, 1, to 2. Demographic data was used to disaggregate the
averages by sex and race.

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conclusions described in these papers and abstracts. The statements expressed are those of the
authors and do not necessarily reflect the views of the Department.
Results
For the teacher training, the knowledge-based test shows a slight, but significant ($p<0.017$) increase in scores between pre- (84%) and post-tests (90%). The difference between pre- and post-course administration for the attitude section was significant ($p<0.008$) and positive, demonstrating that attitudes had changed in the desired direction.

Knowledge-based item scores by grade level, show that generally students exhibited gain in knowledge after taking the class. The increase in scores is statistically significant ($p<0.001$) for grades 6-8 with a smaller increase in 9th grade correct scores. Disaggregating by gender shows significant ($p<0.001$) but not large differences, except in the 9th grade, where it is marked. Male students scored higher than female 6th graders (65% compared with 62%). Among 9th graders, however, female students’ score (50%) was lower than male students (43%).

Comparisons by race show lower scores for minority students, although they still showed significant increases between pre- and post-tests. The seventh grade minority students showed the largest improvement in percentage correct, with a 26% increase in test grades. A correlation of 0.24 existed between scores on knowledge items and the calculated behavioral index. All grade levels showed significant improvement ($p<0.001$) in the behavior index. The ninth grade index scores are significantly lower than those in the other grades.

Discussion
Because the initial scores for the teacher training were so high, the resolution was limited for measuring the learning outcomes. The test would be more powerful if it contained more difficult items, in order to lower the pre-test scores. Both the objective knowledge-based test and the self-reported attitude survey indicate a positive effect between pre- and post-test.

The pre- and post-tests taken by the students show significant gains in knowledge, and in the aggregate score of the behavioral items. This is evidence of achievement, but may or may not translate into actual behavior changes. Self-reported levels of sexual activity indicate that 8th and 9th grades continue to become sexually active even while the class is in progress. Among 8th graders 34% indicated they had sex before- and 37% indicated after- their exposure to the subjects. The results do indicate that some students are being convinced to remain or become abstinent. The choice of “I am waiting until marriage” was selected by 39% of 8th graders during Pre-test compared with 47% during the post-test. The transfer of knowledge to students clearly occurs in the classroom setting, although it appears that the ninth graders had more trouble with the curriculum.

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The abstinence until marriage curriculum affects attitudes and self-reported behavior, as demonstrated by the behavioral items on the pre- and post-tests. To judge results of long-term behavior changes will require a follow-up study.
An Evaluation of the Rockdale Medical Center Adolescent Health Education Project

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Introduction
The purpose of this research evaluation was to document the effectiveness of a school-based, abstinence-until-marriage program implemented with middle and high school adolescents, with data collected during 2003-2006. This evaluation utilizes a quasi-experimental design to measure the program effect of a Title V Abstinence Education program. The results demonstrate that all program goals were met and statistically significant differences were found in favor of the treatment group.

Based on the social cognitive theory, it was hypothesized that (1) the interventions implemented in three high schools and three middle schools would affect sexual behavior both directly and indirectly through four cognitive mediators (knowledge, beliefs, efficacy, and intentions) that are antecedent to sexual behavior in adolescents; and, (2) these effects could be modified by the adolescent’s gender and age. Specifically, the evaluation was designed to assess attitudes related to the A-H legislative priorities.

Methods
The research evaluation of the Rockdale Medical Center Adolescent Health Education Project utilized a quasi-experimental design. Both quantitative and qualitative methods were used to evaluate the success of the program. Students in the intervention group came from three high schools and three middle schools in a rural southeastern county who participated in a twelve-week Abstinence Education Program. An active informed-parental-consent protocol was used for all program participants.

For the quantitative component of the study a quasi-experimental design was used with repeated measures focusing on changes between pre and post assessments (Time 1 to Time 2). Pre and post survey data was collected in the 2005 and 2006 spring semesters. The data was analyzed for changes in effects from pre- to post-interventions, using a paired t-test with statistical significance set at p < .05.

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For the qualitative component of the study constant comparative analysis (Glaser and Strauss, 1967) was used to identify seven common themes. Exploratory interviews, using a qualitative protocol, were administered to fifteen students selected from a stratified random sample of program participants.

Results
The results from the analysis of surveys administered to 1,578 students during the spring of 2005 and 2006 show that the program, as implemented, had the desired impact on the targeted youth as measured on the pre- and post- Student Attitude Survey, with all but one category showing significant differences between pre- and post-assessment. Measures of statistical significance for the questions ranged from $p=.000$ to $p=.028$. Results indicate that all program goals were met.

The results are presented around seven central themes: Teen Sex; Drugs & Alcohol; Media Influence; Resistance Skills; Healthy Lifestyles; Sex and Marriage; and, Commitment to Sexual Abstinence.

Descriptive results from the post-test assessment include:
- 84% of the teens intend to live a life of abstinence until marriage;
- 87% plan to avoid situations where people are using drugs;
- 75% feel that the media encourages teens to participate in drinking, drugs, smoking, and sexual activity;
- 87% feel that they have the skills necessary to refuse sexual advances;
- 87% feel that Abstinence Until Marriage is the only certain way to avoid pregnancy outside of marriage and to avoid sexually transmitted diseases;
- 79% feel that waiting until marriage to have sex enhances future success; and,
- 87% feel that Abstinence Until Marriage is the only certain way to avoid pregnancy outside of marriage.

Discussion
The evaluation of the Rockdale Medical Center Adolescent Health Education Project has resulted in the conclusion that the project has met its initial goals. The project is a community-based, youth development program, utilizing an abstinence-until-marriage education strategy to reduce teen pregnancy. The program also promotes positive youth development as a key priority, while encouraging risk avoidance as the healthiest decision regarding sexual behavior.

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Why Commit to Abstinence?: Sex Education Program Components, School and Parental Influences in Coital Delay, and Resisting Pressure to Have Sex

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Introduction
Steadily increasing rates of teen STDs and pregnancy provide substantial rationale for abstinence-only sex education. Medically accurate programs promise 100% avoidance of the risks of sexual activity. Most programs assume but have not proven that accurate reproductive health knowledge, encouragement of pro-abstinence norms, and provision of skills to avoid sexual activity lead to increased commitment to delay sex, nor do they understand the mechanisms by which this commitment occurs (generally referred to as “program efficacy”). We addressed these issues in two research efforts during the first (2003-2004) and second (2004-2005) years of our program, a strict Title-V abstinence-only sex education program focusing on knowledge, attitudes, and behavioral intentions of middle school adolescents in San Antonio, Texas. We hypothesized (year 1) that predictors of abstinence commitment include targeted curriculum components such as reproductive health knowledge and pro-abstinent attitudes, beliefs, and demonstrated social norms. Based on evidence in the literature, we expected a gender-specific effect on abstinence commitment; specifically that abstinence is more acceptable to females than males. In year 2, we hypothesized that programmatic emphasis of knowledge, attitudes, and pro-abstinent beliefs positively influences teen perceptions of their ability to resist social pressure to have sex. In contrast, we hypothesized that the ability to control internal urges to have sex are governed by relationships with parents and other influences outside the school.

Year 1 Methods
We conducted cross-sectional analyses of pre-test surveys of 1,068 predominantly Mexican-American teens (~71%) aged 12 to 15 years (grades 6-8). Participants were questioned about type and quality of relationships with parents or other caregivers, participation in school and other activities and use of tobacco, alcohol, and illicit drugs. We conducted a series of three multiple regression analyses to predict abstinence commitment. First, we constructed a model based solely on program component measures including knowledge, attitudes, beliefs, and normative behavior expectations. In the second analysis, we constructed a model based on non-program measures, such as age, grade, ethnicity, gender, relationships with parents, activities, and typical grades in

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school. In the third analysis, we constructed a hybrid model using both program-component measures and others to predict abstinence commitment.

Year 1 Results
Teen commitment to abstinence was well predicted by the 1st model, which explained 26% of the variance. Reproductive knowledge, attitudes toward sequelae of sexual activity, and attitude toward safety of sex were significantly related to abstinence commitment (r = .39, p < .01; r = .19, p < .03; r = .18, p < .03 respectively). In contrast, commitment to abstinence was poorly predicted by the 2nd model (r² = .08), with only female gender (r = .18, p < .02) and illicit drug use (inversely related: r = -.10, p < .05) being significant predictors. The third “hybrid” regression model was superior to either the 1st (program component) regression model or the 2nd (non-program measures) model. It explained the greatest amount of variance in abstinence commitment (r² = .29), and included three program component variables (reproductive knowledge: r = .37, p < .01; attitude toward sequelae: r = .21, p = .02; attitude toward safety: r = .20, p = .20) and a demographic measure (gender: r = .07, p < .05).

Year 1 Discussion
Abstinence commitment is clearly associated with several program components including medically accurate reproductive knowledge, abstinent attitudes about sexual activity and its potential consequences, and female gender. Other traditionally accepted influences on sexual behavior intentions such as drug use, ethnicity, and parental relationships are not directly associated with abstinence commitment.

Year 2 Methods
We conducted cross-sectional analysis of pre-test surveys of 4,956 predominantly Mexican-American teens (~72%) aged 12 to 15 years (grades 6-8). Participants were questioned about type and quality of relationships with parents or other caregivers, participation in school and other activities, use of illicit substances, knowledge of the potential negative consequences of sexual activity, methods of preventing sexually transmitted diseases and pregnancy, and communication skills to negotiate lowest-risk relationships. We selected 1,085 teens (22.3%) that reported experiencing social pressure, and used multivariate logistic regression analyses to model teen perceptions of their ability to resist it. Because one measure predicting the ability to resist social pressure to have sex is the individual’s perceived ability to control urges to have sex, we constructed a second, linked logistic regression model to describe this trait.

Year 2 Results
Teen ability to resist social pressure to have sex is explained by a model with 7 factors explaining 75.1% of responses overall. These include: (1) higher general knowledge
score about sexually transmitted infections and pregnancy (AOR 1.01, p=.05), (2) commitment to avoid drugs and alcohol (AOR 1.56, p=.027), (3) the belief that abstinence is the only 100% effective way to avoid pregnancy and STDs (AOR 3.09, p<.01), (4) the belief that staying abstinent will avoid worry about pregnancy, STDs, or emotional problems (AOR 2.17, p<.01), and (5) perceived ability to control sexual urges (AOR 5.23, p<.01). Two factors, (6) the belief that sex is a safe activity for teens (AOR 0.67, p=.047), and (7) school-related sports activities (AOR 0.54, p<.01), were inversely associated with resisting social pressure to have sex. Controlling sexual urges was explained in a model of 7 factors explaining 78.2% of responses. These include (1) the belief that a teen should wait until marriage to have sex (AOR 2.12, p<.01) (2) the attitude that parents should discourage sex before marriage (AOR 2.53, p<.01), (3) living with 1 or both biological parents (AOR 1.67, p<.02), (4) having a good relationship with a parent (AOR 1.64, p<.03), and (5) participation in community non-sport activities (such as voluntarism) (AOR 1.80, p<.02). The belief that sex is a safe activity for teens (AOR 0.49, p<.01) and biological age (AOR 0.79, p<.01) were inversely related to controlling sexual urges.

Year 2 Discussion
Resisting social pressure and controlling urges to have sex are explained by overlapping factor sets with important differences. Resisting social pressure is associated with beliefs and attitudes addressed in our curriculum. Controlling sexual urges is a function of exposure factors originating outside the school, such as parental and community influences. Abstinence education should emphasize the important roles played by home and community in achieving program goals.

The University of Texas Health Science Center at San Antonio Sex Education Program is strictly compliant with the federal A-H requirements of abstinence-only education.
Year-to-Year Consistency and Retention in the Impact of an Abstinence-Focused Sex Education Program on Knowledge and Attitudes of Middle School and High School Students

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Introduction
This study assessed the hypothesis that knowledge and attitudes of middle school students were consistently increased with retention and that knowledge and attitudes of high school students were consistently increased by an abstinence-focused sex education curriculum.

Methods
Consistency was evaluated using serial paired surveys of 231 middle schools (6th, 7th and 8th grades) and 120 high schools (HS) from 2002-2006. Knowledge, as measured by the score on a standardized set of multiple choice questions, and attitude, as measured by the proportion selecting specific choices to individual attitude questions, before the program in each year for each grade were compared using Kruskal-Wallis ANOVA by ranks as were changes in scores from before to after the program. Retention was evaluated using surveys of 23 middle schools. Endpoints included knowledge scores, attitudes about delaying sex until marriage, and the experience of feeling sexual pressure.

Results
Each year before the program, knowledge scores did not vary for 6th or 7th grades (p>0.1) but did increase for 8th grade and HS (p<0.005). Consistency measured as change in scores from before to after the annual program did not differ within grades (p>0.16), with significant (p < 0.05) mean increases of 20%, 9%, 10%, and 11% correct for 6th, 7th, 8th, and HS, respectively. Before the program, the percent with the attitude that others should delay sex until marriage did not vary for all grades (p>0.34). The percent with this attitude increased significantly (p<0.05) from before to after the program for all grades, but varied from year to year for 6th and 8th graders (p<0.01) and were consistent for 7th and HS (p>0.2). Before the program, the percent with the attitude that they should delay sex until marriage varied for 6th grade (p=0.01) but did not vary for 7th, 8th, and HS (p>0.2). The percent with this attitude increased significantly (p<0.05) following the program for all grades, but varied from year to year for 6th grade (p=0.0001) and were
consistent for 7th, 8th and HS (p>0.2). Before the program, the percent reporting experiencing sexual pressure did not vary (p>0.23) from year to year for all grades. Retention of knowledge and attitude was assessed by comparing scores and responses before and after the program in 23 middle schools. Knowledge did vary between years for each grade. Scores for 6th graders varied from 63% to 58% to 61% correct. 7th grader scores progressively increased from 65% to 70% to 69% supporting a significant (p<0.001) stepwise improvement. 8th grader scores progressively increased from 62% to 63% to 66% with significant (p=0.004) improvement detected between first and third year. This supports the hypothesis of a small but significant retention of knowledge for 7th and 8th graders. Similar effects on the attitude that teens should delay sex until marriage did not reach significance (p>0.05) except comparing the first and third year with 8th graders (p=0.01).

Discussion
The curriculum implemented by an academic medical center demonstrated consistent improvement in knowledge and attitudes annually with smaller amounts of retention. For a sex education curriculum to effectively influence behavior, it must consistently provide improvement and retention of knowledge with related effects on attitude. A program applied to a substantial number of central Texas middle and high schools has shown such effects. However, the relatively small (2-week) intervention, cannot be expected to produce large and lasting impacts while in competition with other influences.

The Scott & White Worth the Wait® program has developed and delivers an abstinence-focused sex education curriculum annually to about 30,000 middle and high school students in 200 schools within 12 central Texas counties. This curriculum, associated teacher training programs, and adult information sessions are consistent with the federal A-H definition of abstinence education. The research results report findings on the impact knowledge and attitudes of the middle and high school students in relationship to curriculum presentations.

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Effects of Abstinence Education on the Sexually Abused

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Introduction
A recent review of 21 curricula for abstinence-only-until-marriage programs in Texas revealed considerable variability in the overall quality of abstinence education curricula, yet found consistent emphasis and value placed on nonsexual antecedents of sexual behavior (Wilson, Goodson, Pruitt, Buhi & Davis-Gunnels, 2005). A noteworthy finding from this evaluation was that many curricula systematically omitted sensitive topics such as sexual abuse.

Omission of sexual abuse prevention education is troublesome considering current estimates of actual sexual victimization reported to be approximately one in five girls and one in seven boys before they reach 18 (Finklerh & Dziuba-Leatherman, 1994). Two studies examining sexual abuse prevention programs in Texas public and private schools revealed that this type of education curricula is only being implemented in 53% of the public schools (Lanning, Ballard, Robinson, & Pruitt, 1999) and 24% in the private schools (Lanning & Massey-Stokes, 2006). While it is not the main purpose, nor one of the A-H definitions of abstinence programs curricula to address sexual abuse, the effect of such curricula on victims of sexual abuse is worth noting.

The purpose of this study was two-fold: 1) to examine the attitudes and beliefs about sexual activity and abstinence until marriage of children affected by past sexual abuse (SA), and to compare those findings to the beliefs of children who had not experienced sexual abuse (non-SA); and 2) to examine the impact of the curriculum on the attitudes of SA children. It was hypothesized that SA children would be less likely to support abstinence-only-until-marriage statements and be more likely to abuse alcohol/other drugs than non-SA children. It also was expected that exposing SA children to a program that emphasizes the importance of abstinence would reinforce feelings of guilt and shame.

The curriculum used for this study was Choosing the Best, which was funded by the McLennan County Abstinence Program (Texas) and meets all A-H definitions of abstinence education.
Methods
The sampling plan was non-probabilistic convenience. The sample was comprised of 1137 9th graders from five Texas rural school districts – 48% male, 52% females, 66% white, 17% Hispanic, and 12% African-American. A survey was administered in 2004-2005 in the students' regular classrooms. The survey instrument yielded sufficient reliabilities (Cronbach alphas were .77 or greater) and included five areas: demographics, knowledge, attitudes, behaviors, and intentions. Survey responses of SA children were compared to responses of non-SA children. The quasi-experimental comparison group design used a pre-test/post-test. While the treatment (curriculum) was delivered by various administrators, all five districts received the same treatment.

Results
The students that marked yes to the question “Have you ever been sexually abused?” were compared to those that marked no. Using ANOVA (SAS GLM procedure due to unbalanced cell sizes), SA teens exhibited less favorable attitudes toward abstinence until marriage (p=.0053), lower intentions to avoid substances (p=.0051), and greater intentions to engage in sex (p=.0134). Perceptions of teen sexual norms were not significant. There were no significant pre/post by SA interactions. Girls were far more likely to report sexual abuse, 15% to 3% (p=.0001), but there were no SA by gender interactions.

Discussion
The results support the first hypothesis, indicating that SA teens possess less favorable attitudes toward abstinence and are more likely to abuse alcohol/other drugs and engage in sexual activity. However, an important finding is that there were no pre/post interactions, indicating that the curriculum did not have a negative impact on SA students (i.e., it did not reinforce feelings of shame and guilt). Several limitations should be noted: students may have been ashamed to report sexual abuse, they may not have recognized inappropriate behavior as sexual abuse, or they may also be receiving counseling which could skew their responses to other questions.

References


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Effects of a Program Intervention on Factors of Teens’ Sexual Activities

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Introduction
The Montgomery County Abstinence Education program aims to reduce teens’ inclination to engage in risk-taking behaviors and increase their expectancies of abstinent sexual behavior. The program serves 12 junior and senior high schools.

There are multiple factors associated with teen sexual behaviors. Yet, there is a dearth of studies which focus on a higher-level conceptual framework to differential groups (pre- and post-intervention) and how survey items relating to factors associated with teens’ sexual activity function differentially among groups (male/female, African American/White).

This study determines measured variables and a logistical analysis approach through six research questions:

- Is the hypothesized factorial structure for targeted survey items valid and stable across the pretest and posttest measures?
- Is the factorial structure valid across gender and ethnic groups for both the pretest and posttest measures?
- Is there sufficient measurement invariance in the factorial structure to allow for comparisons of gender and ethnic groups?
- Which of the examined survey factors predict the factor related to survey items on program effectiveness at the posttest?
- Are there main effects and interaction between gender and ethnicity on the factor related to program effectiveness at the posttest?
- What dimension(s) defined as combination(s) of the survey factors in this study separate gender and ethnic groups at the pretest and posttest?

Methods
Data were collected in a confidential, pre-test/post-test design. The pre-test was administered to 670 students prior to taking part in the intervention. The same group of students (637) took the post-test immediately after the two-week curriculum.

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Seven factors were included in the analysis: goal setting, abstinence from taking drugs/alcohol, reason for not having sex (fear of consequences, lack of readiness), dealing with peer pressure, risk perception, perceived self-efficacy, and program efficiency.

To address the first two research questions stated in this study, a maximum likelihood confirmatory factor analysis was used for the validation of hypothesized constructs (factors). Related to the third research question, testing for measurement invariance was conducted by testing for invariance of the factor loadings and intercepts across gender and ethnic groups. The next three research questions were addressed by using multiple regression analysis, two-way analysis of variance (ANOVA), and multivariate analysis of variance (MANOVA) with discriminate analysis (DA), respectively.

**Results**
Results of the confirmatory factor analysis revealed that seven factors were identified and validated with pretest and posttest survey data. Evidence of measurement invariance was found only for the two ethnic groups with posttest data. The lack of measurement invariance across gender, with both pre- and posttest data, indicated that the survey items related to the seven factors function differentially for male and female students.

The program efficiency, measured with posttest data, is predicted by the seven factors, but is also predicted equally well by only two (out of these seven) factors; Dealing with peer pressure and Risk Perception. This may have important implications for curriculum changes and instructional strategies in the sense that they need to focus on these two factors when targeting efficiency of the program intervention.

**Discussion**
Using a survey related to the efficiency of the prevention program, this study investigates constructs that previous research has identified as important in the assessment of abstinence education programs. Study analysis provides evidence of the validity of evaluating abstinence education program effectiveness.

Clearly, the program intervention has affected the separation of gender and ethnic groups on dimensions of teens’ sexual activities and risk-taking behaviors factors. Specifically, the first dimension has changed in the rationale for "reason for not having sex"; from "fear of consequences," at the pretest, to "lack of readiness," at the posttest. The second dimension has also changed; its meaning of Abstinence from taking drug/alcohol was extended with the addition of Goal setting.
Dare to be You "Care to Wait" Family-Based Intervention Program*

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Introduction
The DARE To Be You “Care to Wait” program is a multilevel, abstinence education program designed for 12–14 year olds and their families. Bandura’s Social Learning Theory and Bronfenbrenner’s Ecological Model inform the program’s focus on building parent and youth self-efficacy and esteem through experiential activities in family-based workshops. The goal of the program is to promote abstinence (in compliance with A-H definitions) in teens by enhancing individual resilience factors – particularly self-efficacy, decision-making, and peer refusal skills — and strengthening their families — notably communication about intimacy and sex, healthy relationships, and monitoring. The DTBY “Care to Wait” curriculum(1) is based on the model DTBY curriculum that has shown to be effective in building resiliency factors for other problem behaviors such as substance abuse.(2)

Methods
12 to 14 year old youth and caregivers in their families are recruited in Denver and Montezuma County, Colorado, then are randomly assigned to the DTBY intervention or a control group. The two sites are quite different, demographically: The Denver site is 92% African American, 45% single, and 69% female; whereas the Montezuma County site is 78% Caucasian, 22% Hispanic and Native American, 5% single, and 47% female. The DTBY intervention participants (parents and their 12-14 year old children) complete 20-24 hours of workshops. Control and intervention groups are given surveys at baseline and 6-, 12-, 18- and 30-month follow-ups. Surveys measure descriptive information, sexual attitudes and behaviors, impulsivity/risk taking, self-efficacy, future orientation, peer orientation, refusal skills, family relationships, parent monitoring, and validity of responses.(3)

Results
Data have so far been collected from 239 family members and 189 youth at baseline (4); 152 family members and 133 youth at the 6-month follow-up; 115 adults and 73 youth at the 12-month follow-up; and 88 adults and 68 youth at the 18-month follow-up. Analyses have focused on whether the various measures are correlated in ways that are consistent

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with the impact model, and on changes in the intervention and control groups. Several key measures of intermediate outcomes are correlated with social desirability, which may make interpretation of intervention effects problematic. Regarding tests of our impact model, a strong peer orientation is significantly related to a number of other risk factors and negatively to many of the resiliency factors in our model, indicating that peer refusal skills may be a key mechanism of change. On the other hand, self-efficacy, future orientation, and especially strong family relationships are inversely related to sexual risk taking as indicated by attitudes about sex and intentions about sexual behavior. In terms of program impact, parents in the DTBY group, compared to controls, talked to their teens more often about intimacy and sex, and were more likely to monitor their teens’ activities. Program for teen self-reports included: Youth in the intervention group showed significant improvements in their ability to deal with peer pressure, and they showed lower rates of initiation of sex than the control group.

**Discussion**

Again, these data support an emphasis on resilience and family factors in the DTBY curriculum. The DARE to be You program is grounded in a theory- and research-based logic model that is supported by correlational data at baseline. Yet several of the hypothesized mechanisms of change in this logic model were not supported by the longitudinal intervention data, notably social norms and abstinence intentions. Instead, the ability to defuse peer pressure, and perhaps open family communication and parent monitoring, mediated effects on early adolescents’ sexual behavior.

**Notes**

1. For more information regarding the Care to Wait curriculum, contact Jan Miller-Heyl, 970-565-3606, darecort@ext.colostate.edu
4. More than one parent is encouraged to attend with each youth in this model. Therefore, there are more parents than youth in this study.

*Abstract accepted for presentation, but not presented at the conference.*
Sexuality Education for Urban Immigrant Adolescents and Their Families

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Introduction
The Families United for Teen Health (FUTH) aims at preventing adolescent pregnancy by promoting positive attitudes toward abstinence and reducing premature sexual activity among youth. The primary target population is 10-15 year-old youth living in Boston neighborhoods, mainly of Haitian descent. Parents or guardians constitute the secondary target population.

Urban adolescents face multiple challenges that impede their ability to develop into mature adults. Pressure to engage in premature sexual activity is intense and is often associated with other high-risk behaviors that can lead to poor social and health outcomes. In addition, teen parenting is associated with lack of high school completion and initiation of a cycle of poverty for mothers (Hather and Scarpa 2001). Our model is grounded in youth development strategies refined by the Center for Youth Development and Policy Research (Community Youth Development 1994) and the National Network of Runaway and Youth Services (Pittman and Cahill 1991).

Program Components include:
A. Youth With A Choice - In this after-school program, youth receive 60 hours of abstinence education through the "I am in charge of the facts" curriculum, as well as tutoring and academic enrichment. The "Youth Builder Program" includes a six-week summer program using the "I am in Charge of the Facts" curriculum and other youth development activities.

B. Parent-youth workshops in local churches - These five workshops series aim at helping parents understand the physical, psychological and social changes of adolescence and prepare them to manage better adolescent behaviors.

Our outreach philosophy is to establish and maintain with parents and community schools an open and productive partnership with the sole purpose of bettering the lives of our young people. For the past five years, we have developed a fruitful relationship with principals from many Boston middle schools. We reach out to parents through various

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community workshops and programs where we establish first contacts or reconnect with them. We host our after-school program in a Boston's Episcopalian Church. Having this site is a result of our long-time partnership with area churches. For the past two years, we have held the Summer Program in a Middle school in Boston.

In addition to the abstinence-only education, we provide youth development programs, such as tutoring, music, dance, and karate lessons, in both the after-school and the summer programs. Our abstinence educators receive special training in A-H policies.

Methods
We use a quasi-experimental design, including pre-and post-test, to test the following hypothesis: At 6-month follow-up, middle school aged adolescents participating in the new abstinence-only curriculum, at an after school program or church program, will have improved self-esteem, symptoms of depression, developmental assets, and family connectedness, compared to baseline.

We use two questionnaire instruments, one for the youth and one for parents. Our Student Questionnaire includes the AFL Core Questionnaire and additional scales.

Results
Students attending the after-school come from 12 schools. In the 2005 and 2006 school years, we have enrolled 54 students in the after school program; 32 completed the program. They have received 42 hours of abstinence-only education, 200 hours of tutoring help, and 40 hours of other youth enriching activities. In the 2005 and 2006 summer programs, 42 youth participated in the program. On the Parents' side of the program, in the first two years of the program, 27 participated in workshops organized within community churches. As our target population has little experience with research projects, it has been challenging to get all participants to complete the program pre and post questionnaires. However, our activities have been oversubscribed with extremely positive feedback from participants.

Discussion
The program is now well established in the community and has piloted the interventions, and obtained suggestions and feedback from participants. This program will provide a useful model for teaching sexuality education in Haitian communities, which can be replicated nationally.

References


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Early Review of Mobilizing Youth for Life: An Abstinence and Be Faithful Program in Kenya

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Introduction
Abstinence and be faithful programs have contributed to reducing HIV/AIDS prevalence. The Mobilizing Youth for Life project aims to equip 693,660 youth in Kenya over five years with appropriate abstinence messages. In 2006, a qualitative assessment, using focus group discussions, was conducted to review the program with a focus on the appropriateness of existing intervention strategies.

Methods
The study used qualitative methodologies that included focus group discussions guided by a pre-tested question guide. Eight discussions were conducted involving 94 participants from all aspects of the program.

Results
The program has helped youth to abstain, make right choices and be role models to other youth. It has improved social interaction among youth, enabled them to discuss sexuality without being embarrassed, and increased their capacity to make decisions. Challenges to abstinence included peer and media influence. The program’s abstinence-based curriculum could be improved by including detailed information on drug abuse, condom use, effects of wrong choices and income-generating activities.

Discussion
The program has been seen as “a reality check” amongst target groups. The youth reached have confronted their sexuality after realizing behavior change can only occur through personal initiatives. More awareness is needed to create program effectiveness, as youth live in constant pressure from society.
Positive Choices Abstinence Education Longitudinal Program: Year 1 Results

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Introduction
The 2005 Centers for Disease Control Youth Risk Behavior Surveillance found that 46.8% of high school students had initiated sexual activity; of these, 6.2% before the age of 13, and 7.5% had been physically forced to have sexual intercourse. The purpose of this Positive Choices, AFL-funded educational program, which complies with the A-H definition of abstinence education (i.e., teaching: that abstinence from sexual activity outside of marriage and having a monogamous relationship in the context of marriage are expected standards, young people how to reject sexual advances, the importance of attaining self-sufficiency before engaging in sexual activity, etc.), is to provide students with information and skills to abstain from sexual activity until marriage. Students selected for the in-school abstinence program received eight abstinence education sessions and were invited to participate in summer programs. For the initial year of this program, we hypothesized that after receiving the in-school abstinence program received eight abstinence education sessions and were invited to participate in summer programs. For the initial year of this program, we hypothesized that after receiving the in-school abstinence program, 7th grade students’ norms about abstinence, attitudes of abstinence, self-efficacy in refusing sex, and intentions to avoid having sex would be more favorable toward sexual abstinence when compared to their respective scores before this program and those students not receiving the abstinence instruction.

Methods
This longitudinal panel study will evaluate the effectiveness of yearly in-school abstinence education from seventh through tenth grade compared to a less frequent schedule. During this past year seventh graders from three Toledo public schools providing consent were targeted to complete the evaluation instruments prior to and after completing the 8-session abstinence instruction delivered during their school class. Approximately one-half of the students receive abstinence education each year and one-half do not (comparison group). In addition to using the Core Evaluation instruments designed especially for this grant, additional questions were used to assess information directly related to this study’s hypotheses. The Sexual Risk Behavior Beliefs and Self-efficacy scales were adapted for this study to assess student’s perceptions of attitudes, norms, and self-efficacy (intercourse involvement scales). In addition, two items were used to measure student’s intention to abstain from having sexual intercourse; one item

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was adapted from a study to assess adolescents’ HIV-related sexual risk behavior and the other was constructed for this study. Items adapted from the 2001 Youth Risk Behavior Survey were used to assess student’s sexual behavior. Repeated measures analyses of variance with abstinence education assignment as a between-subjects factor (i.e., from independent samples) were used to assess the effect of the in-school abstinence intervention on students’ norms, attitudes, self-efficacy, and intentions to abstain from sexual behavior. Chi-square analysis was used to assess the effect of in-school abstinence education on students’ refraining from having intercourse during the previous two months.

Results
Descriptive information was available from 510 seventh graders from the three public schools. Their average age was 13.0. Boys were 48.4% (n=247) of the total. Students indicated that they were primarily Black or African-American (n=241, 47.3%), White (n=97, 19.0%), or a combination of races and/or Hispanic ethnicity (n=117, 22.9%). 460 students took the pretest and 428 the post-test with 353 taking both assessments. There was a significant interaction for norms (p<.04), attitudes (p<.02), and intentions (p<.04) to abstain from sexual behavior with those receiving abstinence education improving from pre to post-assessment (norms: p < .02; attitudes: p < .02) and were better than the controls at post-assessment (norms: p < .004; attitudes: p < .02; intentions: p < .03). More controls reported engaging in recent sex than those with abstinence education, but not significantly.

Discussion
Preliminary results indicate that the interventions were effective in improving attitudes toward abstinence. Results for abstaining from sex were also encouraging. While short-term improvements were evident for the abstinence education program, its long-term effects, through repetition of the program, will be determined in future years.
The PEERS Project's Impact on Abstinence Commitments and Rationale: An Experimental Design

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Introduction
Peers Educating and Encouraging Responsible Sexuality (PEERS) is a non-profit organization located in Indianapolis, Indiana, that is dedicated to educating teens about responsible sexuality. The PEERS Program is funded by the Department of Health and Human Services Administration for Children and Families Community-Based Abstinence Education grant. One of PEERS’ main initiatives is the PEP program: Peers Educating Peers about Positive Values. PEP uses high-school aged mentors to inform middle- and high-school students on the risks and consequences of sex before marriage and the value of saving sex for marriage.

This delayed-treatment, control-group study examines the impact of PEP on abstinence commitments and rationale among a cohort of sixth-grade students (N=731) who received PEP during the 2005-2006 school year. The overarching research question is “Does PEP improve students’ commitment to abstinence?” It was hypothesized that treatment-group students would be more likely than control-group students to be committed to abstinence and have an abstinence rationale following the PEP treatment.

Data from sixth-grade students enrolled in three public schools were included in the analyses. The middle-school students received three PEP lessons, covering the topics of media influences, teen pregnancy and parenthood, and assertiveness techniques. Each PEP session lasted approximately 40 minutes and was conducted in physical education or health classes during the school day. Treatment- and control-group students were surveyed before and after the program administration.

Methods
Pre- and post-test survey responses were matched resulting in 731 subjects. Approximately 57% of respondents were white, 27% were black, and 16% were from other races. The dependent variables of interest are students’ commitment to abstinence and abstinence rationale. Abstinence rationale is defined as having good reasons to save sex for marriage. Bivariate analyses and logistic regression were used in the analyses.

Results
Treatment-group students were 10% more likely than control-group students to be committed to abstinence at the post-test. In addition, the difference in the percent of
respondents who said they were committed to abstinence between pre- and post-tests increased for both groups but was greater for the treatment group. Logistic regression analyses revealed that student commitment to abstinence and abstinence rationale increased at a faster rate in the treatment group compared to the control group. Treatment-group students were significantly more likely than control-group students to be committed to abstinence at the post-test when controlling for pre-test abstinence commitment score, gender, grade point average, parent's level of education, race, and parental control (p<.001). Students were more likely to be committed to abstinence when they reported parental control, however, parental control had no effect on abstinence rationale. Parental control was conceptualized by having TV rules and performing chores at home. Finally, a total of 98 students who were not committed to abstinence at the pre-test reported that they were committed to abstinence at the post-test — 61% of these new abstinence commitments were from treatment-group students.

Discussion
These findings demonstrate The PEERS Project's impact on sixth-grade students' commitment to abstinence and abstinence rationale, and help to identify the characteristics of students who respond best to The PEERS Project's curriculum. One limitation of this study is that students' behaviors were not assessed. However, results do show that treatment-group students were more likely to be committed to abstinence and have an abstinence rationale at the post-test compared to control-group students, and that the change in students' commitment to abstinence increased at a greater rate among students who received PEP. Future research should consider whether abstinence commitments made in middle school affect adolescent behavior as they transition into high school.
Introducing and Spreading the “A-Word”: 1st and 2nd Year Evaluation of the UTHSCSA Sex Education Program to Delay Coital Debut among Adolescents in San Antonio, TX

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Introduction
Sexual activity is frequent among adolescents, with high rates of associated sequelae such as sexually transmitted diseases and unintended pregnancy. In response, we developed the University of Texas Health Science Center at San Antonio Sexual Education Program (UTHSCSA SEP) in public schools in San Antonio, Texas. Our program is medically accurate, theoretically grounded, sensitive to the cultural needs of our largely Mexican-American teen population, and strictly compliant with federal guidelines for abstinence-only sex education. Here we present evaluations of first- and second-year efficacy of this intervention on knowledge, attitudes, and behavioral intentions of adolescents in 2003-2004 and 2004-2005. We hypothesized increases in knowledge regarding sexual activity and its potential consequences and pro-abstinent attitudes favoring delaying sex until marriage would promote behavioral changes.

Methods
During 2003-2004, 1,068 middle- and 242 high school teens participated in the study. This increased to 4,995 middle- and 1,640 high-school students in 2004-2005. Students were predominantly Mexican-American (~71%) aged 12 to 18 years (grades 6-11). Overall, approximately 99% of students approached agreed to participate in the program. Participants received 4-10 weekly classroom workshops of approximately 45 minutes each, integrated into regular school curricula. Program content included information about reproductive health knowledge, the potential negative consequences of sexual activity, methods of preventing sexually transmitted diseases and pregnancy, and communication skills to avoid sexual activity and negotiate lowest-risk relationships. Intervention efficacy was evaluated using t-tests and chi-square tests for nominal measures, and multivariate logistic regression analyses as appropriate for nominal measures to control potential confounders as required.

Year 1 Results (2003-2004)
Knowledge increased significantly among both middle and high school students. Middle school teens correctly answered 54% of knowledge questions at pretest, and 67% at posttest (effect-size 24%, p < .01). High school teens performed similarly, demonstrating an
increase from 55% at pretest to 70% at post-test (effect-size 27%, p < .05). Similar shifts in attitudes were observed, including increased beliefs that sex is not a safe activity for teens (middle school: 74% vs. 84%, p < .01; high school: 64% vs. 82%, p < .01) and that abstinence is a 100% effective means of preventing adverse consequences (middle school: 68% vs. 78%, p < .01; high school: 72% vs. 83%, p < .05). Only 54% of middle and 39% of high school participants were committed to abstinence at pretest, and 67% (middle school, p < .01) and 54% (high school, p < .05) at post-test.

**Year 2 Results (2004-2005)**
Knowledge increased significantly among middle school teens (57.4% to 72.5%, effect size=26.3%, p < .01), and similarly among high school teens (56.2% to 71.5%, effect size=27.2%, p < .01). Among middle school students, beliefs that sex is unsafe for teens, abstinence most effectively prevents consequences, and abstinence should be practiced until in a long-term relationship all increased significantly by at least 15% (p < .01 in each case). Among high school students, shifts were more modest, although more positive attitudes towards the physician's role in emphasizing abstinence and educating teens about the problematic effectiveness of contraception and condom use was salient (41.6% to 50.8%, p < .05). Dramatically, abstinence commitment increased from 41.1% at Pre-test to 60.1% at Post-test (p < .01) among middle school teens, and from 44.2% at Pretest to 51.4% at Posttest (p < .01) in high school. In both groups of students, shifts in knowledge and attitudes were significantly associated with intentions to abstain from sex until marriage.

**Discussion**
In Year 1, the intervention significantly increased middle school adolescent knowledge about the potential adverse consequences of sexual activity from pretest to post-test. Simultaneously, attitudes towards sexual activity changed, and intentions to abstain increased significantly subsequent to intervention. Moreover, shifts in knowledge and attitudes were significantly associated with increased intentions to abstain from sex until marriage.

In Year 2, our program message reached far more teens than the previous year, with a five-fold increase in the number of participating students. As in Year 1, the intervention significantly increased knowledge about sexual activity and created more positive attitudes among middle school students, and additionally, created more positive attitudes toward physician emphasis on abstinence in patient counseling among high school teens. These changes accounted for increased commitment to abstinence in both middle- and high-school groups.

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The University of Texas Health Science Center at San Antonio Sex Education Program is strictly compliant with the federal A-H requirements of abstinence-only education. This presentation represents the evaluation of 1st- and 2nd-year program efficacy with respect to evoked shifts in knowledge, attitudes and beliefs leading to increased abstinence commitment among participating teens.
Length of Engagement in Abstinence Education Support Groups and Adolescent Outcomes

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LifeWorks, Austin, Texas
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Introduction
Funded by the Office of Adolescent Pregnancy Programs, LifeWorks’ Adolescent Pregnancy Prevention Program is in its fourth year of providing school-based abstinence education support groups to 9 to 14 year olds using the Growing Up and Making Healthy Choices and Managing Pressures Before Marriage curricula. Program design was generated from local evaluation studies reinforcing conclusions reported in the research literature that abstinence education support-group approaches can be effective but that 12 to 20 hours of intervention may be too modest to have impact on youth’s sexual behavior (Lieberman et al., 2000; McBride & Gienapp, 2000). The project tests the hypothesis that increased amount of time in the program increases amounts of positive outcomes for adolescents.

Methods
A quasi-experimental design, in which schools that volunteered to host the program were randomly assigned to receive a year-long versus semester-long implementation of the curriculum, was used to test the hypothesis that more engaged time in support group produces more positive outcomes for adolescents. A retrospective-pretest asks for self-report of how much youth know about topics covered in the curriculum. Pre- and post-surveys of behavior and intentions are administered during the first or second meeting of the group and again during the final meeting. Risky behavior is a count of “yes” responses across items asking about tobacco, other drugs, and being in trouble at school. Positive behaviors is a count of “yes” responses across items asking about fun with family, being active in sports or other positive leisure, and earning money by babysitting or doing other work. The items assessing behavior were adapted from the Youth Assets Index (Roberts-Gray et al., 1999). Intentions is measured by asking youth to forecast their futures and then comparing the age forecast for having first child against forecast for marriage, graduation, getting full time job, and moving into own house or apartment. General Linear Model with repeated measures was used for hypothesis testing.
Results
Analyses of data compiled at the end of May 2005 did not provide support for the hypothesis that increasing amounts of engaged time with program services increases amounts of positive outcomes. Amount of engaged time in group with less than 20 hours averaged 655 minutes compared with average of 1966 minutes in group with more than 20 hours (medians 670 and 1920, respectively). Amount of engaged time was not a significant predictor of outcome. There were no significant differences between groups with more than 20 and those with less than 20 hours of engaged time.

Discussion
One explanation for failure to find significant changes from pre- to post- and significant differences between groups is a "ceiling effect" for the outcome measures. On the pre-program survey, the vast majority of participating youth indicated they were not engaged in risky behaviors but were already engaged in two or more positive behaviors. There was, therefore, very little room for improvement on this measure. For youth younger than 13, this ceiling effect also was observed in the measure of intentions.

These results highlight the importance of careful assessment of the measurement properties of instruments selected to evaluate outcomes of abstinence education programs. Based on the findings, it was recommended that new measures be developed for evaluation. Beginning fall 2005, items from instruments developed for AFL Pregnancy Prevention Programs were adopted as an alternative to locally developed surveys.

References


Design a CBAE Evaluation Plan That Works for Both Funding Agencies & Latino-Serving Community-Based Organizations

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Introduction
The PALO CBAE program is a multi-component effort, implementing new approaches that will help Latino adolescents throughout Pennsylvania develop the skills necessary to delay sexual involvement until marriage, and to evaluate systematically the efficacy of approaches.

Evaluation activities include technical assistance to 12 sites, guidance around the design of culturally appropriate data collection, evaluation methodology, data analyses and interpretation. PALO has subcontracted Rodriguez, O’Neill and Associates to design, implement and support evaluation activities. The design captures both long and short-term changes in Latino youth who have been identified as the most at-risk for pre-marital sexual activity. A survey is administered both pre- and post- program participation.

Participants are tracked and an annual survey is administered each subsequent year to ongoing participants. This quasi-experimental design insures that any changes noted pre-to-post program could be attributed to the intervention and not due to normal maturation or other events that may happen in the environment. The longitudinal and quasi-experimental nature of the design has created a rather complex but rich source of data.

Methods
Both formative and summative and data collection tools include:

1. Proportion of participants who successfully complete an abstinence-only education program.
2. Proportion of adolescents who understand abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy and STDs.
3. Proportion of adolescents indicating understanding of social, psychological and health gains realized by abstaining from premarital sexual activity.
4. Proportion of participants reporting they have refusal or assertiveness skills necessary to resist sexual urges and advances.
5. Proportion of youth committed to abstaining from sexual activity until marriage.

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6. Proportion of participants who intend to avoid risk behaviors, such as drug use and alcohol consumption, which make them more vulnerable to sexual advances and urges.

Data is collected using an extensive Survey of Youth Attitudes and Behaviors: the purpose is to capture the attitudes and behaviors of youth related to marriage, sex, and sexual abstinence. This questionnaire is administered to all participants in their primary language (English or Spanish) at the first or second session (pre-) and at the final session (post-) to assess the level of impact of the program's activities. The questionnaire is also administered to program participants annually over the course of program funding (longitudinal design).

**Results**

The evaluation and data collection tools address three questions:

1. What are the nature and underlying theories of the Latino abstinence education programs?
2. What are the implementation and operational experiences of local Latino communities and Latino serving schools that have received abstinence education funding? And;
3. What are the impacts of Latino abstinence education programs on the attitudes and intentions of youth to remain abstinent, on their sexual activity, and on their risks of pregnancy and sexually transmitted diseases (STDs)?
4. The analysis uses program documents, observations, focus groups with participants and parents, interviews with site staff and community leaders to document and understand the abstinence education programs implemented in the 12 sites.

The final impact analysis will not available until 2007. However, to date a total of 2,358 unduplicated participants have reported only 1 pregnancy occurring during the first two years of project implementation, 69.5% of participants report understanding that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy and STD’s, and 63.5% of participants have committed to abstinence until marriage.

**Discussion**

The proposed presentation will add to both the current knowledge about the effectiveness of strategies designed to promote abstinence to at-risk Latino youth and to the knowledge that will be gained from the existing evaluation of abstinence education programs funded.
through the US HHS/OPHS Community-Based Abstinence Education grant program funds.
Healthy Respect Youth Development Program

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Introduction
Project REACH's Healthy Respect Youth Development Program is a Title V, Section 510 funded abstinence only curriculum that serves the Bronx and Yonkers, New York. HRYDP began operation in 2003. The program serves New York City teens, who are at high risk of sexually transmitted diseases and out-of-wedlock childbirth. In 2005, HRYDP received funding through the federal Community Abstinence Based Education (CABE) grant. HRYDP's goals are to reduce 1) the number of teens who engage in premarital sex, 2) the incidence of out of wedlock pregnancies and 3) the incidence of sexually transmitted diseases by using a “best practice” based curriculum with New York area middle and high school students.

The core of the HRYDP program is a school-based abstinence only program that provides roughly sixty hours of instruction over three years and uses a curriculum focused on criteria A-H for abstinence education as outlined in the Social Security Act. HRYDP also provides after-school activities that promote abstinence, and the program reaches out to parents and community leaders with various workshops.

Methods
In June 2006, HRYDP conducted seven focus groups with high school students in the program as a part of program evaluation. A random sample was selected from class rosters. There were four focus groups of girls and three of boys.

Results
Students served by the HRYDP told numerous stories of violence, incarceration, poverty, and addiction experienced by their friends, neighbors, family members and occasionally, themselves. Despite the difficulties around them, most of the students, both male and female, reported very mainstream goals: education, a good job, and a family. While the students were fairly unified in their goals, they also expressed a lot of concern that obstacles could prevent them from reaching those goals. Many of these obstacles were framed as external, such as family and school pressures.

The students tended to frame the ability to overcome obstacles as a passive character trait, – one that someone either had or did not have – and reported a low sense of personal efficacy – the belief in one’s ability to control one’s own life, which is predictive of many
bad outcomes including poor health and low educational attainment. Thus, HRYDP students reported productive goals but appeared not to have all of the skills needed to overcome barriers and achieve these goals.

One of the aspects of the HRYDP that students reported liking best was the focus on how their actions were likely to affect them both emotionally and in terms of their long-term goals.

They said the class helped them to figure out how their actions now were likely to affect them in the future. In addition, they liked the emphasis on how their actions might affect the perceptions and behaviors of others. Students also reported learning about abstinence and STDs.

The overwhelming sense from the focus groups was that the class had been a positive experience for the students. They reported getting real information about topics that were important to their lives right now. The students also seemed to relate very well to the HRYDP teachers.

**Discussion/Implications for Abstinence Education Programs**

Students reported connecting to the program’s message of setting and pursuing life goals and of protecting oneself from STDs and out-of-wedlock pregnancy.
Project REACH: An Abstinence Only Education Program for Youth 9 - 14 and Parents

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Introduction
Project REACH is an abstinence-only intervention program by the University of Maryland Baltimore, Department of Family and Community Medicine. The intervention, based upon the Social Action Theory (SAT), is designed to promote abstinence through education, skills building and social support to youth ages 9-14 and their parents through modified abstinence curricula from previous projects such as project ABSTAIN, and other innovative educational lectures and materials. The program is funded through the Office of Population Affairs/Office of Adolescent Pregnancy Programs. Data was collected from 2002 - 2006.

Youth Objectives: 1) improve attitudes towards abstinence; 2) increase the practice of abstinence; and 3) improve resistance toward situations leading to high-risk behavior by the end of the program.

Parent Objectives: 1) improve communication skills in order to increase parental support for abstinence as a viable lifestyle; and 2) increase knowledge regarding the effect of family, peers on adolescent behavior.

Youth Hypotheses: Participants would 1) have more positive attitudes regarding the advantages of abstinence, 2) show change towards practicing abstinence, and 3) would demonstrate improved recognition and resistance toward situations that lead to high risk behavior.

Parent Hypotheses: Parents completing the Project REACH intervention 1) would show improved communication skills in order to increase parental support for abstinence as a viable lifestyle, and 2) have increased knowledge regarding the effect of family, peers on the behaviors of adolescents.

Methods
Project REACH utilizes a quasi-experimental, one group pre- post test study design for both the parent and youth components of the intervention using a 68 question survey for youth and a 54 question survey for parents. Participants for all rotations of the intervention were recruited from the Baltimore city community. Data sources for the paper manuscripts and poster abstracts presented at the Abstinence Education Evaluation Conference: Strengthening Programs Through Scientific Evaluation (Baltimore, Maryland, March 19-20, 2007) are for informational purposes only. Inclusion of these papers and abstracts in the conference or conference packet does not constitute endorsement by the U.S. Department of Health and Human Services of the curricula, program methods, or evaluation findings and conclusions described in these papers and abstracts. The statements expressed are those of the authors and do not necessarily reflect the views of the Department.
cumulative evaluation comprised 169 pre-tests and 90 post-tests from the youth; parent data included 68 and 50 pre-tests and post-tests, respectively. Data analysis was conducted crossectionally combining data from several rotations to increase the sample of responses.

Descriptive statistics were calculated for the demographic variables. To analyze changes from baseline, pre-test and post-test summary scores were created for outcomes. Pre-test and post-test outcome summary scores were compared using paired t-tests.

Results
Youth Outcomes included the following:
- Attitudes towards Abstinence: No statistically significant change in attitude.
- Practice of Behaviors Consistent with Abstinence:
  - No statistically significant findings of greater likelihood to practice abstinence cumulatively
  - Statistically significant finding of greater likelihood to practice abstinence for the 2005-2006 end year evaluation (p=0.03)
- Recognition and Resistance of Situations to High Risk Behavior: No statistically significant improvement.

Parent Outcomes included the following:
- Communication Skills to Increase Support for Abstinence: No statistically significant improvement.
- Increases Knowledge Regarding Effect of Family and Peers on Behaviors of Adolescents: No statistically significant increase in knowledge.

Discussion
Findings suggest that the intervention had an effect on the likelihood of practicing abstinence, particularly from the recent annual data. Mixed findings were found regarding resistance towards high risk behaviors possibly due to relatively older age of participants resulting in unimproved recognition and resistance to high risk behavior and aging effect whereby older children were more likely to openly disclose sexually high risk behavior compared to younger children.

Parent data show a trend in improvement in outcomes. Demonstration of effect of intervention may have been minimal because of small sample size and baseline high levels of communications and knowledge.

The major limitations of the proposed quasi-experimental design were 1) absence of comparative data; 2) short time span between baseline and end point assessments; and 3) inadequate post-test data.

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Further, several youth participants chose not to respond to very sensitive items regarding sexuality and post-test data was limited. Programming could be improved by increasing overall participation and retention rates. Also, issues related to non-response bias on sensitive questions could be addressed in future data collection.
Process Evaluation Findings from Track 1 Abstinence and Partner Reduction Programs

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Introduction
In 2004, USAID released two Annual Program Statements (APS) soliciting applications to expand activities in support of abstinence-until-marriage, fidelity in marriage and monogamous relationships, and avoidance of unhealthy sexual behaviors among youth aged 10-24 in developing countries. In response to the APS, 14 non-governmental organizations and faith-based organizations are receiving direct funding from USAID Washington to scale up international youth HIV prevention activities supporting abstinence and fidelity in marriage strategies in 14 of 15 PEPFAR focus countries. [For brevity purposes, these programs are called ABY programs – based on Abstinence and Be faithful for Youth.] To ensure the quality of implementation of these activities – as well as to maximize their potential impact – USAID requested MEASURE Evaluation to undertake a targeted evaluation of the ABY programs. The evaluation was divided into two phases: a process evaluation phase (Phase I) and an outcome evaluation phase (Phase II). The primary focus of Phase I was to recommend “mid-course corrections” to the ABY programs with the objective of maximizing their potential benefits. This paper is based on the Phase I report that provides a quality assessment of Track 1 ABY programs and recommendations for strengthening these and other ABY programs.

Methods
Based on a review of the literature and the development of a logical framework, a site visit tool was developed and pilot-tested to ensure that comprehensive information was obtained from partners visited for the process evaluation. Twenty site visits were undertaken in Kenya, Mozambique, Ethiopia, Tanzania, and Haiti, representing programs from 13 of the 14 Track 1 ABY partners. Site visit findings are presented under five headings based on the logical framework: 1) program environment; 2) community and church involvement; 3) program setting; 4) program characteristics; and 5) strategies.

Results
The partners visited have varying levels of prior experience with adolescent HIV and reproductive health programming. ABY programs are working in varying settings including schools, churches, and/or community-based settings. All of the programs have some form of curriculum; however, only one curriculum has any prior evaluation research to support its use. Almost all partners are using peer education, although the

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level of training, supervision, and mentoring of peer educators varies immensely across the partners and sites.

From the site visits, numerous recommendations were made for program strengthening. Some recommendations were specific to a particular ABY partner and others were recommendations useful for many of the ABY partners. For example, those partners that use the same curriculum for all age groups were given a recommendation to develop different curricula for the various target groups by age (e.g., 10-14; 15-19; 20-24) and marital status. The youngest youth (10-14) seemed unprepared to serve as peer educators unless they work either with an older, more experienced peer educator or are linked to an adult affiliated with the program. Additionally, there was a dearth of program strategies that addressed mutual monogamy or partner reduction and it was recommended that the ABY partners consider strategies to fill this important programmatic gap.

Discussion
Given the increased funding to abstinence programs, there is a need for process evaluations to ensure program quality. The findings from this report are useful for funders, policy makers, and program planners as they continue to support, design, and develop abstinence and partner reduction programs. The underlying objective is to undertake programs that are implemented rigorously and have some promise of potentially having an impact on reducing HIV incidence among youth. The only way to determine if the programs have an impact, however, is to undertake rigorous outcome evaluations in addition to the process evaluation.

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Preliminary Evaluation Findings for the Newark, NJ Adolescent Family Life Abstinence Education Program

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Introduction
There are high rates of unmarried teenage pregnancies among adolescents in Newark, NJ. In New Jersey, the highest rates of teen pregnancy, infant mortality, STD’s and HIV/AIDS are in Essex Co, with Newark among the top 10 cities in US for HIV/AIDS cases.

The abstinence education intervention, guided by Bandura’s Social Learning Theory and Piaget’s Cognitive Development Theory, provides preteens/teenagers with a curriculum that is implemented in schools. The curriculum has seven components: group discussions, mentor meetings, dance/physical fitness, cultural events, community service, role models, recognition ceremony. Activities provide supportive relationships, positive peer pressure, counseling, sexuality information and health lessons. Each participant receives approximately 110 hours of guidance and activities each year.

The hypothesis for the study is that preteens and teenagers participating in the Abstinence Education Program will have more positive abstinence outcomes than comparison group participants.

Objectives
This AFL funded study measures the impact of the Newark, New Jersey Best Friends/Best Men Adolescent Family Life Abstinence Education Program on maintaining abstinence from sex, smoking, drinking, using drugs, and preventing pregnancy in 10-15 year olds. The intervention aims to develop positive attitudes and intentions to remain abstinent until marriage in teens.

Methods
The sample included students in four treatment schools (N=396, 232 girls +164 boys) and five comparison schools (N=247, 139 girls and 108 boys). The 6th, 7th, and 8th grade students involved in the study were high risk girls and boys primarily of African American ethnicity from impoverished environments with high unemployment, crises, single parent households, poor health, high drop out rates, and violent surroundings.

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The research design is Pretest/Post-test using the Core Baseline Questionnaire for AFL Pregnancy Prevention Programs and a demographic questionnaire. Pretest data was collected in the fall of 2005. Approval from Newark School District and written consent from parent/guardian was obtained. Treatment participants were admitted to the program following the Best Friends/Best Men admission procedure, which includes random selection. Comparison participants were a convenience sample and not randomly selected. Comparison schools were matched to treatment schools on age, gender, education, ethnicity/race, and socioeconomic status. A paper and pencil administration of the survey was done by trained staff.

Statistical analyses include descriptive statistics, Pearson Chi Square and Mann Whitney U Tests. A .05 level of significance was used.

**Results**
Preliminary results include: significantly more treatment than comparison students reported: Talking to parents about “Why people your age should not have sex” (p=.024); Importance of remaining abistent until marriage (p=.013) and for future spouse to remain abistent until marriage (p<.001); Sex before marriage makes it harder for good marriage/family life (p=.012); Sex as a teen makes it harder to grow and develop emotionally/morally (p=.006); Remaining abistent is the only certain way to avoid pregnancy & STD’s (p<.001); They feel accepted and supported by teachers (p<.001) and students their age (p<.001); They have a bright future ahead of them (p<.001).Gender differences were found for boys and girls in the treatment group. Girls reported higher importance than boys on remaining abistent until marriage (p<.001), and for future spouse to remain abistent (p<.001), and only married people should have sex (p<.001).

**Discussion**
Treatment group participants, especially girls, have more significant findings related to abstinence than comparison group participants. There were statistically significant differences for girls and boys in the treatment group and few significant gender differences in the comparison group. Preliminary findings suggest the intervention contributes to promoting abstinence attitudes/behaviors, feelings of acceptance/support and preventing pregnancy in preteens/teenagers.

A study limitation is that there was no random assignment to the comparison group. It is difficult to get comparison participants and get comparison schools to agree to no treatment for the length of the study. Authors recommend providing cash incentives to increase participation and reduce attrition.

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Examining the Potential for Decay: A 5-6 Month Post-test

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Introduction

Does the effect of abstinence education decay? Some recent sexuality education evaluations have not utilized a comparison group thus jeopardizing the significance of the program's impact. This study also takes into account the maturation of adolescents by using a comparison group. We examine the percentage of students who willingly engaged in sexual intercourse and those who committed and/or re-committed to abstinence until marriage. Data were collected in September and October of 2003 five months after completion of Me, My World, My Future and Aim for Success, as delivered by the McLennan County Collaborative Abstinence Program (McCAP) to 7th and 8th grade students during school. McCAP received SPRANS funding.

Methods

The quasi-experimental comparison group design uses a delayed post-test with comparison group. While the treatment (curriculum) was delivered by various administrators, three school districts received the same treatment. The survey instrument yielded sufficient reliabilities (Cronbach alphas were .77 or greater). The sampling plan was non-probabilistic convenience, as all participants were tested upon curriculum completion (177 8th and 228 9th graders). The comparison group consisted of 124 8th and 230 9th grade students in two school districts that had not received the McCAP intervention. Students who self-identified as receiving McCAP programming through sources other than school (144 8th graders, 92 9th graders) were eliminated from this study. Response rates were 58% for the treatment and 63% for the comparison group. School districts were similar; high economically disadvantaged populations (approximately 80%), 53% female, 47% male, and 73% white, 15% Hispanic, 6% African-American, and 5% “other.”

Results

Chi-square tests indicate significant differences between McCAP and non-McCAP students reporting willingly engaged in sexual intercourse in 8th grade (10% McCAP, 23% non-McCAP, p=.0015) and 9th grade (21% McCAP, 29% non-McCAP, p=.05) and commitment to remain abstinent until marriage, for 8th (64% McCAP, 51% non-McCAP, p=.01) and 9th grades (58% McCAP, 42% non-McCAP, p=.0008). Differences are also significant for non-virgins who desired to re-commit to abstinence until marriage in 8th.
(12% McCAP, 7% non-McCAP, p=.001) compared to 9th grade (23% McCAP, 14% non-McCAP, p=.0024).

Discussion
These findings demonstrate the McCAP students are less likely to willingly participate in sexual intercourse than non-McCAP students. There are significant differences in both grades to a commitment of abstinence until marriage with less decay among McCAP teens going from 8th to 9th grade. Further, among non-virgins, McCAP 8th graders are nearly twice as likely to re-commit to abstinence as non-McCAP 8th graders, and significantly more likely to re-commit to abstinence as 9th graders. The maturation effect of non-virgin non-McCAP teens supports others’ findings that indicate many teens who engage in intercourse regret that decision and desire to remain abstinent in the future. These findings suggest that McCAP is effective in reducing sexual intercourse and in increasing commitment or re-commitment to abstinence until marriage. Further studies should include more longitudinal data to see the continued outcome effects of abstinence curriculum. Limitations include not identifying when sexual intercourse occurred relative to participation in McCAP, the small sample size, and the low participation rate in the evaluation.
Effects of Providing Age-Appropriate Abstinence Education in Both Middle School and High School

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Introduction
Originally funded by a SPRANS grant, East Texas Abstinence Program (ETAP) is now a CBAE program. A unique aspect of ETAP is the systematic inclusion of abstinence education throughout middle and high school, using a curriculum, Family Accountability Communicating Teen Sexuality (FACTS), with a planned scope and sequence for different grade levels, beginning with a character-based health education focus for younger students as a foundation for sexual abstinence education for older students that is consistent with the A through H definition of abstinence education. The program includes (a) FACTS classes in public schools; (b) other activities in communities and alternative schools; (c) meetings of a supportive coalition of youth and adults; and (d) a multimedia campaign using a range of methods of outreach, including radio, television, posters, billboards, car bumper stickers, and a Web site.

Methods
Changes in pre- and post-intervention survey responses were studied. Questionnaires for 2,496 matched students in Grades 7 to 12 were analyzed. The students reported diverse racial and ethnic backgrounds, with the three largest groups being White (48%), Black (28%), and Hispanic (18%). Data analysis included descriptive statistics, repeated measures analysis of variance, t-tests of average differences, and chi-square tests of differences from Time 1 (pre-test) to Time 2 (post-test) in the percentages of respondents selecting different categories of responses, using McNemar’s Test of Symmetry.

Results
Most (79.38%) students reported that they knew they attended the FACTS classes. When asked about agreement or disagreement with the following statement: "The best way for teenagers to avoid unintended pregnancy, HIV/AIDS and other sexually transmitted infections (STIs) is to wait until they are married before having sex," 84% of respondents indicated that they agree or strongly agree, up from 78.17% (p < .0001). The greatest change was the percentage who "strongly agreed."
After the FACTS classes, 56% reported that abstinence would “make it a lot easier” to get a good education, up from 52% (p < .0001). Changes were similar for questions about the benefit of premarital teen sexual abstinence for future marriage (“a lot easier” changed from 52% to 59%) and future careers (“a lot easier” changed from 43% to 50%). The percentage of respondents who agreed or strongly agreed that “a teen who has had sex would be better off to stop having sex and wait until later such as after high school or until marriage” increased from 69% before the intervention to 73% after the intervention, another statistically significant change (p<.0001).

When asked about agreement or disagreement with the following statement, "If someone tries to get me to have sex, I feel confident I can say no," 77% of the matched respondents marked agree or strongly agree, up from 73% before the intervention. This improvement was a statistically significant change (p = .01), with the greatest change being in the percent selecting “strongly agree.”

When asked: "Whether or not you have ever had sex, in the future do you plan to abstain until marriage," 64% marked “Yes,” up from 57%, a statistically significant improvement (p < .0001).

When asked if they agree with the statement: "My friends and I can have fun without sex, drugs, or alcohol," after the intervention in the 2005-2006 school year, 84% of matched respondents marked agree or strongly agree, up from 82% before the intervention, a statistically significant improvement (p < .0003).

**Discussion**

Consistent progress was demonstrated in supporting students’ decisions to be abstinent until marriage. ETAP guides and supports youth as they develop and face increasing pressures from middle school to high school.
Developing a Statewide System for Tracking Process Indicators for Illinois Abstinence Education Programs (AEP)

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Introduction
There are still very few guidelines or research-based practices developed for abstinence education, primarily due to the lack of scientifically rigorous evaluations and the variety of programs. However, even before the few existing “best practices” can be applied, there is a critical need to systematically examine actual abstinence education programs and their implementation. By gathering data regarding the characteristics of existing programs, we can better define performance measures, assess those measures for each program, and eventually guide program improvement. In response to this need and to the new federal reporting requirements, Illinois has created OnTrack-AEP, a statewide web-based evaluation system to guide Illinois AEPs in program planning and implementation. Only when we know what is happening with whom and how much, can we then define an actual baseline from which to measure performance and improve effectiveness.

Methods
OnTrack-AEP was adapted from a well-established and well-tested web-based service delivery tracking system for substance abuse prevention programs. OnTrack-AEP creates a logical way of defining and gathering accurate performance measures for both individuals and programs statewide. OnTrack-AEP looks at the key indicators of general prevention program stability; namely, implementation, reach, dosage, and staffing. With local AEP coordinators entering their program participant rosters and completing offline quarterly narrative reports, OnTrack-AEP gathers data on all the key indicators mentioned above, as well as additional qualitative descriptions of implementation fidelity and staff training.

Results
OnTrack-AEP can run analyses to detect the difference between what programs are stated in local AEP plans and what programs are delivered, to understand the difference between the number of sessions planned and the number actually delivered, whether 75% of the participants received the entire program, the number of participants reached, and the number of hours delivered for each program, as well as basic demographic and geographic information. OnTrack-AEP also allows for efficient and accurate gathering of data that is used for the federal reporting requirements in Forms A-D. Because OnTrack-AEP records a unique ID number for each AEP participant, the system will also have the
future capability of linking implementation data for every participant to their outcome data. That will allow us to look at other questions more deeply, such as how much dosage is sufficient to produce results and whether high implementation fidelity is related to higher attitudinal or behavioral outcomes.

**Discussion**
Performance measurement and program improvement remain challenges for most state and local AEP administrators. The goal is to blend practical data collection tools with centralized technology and technical assistance resources to create a user-friendly and multi-purpose evaluation. OnTrack-AEP will be piloted and refined based on user input and state program needs. The ultimate goal is to use the system to store, manage and report site level and state level process evaluation summaries with limited burden and maximal efficiency. With access to immediate feedback, local programmers can better use process evaluation data to adjust plans when necessary. With aggregate feedback, state administrators can use process evaluation data to better understand training needs and appropriate expectations for funded programs.
An Evaluation of GAPP (Greatness, Attitude, and Potential Program)

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Introduction
GAPP (Greatness, Attitude, and Potential Program) is a community-based Abstinence Only Education Program that targets, but is not limited to African-American youth ages 12-18. Its purpose is to close the health disparity gap among youth in Pinellas County, Florida through abstinence-only education.

Methods
The program is curriculum-guided and presented in two-twelve-week sessions by community educators at various sites in the county. A 34-item pre and post-test is administered, and pre and posttest mean scores are compared to determine the effectiveness of the intervention. Over the two evaluation years (2005-2006), a total of 593 participant responses were collected. Pre-test for 2005 N=285 and Post-test N=228. Pre-test for 2006 N=308 and Post-test N=286.

Data from an Access system, used to record pre- and post-test responses, were used to analyze data, and to determine if the objectives of the program were met.

Results
The results of this evaluation support the effectiveness of GAPP as an effective abstinence only program. The results show positive effects on participant's attitudes and behaviors pertaining to sexual abstinence after the intervention. There is a significant difference in the pre-test and post test responses to the question that addresses remaining abstinent from sexual activity until marriage. The results are significantly different in reporting years, 2005 as well as 2006. The difference in pre-test and post-test responses indicates the intervention is successful in meeting all objectives.

The pre and post tests consisted of a 34-item Likert-type scale survey with 6 questions that included responses to questions that measured attitudes related to sexual abstinence. Each of the measures suggests GAPP is an effective program. Performance measure #1 analyses the number of participants who successfully complete or remain enrolled in the program. In reporting year 2005, 285 students enrolled and 228 completed the program for 80% completion rate.
Performance measure #4 analyzed the question, “when I say no I mean no”, the results suggest that after the intervention participants had a better understanding and ability to say no and mean no. On the pre-test 151 participants strongly agreed to the question and on the posttest 157 strongly agreed.

Performance measure #5 analyzed the statement, “I will remain abstinent from sexual activity”. In the pre-test 7 responded somewhat agree and in the post-test 50 responded somewhat agree and 148 reported strongly agree.

Performance measure #6 analyzed the statement, “I am the only person in control of my actions”. Pre-test responses were 169 reporting strongly agree and 190 on post-test. Percentages were higher on post-tests for all questions with a strongly agree response than on the pre-test for both years 2005 and 2006. This analysis supports, though not through inferential statistics, that GAPP is an effective intervention program. Data will be compiled in the future based on recommendations in the evaluation.

**Discussion**

The evaluation analyzes responses to selected pre and posttest survey questions consistent with the elements of the Federal A-H definition of sexual abstinence programs. Attrition is a limitation of this evaluation. All participants did not complete the program. Four students that did not complete the program were interviewed in reference to their views of the program and reasons for dropping. The view from all four in reference to the program was very positive. Reasons for not completing the program included an after school job, moving out of the area, and school related activities.

This evaluation has a number of limitations, data are not included that would statistically support the effectiveness of GAPP as an effective abstinence program. The program is very effective and without doubt impacts participants positively; however conclusions are not based solely on collected and analyzed data.

There are no matched pre and posttests, no standardization in administration of pre and posttests, and no comparison group. Without matched pre and posttests it was impossible to perform t-tests or any other statistical tests to assess differences. Descriptive statistics were presented in tabular form.

An additional limitation of the evaluation was the absence of demographics of participants. Data related to gender, age, race/ethnicity, grade level or site location were not addressed in the evaluation.

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Data are currently being collected from 2005 and 2006 graduates of the program to statistically support that GAPP is an effective abstinence program with long-term benefits.

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ATM Education

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Introduction
ATM Education has been a SPRANS/CBAE grantee from 2003-2006. Our intervention is based on the theory that when presented with the truth about sexually transmitted diseases (STDs) and teen pregnancy that most students and their families will respond positively and responsibly. The Ajzen Theory is employed. From 2002-2006 ATM Education provided abstinence-until-marriage education in 27 Ohio counties: Adams, Allen, Ashland, Athens, Brown, Crawford, Delaware, Erie, Gallia, Hardin, Highland, Hocking, Jackson, Lawrence, Madison, Marion, Meigs, Morrow, Pike, Richland, Ross, Seneca, Scioto, Tuscarawas, Union, Vinton and Wyandot counties. Activities for ATM Education including all-school assemblies, web parties, five classroom presentations for sixth through eighth grades and up to eight presentations for high school using the Relationships Under Construction curriculum, teacher in-services, and professional seminars. Billboards, posters and web sites served thousands more. The Relationships Under Construction curriculum is used in many other Ohio counties than just the counties that ATM Education serves.

Methods
The evaluation is quasi-experimental in design. Topics covered in each survey instrument were derived from the goals and objectives of the SPRANS Community-Based Abstinence Education Maternal and Child Health Bureau Performance Measures. Questions measure A-H criteria of Title V. Random sampling of the 65,760 surveys over the three year period produced 15,110 matched pre- and post-surveys which serve as the basis of this report. Students aged 12-18 participated in the five-eight session school-based program. Demographics are representative to each area but match the demographics of Ohio by average. Pre and post surveys are administered immediately before and after the program. Currently there is no follow up period other than surveying during the next school year.

Evaluation data were analyzed by integrating both qualitative and quantitative methods. Quantitative survey data were analyzed through descriptive statistics and t-tests. Each survey included questions used for matching pre- and post-test surveys by individuals (i.e., date of birth, first letter of mother’s name, etc.) making it possible to match pre- and
post-tests by each individual student. In addition, to determine if the presentations had any effect on the attitudes, knowledge, and behavioral intentions of individuals, Dependent Sample t-tests were conducted on pre- and post-test data for specific outcome-related questions.

Results
Results cover a three-year period with positive increases observed each year. The impact of Relationships Under Construction is proving very positive in Ohio. Each year percentages of positive impact have increased. Key descriptive survey results for the 2005-2006 school year include:

- 81% agree with the statement, “It is important to be married before I have sex.”
- 94% agree with the statement, “The best way to avoid an out-of-wedlock pregnancy is to wait until marriage to have sex.”
- 67% agree with the statement, “I have made a personal pledge to remain sexually abstinent until marriage.” (The national average is 54%).
- 72% agree that, “Having sex now will negatively affect my marriage in the future.”
- 84% agree that, “Even if you have already had sex, you can choose to save sex for marriage only.”

Classroom Presentation/Mentoring surveys demonstrated statistically significant positive changes in behavior and intentions, most of which were significant to the p ≤ .001 level.

The following examples are just a few of the positive results that demonstrate statistically significant results for each of the Performance Measures. Performance Measure I does not deal with pre and post survey information.

Performance Measure II: Increase the proportion of adolescents who understand that abstinence from sexual activity is the only certain way to avoid out-of-wedlock pregnancy and sexually transmitted diseases.

- Ninety percent (90%) of the respondents on the pre-test and 94% on the post-test indicated “yes, probably” or “yes, definitely” that “The best way to avoid an out-of-wedlock pregnancy is to wait until marriage to have sex.” A statistically significant (p ≤ .001) positive change occurred from pre- to post-test.
- Eighty-nine percent (89%) of the respondents on the pre-test and 91% on the post-test indicated “yes, probably” or “yes, definitely” that “A girl can get
pregnant by having sex only once.” A statistically significant (p ≤ .001) positive change occurred from pre- to post-test.

- About 71% on the pre-test and 82% on the post-test said “yes, definitely” that “Teens can have STDs without even knowing it.” Students completing the post-test are significantly (p ≤ .001) more likely to agree that a teen can have an STD without knowing it.
- When asked if “The best way to avoid an STD is to wait until marriage to have sex,” 74% on the pre-test and 86% on the post-test indicated “yes, probably” or “yes, definitely.” As a result of programming, participants on the post-test are statistically more likely to agree that saving sex until marriage is the best way to avoid STDs (p ≤ .001).

Performance Measure III: Increase the number of adolescents who indicate an understanding of the social, psychological, and health gains to be realized by abstaining from premarital sexual activity.

- Approximately 43% on the pre-test and 59% on the post-test indicated “no, definitely” or “no, probably” with the statement “It is okay to have sex with someone you love before you get married.” Students on the post-test are more likely to think it is not okay to have sex with a loved one before marriage, thus, programming had a positive statistically significant (p ≤ .001) effect.
- When asked if “Having sex now will negatively affect my marriage in the future,” 52% on the pre-test and 72% on the post-test agreed with this statement. A statistically significant (p ≤ .001) positive change occurred from pre- to post-test.
- Sixty-three percent (63%) of the participants on the pre-test and 79% on the post-test agreed with the statement “There are financial benefits to waiting until marriage to have sex.” Results indicate a positive statistically significant (p ≤ .001) change from pre- to post-test.
- When asked if “Remaining abstinent until marriage shows respect for yourself and your partner,” 74% on the pre-test and 84% on the post-test stated “yes, definitely” or “yes, probably.” There was a statistically significant (p ≤ .001) positive change from pre- to post-test. Therefore, students on the post-test are more likely to believe remaining abstinent until marriage is respectful, to both themselves and their partner.
- When asked if “Having sex outside of marriage can cause depression,” 61% on the pre-test and 81% on the post-test agreed with this sentence. There was a statistically significant (p ≤ .001) positive change from pre- to post-test. As a result of programming, students on the post-test are more likely to believe premarital sex can cause depression.
Performance Measure IV: Increase the proportion of youth who report they have refusal or assertiveness skills necessary to resist sexual urges and advances.

- Eighty-three percent (83%) of the respondents on the pre-test and 88% on the post-test indicated “yes, probably” or “yes, definitely” that they “Can say no if someone tries to get them to have sex.” A statistically significant ($p \leq .001$) positive change occurred from pre- to post-test.
- Nearly 80% on the pre-test and 87% on the post-test agreed that “Saying no to sex as a teen can help me reach my goals as an adult.” Students completing the post-test are more likely to agree with this statement, therefore, the program had a positive statistically significant ($p \leq .001$) effect.
- About 56% of students on the pre-test and 67% on the post-test, indicated “yes, probably” or “yes, definitely” when asked, “Once a person has sex, it is possible to stop having sex.” A statistically significant ($p \leq .001$) positive change occurred from pre- to post-test.

Performance Measure V: Increase the proportion of participants who commit to abstain from sexual activity until marriage.

- Approximately 69% on the pre-test and 81% on the post-test agreed that “It is important to be married before I have sex.” Students completing the post-test are more likely to agree that they should be married before engaging in sex, thus, the program had a positive statistically significant ($p \leq .001$) effect.
- Fifty-five percent (55%) of the respondents on the pre-test and 67% on the post-test stated “yes, definitely” or “yes, probably” that “From this day forward, I will wait to participate in sexual activity until marriage.” A statistically significant ($p \leq .001$) positive change occurred from pre- to post-test.
- When respondents were asked if they “Have made a personal pledge to remain sexually abstinent until marriage,” 50% on the pre-test and 67% on the post-test indicated “yes, definitely” or “yes, probably.” There was a statistically significant ($p \leq .001$) positive change from pre- to post-test. Due to programming, students on the post-test were significantly more likely to make a pledge to remain sexually abstinent.
- Seventy-seven percent (77%) of the respondents on the pre-test and 84% on the post-test stated “yes, definitely” or “yes, probably” when asked, “Even if you have already had sex, you can choose to save sex for marriage only.” Students on the post-test were significantly ($p \leq .001$) more likely to understand they can choose secondary virginity.
Fifty-eight percent (58%) of participants on the pre-test and 68% on the post-test indicated “yes, definitely” or “yes, probably” when asked they “Plan to remain a virgin or renew my commitment to virginity until marriage.” A statistically significant (p ≤ .001) positive change occurred from pre- to post-test.

Performance Measure VI: Increase the proportion of participants who intend to avoid situations and risky behaviors, such as drug use and alcohol consumption, which make them more vulnerable to sexual advances and urges.

- Seventy-six percent (76%) of the participants on the pre-test and 87% on the post-test indicated “yes, probably” or “yes, definitely” when asked if “Using alcohol and/or other drugs makes teens more likely to have sex.” A statistically significant (p ≤ .001) positive change occurred from pre- to post-test.
- Nearly 68% on the pre-test and 85% on the post-test agreed that “Abstinence is choosing to stay away from behaviors that could hurt me.” Students completing the post-test are significantly (p ≤ .001) more likely to understand the term “abstinence.”
- When asked if “It can be against the law to have sex with someone younger than age 16,” 62% on the pre-test and 79% on the post-test indicated “yes, probably” or “yes, definitely.” There was a statistically significant (p ≤ .001) positive change from pre- to post-test. After exposure to programming, more students on the post-test are aware of the legal age of participating in sexual activity.

Discussion

Teen pregnancies are steadily decreasing in Ohio as abstinence education is increasing. Costs in Ohio from 1991-2004 were $6.9 billion for teen pregnancy. The teen birth rate in Ohio declined 36% between 1991 and 2004 saving Ohio taxpayers an estimated $300 million in 2004 alone. Abstinence education has increased over this time period and is an important factor in these findings. ATM Education has played a vital role in Ohio. The implications of findings are positive and reflected in documented survey comments. ATM Education is excited to have three years of consistent data using the same questions. The survey instrument is designed to test Title V, A-H. Results show that ATM Education and Relationships Under Construction curriculum do in fact positively meet the requirements of Title V, A-H criteria and make a very positive impact on the students served.

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IMPROVING YOUR EVALUATION SKILLS

1. Texts/Manuals/Research Articles/Briefs


Peterson, James L. et al. "Evaluating Teenage Pregnancy Prevention and Other Social
Programs: Ten Stages of Program Assessment.” Family Planning Perspectives. Vol. 26, No. 3. 1994. This article describes a simple conceptual model for evaluating pregnancy prevention programs, and the different types of program evaluation that can be adopted for such programs.


2. Training and Technical Assistance

American Evaluation Association: www.eval.org. This web site is a critical resource for evaluators. It contains links to other evaluation web sites, a member-author bibliography of over 150 citations, and a list of evaluation journals. It sponsors an annual conference (planned for Baltimore in November 2007), as do its regional affiliates, such as the Eastern Evaluation Research Society which meets in April 2007 in Atlantic City, N.J.

Evaluators Institute: http://www.evaluatorsinstitute.com. This organization offers a range of courses for evaluators, resulting in four levels of certificates. During 2007, courses will be offered in Chicago (April) and Washington, D.C. (July).

Fundamentals of Evaluation Web-Based Course: www.ttac.org/trainings/foe. This online training course for evaluators is sponsored by the Tobacco Technical Assistance Consortium. The course is currently underway, but will be offered again in August 2007.
Sociometrics: [http://www.socio.com/eval.htm](http://www.socio.com/eval.htm). This organization provides a range of types of training, publications, and technical assistance for evaluators of prevention programs, with a particular emphasis on instrumentation.

### 3. Measurement Resources

Office of Population Affairs, DHHS:
[http://opa.osophs.dhhs.gov/titlexx/coreinstruments/coreinstruments.html](http://opa.osophs.dhhs.gov/titlexx/coreinstruments/coreinstruments.html). This section of the OPA website includes complete guidance for measuring basic outcome results for an abstinence program intervention. AFL Prevention Program documents available at this site include "Core Evaluation Instrument User Guide," "Core Baseline Questionnaire," and "Core Follow-up Questionnaire." Use of this instrumentation is open and available to all abstinence programs.
of Providing Age-Appropriate Abstinence Education in Both Middle School and High School; Developing a Statewide System for Tracking Process Indicators for Illinois Abstinence Education Programs; An Evaluation of GAPP (Greatness, Attitude, and Potential Program); and ATM Education. The document also includes brief descriptions of texts, manuals, research articles and other materials meant to help improve evaluation skills; training and technical assistance resources; and measurement resources.

Availability: The Abstinence Clearinghouse, 801 East 41st Street, Sioux Falls, SD 57105; Telephone: (888) 577-2966, Fax: (605) 335-3643, E-mail: info@abstinence.net, Web site: www.abstinence.net

Notes: Publication downloaded from the Internet