



Not Yet:

PROGRAMS TO DELAY FIRST SEX AMONG TEENS

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Note to Reader

Those in states and communities working directly with young people are often the first to note that there are many wonderful community-level and school-based programs that appear to reduce teen pregnancy. Over the past several years, a growing body of scientific evidence has been developed supporting this belief. In recent years, much more has been learned about the relative effectiveness of teen pregnancy prevention programs. Indeed, careful research has shown that a wide range of programs—from sex and HIV education to programs that encourage young people to participate in community service—can be effective in delaying the onset of sex, increasing the use of contraception, and decreasing teen pregnancy.

This is a heartening development given that, until quite recently, little was known about what programs might be most efficacious in preventing teen pregnancy. This growing pool of “effective” programs is particularly good news for communities searching for programmatic answers to still-high rates of teen pregnancy. While many communities have already been putting this knowledge to work on the front lines, others continue to look for guidance about what programs to put in place.

Not Yet: Programs to Delay First Sex Among Teens provides detailed descriptions of those programs

that have been shown through careful research to have delayed sexual initiation for teens. In addition to providing results from program evaluations, *Not Yet* contains practical information on the costs and availability of program curriculum, and lengthy descriptions of what is covered in each curriculum. *Not Yet* joins the expanding base of program evaluation literature from which communities can draw in making their decisions about what programs they might consider using. (Those interested in learning more about effective teen pregnancy prevention programs are encouraged to visit the National Campaign’s website—www.teenpregnancy.org—to review the findings contained in the publications, *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy*, *A Good Time: After-School Programs to Reduce Teen Pregnancy*, *No Time to Waste: Programs to Reduce Teen Pregnancy among Middle School-Aged Youth*, and for other relevant materials from the National Campaign. We also encourage readers to visit the Child Trends website—www.childtrends.org—to review their helpful charts on “what works” in adolescent reproductive health.)

As important and helpful as these findings are, it is also very important to put this report in context. When assessing the effectiveness of programs, readers are encouraged to keep in mind the following:

These findings *only* reflect those programs that have been evaluated. Only a handful of programs to delay sexual initiation and reduce teen pregnancy have been evaluated at all and, of those, fewer still have been studied using rigorous research designs. Consequently, we know less than we would like to about the efficacy of programs that delay sexual activity. It may very well be that there are any number of creative programs that are effective in helping young adolescents avoid risky sexual behavior that simply have not been evaluated at all.

What do you mean by effective? What makes a program “effective” or “successful?” For example, should a program that demonstrates significant positive effects over a relatively brief period of time be considered successful when the program was originally designed to influence behavior over a long period of time? What about a program that has a positive impact on only boys or only girls, even though it was designed to affect both? Can a program that significantly delays participants’ sexual initiation but has no effect on their subsequent contraceptive use be considered effective? Readers should pay careful attention to specific results of each program evaluation.

Programs may have unmeasured positive effects. This review is narrowly focused on the effect certain programs have on teen sexual activity. It could be that these programs have positive effects beyond these specific measures—building adolescent self-esteem or knowledge of HIV risks, for instance.

Programs can’t do it all. Since teen pregnancy is rooted partly in popular culture and social values, it is unreasonable to expect that programs alone can change forces of this size and power.

Making true and lasting progress in preventing teen pregnancy will likely require a combination of community programs and broader efforts to influence values and popular culture. Of course, another reason why it is unfair to place the entire responsibility for solving the teen pregnancy problem on the backs of community programs is that many programs, even “effective” programs, often have only modest results, many are fragile and poorly-funded, and few teens are enrolled in these programs.

So, what to do? Those searching for a programmatic answer to the question “what works to prevent teen pregnancy” should pay close attention to the guidance provided in this publication, other National Campaign materials, and the growing body of high-quality research provided by other organizations.¹ It is increasingly clear that a broad array of programs can be at least partially effective in delaying sex, improving contraceptive use, and preventing pregnancy among teens. The important news is that community-level interventions need not start their efforts from scratch. Communities should strongly consider putting in place those programs with the best evidence of success but resist holding unrealistic expectations for program success and the temptation to assume that programs *alone* can solve a problem as complex as teen pregnancy. Our hope is that *Not Yet* will provide some clear guidance to communities and encourage those concerned with adolescents to explore, develop, and evaluate new and innovative approaches to preventing teen pregnancy.

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Introduction

There is overwhelming support among both adults and adolescents that society give teens a strong message that they should abstain from sex until they are at least out of high school. This sentiment—coupled with concern about too-early pregnancy and parenthood and the risk of sexually transmitted diseases (STDs)—has led to strong interest in identifying programs that are effective in postponing sexual initiation among youth (that is, delaying sexual intercourse). Indeed, over the past several years, a growing body of scientific evidence has included examples of programs that have, to varying degrees, postponed sex. While some of these initiatives are actually called “abstinence education programs,” others fall under the categories of youth development, service learning, sex education, and HIV/AIDS education programs. These programs have used a variety of settings, approaches, curricula and even messages. Some programs emphasize abstinence until marriage, while others promote abstinence as the only 100 percent effective way to avoid pregnancy. They serve boys and girls of various racial/ethnic groups, ages, and with a range of sexual experience. Such personal characteristics are relevant because they can affect the

dynamics within the program and help explain the extent to which messages about abstinence and/or contraception resonate with the youth who receive them. This report spotlights a range of programs that are effective in delaying first sexual intercourse.

With funding from the U.S. Centers for Disease Control and Prevention (CDC), the National Campaign to Prevent Teen Pregnancy has joined with Child Trends to assess the effects of these programs on timing of first sex among teens. For the purposes of this report, the programs have been grouped in the following categories: abstinence education programs, sex education programs, HIV/AIDS and other STD education programs, youth development programs, and service learning programs. All of the programs described in this report have been carefully evaluated through investigations that:

- were completed in 1980 or later;
- were conducted in the United States or Canada;
- were targeted at teens under age 18;
- used an experimental or quasi-experimental design¹;

¹ Experimental designs randomly assign study participants to intervention and control groups and then compare the two groups. Experimental designs represent the only evaluation approach that can address causal questions definitively. Quasi-experimental designs do not randomly assign study participants to either group but do compare the intervention group with a comparison of youth with similar characteristics.

- had a sample size large enough to make comparisons between program and control groups, including 75 or more program and control group participants; and
- measured effects on the timing of first sexual intercourse.

Not Yet: Programs to Delay First Sex Among Teens begins with a summary of research on the consequences of early sexual initiation. This section is followed by an overview of the types of programs described in the report, along with a list of key insights that emerged from evaluations of the programs. Finally, the report profiles 15 programs that were evaluated using experimental designs (including programs that did and did not delay sexual initiation). Nearly half of the experimentally evaluated programs included in this report (seven out of 15) delayed first sex. Of the remaining eight experimentally evaluated programs that *did not* delay first sex, four *did* have an impact on other sexual behavior or contraceptive use. In order to learn from programs with less rigorous evaluations, we also included seven programs that were evaluated using quasi-experimental designs and that demonstrated a positive association with postponing first sex.

The abstinence education programs described in this report focused primarily on delaying first sex (usually until marriage). However, programs in the other categories (sex education, HIV/AIDS and other STD education, youth development, and service learning) also promoted abstinence as well as such other goals as reduced sexual activity and better contraceptive use among sexually active teens. Several evaluations also measured a program's influence on knowledge, attitudes, and communication skills, which are believed to affect the likelihood of risky behavior. It is important to note, however, that the primary focus of this report is the influence of these programs on adolescent sexual *behavior*, rather than knowledge, attitudes, or other similar measures.

Relatively few programs actually have been evaluated using rigorous research designs—those in this report are just a small portion of all the programs that have been developed. As a result, reliable information about effective programs is limited. Still, the information presented here can help to guide program-providers, policy-makers, and funders in finding and supporting promising programs for their communities.

What the Research Shows

When it comes to delaying first sex among teens, progress is clearly possible. The percentage of high school teens who report ever having had sexual intercourse declined from 54.1 percent in 1991 to 46.7 percent in 2003 (Centers for Disease Control and Prevention, 2003). Still, almost half of those in grades 9–12 are sexually experienced, and approximately six in ten have had sex by the time they graduate (Centers for Disease Control and Prevention, 2002, 2003). Moreover, one in five teens report having sexual intercourse before age 15 (National Campaign to Prevent Teen Pregnancy, 2003a). Research points to several reasons why it is beneficial for teens to delay first sex.

Teens who begin having sexual intercourse at younger ages are more likely to express regret about their first sexual experience than are older teens. A recent national survey found that two-thirds of sexually experienced teens said they wished they had waited longer to have sex. (National Campaign to Prevent Teen Pregnancy, 2003b). The percentage was higher among younger teens, aged 12–14, (83 percent) than those aged 15–19 (60 percent).

Teens who have sex in their early teens have more sexual partners, are less likely to use contraception, and are more likely to get pregnant. Adolescents who first have sex in their early teens have more lifetime sexual partners than teens who wait until they are older (Finer, Darroch, & Singh, 1999; Shrier, Emans, Woods, & DuRant, 1996;

Smith, 1997). Younger sexually active teens also are less likely than older teens to use contraception (Manning, Longmore, & Giordano, 2000; Mauldon & Luker, 1996; Santelli, Lowry, Brener, & Robin, 2000) and are more likely to get pregnant and to give birth during their teen years (Manlove, Terry, Gitelson, Papillo, & Russell, 2000; Thornberry, Smith, & Howard, 1997). Note, however, that age alone may not fully explain observed differences. These increased risks may also reflect other aspects of these young teens that are not measured in the studies.

Teens who first have sex at an early age are more likely to have older partners. This is troublesome because teens—both boys and girls—with older sexual partners are less likely to use contraception and are more likely to become pregnant or to cause a pregnancy than those with a partner who is close in age (Abma, Driscoll, & Moore, 1998; Darroch, Landry, & Oslak, 1999; Manlove, Ryan, & Franzetta, 2003; Zavodny, 2001). In addition, many girls who have sex at a young age report that their first sexual experience was coercive. Fully 24 percent of teen girls who had sexual intercourse before age 14 report that their first sexual experience was nonvoluntary, defined as having sex against one's will (Abma et al., 1998). Another study found that about half of nonvoluntary intercourse among females (aged 18-22) occurred when they were age 13 or younger (Moore, Nord, & Peterson, 1989). Nonvoluntary intercourse may also increase the risk of multiple partners, contraceptive failure, and adolescent pregnancy (Boyer & Fine, 1992; Laumann, 1996; Roosa, Tein, Reinholtz, & Angelini, 1997; Stock, Bell, Boyer, & Connell, 1997).

Research has also identified factors in teens' lives that are associated with the timing of sexual initiation. These include characteristics of the adolescents themselves, their families, their choice of peers, their partners, and their communities. (Please see Kirby, 2001; Kirby & Ryan, in press; and Manlove et al., 2002; for an overview of studies.)

Girls and white teens (both boys and girls) are more likely to delay first sex. Boys, in general, and youth of racial and ethnic minority groups, tend to first have sex at younger ages than girls and non-Hispanic white teens (Afexentiou & Hawley, 1997; Mott, Fondell, Hu, Kowaleski-Jones, & Menaghan, 1996; Raine et al., 1999; Smith, 1997). Teens who appear older or more physically developed also tend to first have sex at a younger age. (Miller et al., 1997; Resnick et al., 1997).

Teens in families with higher education and income levels are more likely to postpone sexual intercourse. Having a two-parent family and/or parents with higher levels of education and income are also associated with teens delaying first sex. (Afexentiou & Hawley, 1997; Santelli et al., 2000). Youth whose mothers were teen mothers and those with sexually experienced or pregnant siblings also are more likely to have sex at an earlier age (East & Kiernan, 2001; Manning et al., 2000; Miller, 1998; Mott et al., 1996).

Higher quality parent-teen relationships help delay sexual initiation. Teens who feel they have a high-quality relationship with their parents and whose parents communicate their strong disapproval of sexual activity are more likely to delay sex (Jaccard, Dittus, & Gordon, 1996; Miller, 1998; Widmer, 1997). So are teens whose parents closely monitor their behavior through supervision and rules about dating and outside activities (Hogan & Kitagawa, 1985; Miller, 1998). However, excessive parental control can be associated with *more* problem behaviors (Miller, 1998).

Attitudes about sex and peer norms affect timing of first sex. Adolescents who personally feel that they should and will delay sex and whose peers also feel that they should avoid sex are more likely to do so (Carvajal et al., 1999; Santelli et al., 2004). Conversely, teens who believe having sex will increase others' respect for them or those who perceive that their peers are sexually active are more likely to have sex (Kinsman, Romer, Fustenberg, &

Schwarz, 1998; Miller et al., 1997). In addition, taking a virginity pledge is also associated with first having sex at an older age for those teens attending schools where less than half of their peers have taken such a pledge. (Bearman & Bruckner, 2001).

Not surprisingly, having a steady, romantic relationship is associated with an earlier age of sexual initiation. Teens who have dated or who say they have been in a romantic relationship are more likely to have had sex (Blum et al., 2000). In addition, dating an older partner is linked to having first sex at a younger age. (Lindberg, Sonenstein, Ku, & Martinez, 1997).

Other factors influence timing of first sex. Teens who do well in school (Resnick et al., 1997), and attend religious services (Halpern et al., 2000; Resnick et al., 1997), are more likely to delay sexual initiation. Girls who participate in sports also delay first sex longer than those who do not (Miller et al., 1998). In addition, teens whose friends have high educational aspirations, who avoid such risky behavior as drinking or using drugs, and who perform well in school, are less likely to have sex at an early age than teens whose friends do not (Bearman & Brückner, 1999). Teens who report they have been sexually abused (Raj et al., 2000; Stock et al., 1997), who are already involved in other risky behavior such as alcohol and drug use (Kowaleski-Jones & Mott, 1998; National Center on Addiction and Substance Abuse, 1999), or who perceive that their peers use alcohol and drugs, are more likely to have first sex earlier. (Blum et al., 2000; Costa et al., 1995; Kowaleski-Jones & Mott, 1998).

Overview of Five Types of Programs that Delay First Sex

Although the programs profiled in this report share some common characteristics, they are grouped into five general categories for ease of organization. As noted earlier, the categories are: (1) abstinence education programs, (2) sex educa-

tion programs, (3) HIV/AIDS and other STD education programs, (4) youth development programs, and (5) service learning programs.

Abstinence education programs. To date, only one report exists on an experimentally evaluated abstinence program. It showed no impact on timing of sex. *Postponing Sexual Involvement/Education Now and Babies Later (PSI/ENABL)* was an after-school program for middle school youth (aged 12–14) that included five 45- to 60-minute sessions in combination with school and community-wide activities to encourage abstinence. (Program evaluators suggest several reasons why this program was not effective in delaying sex—please see the profile section.)

One other group of programs in this category was reviewed together—abstinence education programs evaluated with a quasi-experimental design. Although these programs showed promising results, they cannot be considered to be effective definitively without more rigorous experimental evaluations. *Sex Respect*, *Teen-Aid*, and *Values and Choices* were all two-year abstinence education programs for seventh, eighth, and tenth graders. Ninety percent of the teens in these programs were white, and 14 percent were sexually experienced before the program began. A combined evaluation of all three programs found no overall difference in sexual experience between program and control groups one year after the intervention, but there was a positive association among participants with lower levels of sexual values (i.e., more accepting of permissiveness) and “low future orientation” (i.e., low aspirations for education or employment) (Weed, Olsen, DeGaston, & Prigmore, 1992). Because the three programs were not evaluated individually, it is not possible to determine which were effective.

Because there have been so few rigorous evaluations of abstinence education programs to date, and because the evaluations that have been conducted do not reflect the diversity of abstinence education programs now available, readers are cautioned about concluding that abstinence education

programs, in general, are not effective in delaying first sex for teens. More evaluations are currently underway that should provide additional data.

Sex education programs. Seven experimentally evaluated programs in this category measured sexual experience, and four of them showed a positive impact on delaying first sex for some populations of teens. The four effective programs include: a 12- to 15-hour program with four to eight sessions spanning two to three weeks (*Teen Talk*); a two-year program with 10 mandatory 45-minute sessions and eight voluntary group sessions (*PSI, Human Sexuality and Health Screening*); a two-year program with 20, 45-minute sessions (*Safer Choices*); and a three-year program with 19, 45–60 minute sessions (*Draw the Line/Respect the Line*).

Two of the four effective programs were held in classrooms and served teens in sixth through eighth grades. (*Draw the Line/Respect the Line* and *PSI, Human Sexuality and Health Screening*). The third program was administered to a group of ninth graders (*Safer Choices*). The fourth served teens aged 13 to 19 in middle and high schools, as well as in family planning service agencies (*Teen Talk*). All four programs included boys and girls. The majority of participants in *Draw the Line/Respect the Line* and *Teen Talk* were Hispanic, while the majority of *Safer Choices* participants were Hispanic or white. The *PSI, Human Sexuality and Health Screening* program primarily served African American teens. The proportion of teens who were sexually experienced at the beginning of the programs ranged from 5 percent in *Draw the Line/Respect the Line*, to 31 percent in *Safer Choices* and 37 percent in *Teen Talk*, to 19 percent of females and 56 percent of males in *PSI, Human Sexuality and Health Screening*.

One program primarily emphasized abstinence for those youth who had never had intercourse and reducing sexual activity among sexually experienced teens (*PSI, Human Sexuality and Health Screening*). The other three included information on abstinence, sex, and contraception (*Draw the Line/*

Respect the Line, Teen Talk, Safer Choices). All four of these programs had a positive impact on delaying first sex. Boys in *Draw the Line/Respect the Line* were more likely to have remained abstinent by the 36-month follow-up at the end of ninth grade, and boys in *Teen Talk* were more likely to be abstinent at the one-year follow-up. Hispanics in *Safer Choices* were less likely to have had sex by the 31-month follow-up. *Teen Talk* delayed first sex, but girls in the program were *less* likely to use contraception than those in the control group. Finally, while girls in *PSI, Human Sexuality and Health Screening* were less likely to have had first sex at the end of the first year of the 2-year program, the evaluation design for this program was weaker than others, and the results should be interpreted with caution.

Three sex education programs that were experimentally evaluated but had no impact on the timing of first sex are also included in this report. While the *McMaster Teen Program* did not affect whether participants delayed having sex, this program did increase contraceptive use among male program participants. *Healthy for Life* and *Project SNAPP (Skills and Knowledge for AIDS and Pregnancy Prevention)* had no impact on any measured sexual behavior or contraceptive use.

Two other sex education programs that were evaluated with quasi-experimental designs also showed promising results, but cannot be considered to be effective without more rigorous experimental evaluations. The *PSI Human Sexuality* program combined the five, 45–60 minute *PSI* sessions that were used in the experimentally evaluated *PSI, Human Sexuality and Health Screening* program with five additional sessions on human sexuality. This program served African American eighth graders, one-quarter of whom were sexually experienced at the beginning of the program. *PSI Human Sexuality* was associated with a reduced probability of sexual initiation for boys and girls at the end of eighth and ninth grades. *Reducing the Risk* was a school-based sex education program for high school students, primarily ninth and tenth graders. More than half of the participants were

white, and 37 percent were sexually experienced at the beginning of the program. This 16-session program, which includes 45-minute sessions, incorporated role-playing that was designed to help the participants avoid unwanted sex and learn about obtaining and using contraception. Virgins in the program group were less likely to have had sexual intercourse by the 18-month follow-up than virgins in the comparison group.

HIV/AIDS and Other STD Education

Programs. Two of the four experimentally evaluated programs in this category were effective at postponing first sex, at least for a short period of time. Both programs included information on abstinence and contraceptive use. *Making a Difference! An Abstinence-Based Approach to HIV/STDs and Teen Pregnancy Prevention* was put in place for a group of African American sixth and seventh graders, one-quarter of whom were sexually experienced when the program began. The program consisted of two, four-hour sessions held on consecutive Saturdays. *Becoming a Responsible Teen (BART)* served African American teens aged 14–18, one-third of whom were sexually experienced at baseline, and included eight, one-and-a-half- to two-hour sessions over eight weeks. Most *BART* teens (72 percent) were girls, while *Making a Difference* participants were evenly divided among boys and girls.

Both programs incorporated role-playing activities that allowed participants to practice how to refuse sex. *Making a Difference* showed positive short-term impacts (at the three-month evaluation) but had no long-term impact on delaying first sex. *BART* delayed first sex among participants for one year after the intervention. Both programs also showed an increase in contraceptive use.

Two HIV/AIDS education programs that were experimentally evaluated but that did not delay first sex are also included in this report: The *Youth AIDS Prevention Project* and *Facts and Feelings*. Descriptions of both of these programs include

evaluators' thoughts on why they were ineffective at delaying sex.

Three HIV/AIDS and other STD education programs that were studied with quasi-experimental evaluations and that appeared to have delayed first sex are included in this report. However, the results cannot be considered definitive without more rigorous experimental investigations. *Healthy Oakland Teens* was a 13-session program for seventh graders, 68 percent of whom were African American and 16 percent of whom were Hispanic. Among participants, 17 percent had prior sexual experience at the beginning of the program. The *Rochester AIDS Prevention Project (RAPP)* was a 12-session program serving low-income middle school students. Between 36 percent and 45 percent of teens in the *RAPP* program were already sexually experienced when the program began. *Poder Latino* was an 18-month program for Hispanic teens aged 14–20, half of whom were virgins at baseline. All three programs were associated with delayed first sex among the virgins at various follow-up points.

Youth Development Programs. One of the two experimentally evaluated youth development programs in this volume postponed first sex. The *Children's Aid Society (CAS) Carrera* program was an intensive three-year program serving low-income African American and Hispanic teens aged 13–15, 26 percent (15 percent of females and 38 percent of males) of whom were sexually experienced at baseline. *CAS-Carrera*, which included sex education as one of seven program components (mentoring and counseling, health care, academic support, career counseling, crisis intervention, and sports and arts activities were also included), focused on reducing sexual activity, increasing condom use, and reducing teen pregnancy. At the end of the third year of the program, an evaluation found that girls (but not boys) in the program were more likely to delay sexual initiation than girls in a control group. The program also increased contraceptive use among sexually active girls and reduced pregnancy rates among girls.

The second experimentally evaluated youth development program highlighted in this volume—*Washington State Client Centered Pregnancy Prevention Program*—had no impact on the timing of first intercourse. It did, however, reduce the likelihood of *recent* sexual activity and increased contraceptive use among participants who were already sexually active.

One youth development program with a quasi-experimental evaluation showed a positive association with delayed first sex, but, again, the results cannot be considered conclusive without a rigorous experimental evaluation. The *Seattle Social Development Program* was an intensive multiyear intervention for elementary school students in first through sixth grades. Half of the students were racial/ethnic minorities, and the majority were from low-income families. Program participants were less likely than those in the comparison group to have sex before age 18. At age 21, program participants also reported fewer sexual partners, greater rates of condom use, and reduced rates of pregnancy (among females).

Service Learning Programs. *Reach for Health Community Youth Service Program (RFH-CYS)* combined an in-school component with after-school community volunteer experiences. This year-long program, which includes 20 classroom sessions and weekly field sessions lasting two to three hours, enrolled seventh and eighth graders. The majority of participants were African American, and one third of students were sexually experienced at the beginning of the program. The experimental evaluation found that program participants were more likely to remain abstinent than teens in a control group at the two-year follow-up. Additional non-experimental analyses suggest that the effects were stronger for teens who stayed in the program for two years than for those who were in it for only one year. *Reach For Health* also reduced the frequency of sexual activity.

Key Insights from Evaluated Programs to Postpone Sexual Initiation

Several key insights emerged from the evaluations of these programs:

A variety of approaches can delay first sex among teens. Effective programs were found in several categories, ranging from short, curriculum-based sex, abstinence, and HIV/AIDS education programs to an intensive, multi-year youth development program. These findings suggest that communities that want to put programs in place to help teens delay sex have several options from which to choose.

Programs that promote abstinence and consistent contraceptive use can delay first sex. This finding reinforces Kirby's (2001) conclusion that pregnancy prevention programs with a compound message—that abstinence is the best pregnancy prevention method but that if teens become sexually active they should use contraception consistently and carefully—can postpone sexual intercourse.

Many programs work with diverse groups of teens. Sex and HIV/AIDS education programs that delay sexual initiation work with middle school- and high school-aged youth and with teens from various racial and ethnic backgrounds. They also can have an effect on teens who are already sexually experienced at the programs' onset by reducing the frequency of sex and/or improving contraceptive use.

Some programs seem more effective with some teens than others. *Draw the Line/Respect the Line*, *Teen Talk*, *RAPP*, and *Poder Latino* only delayed sexual initiation among boys, while *PSI*, *Human Sexuality*, and *Health Screening* and *CAS-Carrera* only postponed first sex among girls. *Safer Choices* only delayed sexual initiation among Hispanics. Many of the program profiles in the

following section of this volume summarize evaluators' explanations for these differences.

Longer-term programs show more lasting effects. For example, *Reach for Health*, which lasted one to two years, and *CAS-Carrera*, which ran for three years, delayed first sex longer than programs that were shorter.

Delaying first sex for a significant period of time is challenging. Less than half of the experimentally evaluated programs profiled in this report delayed first sex among teens for any period of time. Other programs demonstrated short-term but not long-term impacts. Some evaluators believe that programs did not work because they were too short, lacked skill-building exercises, and/or should have started with younger teens. In light of these considerations, for example, *Making a Difference* is testing whether subsequent "booster" sessions can prolong its impact, and the *CAS/Carrera* program is starting with younger adolescents.

Practice makes...better. Although giving teens information about how to delay sex and/or reduce the risks associated with sex is important, so is helping them act on that information. For example, programs that encouraged teens to practice important negotiation and refusal skills through role-playing were particularly effective in reducing risky sexual behavior.

Try to replicate with fidelity. Several program evaluators stressed the importance of adhering to a given curriculum as it is written because altering the content could reduce the program's effective-

ness. Precision and care in following a proven curriculum are critical to achieving success.

In the National Campaign's 2001 report, *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy*, author Douglas Kirby noted that most successful curricula-based programs have ten characteristics in common.

Successful Programs...

- 1) focus on specific behavioral goals;
- 2) are based on theoretical approaches;
- 3) deliver clear messages about sexual activity and/or contraceptive use;
- 4) provide basic information about risks associated with teen sexual activity and methods to avoid pregnancy or STDs;
- 5) address social pressures toward having sex;
- 6) provide activities to practice communication and refusal skills;
- 7) incorporate multiple teaching methods and personalize information to individual needs;
- 8) are tailored to participants' age-level, culture, and level of sexual experience;
- 9) are long enough to cover all information and activities; and
- 10) provide appropriate training for teachers or peer leaders who are committed to the program.

SOURCE: (KIRBY, 2001)

Conclusion and Ideas for the Future

Despite recent declines in the percentage of high school-aged teens who have had sex, many adolescents become sexually active, some at a very young age. Given the serious consequences of first having sex at a young age (outlined at the beginning of this report), finding programs that can help delay early sexual activity is important. Fortunately, there are a variety of approaches that can help young people delay sex. They include youth development, abstinence education, sex education, HIV/AIDS education, and service learning programs. As additional experimental studies are completed on these kinds of programs, we will learn more about effective strategies for delaying first sex among teens.

While evaluation research has given us some useful insights into what works, more information is needed on several fronts. For example, we know little about how these programs work with various populations and in different settings, or how

specific program elements affect teens' behavior. For instance, how important is the curriculum versus the community service opportunity when both are used? How much role-playing is necessary to make a difference? How long do these programs need to engage young people in order to have effects that endure over time? Do the same program elements that delay first sex among virgins also affect the sexual behavior of non-virgins? Studies designed to vary program features and identify the most effective elements would greatly contribute to our knowledge base in these areas. Additional information on the costs of setting up and running programs also would be helpful so communities could allocate resources accordingly. And all programs should include a rigorous evaluation component in order to contribute further to our base of understanding about how they help delay sex among teens. In the meantime, program directors, educators, parents, policy makers, and others who work with teens can use these program profiles to select and operate programs that are known to delay first sex.²

2 When suggesting a particular teen pregnancy prevention curriculum to a school district, it is important to become familiar with the curricula guidelines and requirements that are set by the state and the local district. The more closely aligned the objectives and content of a particular prevention curriculum is to the local and state guidelines, the more likely it is to be adopted.

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Program Profiles

This section provides descriptions (“profiles”) of programs that have been well evaluated regarding their impact on sexual initiation. Many also have demonstrated effects on related behavior among teens, such as levels of sexual activity, condom and other contraceptive use, and/or pregnancy and childbearing.

The profiles are divided into five categories: abstinence education programs, sex education programs, HIV/AIDS and other STD education programs, youth development programs and service learning programs. Of course, these programs are not mutually exclusive. For instance, some address STD and pregnancy prevention as well as delaying sex. Fifteen experimentally evaluated programs and eight quasi-experimental evaluations follow. Each profile begins with a brief overview of the program, followed by a more detailed description, including evaluation findings. Most of the 15 experimentally evaluated programs delayed first sex and/or affected, to some extent, other sexual behavior. For those experimentally evaluated programs that did not prove effective, brief profiles are included as examples of approaches that appear less promising. Abbreviated profiles are included for programs with quasi-experimental evaluations that seem to delay

first sex. However, they cannot be considered to be effective without more rigorous experimental evaluations.

Finally, it is important to note that these profiles are based on program evaluations. Therefore, they describe the specific circumstances (such as location, timeframe, number of participants, and demographics) under which each program was assessed.

Abstinence Education Programs

Experimentally evaluated program that did not have an impact on teen sexual behavior

1. *Postponing Sexual Involvement (PSI)/ENABL*

Quasi-experimental program associated with sexual behavior

2. *Sex Respect, Teen-Aid, Values and Choices*

Sex Education Programs

Experimentally evaluated programs that had an impact on teen sexual initiation

3. *Draw the Line/Respect the Line*
4. *Postponing Sexual Involvement (PSI), Human Sexuality, and Health Screening Curriculum*

5. *Safer Choices*
6. *Teen Talk*

Experimentally evaluated program that did not have an impact on teen sexual initiation but did have an impact on other sexual behavior

7. *McMaster Teen Program*

Experimentally evaluated programs that did not have an impact on teen sexual behavior

8. *Healthy for Life*
9. *Project SNAPP*

Quasi-experimental programs associated with sexual behavior

10. *Postponing Sexual Involvement (PSI) and Human Sexuality*
11. *Reducing the Risk*

HIV/AIDS and Other STD Education Programs

Experimentally evaluated programs that had an impact on teen sexual initiation

12. *Becoming a Responsible Teen*
13. *Making a Difference! An Abstinence-Based Approach to HIV/STDs and Teen Pregnancy Prevention*

Experimentally evaluated program that did not have an impact on teen sexual initiation but did have an impact on other sexual behavior

14. *Youth AIDS Prevention Project (YAPP)*

Experimentally evaluated program that did not have an impact on teen sexual behavior

15. *Facts and Feelings*

Quasi-experimental programs associated with teen sexual behavior

16. *Healthy Oakland Teens*
17. *Poder Latino*
18. *Rochester AIDS Prevention Project (RAPP)*

Youth Development Programs

Experimentally evaluated program that had an impact on teen sexual initiation

19. *Children's Aid Society—Carrera Program*

Experimentally evaluated program that did not have an impact on teen sexual initiation but did have an impact on other sexual behavior

20. *Washington State Client-Centered Pregnancy Prevention Programs*

Quasi-experimental program associated with teen sexual behavior

21. *Seattle Social Development*

Service Learning Programs

Experimentally evaluated program that had an impact on teen sexual initiation

22. *Reach for Health Community Youth Service Learning*

Abstinence Education Programs

*Postponing Sexual Involvement/Education Now and Babies Later (PSI/ENABL)*¹

Experimentally Evaluated Program That Did Not Have An Impact On Teen Sexual Behavior

PROGRAM DESCRIPTION

Postponing Sexual Involvement/Education Now and Babies Later (PSI/ENABL) was an abstinence-based program for young teens offered through school forums and community activities. It was implemented in 17 sites in California.

Population Served

The *PSI/ENABL* program served an ethnically diverse group of teens aged 12–14. Youth were recruited from community-based agencies and were mostly Asian or Pacific Islander (47–52 percent) and Latino (20 percent). Nearly three percent of participants were African-American and 5–10 percent were White. Youth in both the program and control group received instruction in human sexuality before participating in *PSI*, although they did not all receive the same human sexuality lessons. Approximately 11 percent of program participants had sexual intercourse prior to the beginning of *PSI/ENABL*.

Setting

Fifty-six middle schools and junior high schools and 17 community-based organizations operated the *PSI* program in school- and community-based settings. All program sites served communities with teen birth rates that were higher than the state average.

Goals

The primary goal of *PSI/ENABL* was to delay first sex among middle-school-aged youth by promoting alternatives to sexual activity. For sexually experienced teens, the program tried to reduce the frequency of sexual activity and number of partners, and to improve contraceptive use.

Type of Intervention

The program consisted of two distinct components:

- *Postponing Sexual Involvement (PSI)*: a five-session series focused specifically on helping young people delay sexual involvement. Session topics include risks of early sexual involvement, peer pressure, determining sexual limits, and resisting the pressure to engage in sex. This unit includes a supplementary video. The curriculum is based on three guiding educational principles: 1) experiential learning, which actively involves teens using an interactive approach; 2) providing a single, consistent message of postponing sexual involvement; and 3) providing repetition and reinforcement of messages and skills learned in the programs.
- *Education Now and Babies Later (ENABL)*: a statewide media outreach effort, that included flyer distribution, media campaign, assemblies, rallies, and fairs that send positive messages about postponing sexual involvement.

Main Messages

The primary message of the program was that teens can and should postpone sexual activity. *PSI/ENABL* taught teens how to resist pressures to have sex by discussing such pressures and practicing refusal skills.

Operation/Logistics

Length of intervention: *PSI* consists of five sessions, each lasting 45–60 minutes.

Staffing requirements: Program leaders are primarily adults, all of whom receive two days of training on how to operate the *PSI* program. A small portion of program sites use peer leaders from the 11th and 12th grades. These peer leaders also receive training. Most leaders are associated with organizations that commonly deal with sexual issues and/or have taught sex education in the classroom.

1 This profile of *PSI/ENABL* is brief because the evaluation found that the program did not affect sexual behavior among teens.

EVALUATION

Type

PSI/ENABL used random assignment to evaluate program effectiveness. The evaluation included 10,600 youth in California, half of whom were randomly assigned to the program group and the other half to the control group. Teens filled out a self-report survey at baseline and at a 17-month follow-up. Sixty-nine percent of the original sample completed the 17-month follow-up. A final sample of 7,340 youth completed both surveys.

The surveys included questions that measured whether virgins became sexually active during the evaluation period. It also addressed the behavior of non-virgins to determine whether they reduced their number of sexual partners or frequency of sexual experiences. The survey also asked about pregnancy and sexually transmitted diseases. Other outcomes such as beliefs, attitudes, and intentions that might affect decisions about sexual activity were also measured.

Findings

Sexual experience: There were no significant differences between program participants and control group members regarding the percentage who had first sex.

Other outcomes: There were no significant differences between the program groups and the control group on any of the mediating variables, such as beliefs about sexual activity, parental communication, and reasons for and against initiating sexual activity. Furthermore, there were no significant findings on behavioral intentions or measures of contraceptive behavior between students in the program and control group at the 17-month follow-up.

Evaluator Viewpoints

The evaluators suggest that the program was ineffective because it was too short, that developing a program to help delay sexual initiation requires more intensive sessions, and that it lacked an adequate

number of skill-building sessions. (Kirby et al., 1997).

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*Sex Respect, Teen-Aid, and Values and Choices*²

(Detailed Description)

*** Quasi-Experimental Programs Associated with Sexual Initiation ***

PROGRAM DESCRIPTION

Sex Respect, Teen-Aid, and Values and Choices were three classroom-based abstinence-focused programs in Utah. They were held during the fall of 1988 and were evaluated collectively one year later. The goal of all three programs was to postpone sexual initiation. *Sex Respect* and *Teen-Aid* promoted abstinence, while *Values and Choices* emphasized responsible decision-making regarding sex. (Because the three programs were evaluated together, there is no information regarding the relative effectiveness of each individual program.)

Population Served

Sex Respect and *Teen-Aid* served seventh and tenth graders, and *Values and Choices* served eighth graders. Slightly more than half were females. Ninety percent of participants were white, 3 percent were Latino, and 7 percent were of other racial or ethnic backgrounds. At the beginning of the programs, 18 percent of participants had already had sex.

Setting

The programs were held in three high schools and five junior high schools in three Utah school districts. The control groups were in two high schools and three junior high schools from the same school districts. Both *Sex Respect* and *Teen-Aid* were administered in suburban school districts, whereas *Values and Choices* was administered in a rural district.

Goals

All three programs sought to postpone sexual initiation. But while *Sex Respect* and *Teen-Aid* promoted abstinence, *Values and Choices* more gen-

erally emphasized responsible decision-making regarding sex.

Type of Intervention

All three programs followed the guidelines of the 1981 Adolescent Family Life Act (Title XX). This required the program to emphasize family values, healthy lifestyles, and character development.

Sex Respect promoted abstinence until marriage. Students learned how to remain abstinent despite pressures or temptations to have sex.

Teen-Aid was a broader health program, but it promoted abstinence as the best decision regarding sex. Like *Sex Respect*, *Teen-Aid* posited that, if teens understood sexuality in the broader context of family, marriage, and self-respect, then abstinence would be the most logical choice.

Values and Choices taught participants about sexual health so that they would be able to make responsible, well-informed decisions about their personal behavior. The program discussed abstinence as one of several choices for teens. The program was based on the idea that teens will make reasoned decisions, given a sufficient base of information.

Operation/Logistics

Length of program: The programs ran through one school year. The evaluation included two cohorts of seventh, eighth, and tenth graders over a two-year period.

Components of intervention: All three programs were classroom-based and taught during the school day. They used written materials and, except for *Sex Respect*, also featured videos.

Staffing requirements: Trained teachers in the school district taught all three interventions.

2 This profile is brief because the evaluation was conducted with a less rigorous quasi-experimental methodology.

EVALUATION

Type

The three programs were evaluated together using a quasi-experimental design. The evaluation was conducted using data from two consecutive cohorts of students (1988 and 1989). Data on sexual behavior were collected one year after the programs were completed. Analysis of the interventions' association with sexual initiation was conducted separately for the first cohort of high school students (N=673) and the first cohort of middle school students (N=967). Participants in each program group were combined for the evaluation and were compared with comparison group students. About half of the baseline sample completed the follow-up interview.

Findings

Before the intervention, among participants who completed surveys at both pre-intervention and one-year follow-up, 14 percent reported sexual activity.

Sexual experience: Among high school students, no significant difference was found in the overall proportion of program participants who became sexually active compared with the comparison group one year after program completion. However, 22 percent of high school students in the program group with "low-to medium-levels of sexual values" had sex for the first time compared with 37 percent of control group teens with the same level of "sexual values." Students' placement in groups according to values was based on their scores on a rejection of permissiveness scale. Some of the items on this scale include: "having sex is a good way to show one's boy/girlfriend how much you care for them," and "it is OK for unmarried teens to have sex if they use birth control." Students who more forcefully rejected permissive sexual values were placed in the high sexual values

group. No differences were found between program participants and comparison group members with higher level "sexual values." Among junior high school students, no differences were found regarding sexual initiation.

Among high school students, program participants (17 percent) with a "low future orientation" (i.e. low aspirations for education or employment) were less likely to have had first sex one year after the program compared with comparison group students (26 percent). No differences were found among students with a "high future orientation." Finally, no differences were found regarding rates of sexual initiation between the program and comparison groups by gender, religiosity, dating involvement, or peer pressure groups.

Evaluator Viewpoints

The evaluators suggest that the programs' focus on factors such as sexual values and future orientation contributed to outcomes related to delayed sexual initiation (Weed, Olsen, DeGaston, and Prigmore, 1992).

RESOURCES

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Sex Education Programs

Draw the Line/Respect the Line (Overview)

Experimentally Evaluated Program That Had An Impact On Teen Sexual Initiation

Draw the Line/Respect the Line was a three-year, school-based sex education program for sixth, seventh, and eighth grade students held in three school districts in urban Northern California between 1997 and 1999. This program was primarily designed to help young adolescents postpone having sex. Increasing condom use was a secondary goal. The program uses a 19-session curriculum that teaches youth how to establish and maintain limits regarding sexual behavior.

Results from an experimental evaluation showed that at the 36-month follow-up at the end of ninth grade, males (but not females) in the program were less likely than those in the control group to report ever having sex, or to have had sexual intercourse within the past year. There were no significant changes in condom use among males or females.

Three curriculum guides are available for purchase—one each for grades six, seven, and eight. They can be purchased individually for \$21 or as a set for \$56.

INSIGHTS AFTER THE FACT

Key challenges

- The program was designed to be taught over multiple years (grades 6, 7 and 8). Some schools may face challenges running it through multiple grades due to other time demands.
- Some communities may be less comfortable with the curriculum for the older teens because it includes more explicit information on STDs and other sensitive issues. Some communities may feel this content is not appropriate at the middle school level.

Lessons Learned

- The program seems to work best when sessions are held at least twice a week.
- The evaluation found *Draw the Line/Respect the Line* had limited impacts on girls. An important predictor of whether or not a girl has sex is related to the age of her partner. The program does not focus on how to set limits with an older partner.
- It is very important that facilitators be trained and comfortable with the program content. Using outside educators made delivering the program less burdensome for the classroom teacher; however, training classroom teachers increases the likelihood that the program will be continued.

SOURCE: DR. KARIN COYLE, CO-PRINCIPAL INVESTIGATOR, ETR ASSOCIATES

Draw the Line/Respect the Line

PROGRAM DESCRIPTION

Draw the Line/Respect the Line was a three-year classroom-based program that took place in three school districts in urban Northern California between 1997 and 1999. It served children in grades six through eight. Using group discussions, small group activities, and role playing, the program aimed to delay the initiation of sex in order to reduce the incidence of STDs, including HIV/AIDS, and pregnancy.

Population Served

Draw the Line/Respect the Line served youth in sixth, seventh, and eighth grades. Participants' average age was 12. Program participants were 59 percent Latino, 17 percent white, and 16 percent Asian. Half of the participants were male and half were female. Five percent of program participants were sexually experienced prior to the intervention.

Setting

The program was designed to be conducted in schools.

Goals

The program sought to encourage middle school-aged youth to delay having sexual intercourse. This abstinence-focused program tried to develop teens' interpersonal and intrapersonal skills so that they could set sexual limits. Among sexually experienced teens, the program focused on reducing sexual activity and encouraging condom use.

Type of Intervention

Draw the Line/Respect the Line included 19 classroom sessions. During the first year, sixth grade students participated in five lessons focused on using refusal skills in non-sexual situations. In the second year, seventh grade students had eight lessons that addressed setting sexual limits, understanding the consequences of unplanned sex, handling pressures regarding sexual intercourse, and practicing refusal skills. In the final year, eighth

grade students received seven lessons on practicing refusal and interpersonal skills and participated in activities regarding HIV/STD education.

The program used social cognitive theory and social inoculation theory based on the assumption that knowledge and constant skill practice can influence risky sexual behavior.

Main Messages

The primary message conveyed through *Draw the Line/Respect the Line* was that postponing sexual activity during adolescence is the healthiest choice. Program sessions encouraged participants to discuss social and peer pressures to have sex, to set limits, to abstain from sexual intercourse, and to stay clear of risky situations. *Draw the Line/Respect the Line* also provides information on HIV, other STDs, and pregnancy prevention, as well as correct condom use.

Operation/Logistics

Length of program: Youth received 19 classroom-based sessions, each of which lasted 45-60 minutes. Year One (sixth grade) consisted of five classroom sessions; Year Two (seventh grade) and Year Three (eighth grade) each consisted of seven classroom sessions.

Size of program: The evaluated program in northern California took place in 19 middle schools in three school districts. A total of 2,829 sixth graders were tracked over the three years.

Components of intervention: A variety of interactive teaching methods were used, including group discussions, role-playing, stories, and games. The program materials were designed to provide information in a format that was interesting and engaging.

Staffing requirements: Program leaders were experienced health educators who received training on how to conduct *Draw the Line/Respect the Line* and administer session activities.

Curriculum: Each of the three manuals (one for each grade level) begins with an introduction describing the importance of the program, an overview of the curriculum, and a description of the underlying principles that guided the program's development. Information is also provided for facilitators on how to use the manual and teach the sessions. The curriculum is available in English and Spanish.

The sixth grade curriculum:

- **Session 1** introduces the concept of what it means to “draw the line.” Activities encourage youth to personalize this concept.
- **Session 2** builds on session 1. Participants identify strategies for communicating their message.
- **Session 3** builds on the previous sessions by having participants engage in role playing and communicate where they “draw the line.”
- **Session 4** highlights how to handle high-pressure situations and use effective communication skills.
- **Session 5** discusses the role that friends play in respecting the line. Role play scenarios are used to practice showing respect for another person's limits.

The seventh grade curriculum:

- **Session 1** is an overview of what students have already learned about “drawing the line” and provides an overview of the seventh grade program. Activities focus on what makes it difficult to “draw the line” when placed in high-pressure situations.
- **Session 2** focuses on the consequences of having sex.
- **Session 3** helps students identify ways to handle risky situations. Activities encourage students to become aware of situations that could lead to sex.
- **Session 4** uses role-playing exercises to focus on “drawing the line” in risky sexual situations.

- **Session 5** provides information on STDs, their symptoms, and ways to avoid transmission. Students learn that abstinence is the most effective method for preventing STDs and unwanted pregnancy. This session also emphasizes that students who do choose to have sex, must always use a condom to reduce the risk of contracting an STD.
- **Session 6** addresses sexual pressure. Activities include a mock talk show and role playing to practice assisting friends in resisting sexual pressure.
- **Session 7** has students participate in activities that review key steps for drawing the line and respecting the line.

The eighth grade curriculum:

- **Session 1** has students read and discuss a true story by a young woman with HIV about how her life has been affected. Students also create their own version of the *Draw the Line* logo based on their own lives.
- **Session 2** provides information on how to prevent the spread of HIV and other STDs through a game show format. It emphasizes that abstaining from sex, for virgins and non-virgins alike, is the most effective way to prevent HIV and other STDs.
- **Session 3** discusses the challenges of sticking with personal limits.
- **Session 4** allows students to practice upholding their limits using role playing exercises.
- **Session 5** has a guest speaker share his or her experiences living with HIV/AIDS.
- **Session 6** discusses how to reduce the risk of HIV, STDs, and pregnancy. Students learn how to properly use condoms.
- **Session 7** closes out the program by asking students to identify things that can help them maintain their limits.

EVALUATION

Type

Draw the Line/Respect the Line included an experimental random-assignment evaluation. Nineteen public middle schools from three urban school districts in Northern California were randomly assigned to either the *Draw the Line/Respect the Line* program or to the control group. The evaluation included 2,829 participants and control group members. The evaluation study was completed between spring 1997 and spring 1999. Students in 10 intervention schools received the *Draw the Line/Respect the Line* program and students in nine control-group schools received their school's regular HIV/sex education curriculum. Between 87 and 90 percent of students completed the follow-up questionnaires.

Components

Instruments and Frequency: Self-report surveys in English and Spanish were administered annually. The baseline survey was given in the sixth grade, and follow-up surveys were administered in the seventh grade (at 12-months) with a 91 percent retention rate, the eighth grade (at 24-months) with an 88 percent retention rate, and the ninth grade (at 36-months) with a 64 percent retention rate.

Outcomes measured: Participants were asked about a number of behaviors for the past twelve months: Sexual activity (including ever had sex), frequency of sexual intercourse, number of sexual partners, "coercive behaviors", and "unwanted sexual advances" were measured at baseline and at all three follow-up points. Other outcomes measured included knowledge about condoms, attitudes toward abstaining from sex, perceptions of peer norms supporting sex, setting sexual limits, and avoiding potentially risky sexual situations.

Findings

Prior to the intervention, 5 percent of students in the experimental group were sexually experienced, compared to 4 percent of control group students.

Sexual experience: Evaluation results from the 36-month follow-up show that *Draw the Line/Respect the Line* had a positive impact on delayed sexual initiation among males, but not among females. Specifically, 19 percent of males in the program had ever had sex compared with 27 percent of males in the control group.

Other outcomes: At the 36 month follow-up, male participants were less likely than males in the control group to have had sexual intercourse in the past year (17 percent vs. 25 percent). In addition, male program participants reported lower frequency of recent sexual activity and fewer recent sexual partners than males in the control group, at the 24-month follow-up, but these impacts diminished by the 36-month follow-up. There were no significant impacts on recent sexual activity, frequency of sexual activity, or number of partners among female program participants. There were no program impacts on condom use among males or females.

Evaluator Viewpoints

The evaluators hypothesize that the lack of significant impacts among females may be due to the influence of older sexual partners on females and the possibility that females require more practice and support resisting coercion than males (Coyle, et al, 2004). They also posit that the positive impacts on males could be due to fostering school norms that support abstinence among males. The lack of effects on condom use at last sex for both males and females may be due to the small number of study participants who had recent sex.

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Postponing Sexual Involvement, Human Sexuality, and Health Screening Curriculum (PSI)
(Overview)³

Experimentally Evaluated Program That Had An Impact On Teen Sexual Initiation

Postponing Sexual Involvement, Human Sexuality, and Health Screening Curriculum (PSI) was a school-based program for seventh and eighth grade students in six schools in Washington, DC. This two-year abstinence-focused program tried to help students delay first sex. For youth who were already sexually active, *PSI* encouraged them to reduce sexual activity and to use contraception.

The program included three sessions on reproductive health and five sessions using the *PSI* curriculum, each lasting 45 minutes. It also used a health risk assessment questionnaire and a variety of educational activities.

An experimental evaluation of *PSI* found that females in the program group were more likely to

have delayed first sex than females in the control group. The program had no impact on timing of sexual initiation among males. In addition, females in the program were more likely to have used contraception at most recent sex than females in the control group. Males in the program had higher knowledge levels and more positive attitudes about postponing childbearing than males in the control group. However, the weak experimental evaluation of this program limits the ability to generalize its results.

The *PSI* two-day training series cost \$500 plus travel, hotel, and meal expenses for the trainer. *Postponing Sexual Involvement: An Educational Series for Young Teens*, the curriculum manual for the *PSI* program (that includes a Leader's Guide and video) cost \$149. The Training Teen Leaders program cost \$200 and includes a detailed handbook for training students in grades 10-12 and five Teen Leader Survival Guides (additional guides cost \$12.95 each).

3 There is no "Insights After the Fact" section in this profile because it was not possible to interview an evaluator from this program.

Postponing Sexual Involvement, Human Sexuality, and Health Screening Curriculum

PROGRAM DESCRIPTION

The Postponing Sexual Involvement, Human Sexuality, and Health Screening Curriculum (PSI) was carried out in six Washington, DC, junior high schools in 1996 and 1997. It used several teaching methods including group discussions, small group activities, videos, and role-playing to encourage youth to abstain from early sexual activity. The program aimed to help youth build knowledge and skills to make appropriate decisions about sex.

Population Served

PSI served inner city youth in the seventh and eighth grades. The average age of participants was 12.8. Approximately half of the participants (52 percent) were female and 84 percent were African American. Sixty-three percent of participants were from low-income families. Nineteen percent of females and 56 percent of males were sexually experienced prior to the program.

Setting

PSI was designed for a classroom setting during school hours.

Goals

PSI sought to delay first sex among middle school-aged youth, reduce sexual activity among youth who were already having sex, and encouraged sexually active teens to use contraception.

Type of Intervention

PSI was a two-year program. During the first year, seventh grade students participated in three classroom sessions focused on reproductive health issues, followed by a five-session *PSI* curriculum taught by peer leaders recruited from local high schools. Each session lasted 45 minutes. The program also had participants complete a health risk assessment questionnaire and those who were identified to be “high risk” received individual interviews with program facilitators. During the second

year, the students (then eighth graders) repeated the three reproductive health sessions from the previous year, and participated in activities that reinforced the abstinence message. These activities included an eighth grade assembly on STDs and small informal group discussions on eight topics including gang violence, personal hygiene, teen pregnancy, and drug abuse.

Main Messages

The primary message of *PSI* was that adolescents can and should postpone sexual activity. Program sessions focused on peer pressures to have sex, and participants practice skills for resisting such pressures.

Operation/Logistics

Length of program: Year One of *PSI* consisted of eight weekly classroom sessions, lasting 45 minutes each. Year Two included three classroom sessions and eight voluntary group discussions held during lunch or a free period.

Size of program: The evaluated program took place in six junior high schools. Three schools offered the program and three served as control schools. A total of 522 teens participated during the first year and 459 participated during the second year.

Components of program: *PSI* consisted of three components: 1) a series of reproductive health sessions; 2) a five-session *PSI* curriculum delivered by peer leaders recruited from nearby high schools; and 3) a health risk assessment questionnaire, which allowed project facilitators to identify the most high-risk youth and provide one-on-one intervention.

Staffing requirements: Adult program leaders were trained on how to conduct *PSI*. Group leaders, most of whom had prior experience teaching sex education classes, received two days of training. *PSI* also used 10th and 11th grade teen leaders to do some of the presentations. They participated in a 30-hour training over four days, along with monthly after-school meetings.

Curriculum: The *PSI* curriculum includes a leader's manual and a video. The manual's introduction explains the goal of *PSI* and tips for success. The manual has detailed plans for each of the five sessions, which address the following areas:

- **Session 1** focuses on the risks of early sexual involvement and has participants explore why some teens choose to have sex and others decide to wait. Activities allow youth to consider the consequences of sexual involvement and to identify alternatives.
- **Session 2** addresses social pressures that lead to early sexual involvement. Through the use of video segments and media advertisements, youth become more aware of these pressures and discuss effective ways to resist them.
- **Session 3** helps teens identify peer pressures and determine their own sexual limits. This session uses video vignettes, and youth participate in activities designed to help them set limits on physical affection.
- **Session 4** helps teens continue practicing how to resist pressures to have sex.
- **Session 5** summarizes the information from previous sessions using a game show format.

At the end of the manual are a variety of exercises that can be used to reinforce the skills taught in the sessions.

EVALUATION

Type

Six schools were matched on racial/ethnic composition and seventh grade class size to form three pairs of schools. The schools in each pair were randomly assigned to either the *PSI* program or to the control group. In the seventh grade, 262 program participants received the intervention and 260 teens were in the control group. Sixty-four percent of enrolled students completed the initial baseline survey and 62, 68, and 61 percent com-

pleted the first, second, and third follow-up surveys, respectively.

The evaluation of this program was weakened by the small sample of schools (six were randomly assigned); the closing of one school and relocation of its students; changes in the racial/ethnic composition of schools; the failure to collect matched pre-post data; and failures to adjust for clustering and baseline differences (Kirby, 2001).

Components

Instruments and frequency: Self-administered questionnaires, available in English and Spanish, were administered at baseline, at the end of the seventh grade, and at the beginning and end of the eighth grade. Also, a risk assessment questionnaire measuring health (including physical fitness and depression), risky behavior, academic performance, and social support was administered before the follow-up survey at the end of seventh grade.

Outcomes measured: Virginity status and contraceptive use at most recent sex were measured at all four assessments. Also included were measures of intentions to have sex in the next six months, perceptions of peer sexual activity, sex refusal skills, attitudes about postponing sex and delaying child-bearing, knowledge about contraception and reproductive health services for adolescents, and communication with parents and partners.

Findings

Among program participants, 16 percent of females and 55 percent of males had engaged in sexual intercourse before the start of the intervention.

Sexual experience: The females in the program group were twice as likely to delay first sex as those in the control group at the end of the seventh grade program and at the beginning of eighth grade. There were no differences among females at the end of eighth grade. No significant program impacts were found for males regarding virginity status.

Other outcomes: At all three follow-up points, sexually active females in the program group were more likely to use contraception the last time they had sex than were females in the control group. There were no significant differences between these females at the end of eighth grade.

Among sexually experienced teens, females in the program group were three to seven times more likely than females in the control group to report using some form of contraception the last time they had sex. This was the case at the end of seventh grade and at the beginning and end of eighth grade.

At the end of the seventh grade program only, female participants had lower expectations of sexual activity in the next six months and lower perceptions of peer sexual activity than did females in the control group. Female participants also were more likely to report that they would be able to refuse sex with a male friend if they did not feel ready, and they had a greater knowledge of reproductive health services than the control group at the end of eighth grade. The program did not have any significant impacts for females regarding refusal of sex with a stranger, attitudes about delaying sexual initiation or childbearing, or contraceptive knowledge.

No significant program impacts were found for males regarding contraceptive use at most recent sex. Males in the program group had higher contraceptive knowledge (at all three post-program measurement points) and more positive attitudes toward postponing childbearing (at the end of seventh grade and beginning of the eighth grade) than did males in the control group. At the end of seventh grade only, males in the program were more likely to report that the majority of males their age were not having sex. No significant program impacts were found at any time regarding males' refusal skills, attitudes about delaying sex, or parent or girlfriend communication.

Evaluator Viewpoints

Program evaluators suggested that the brief duration of the program and the lack of opportunity to reinforce assertiveness and communication

skills could explain why program impacts were minimal regarding perceptions of peer sexual experience, sexual activity expectations, sex refusal skills, and communication with either parents or boy/girlfriends (Aarons, Jenkins, Raine, & El-Khorazaty, 2000). Evaluators also hypothesized that the reproductive health education and counseling activities of the facilitators could be responsible for the positive program impacts on contraceptive knowledge for males and contraceptive use at last sex for females.

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Safer Choices

(Overview)

Experimentally Evaluated Program That Had An Impact On Teen Sexual Initiation

Safer Choices was a two-year long school-based sex education program for ninth and tenth graders (although the program is designed for high school students in general). It ran in 10 schools: five in Northern California, and five in Southeastern Texas. In 20 sessions, the *Safer Choices* program promoted delaying sexual initiation and increasing condom use among teens who choose to have sex.

The program included five broad components: 1) school organization; 2) curriculum and staff development; 3) peer resources and school environment; 4) parent education; and 5) school-community linkages.

An experimental evaluation found that Latinos in the program were 43 percent less likely to initiate sexual intercourse than Latinos in the control group. Furthermore, sexually active teens in *Safer Choices* were more likely than control group teens to use a condom or other contraceptive method at last sexual intercourse at the 31-month follow-up.

Teachers received four days of training and additional support throughout the duration of the program. Curriculum and implementation materials for *Safer Choices* can be purchased for \$189.

INSIGHTS AFTER THE FACT

Key challenges

- Managing and organizing of the multiple components of the program is quite challenging.
- Some schools experienced recruiting and scheduling difficulties. A few School Health Promotion Councils and peer resources committees had difficulties finding convenient meeting times and maintaining participation by group members.

Lessons Learned

- The School Health Promotion Council site coordinator should be someone from the school so that they can get others/school leaders involved in the program.
- Booster trainings between years 1 and 2 for teachers are an important supportive element.
- Providing formal recognition and appreciation for the Health Promotion Council and Peer Resources group goes a long way towards solidifying their participation.

SOURCE: KARIN COYLE, PH.D., DIRECTOR, RESEARCH, ETR ASSOCIATES, PROGRAM EVALUATOR

Safer Choices (Detailed Description)

PROGRAM DESCRIPTION

Safer Choices was a school-based sexuality education intervention program designed to reduce the number of high school teens having sex and those having unprotected sex. This two-year program ran in five high schools in Northern California and five high schools in Southeastern Texas, serving ninth and tenth graders. The program began in the fall of 1993, and data collection for the evaluation took place in the spring of 1996.

Population Served

The *Safer Choices* program served 9th graders—20 percent were African American, 14 percent were Asian, 29 percent were Latino, 29 percent were white, and 8 percent were of other racial or ethnic backgrounds. Half were male and half were female. Nearly half were A and B students. Prior to the program, 31 percent of teen participants were sexually experienced.

Setting

Safer Choices was held in urban areas with high rates of HIV in Northern California and Southeastern Texas.

Goals

The *Safer Choices* program was designed to delay first sex and to increase condom use among teens who were sexually active. It also strived to enhance knowledge, attitudes, and beliefs about prevention of HIV/STDs and sexual decision-making.

Type of Intervention

Safer Choices had five components: 1) school organization; 2) curriculum for students and staff development; 3) peer resources and school environment; 4) parent education; and 5) school-community linkages. Together, these components aimed to create a supportive, positive atmosphere for the teens.

Safer Choices draws on social cognitive theory, social influence theory, and models of school change. Social cognitive theory posits that individual behavior is influenced by personal, environmental, and behavioral factors.

Social influence theory examines how individuals have influence over others. It focuses on identifying existing behavioral expectations and social norms and ways to resist negative pressures.

School change is based on the idea that school climate and culture have a strong influence on students' behavior. Thus, broad changes within a school (such as policies and organizational structures and missions) can affect how students act.

Main Messages

Safer Choices teaches that abstinence is the best way to prevent STDs and unplanned pregnancy. It also emphasizes that contraception is important for reducing these risks for students who decide to have sex.

Operation/Logistics

Length of intervention: *Safer Choices* serves students during the 9th and 10th grades in 20 sessions (10 in each year of the program). Each session lasts for 45 minutes.

Size of program: A total of 1,983 students participated in *Safer Choices*.

Components of intervention: The five components of the *Safer Choices* program are:

- *The school organization* component creates a School Health Promotion Council that organizes various program activities such as inviting speakers to the school, sponsoring a health fair, visiting a local AIDS hospital ward, or presentations at PTA meetings. Council members included teachers, students, parents, administrators, and community members.
- *The curriculum and staff development* component consists of a two-year, 20-session skills-based

curricula led by classroom teachers (see below). The teachers receive four days of training and additional support throughout the program period.

- The *peer resources and school environment* component establishes a *Safer Choices* peer club for peer education activities related to HIV/STD and pregnancy prevention. The clubs hold six school-wide programs, manage an information/resource outlet at their school, and create posters with messages that promote positive behaviors.
- The *parent education* component informs parents about the *Safer Choices* program and effective parent/teen communication strategies. It includes some student-parent homework assignments.
- The school-community linkages component seeks to increase students' awareness of relevant resources and services in their communities.

Staffing requirements: Classroom teachers received four days of training in leading the program. Student peer leaders were elected by their classmates and received three hours of training.

Curriculum: The 10 ninth-grade classroom sessions address the following topics:

1. Not Everybody's Having Sex. Students discuss why adolescents choose to abstain from or have sex. They identify various influences and discuss ways to be affectionate without sex.
2. The Safest Choice: Deciding Not to Have Sex. Students learn about "social norms." They discuss perceptions of how many of their peers have had sex and how these perceptions compare to actual statistics. Using role-playing, students also learn refusal skills.
3. Saying No to Having Sex. Meeting in small groups, students practice refusal skills, alternative actions and delay tactics.
4. Understanding STD and HIV. Students learn basic facts about HIV and other STDs, including how they are transmitted, and ways to

reduce the risk of infection. They also discuss why some teens choose not to get tested for STDs.

5. Examining the Risk of Unsafe Choices. This lesson tries to personalize the risk of contracting HIV. Students receive colored index cards that they then exchange with classmates. The four colors represent four specific behaviors: 1. having sex without a condom, 2. sharing needles, 3. having sex using a condom, and 4. remaining abstinent and not sharing any needles. Teachers then discuss the potential consequences of each behavior.
6. Teens with HIV: A Reality. Students watch and discuss a video featuring teens and adults living with HIV.
7. Practicing the Safest Choices. Students review refusal skills, work in groups to write refusals for several pressure statements, and use role-plays to practice their refusal skills.
8. Safer Choices: Using Protection, Part I. Students learn about various methods of contraception and which are effective against HIV/STDs and/or pregnancy. As homework, students go to local stores to see which types of contraception are easily available.
9. Safer Choices: Using Protection, Part II. Students learn how to use condoms correctly and how to respond to pressure for unprotected sex.
10. Know What You Can Do. Students fill out a worksheet on how to delay having sex and refuse unprotected sex.

Tenth grade classroom sessions address the following topics:

1. Making Safer Choices. The students review unsafe sex (unprotected), safer sex (with a latex condom), and safest sexual choices (abstinence). Students work in groups to identify positive and negative outcomes related to each choice.
2. The Safest Choice Challenge. The teacher reviews lessons from ninth grade. Students are

assigned to call or visit a local clinic to get information about available reproductive health services.

3. Talking with a Person Infected with HIV. A guest speaker shares his/her experience living with HIV/AIDS, and students ask questions. A homework assignment asks participants to reflect on how their feelings and opinions changed after the presentation.
4. Personalizing the Risk for Pregnancy. Teachers tell students that one out of six teens having unprotected sex over a year become pregnant each month. In a related activity, each student is assigned a number between one and six, the teacher rolls a die, and students with that number stand up, as a representation of teens who became pregnant (or caused a pregnancy) in one month.
5. Avoiding Unsafe Choices. Students discuss barriers to speaking with parents or other adults. They learn three steps for avoiding unsafe choices: Know your personal limits, be aware of circumstances that may challenge your limits, and be prepared in advance with a plan to stay within your set limits.
6. Sticking with Your Decision—Students use role-playing to practice refusal skills.
7. Using Condoms Consistently and Correctly. Students practice correct condom use.
8. Resources. Students learn about pregnancy and HIV/STD testing and available health services resources.
9. Media Influences. Students discuss media's influence regarding sex. They work in groups to create positive media messages about avoiding pregnancy, STDs/HIV.
10. Making a Commitment. Students participate in an activity in which they practice committing to protecting themselves from pregnancy, STDs/HIV.

EVALUATION

Type

The experimental evaluation of *Safer Choices* included 3,869 ninth-grade students (1,983 in the experimental group and 1,886 in the control group) in 10 Northern California and 10 Southeastern Texas public schools. Five schools in each area were assigned to the experimental group and five to the control group. About 80 percent of students completed the 31-month follow-up.

Components

Instruments and frequency: Self-report data were collected at baseline (fall 1993), and at three other time points (7-month follow-up in spring 1994, 19-month follow-up in spring 1995, and 31-month follow-up in spring 1996).

Outcomes measured: The evaluation instrument included measures of sexual behavior and sexuality-related psychosocial scales. The evaluation assessed three main outcomes: (a) whether students delayed initiation of sexual intercourse; (b) the number of times students had intercourse without a condom in the last three months (among those reporting intercourse); and (c) the number of sexual partners with whom students had intercourse without a condom in the last three months (among those reporting intercourse) (Coyle, et al, 2001: 84).

Additional outcomes measured included: condom use at first sex among students reporting first having sex after the program began; use of contraception at the last sexual experience (condom and/or birth control pills); frequency of intercourse in the last three months; number of partners in the last three months; and alcohol/drug use before last intercourse in the past three months.

Findings

Before the start of the program, 31 percent of program participants reported having had sexual intercourse, compared to 26 percent of students in the control group.

Sexual experience: Overall, no differences were found regarding sexual initiation between program teens and control group members at any of the follow-ups. However, analyses of racial/ethnic subgroups found that Latino program participants were 43 percent less likely to initiate sexual intercourse than Latino students in the control group at the 31-month follow-up.

Other outcomes: At the 31-month follow-up, students who participated in *Safer Choices* were 37 percent less likely to report having intercourse without a condom and reported fewer sexual partners who did not use condoms in the past three months compared with students in the control group. In addition, sexually active program participants were 1.5 times more likely to report using a condom and 1.5 times more likely than control group students to report using another method of birth control the last time they had intercourse.

Analyses by gender showed that the program increased condom use more among males than females. Analyses by race/ethnicity showed increases among all racial/ethnic groups for rates of condom use. Latino program participants were 65 percent more likely than the Latino control group members to use a condom at last sex. Likewise, white participants were 57 percent more likely than those in the control group to use condoms at last sex.

Evaluator Viewpoints

The authors believe that the program's failure to delay first sex more broadly might have been because it did not start until high school. In addition, more than one-fourth of students were sexually experienced at the start of the program, which could indicate strong norms that support sexual activity (Coyle, et al., 2001).

Evaluators suggested that the multi-component nature of the program contributed to its success in improving condom and other contraceptive use. They note that the school-wide activities con-

tributed to the intervention's effectiveness by creating an environment that was supportive of safe and healthy behavior (Coyle, et al, 2001). The evaluators concluded, based on findings from the full sample and from subgroup analyses, that *Safer Choices* could be an effective program for diverse communities and groups of adolescents (Kirby, et al, forthcoming).

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Teen Talk (Overview)

**** Experimentally Evaluated Program That Had an Impact on Teen Sexual Initiation ****

Teen Talk, a sex education program that ran between 1986 and 1988 in seven sites in California and Texas, was designed for students aged 13 to 19 who use family planning agencies. The program resulted from a collaborative effort between community- and school-based programs.

Through presentations, group discussions, and decision-making skill development, this program stressed the consequences of teen pregnancy, encouraged youth to delay sexual intercourse, and emphasized correct and consistent contraceptive use.

An experimental evaluation of *Teen Talk* one year after the program ended found that males (but not females) in the program group were more likely to remain abstinent than were males in the control group. In addition, among males who were sexually experienced prior to the program, participants had higher levels of contraceptive efficacy (consistency and use of effective methods) than control group males. However, the program showed a *negative* impact on contraceptive use and efficacy among females who had first sex after enrolling in *Teen Talk*.

The program has been replicated in urban, suburban, and rural locations with diverse teen populations.

Agencies were paid up to \$5,000 by public and private funding sources to recruit participants, arrange and manage data collection, provide educational interventions, and establish the sexuality and contraceptive components. Participants at all sites, except in the school districts, were paid to complete the one-year follow-up survey. A Program Archive on Sexuality, Health and Adolescence (PASHA) kit, which includes a user's guide, curriculum, training manual, videos, and evaluation materials, costs \$195.

INSIGHTS AFTER THE FACT

Key challenges

- Some aspects of the curriculum proved controversial to adults in the community. To avoid lessening the program's effect, program leaders cautioned against changing the program content.

Lessons Learned

- Program participants said that the reproductive anatomy sessions focused more on female than male anatomy and should be better balanced.
- The videos should be updated and/or programs should consider using videos that are more culturally sensitive.

SOURCE: PASHA KIT

Teen Talk

PROGRAM DESCRIPTION

Teen Talk, a sex education program that ran between 1986 and 1988 in seven sites in California and Texas, was designed for middle and high school-aged teenagers. This program resulted from a collaborative effort between community- and school-based intervention programs. *Teen Talk* sought to increase understanding about the consequences of teen pregnancy, to encourage youth to delay first sex, and to improve contraceptive use.

Population Served

Teen Talk served males (48 percent) and females (52 percent) between the ages of 13 and 19. Almost one-third of the teens (29 percent) were aged 14–15 and 96 percent were under age 18. Although *Teen Talk* was open to youth of all racial/ethnic backgrounds, the majority of participants were Latino (53 percent) or African American (24 percent). The remaining teens were white (15 percent) and of other (8 percent) racial/ethnic backgrounds. All youth were from low- to middle-income families. All seven sites served low-income youth and two of them also served middle-income youth. At the start of the program, thirty-seven percent of all students were sexually experienced.

Setting

The program was held at seven sites in California and Texas. One site specifically targeted middle school teens (Site 3) and another site exclusively served ninth graders (Site 2). The remaining five sites served teens of all ages.

- **Site 1**—A family planning clinic in rural south central Texas serving primarily a low-income, minority population (84 percent Latino, 10 percent African American, 6 percent white) aged 13–19. The program was linked to a summer work-study program.
- **Site 2**—An urban high school in the San Francisco Bay area of California. Program participants were low- to middle-income ninth

grade students. Slightly less than half of the students were white (49 percent), 14 percent were Latino, 12 percent were African American, and 25 percent were other race/ethnicities. The program occurred during school hours.

- **Site 3**—An urban middle school in the San Francisco Bay area of California. Participants were low- to middle-income eighth grade students. More than half of the students were white (57 percent), 14 percent were Latino, 7 percent were African American, and 22 percent were of other race/ethnicities. The program took place during school hours.
- **Site 4**—A family planning clinic in rural southwestern Texas. Participants were low-income and aged 13–18. Most were Latino (88 percent) and the remainder were white. The program ran during the summer.
- **Site 5**—A Planned Parenthood affiliate in north-central California serving low-income clients aged 14–19. The participants were African American (31 percent), Latino (27 percent), white (14 percent) and other race/ethnicities (28 percent). The program was offered during the summer for youth enrolled in a work-study program.
- **Site 6**—A community health education unit of the county health department in urban central Texas. The program participants were low-income minority youth (55 percent African American, 37 percent Latino, 7 percent white, and 1 percent other) aged 13–18. The program was offered to youth who were enrolled in a summer work-study program.
- **Site 7**—A freestanding community health center in San Francisco. Program participants were low-income students from a magnet school. All students were taking remedial biology classes during the summer. Most of the participants were African American (77 percent) and Latino (17 percent). Two percent of the participants were white and three percent were of other racial/ethnic backgrounds. Ages ranged from 14-

18. The program took place during summer school classes.

Goals

Teen Talk sought to delay sexual intercourse and improve effective contraceptive use.

Type of Intervention

The *Teen Talk* program is a sex education program that provides information on sexuality and contraception. It includes group discussions about values, feelings, and personal responsibility associated with sexual behavior.

The program incorporates two perspectives: the health belief model and social learning theory. The health belief model is a psychological model. It suggests that individuals will take preventative measures based on their personal perception of the seriousness of the problem and the costs and benefits of that action (such as postponing sex and using effective contraception). Social learning theory posits that individuals will act to avoid problems if they can observe appropriate and inappropriate behaviors and participate in role-playing opportunities.

Main Messages

The program stresses the serious health, social, and economic consequences of teen pregnancy and the need for adolescents to be sexually responsible. *Teen Talk* emphasizes negotiating skills about sexual decision-making.

Operation/Logistics

Length of program: The program is designed to last between 12 and 15 hours over a two- to three-week time frame. It consists of two-hour lectures on reproductive biology and four small-group sessions that last two to two-and-one-half hours.

Size of program: A total of 1,444 youth participated in *Teen Talk* between 1986 and 1988 (Site 1 had 488 participants, Site 2 had 100 ninth-grade participants, Site 3 had 101 eighth-grade participants, Site 4 had 199 participants, Site 5 had 242

participants, Site 6 had 222 participants, and Site 7 had 92 participants). Approximately half of the teens in each site received the *Teen Talk* program and half were assigned to a control group.

Components of program: *Teen Talk* has four program components: 1) factual presentations on sex and reproductive health; 2) full-group discussions about this information; 3) small-group discussions about values, feelings, and emotions regarding sex; and 4) small-group discussions about personal responsibility and sexual decision-making.

Staffing requirements: Family planning agency educators and school personnel staff the program. There was one lecturer for each classroom and one group discussion leader for each small group. All program leaders participated in a two-day training.

Curriculum: *Teen Talk* begins with two large-group lectures on reproductive biology, contraceptive methods, and contraceptive effectiveness. Subsequent group discussions allow participants to discuss the probability of pregnancy, the consequences of pregnancy and teen parenthood, and pregnancy resolution (including adoption and abortion). Other sessions are spent in small-group discussions on similar topics.

- **Session 1** focuses on the risks and consequences of unprotected intercourse and unwanted pregnancy using games and videos.
- **Session 2** begins discussing communication and negotiation skills regarding sexual decision-making. It introduces the notion of saying “no” to unwanted intercourse or unprotected intercourse.
- **Session 3** continues to discuss communication skills. It begins with a review of what teens have already learned and they watch a video that emphasizes the importance of making responsible decisions about sex.
- **Session 4** focuses on male-female communication skills. Teens watch a video on this topic and do role-playing activities.

EVALUATION

Type

In this evaluation 1,444 adolescent males and females from seven sites in California and Texas were randomly assigned to the program group or the control group. Control group members participated in the agency's regular programs. Of the 888 youth who completed the one-year follow-up survey (62 percent of the 1,444 youth who completed the baseline questionnaire), 462 had been in *Teen Talk* and 426 were in the control group.

Components

Instruments used and frequency: Three self-report questionnaires were administered: 1) at baseline; 2) immediately after *Teen Talk* ended; and 3) one year following completion of the program.

Outcomes measured: Sexual experience (ever had sexual intercourse), use of an effective contraceptive method (at first and most recent sex), and contraceptive efficacy (defined as use of birth control pills, condoms, diaphragm, sponge and foam) were measured at the one-year follow-up. Contraceptive efficiency combines a measure of consistency and use of an effective method at first and most recent sexual intercourse.

Findings

Sexual experience: Males in the experimental group were more likely to remain abstinent than their peers in the control group (64 percent and 56 percent, respectively). However, the program did not affect sexual initiation among females.

Other outcomes: Among teens who were sexually experienced before beginning the program, males who participated in *Teen Talk* had higher levels of contraceptive efficacy (consistency and effective methods) than control group males. The program

did not have an impact on contraceptive efficacy among females or effective contraceptive use at most recent sex for males or females.

Of those teens who first had sex after *Teen Talk* started, females in the program were less likely to use an effective contraceptive method the most recent time they had sex than females in the control group (35 percent and 65 percent, respectively). They also had lower levels of contraceptive efficacy than control group females. The program had no impact on contraceptive use among sexually experienced males or on effective contraceptive use at first sex among females.

Evaluator Viewpoints

The program evaluators suggest that the program had a positive impact on males' sexual behavior because the curriculum content and active learning approach provided them with the opportunity to examine their sexual behavior and relationships with females and to think about how their own behaviors also affect their sexual partners.

The evaluators propose that the lack of a program impact on female sexual initiation may be because females already learned about pregnancy risks from other sex education classes. Therefore, the program may not have contained as much new information for them. (Eisen, et al., 1990).

CONTACT INFORMATION

Curriculum contact information

Program Archive on Sexuality, Health and Adolescence (PASHA) Kit (includes a user's guide, reproductive and contraception curriculum, handouts, training manual and videotapes for group leaders, group discussion curriculum guide, videotape, and evaluation materials)

The cost of the kit is \$195

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RESOURCES

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McMaster Teen Program

(Overview)

Experimentally Evaluated Program That Did Not Have An Impact On Teen Sexual Initiation But Did Have An Impact On Other Sexual Behaviors

The *McMaster Teen Program* was a sex education program serving seventh and eighth grade middle school students. Administered as part of the school curriculum, this 10-session program was carried out in 11 schools in Hamilton, Ontario in the early 1980s. The goals of the *McMaster Teen Program* were to delay first sex and to reduce unintended teen pregnancy. It used a coeducational, small-group approach and included four components: 1) providing information on adolescent reproductive health; 2) facilitating communication around sexual decisions; 3) developing problem-solving skills; and 4) practicing decision-making skills.

The program evaluation did not show an impact on delaying first sex among males, nor did it affect timing of first sex, contraceptive use, or pregnancy rates among females. An experimental evaluation conducted one year after the program ended found that males in the program group were more likely to report always using contraception than males in the control group. However, this impact was no longer apparent at a four-year follow-up.

The program costs approximately \$280 (Canadian dollars) per student. Training for the tutors is approximately \$1,100 (Canadian dollars).

INSIGHTS AFTER THE FACT

Key challenges

- Obtaining approval from the school board to institute the program was a primary hurdle. After several months of negotiation, the program was allowed with the stipulation that it not provide information on contraception. This reduced the program from 14 to 10 weeks. Parental consent was also required.
- Designing the questionnaires to be used in the evaluation was a challenge. Ultimately, they were written so that students only answered questions about sexual behavior that tracked with their level of experience. Once they responded “no” to a behavior, they stopped filling out the questionnaire.

Lessons Learned

- Several revisions to the curriculum would be useful, including:
 - Adding booster sessions one to two years after the program ends to reinforce the program’s messages.
 - Adding a parental component to teach parents how to talk with their children about sex.
 - Enhancing the confidentiality aspects of the program, such as the anonymous question box.
 - Continuing to incorporate problem-solving activities.

SOURCE: DR. ALBA MITCHELL-DICENSO, RN, PROGRAM EVALUATOR, MCMASTER UNIVERSITY

The McMaster Teen Program

PROGRAM DESCRIPTION

The *McMaster Teen Program* was a 10-session sex education program for seventh and eighth grade middle school students. Administered as part of the school curriculum, the program was carried out in 1982 over a six to eight week period in 11 schools in Hamilton, Ontario. The goals of the program were to delay first sex and reduce teen pregnancy.

Population Served

The program served seventh and eighth grade students between the ages of 11 and 16. Most of the participants were white, and approximately 75 percent of the students lived with both parents and spoke English in the home. Slightly more than half (51 percent) of the participants were female. Among program participants, 33 percent of males and 17 percent of females had prior sexual experience.

Setting

The *McMaster Teen Program* was a school-based program, and students met in co-educational groups of six to ten.

Goals

The program was intended to delay first sex and prevent pregnancy by improving problem-solving skills and encouraging responsible decision-making about sex.

Type of Intervention

“Tutors” (session leaders) led small groups in activities focused on adolescent sexuality.

Main Messages

Teens were encouraged to take responsibility for decisions regarding sex. They were encouraged to delay having sex, but if they were sexually active, they were instructed to act responsibly (e.g. to show respect for their partner). The board of education did not allow information on contraception to be included in the program.

Operation/Logistics

Length of program: The *McMaster Teen Program* ran for six to eight weeks and consisted of 10, one-hour sessions.

Size of program: A total of 2,111 students from 11 public schools participated in the program.

Components of intervention: The program used role-playing to help teens practice problem-solving and sexual decision-making skills. There were four program components: 1) providing information on reproductive health, adolescent development, sex, and relationships; 2) facilitating communication about sexual choices and behavior; 3) helping students develop problem-solving and decision-making skills regarding sexual behavior; and 4) providing opportunities for students to practice making decisions about sex.

Staffing requirements: There was one program coordinator for all the schools and 63 tutors for the 272 small groups. Tutors were nurses or teachers, all of whom received 40 hours of training on sex education, the role of a small group facilitator, and problem-based learning. The program coordinator maintained regular contact with each tutor.

*Curriculum:*¹ Students receive a handbook that includes articles, exercises, and activities to be completed before small-group meetings. Eight topics are covered during the program:

1) Problem-solving and decision-making.

Participants learn how to apply a six-step problem-solving and decision-making process.

2) Puberty. Teens discuss the physical and emotional changes that take place during puberty, as well as myths, self-image, and peer pressure.

3) Gender roles and the role of the media.

Small groups discuss how the media portrays males and females individually and in relationships. Students assess the realism of such portrayals and clarify their own personal values about gender roles.

1 The original curriculum for the McMaster Teen Program was revised in 1987.

- 4) **Relationships.** The participants discuss communication, honesty, responsibility, peer pressure, self-esteem, and breaking up in the context of dating relationships.
- 5) **Peer Pressure.** Youth define peer pressure, discuss why people respond to peer pressure, and consider ways to deal with it.
- 6) **Intimacy.** Youth address types of intimacy found within relationships, consequences of sexual activity, gender roles, and communication.
- 7) **Teenage pregnancy and parenting.** Small groups discuss the risks and consequences of teen pregnancy as well as the responsibilities and challenges of parenting.
- 8) **AIDS.** Students learn the symptoms of infection, how the virus is transmitted, and effective prevention methods. The prevention methods discussed include abstinence and safe-sex practices.¹

The program uses an anonymous question box to encourage participants to be open about their concerns and questions. Students write down any questions they have, put them in a box, and then decide as a group which questions to discuss.

EVALUATION

Type

The *McMaster Teen Program* used an experimental design with random assignment and a four-year follow-up. Students in 11 schools (2,111) were assigned to the program. Students in 10 schools (1,263) were assigned to the control group, and received their school's usual sex education curriculum. Eighty to 88 percent of students completed both the third and fourth follow-up questionnaires.

Components

Instruments and frequency: Students completed questionnaires at the start of the program, six weeks after the program ended, and then annually for four years after the program began.

Outcomes measured: Students completed a private ballot questionnaire about sexual behavior including whether they had ever had sexual intercourse. In addition, the following questionnaires were also included each time: a locus of control measure (designed to measure student improvement over time in decision-making skills and problem solving skills) and a demographic questionnaire.

The private ballot questionnaire included the following five questions. Students only answered an item if they responded "yes" to the previous item.

- 1) Have you ever gone around (hung around) with a special boy/girl?
- 2) The following are some ways that people show affection: 1) holding hands; 2) hugging; 3) kissing; 4) necking; 5) petting. Have you ever shared your affection with a special friend in any of these ways?
- 3) Sexual intercourse occurs when a boy's penis goes into a girl's vagina. Have you ever had sexual intercourse?
- 4) The following are methods used to avoid pregnancy: the pill, the IUD (intrauterine device), the diaphragm, condom, foam or jelly, and natural family planning. How often do you/your partner use any of these birth control methods? Check the one descriptor below which is nearest to the truth: always, frequently, rarely, never.
- 5) For females, have you ever been pregnant?

Findings

Prior to the program, 33 percent of males and 17 percent of females in the experimental group reported having had sexual intercourse compared to 27 percent and 16 percent of males and females, respectively in the control group.

Sexual experience: The program had no impact for males or females regarding sexual initiation.

Other outcomes: At the one-year follow-up, sexually active males in the program group were more

likely to report always using contraception than were males in the control group. However, this impact diminished over time, and no differences existed between the program and control groups by the four-year follow-up. For females, the program seemed to have no impacts on contraceptive use or pregnancy rates.

Evaluator Viewpoints

The program evaluators suggested that the limited impacts may be because the program was short and did not distinguish between seventh and eighth graders. In addition, many materials were too complex for some students. Finally, information on contraception was not included in the program because the Board of Education would not allow it. Participants requesting such information were referred to the school nurse. In the publication *Emerging Answers*, author Douglas Kirby (2001) also suggested that the program content did not differ significantly from the typical sex education curriculum received by the control group.

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Healthy for Life⁴

**** Experimentally Evaluated Program That Did Not Have An Impact On Teen Sexual Behavior****

PROGRAM DESCRIPTION

Healthy for Life was a program offered to students in 21 middle schools in Wisconsin. It was designed to minimize risks associated with alcohol, drug use and sex. It also addressed nutrition issues.

Population Served

Healthy for Life served males (48 percent) and females (52 percent) in the sixth, seventh, and eighth grades. Most students were aged 14 (68 percent) or 15 (29 percent). Almost all were white (96 percent) and most lived with two parents (72 percent). About 30 percent of parents had a college degree, and 86 percent of fathers and 58 percent of mothers worked full-time. Between 15 and 16 percent of program participants were sexually experienced by the eighth grade (two years after the start of the intervention).

Setting

Healthy for Life was held in a classroom setting in Wisconsin middle schools.

Goals

The primary goal of *Healthy for Life* was to provide teens with social skills that would help them resist peer pressure to do things that would put their health at risk.

Type of Intervention

The program included an in-school component in combination with peer leadership, family, communication, and community activities. Two versions were offered: one took place over a 12-week period during the seventh grade school year (the “intensive” program); the other took place in four-week components across the sixth, seventh, and eighth grade years (the “age appropriate” program). In the second version, topic areas were broken into

age appropriate categories and administered in sixth, seventh, or eighth grade. Thus, the material presented was considered appropriate for the grade-level receiving the material.

Healthy for Life was designed using a social influence model, which views health behavior in the context of social interactions. This approach hypothesizes that adolescents make choices about their health based on the meaning of the behavior within the context of their social settings or social group involvement.

Main Messages

The program stressed abstinence and promoted contraceptive use for teens who were sexually active.

Operation/Logistics

Length of program: A total of 45 lessons were included in the program. Sixteen of them primarily addressed sex-related issues.

Components of program: The program included sex education classes and sessions on peers, family, and community. The sex education classes included lessons on refusal skills, communicating with parents about sex and values, body image, birth control, and risks associated with early sexual activity. For the peer section, students selected three leaders in each class, who then received training and assisted in teaching the curriculum. The family component encouraged parent-child discussions about sex and other risky health behavior, and assisted families in clarifying their values about these issues. In each community, an organization was selected to provide at least one health event during the course of the program, and *Healthy for Life* community organizers assisted with this event.

Staffing requirements: A trained *Healthy for Life* teacher team taught the curriculum with a teacher from the participating school.

4 The profile of *Healthy For Life* is brief because the evaluation found that the program did not affect sexual behavior among teens.

EVALUATION

Type

Schools elected to participate in either the intensive program or the age appropriate program. They were then randomly assigned to one of these programs or to a control group. Seven schools offered the age appropriate program, six offered the intensive program, and eight were in the control group. Students completed annual surveys between the sixth and tenth grades. The sixth grade sample consisted of 2,483 students. At the ninth grade follow-up, 1,981 students completed a questionnaire (80 percent response rate). The tenth grade follow-up had a 68 percent response rate.

Findings

Between 15 and 16 percent of students in the experimental group were sexually experienced by the eighth grade (2 years after the start of the intervention), compared to 12 percent of control group students.

Sexual experience: There were no differences in sexual initiation at the eighth or ninth grade follow-up. At the tenth grade follow-up, students in the age appropriate program (36 percent of all participating students) and intensive program (33 percent) were *more* likely to have had sexual intercourse than students in the control group (28 percent). However, the proportion of students who initiated sexual intercourse did not differ when comparing participants in the intensive program with the control group students or student in the age appropriate program.

Other outcomes: There were no differences between program groups or the control group regarding sexual intercourse in the past month or condom use.

Evaluator Viewpoints

Evaluators offered several reasons to help explain the program's lack of success (Piper, Moberg, & King, 2000):

1. The program was too short and the population too small to demonstrate significant results.
2. The community events did not focus on sex-related issues and parents resisted discussing sexuality with their children.
3. Students in the control schools were as likely to receive as much information about condoms as program participants, so the difference between the program and control groups was blurred.
4. *Healthy for Life* targeted all students rather than higher risk student populations that may have benefited more from it.

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Project SNAPP⁵

**** Experimentally Evaluated Program That Did Not Have An Impact On Teen Sexual Behavior****

PROGRAM DESCRIPTION

Project SNAPP (Skills and kNowledge for AIDS and Pregnancy Prevention) was a pregnancy and AIDS prevention program for middle school students in 102 classrooms in six middle schools in Los Angeles, California. The program was designed to help youth delay sexual activity by building their knowledge and communication skills.

Population Served

The program was designed for seventh grade students. The program served 1,657 students—46 percent males and 54 percent females. The majority were Latino (64 percent), less than 10 percent were Latino or African American, and 13 percent were Asian. The majority (85 percent) spoke another language in addition to English. Eight percent of students had prior sexual experience, 12 percent of males and four percent of females.

Setting

Project SNAPP was held in the classroom during the school day.

Goals

Project SNAPP sought to prevent HIV/AIDS and pregnancy among youth by increasing condom use among youth who were sexually active, increasing students' knowledge about the risks of sex, and encouraging sexually active students to have less sex and fewer partners, and to avoid sex without contraception.

Type of Intervention

Seventh grade students attended eight sessions of *Project SNAPP*. They practiced refusal skills for situations where they felt pressured to have sex and/or unprotected sex. They also heard from peer educators—70 percent of whom were either teen

mothers or HIV positive—about the importance of avoiding risky sexual behavior.

Main Messages

Project SNAPP stressed that students should delay first sex until they felt ready, and that students who were sexually active should use condoms consistently.

Operation/Logistics

Length of program: This two-week program was held during the school day in eight sessions.

Staffing requirements: In addition to the classroom teacher, there were 10 peer educators who received 50 hours of training before the start of the program.

EVALUATION

Type

Project SNAPP was evaluated using an experimental design. Classrooms in six middle schools were randomly assigned either to the *SNAPP* program or to a control group where they received lecture-style instruction. At baseline the two groups did not differ significantly. Seventy-seven percent of seventh-grade students completed a confidential questionnaire before the first session as well as follow-up surveys five and 17 months later.

The evaluation asked about timing of first sex, sexual activity patterns, and contraceptive use. The evaluation questionnaire also tested teens' knowledge about HIV/AIDS prevention, perceptions of condoms, condom use intention, and actual condom use.

Findings

Sexual experience: At the five- and 17-month follow-ups, there were no significant differences between the program and control groups in delaying first sex.

5 This profile of *Project SNAPP* is brief because the evaluation found that the program did not affect sexual behavior among teens.

Other outcomes: There were no significant differences in condom use or birth control pill use at last sex among those who were sexually active. No differences emerged between the program and control groups regarding frequency of sex, number of partners, incidences of unwanted sex, or use of alcohol or other drugs prior to last sex.

One unexpected outcome appeared at the 17-month follow-up. The percentage of students who reported using birth control pills the last time they had sex was lower in the program group than in the control group (23.7 percent vs. 35.1 percent).

Evaluator Viewpoints

Evaluators noted a few factors that may have contributed to the program's lack of success. First, the program lasted only two weeks, which may not have provided enough time for the messages and activities to influence the students. Second, the fact that some of the peer educators were teen mothers may have unintentionally "glamorized being a teen mother." Finally, including theoretical constructs from only two theories, the social learning theory and the health beliefs model, may have limited the focus of this program. Incorporating constructs from several other theories may have addressed other risk factors associated with sexual initiation. (Kirby, Korpi, Adivi, & Weissman, 1997).

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*Postponing Sexual Involvement (PSI) and Human Sexuality*⁶

*** Quasi-Experimental Program Associated With Sexual Behavior ***

PROGRAM DESCRIPTION

Postponing Sexual Involvement (PSI) and Human Sexuality was a school-based program for eighth graders that was implemented during the 1984-1985 school year in 24 schools in Atlanta, Georgia. The goal of this 10-session program was to delay participants' sexual initiation by developing their refusal skills. *PSI and Human Sexuality* also provided information about contraception. This program was evaluated over two school year years: three times during the eighth grade and twice during the ninth grade.

Population Served

PSI and Human Sexuality was administered to 395 low-income male and female students in the eighth grade. Ninety-nine percent of participants were African-American. Twenty-five percent of program group students reported that they had sexual intercourse prior to the intervention.

Setting

PSI and Human Sexuality sessions were held in classrooms during the regular school year.

Goals

PSI and Human Sexuality sought to delay sexual initiation among participants who were virgins and to decrease sexual activity among participants who had already had sexual intercourse.

Type of Intervention

PSI and Human Sexuality represented a combination of two programs: *Postponing Sexual Involvement*, and *Human Sexuality*. *PSI*, which was developed in 1983, consisted of five classroom sessions. In these sessions, participants were taught to recognize existing social and peer pressures to have sex and to build the refusal skills to withstand these

pressures. These lessons were taught through interactive discussion and role-playing activities, rather than in lecture format. The *Human Sexuality* curriculum, which was developed during the 1970s, encompassed a more information-based approach to sex education. This program disseminated knowledge about human sexuality, decision-making, and contraception.

The *PSI* curriculum was based on the social inoculation model. This theory posits that adolescents can become "immune" to social pressures to have sex if they have the ability to recognize, understand, and handle these influences. The program discussed why adolescents choose to have sex and taught participants why and how to say "no." While the knowledge-based *Human Sexuality* curriculum was not shown to be effective on its own, program developers believed that combining the approaches used in both interventions would create a program that was better suited for adolescents.

Operation/Logistics

Length of program: The program included five sessions based on the *PSI* model and five based on the *Human Sexuality* model. Each of the *PSI* sessions lasted between 45–60 minutes. The first four were designed to be given over a short period of time, either all in the same week or over the course of four weeks (one session per week). The fifth session was administered one to three months after the fourth session, as reinforcement. The *Human Sexuality* component was also comprised of five classroom sessions.

Components of intervention: The sessions of the *PSI* component covered the following topics: abstinence/delaying sexual intercourse; life-skills training; sexuality education; and contraceptive education. In the abstinence session, the program taught that adolescents younger than 16 are not able to fully understand and manage the consequences of having sex and that abstinence is the best method for avoiding pregnancy and STDs. The life-skills

6 This profile is brief because the evaluation was conducted with a less rigorous quasi-experimental methodology.

session focused on building skills for effective decision-making—saying “no” to sex, negotiating within relationships, and setting goals. The sexuality education session covered both the physical changes that occur during adolescence and the promotion of healthy sexual attitudes and values. The fourth session provided information on various contraceptive methods, how they are used, and how effective they are. The final session reviewed and reinforced materials covered during the first four sessions. This session was held one to three months after the initial four sessions. The *Human Sexuality* component provided information about basic human sexuality and contraceptive use and also focused on the development of effective decision-making strategies.

Staffing requirements: The *PSI* component was co-led by one female and one male peer instructor who were in eleventh or twelfth grade. Program staff supervised the peer leaders in the classroom and provided them with 20 hours of training, as well as additional two-hour, monthly, in-service training sessions. The training covered such topics as how to present information effectively, how to lead group discussions and role-playing, and how to teach skills to build assertiveness. Health teachers, nurses, and/or counselors taught the *Human Sexuality* component.

EVALUATION

Type

PSI and Human Sexuality was evaluated using a quasi-experimental design and included 395 program participants and 141 comparison group participants. All of the evaluation participants were selected based on two criteria: They were born at Grady Memorial Hospital (a public hospital), and they or their mother received health care from the hospital within the five years prior to the intervention. The program’s designers used the involvement with Grady Hospital as an indicator of low-income status. The intervention took place during the 1984–1985 school year. The program participants

were from 24 schools, and the comparison group participants were from 29 different schools.

Data for the evaluation of *PSI and Human Sexuality* were obtained through five telephone surveys: three during eighth grade and two during ninth grade. The evaluation of this particular intervention was part of a larger study on adolescent health habits.

Findings

Prior to the intervention, 25 percent of program group students and 23 percent of comparison group students were sexually experienced.

Sexual experience: Evaluation results showed that by the end of the eighth grade, comparison group participants who were virgins were four times more likely than virgins in the program group to have had sexual intercourse (20 percent vs. 4 percent). Subsequent follow-ups showed that by the end of ninth grade, there were still more comparison group participants who had initiated sexual intercourse than program group participants (39 percent vs. 24 percent). Similar associations were found among males and females. By the end of eighth grade, 29 percent of comparison group males had begun having sex compared with only 8 percent of program group males. At the end of ninth grade, the difference was 61 percent vs. 39 percent, respectively. Among females, at the end of eighth grade, 15 percent of comparison group participants began having sex compared with only 1 percent of program group females. At the end of ninth grade, the difference was 27 percent vs. 17 percent, respectively.

Other outcomes: *PSI and Human Sexuality* did not have any association with the sexual behavior of participants who were not virgins at the start of the program. However, among students who were virgins at the program’s start but who had become sexually active during the course of the program, 73 percent reported using contraception compared with 38 percent of virgins in the comparison group

who had sex for the first time during the same time period.

Evaluator Viewpoints

Evaluators suggested that the program showed a positive association with delayed sexual initiation and contraceptive use among teens who recently became sexually active because the program promoted abstinence and contraceptive use. (Howard & McCabe, 1990).

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*Reducing the Risk*⁷

*** Quasi-Experimental Program Associated With Sexual Behavior ***

PROGRAM DESCRIPTION

Reducing the Risk was a school-based sex education program that was implemented in 13 high schools in California. The goal of this 16-session program was to reduce the number of students having unprotected intercourse by promoting both abstinence and contraceptive use. The program provided information about abstinence, contraception, HIV, and the risks and the consequences of teen pregnancy. The program used role-playing to help teens avoid unprotected sex. *Reducing the Risk* was evaluated six months and 18 months after the program ended.

Population Served

The majority of participants served by *Reducing the Risk* were in the ninth and tenth grades (28 percent and 56 percent, respectively); however there were eleventh- and twelfth-grade participants as well (9 percent and 7 percent, respectively). Students included males (45 percent) and females (55 percent). More than half of the participants were white (60 percent). The remaining participants were Latino (20 percent), Asian (10 percent), African American (2 percent), Native American (2 percent), or were of other racial and ethnic backgrounds (6 percent). Most participants lived with both parents (68 percent), and one-fourth lived in single-parent families. The remaining participants lived with foster parents or legal guardians (1 percent) or in other arrangements (6 percent). Approximately three-fourths of participants had mothers who had completed high school, and 48 percent had mothers who had attended college. Thirty-seven percent of the students were sexually experienced before the intervention.

Setting

Reducing the Risk operated in high schools in rural and urban areas. It was included as an addition to the regularly required tenth-grade health class.

Goals

Reducing the Risk sought to reduce the likelihood that teens would have unprotected intercourse by encouraging them to remain abstinent and by encouraging those who chose to be sexually active to use contraceptives.

Type of Intervention

Reducing the Risk was a sex education program that taught about abstinence and contraception in order to reduce the number of teens engaging in unprotected sex. This classroom-based intervention used social learning theory, social influence theory, and cognitive-behavioral theory to provide information about abstinence, contraception, HIV, and the risks and consequences associated with teen pregnancy and HIV. Social learning theory suggests that individuals will act accordingly when they understand what needs to be done to avoid something. In the case of pregnancy prevention, an individual would use birth control (or abstain from sexual intercourse) if they understood how to prevent a pregnancy. Social influence theory suggests that individuals will resist social pressure when they have an understanding of various forms of pressure and become motivated to, and are capable of, resisting pressure. Cognitive behavioral theory suggests that individuals with appropriate cognitive and behavioral skills will resist pressure to engage in unwanted behavior.

Operation/Logistics

Length of program: *Reducing the Risk* was held during a high school health class in 16 sessions. Each session was about 45 minutes' long; however, sessions could be expanded to cover two class periods by increasing discussion time and opportunities for role-playing.

7 This profile is brief because the evaluation was conducted with a less rigorous quasi-experimental methodology.

Components of intervention: Sessions provided information about abstinence, contraception, HIV, and the risks and consequences of teen pregnancy. In addition, participants learned about the social pressures, and risky sexual behavior, and how to identify and resist social pressures to have sex. The program used role-playing to help participants learn how to avoid unprotected intercourse. The program also provided opportunities for participants to obtain contraceptive information from clinics and stores.

Staffing requirements: Regular classroom teachers ran the program following a three-day training session.

EVALUATION

Type

Reducing the Risk was evaluated using a quasi-experimental design. Forty-six classrooms were assigned to either *Reducing the Risk* or to the comparison group. Some 429 students participated in the *Reducing the Risk* program and 329 were in the comparison group. The evaluation included a baseline survey and follow-up surveys six months and 18 months after the intervention. The *Reducing the Risk* evaluation retained 73 percent of students at the 18-month follow-up. In addition, a follow-up study in Arkansas indicated that students who participated in *Reducing the Risk* were less likely to initiate sexual intercourse compared to the comparison group students (28 percent and 43 percent, respectively) at the 18-month follow-up.

Findings

Sexual experience: The evaluation found that participants who were virgins when they started *Reducing the Risk* were less likely to initiate sexual intercourse by the 18-month follow-up compared with students in the comparison group who were virgins (28 percent vs. 38 percent).

Other outcomes: No differences were found between the program participants and the comparison

members regarding frequency of intercourse, use of effective contraceptive methods at first intercourse or most recent intercourse, frequency of contraceptive use, or pregnancy at the 18-month follow-up. However, female participants were more likely to report using contraception most or all of the time compared with females in the comparison group.

In addition, program participants were less likely to report unprotected intercourse than comparison group students (9 percent vs. 16 percent). These differences were even greater among lower-risk participants (defined as those who lived with both parents, had a mother who finished high school, did not drink alcohol in the previous month, and did not drink five or more drinks on each occasion).

Evaluator Viewpoints

The evaluators suggested that *Reducing the Risk* might have altered participants' perceptions that "everyone" is having sex, thereby delaying first sex. The evaluators also suggested that the small differences in contraceptive use between those in the program and those in the comparison groups might have been due to previously established contraceptive use patterns that were difficult to change. In addition, what students in both groups learned about contraceptive use might not have differed dramatically because those in the comparison group received their regular sex education program.

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HIV/AIDS and Other STD Education Programs

Becoming a Responsible Teen (Overview)

Experimentally Evaluated Program That Had an Impact on Teen Sexual Initiation

Becoming a Responsible Teen (BART) was a community-based program for African American teens aged 14–18. This eight-session program served youth who were in school and those who had dropped out. It operated in an urban Southern setting and was evaluated in the early 1990s.

Although *BART* was designed as an HIV/AIDS prevention program, it also included information on pregnancy prevention. Group discussion and role-playing activities sought to build participants' communication and decision-making skills regarding sexual behavior, HIV/STD and pregnancy prevention. Abstinence education was integrated into the program as well.

An experimental evaluation of the program in Jackson, Mississippi found that, one year after program completion, participants who were virgins at the program's outset were more likely to have delayed having sexual intercourse than their control group counterparts. *BART* also showed positive impacts on other outcomes.

- Sexually experienced participants had lower levels of sexual activity one year after finishing the program than the control group.
- Immediately after completing the program, participants were more likely to use condoms during sex than were control group members.

- One year after finishing the program, females were more likely to use condoms than females in the control group.

BART is being adapted for other groups of youth, including whites, Latinos, and mixed race teens. To date, these programs have not been as rigorously evaluated as the original program.

Program costs included \$5,600 for training group leaders and \$60 per group leader trainee for curriculum and training materials. Travel costs averaged an additional \$2,500.

INSIGHTS AFTER THE FACT

Key challenges

- The evaluators had to locate a university through which to conduct the program. After doing so, the program was successfully carried out.
- Program staff had to work hard to educate parents about the program in order to gain their support.

Lessons Learned

- The program had a positive impact on delaying first-sex for some of the teens enrolled in *BART*.
- Youth who are provided with information about the consequences of teen pregnancy, HIV, and other STDs can make good choices.

SOURCE: JANET ST. LAWRENCE, CHIEF, BEHAVIORAL INTERVENTIONS AND RESEARCH BRANCH, CENTERS FOR DISEASE CONTROL AND PREVENTION.

Becoming a Responsible Teen (Detailed Description)

PROGRAM DESCRIPTION

BART was a community-based HIV prevention program—which also focused on pregnancy prevention—designed to increase knowledge about HIV/AIDS among African American youth.

Population Served

BART served low-income African American teens aged 14–18. Twenty-eight percent of participants were male and 72 percent were female. The teens were either in public school or had dropped out of school. Teens who were HIV positive or who showed symptoms of HIV/AIDS were not included in the program. Thirty-six percent of program participants were sexually experienced prior beginning the program.

Setting

The program was located in a community health care facility in Jackson, Mississippi that primarily served low-income minority clients. Eighty-two percent of the center's clients were from families that received Medicaid.

Goals

BART sought to help participants clarify their values regarding sex and to enhance their communication, negotiation, and problem-solving skills. The program was designed as an HIV/AIDS prevention program. However, the curriculum also includes information associated with adolescent pregnancy prevention. Abstinence is discussed as the primary way to prevent the transmission of HIV and to prevent pregnancy; however teens are also taught about using condoms to prevent HIV/AIDS.

Type of Intervention

BART participants were divided by gender into small groups, each of which had one male and one female leader. The groups met eight times for discussion and role-playing, focusing on a different

topic at each session (see curriculum description on the next page).

The program was based on social learning theory and self-efficacy theory. Social learning theory posits that individuals can act to avoid problems if they are exposed to alternative behaviors and participate in role-playing. *BART* defined self-efficacy as the belief that an individual can prevent HIV transmission by choosing an appropriate option, such as abstinence or condom use.

Main Messages

The program provided teens with HIV/AIDS prevention information and training on communication/negotiating skills regarding sex. *BART* stressed that abstinence is the best way to prevent HIV infection, but that other preventive measures, such as condom use were also important.

Operation/Logistics

Length of program: The intervention consisted of one session per week for eight weeks. Each session was 90–120 minutes long.

Size of program: Group sizes ranged from five to 15 teens for each eight-week session.

Components of intervention: Four elements comprise the intervention:

- 1) Youth received information about HIV/AIDS risk.
- 2) Youth were trained to use their knowledge about HIV/AIDS to act on their own behalf.
- 3) Role-playing was used to enhance the teens' communication skills so they might better navigate high-risk situations.
- 4) *BART* reinforced positive behavior so that they became the norm within the teens' social circles.

Staffing requirements: Each group had a male and a female leader.

Curriculum: The *BART* curriculum is packaged in a three-ring binder and includes information about the program's theory, history, evaluation, and tips for starting up a program. It also includes detailed lesson plans for each session, complete with objectives, materials lists, and planning tips. Each session consists of several group activities, all of which are mapped out in detail in the curriculum. The eight sessions proceed in the following sequence:

- **Session 1** introduces the program and focuses on HIV/AIDS prevention. Activities dispel myths about HIV/AIDS and encourage participants to assess their own degree of risk.
- **Session 2** focuses on stereotypes associated with HIV/AIDS and links HIV with drug use. Participants view a video about some friends who are dealing with AIDS and play a game that teaches them about levels of risks. Discussion of abstinence, condom use, and attitudes toward safer sex occurred in this session.
- **Session 3** addresses HIV/AIDS prevention by discussing condoms, including how to use them correctly.
- **Session 4** works to enhance problem-solving and communication skills. Participants watch a video about negotiating with partners in order to learn the difference between assertive, passive, and aggressive communication.
- **Session 5** builds on session 4 and allows participants to practice using assertive communication through role-playing in potentially risky situations.
- **Session 6** uses a video and group discussion to explore feelings about peers and others living with HIV. Participants are encouraged to personalize the seriousness of engaging in risky behavior.
- **Session 7** reviews the previous six sessions. Participants engage in activities that prepare them to talk to their friends and family about HIV/AIDS.

- **Session 8** asks participants to discuss how the program has affected their lives. Activities focus on identifying strategies for building on what they have learned. A ceremony is held to celebrate program participation and achievements.

EVALUATION

Type

Two hundred and forty-six youth were randomly assigned to either the *BART* program or a control group. Participants received all eight sessions of the program. Control group teens received only Session 1, which provided information on the transmission and prevention of HIV/AIDS. Ninety-two percent of youth completed the 12-month follow-up questionnaire.

Components

Instruments and frequency: Self-administered questionnaires were given at baseline, immediately following program completion, and at six and 12 months after the program ended.

Results measured: Sexual activity measures, including whether teens ever had sexual intercourse, recent sexual activity, and the number of sexual partners, were assessed one year after program completion. Condom use was measured immediately after teens completed the program and again six and 12 months later. Condom use for vaginal, oral, and anal intercourse, and a 24-item assessment measuring HIV/AIDS knowledge were also measured 12 months after the program ended.

Findings

Prior to the program intervention, 36 percent of program participants and 42 percent of the control group were sexually active.

Sexual experience: One year after the program ended, participants who were virgins at the beginning of the program were more likely to have delayed sexual intercourse than were virgins in the

control group (12 percent and 31 percent, respectively, reported having first sex).

Other outcomes: Program participants who were sexually experienced prior to the intervention reported a lower rate of sexual activity than the control group at the one-year follow-up (27 percent and 43 percent, respectively). No differences were observed for the number of sexual partners. In addition, *BART* participants were more likely to report using condoms immediately following the intervention than were control group teens (83 percent and 62 percent, respectively). Females (not males) in the program group were more likely to use condoms one year after *BART* than were females in the control group (72 percent and 50 percent, respectively).

Evaluator Viewpoints

Evaluators suggest that the *BART* program successfully delayed sexual initiation and impacted other sexual behavior because it began before many participants were sexually active. The program also used active learning techniques (such as role-playing) to teach students specific problem-solving and decision-making skills (St. Lawrence, Brasfield, Jefferson, Elleyne, & O'Bannon, 1995).

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***Making a Difference!* An Abstinence-Based Approach to HIV/STD and Teen Pregnancy Prevention**

(Overview)

*****Experimentally Evaluated Program That Had An Impact On Teen Sexual Initiation*****

Making a Difference! was a community-based program for sixth and seventh grade African American youth. The intervention stressed abstinence for preventing HIV, other sexually transmitted diseases (STDs), and pregnancy. *Making a Difference!* was held in two, four-hour sessions in three Philadelphia middle schools. (The program can also be taught in eight, one-hour sessions.)

An experimental evaluation found that, three months after finishing *Making a Difference!*, program participants who were virgins at the start of the program were less likely to have had sexual intercourse than virgins in the control group. Twelve months after the program ended, the likelihood of having had sexual intercourse did not differ between participants and control group members. However, program participants did report a higher frequency of condom use.

An experimental, random-assignment evaluation of *Making a Difference!* is under way with Latino teens in Philadelphia to test whether the program is effective with this population.

Participants received \$100 (\$40 for completing the program and \$60 for participating in the evaluation). The curriculum can be purchased for \$100, and videos are available for an additional fee. Training costs are not available.

INSIGHTS AFTER THE FACT

Key challenges

- Recognizing that *Making a Difference!* was a short-term program, steps were taken to try and sustain its impact over time. To that end, a project called *Promoting Health Among Teens (PHAT)* provided a booster session (six weeks or three months after *Making a Difference!* ended), and six issues of a newsletter reinforced the program's messages. *PHAT* is following the teens for 24 months to determine whether it has any impact.
- It is important to ensure the facilitators adhere to the curriculum as it is written and not try to modify it in any way.

Lessons Learned

- In order to secure the community's support for *Making a Difference!* program directors had to make sure adults understood that teens were at risk for HIV/STDs and unintended pregnancy. Once this was clear, the community became very involved in the program.
- The evaluation results suggest that intensive, culturally appropriate approaches that are based on theory can reduce some risky sexual behaviors among inner-city African American adolescents.

SOURCE: DR. JOHN JEMMOTT, UNIVERSITY OF PENNSYLVANIA, DIRECTOR, CENTER FOR HEALTH BEHAVIOR & COMMUNITY RESEARCH.

Making a Difference! An Abstinence-Based Approach to HIV/STD and Teen Pregnancy Prevention (Detailed Description)

PROGRAM DESCRIPTION

Making a Difference! taught African American middle school students that abstinence is the best way to prevent HIV and pregnancy.

Population Served

The studied group consisted of low-income African Americans adolescents in sixth and seventh grades. Slightly more than half (53 percent) were female and they ranged in age from 11 to 13, with an average age of 11.8. Twenty-five percent of students were sexually experienced prior to the start of the intervention.

Setting

Making a Difference! was located in three Philadelphia middle schools in low-income communities.

Goals

The goal of *Making a Difference!* was to help teens develop positive attitudes about abstinence and delay first intercourse for those who were virgins. It was also designed to teach teens about prevention of HIV/STDs and unintended pregnancy by reducing the incidence of risky sexual behavior.

Type of Intervention

Teens were assigned to groups of six to eight participants. Two peer facilitators or one adult facilitator led each group. They watched videos and participated in discussions, role-playing, and other communication exercises. The youth received a stipend for participating in the program and for completing evaluation surveys before *Making a Difference!* began and at regular intervals after it ended.

Main Messages

Making a Difference! stressed that abstinence is the only certain way to prevent HIV transmission

and pregnancy. It also emphasized that teens should have pride in themselves and their community and that the decisions they make about sex today can affect their futures.

Operation/Logistics

Length of program: *Making a Difference!* was held over two days, with each session lasting four-hours. (It also can work as eight one-hour sessions.)

Size of program: A total of 215 youth participated.

Components of intervention: The program had four components:

- 1) Helping teens in the program identify their goals and consider how having sex might prevent them from achieving those goals;
- 2) Increasing understanding about the mechanisms of HIV transmission and unintended pregnancy;
- 3) Discussing attitudes towards abstinence, HIV/STDs, and pregnancy; and
- 4) Enhancing teens' ability to confidently communicate their desire to remain abstinent.

Staffing requirements: Each group had one adult facilitator or two peer facilitators, all of whom were African American. All adult facilitators had prior experience working with youth, and peer facilitators were students from Philadelphia high schools. Adult facilitators received two days of training. The peer facilitators received three days of training on small-group facilitation and leadership and four days of training on how to run the program. A trainer observed the small groups to ensure the program operated correctly.

Curriculum: The curriculum for *Making A Difference!* includes eight lessons:

- **Lesson 1** "Getting to Know You, and Steps to Making Your Dreams Come True" provides an overview of the program and asks the teens to devise "group rules" to govern the sessions. It also includes discussions about unintended pregnancy, STDs, and HIV.

- **Lesson 2** “Understanding Adolescent Sexuality and Abstinence” examines the reasons teens have sex; discusses the physical and emotional issues associated with puberty; and reviews the benefits of abstinence. It uses a video called “What Kids Want to Know about Sex and Growing Up.”
- **Lesson 3** “The Consequences of Sex: HIV Infection,” examines the possible outcomes of risky sexual behavior, focusing primarily on HIV. Activities include watching the video “Time Out,” which explains HIV transmission, and discussing how various behaviors can increase one’s risk of contracting HIV. Groups also play a trivia game called “AIDS Basketball,” where teens accumulate points by answering questions correctly.
- **Lesson 4** “Attitudes, Beliefs, and Giving Advice about HIV/STDs and Abstinence” focuses on self-esteem and the benefits of abstinence. Through role-playing activities, teens learn how to give advice to peers about resisting sex and being abstinent.
- **Lesson 5** “The Consequences of Sex: STD Infection” presents information about STDs through various activities. In “The Transmission Game,” for example, teens learn how STDs are transmitted. Another game teaches participants how to negotiate risky sexual situations. A video clip called “Jesse” is viewed.
- **Lesson 6** “The Consequences of Sex: Pregnancy” explains how sex can lead to unintended pregnancy. The session uses role-playing to show teens how they can resist pressure to have sex. A video called “The Truth about Sex” is used to prompt further discussion about pregnancy, STDs, and HIV.
- **Lesson 7** “Responding to Peer and Partner Pressure” explores how peer pressure affects decisions about sex. Youth discuss ways to respond to peer pressure, and role-playing activities provide an opportunity to practice those skills.
- **Lesson 8** “Role Plays: Refusal and Negotiation Skills” gives the males and females additional

opportunities to practice refusing sexual activity. The session emphasizes why abstinence is a wise choice and how to negotiate not having sex. The primary activity is role-playing with a peer.

EVALUATION

Type

The evaluation used a random assignment experimental design. It tested whether youth in *Making a Difference!* would report lower levels of sexual intercourse than members of the control group. The control group received a two-day, four-hour intervention on general health promotion. Approximately 93 percent of the teens participated in the 12-month follow-up.

Components

Instruments and frequency: The teens completed questionnaires prior to the program, after it ended, and at three-, six-, and 12-month intervals.

Outcomes measured: The primary outcomes measured at each follow-up (3-, 6- and 12-month) were sexual behavior and condom use:

- sexual intercourse (yes vs. no)
- frequency of sex (number of days)
- consistency of condom use (always used a condom during intercourse)
- frequency of condom use (rated on a scale of one [never] to five [always])
- unprotected sexual intercourse (yes vs. no)
- frequency of unprotected intercourse (number of days of intercourse when a condom was not used).

Findings

Sexual experience: At the three-month follow-up, 2.9 percent of program group members who were virgins at the start of the program reported first sex compared with 10.3 percent of the control group members virgins. At both the six and twelve month follow-ups, there was no difference in the likeli-

hood of having had sexual intercourse between participants and control group members.

Other outcomes: Twelve months after the program ended, members of the program group reported a higher frequency of condom use on a scale of 1 to 5 (never to always) than control group members (3.9 vs. 3.2). However, the program participants and control group members did not differ on the other measures of sexual behavior and contraceptive use.

Evaluator Viewpoints

The program evaluators suggest that *Making a Difference!* showed some impact on sexual initiation because of the way the program was designed and the messages it conveyed. The abstinence component of *Making a Difference!* did not take a moral stance about sex, and it included factual information only. (Jemmott, Jemmott, & Fong, 1998).

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Youth AIDS Prevention Project (YAPP) (Overview)

*****Experimentally Evaluated Program That Did Not Have An Impact On Teen Sexual Initiation But Did Have An Impact Other Sexual Behavior*****

The *Youth AIDS Prevention Project (YAPP)*, a school-based HIV/AIDS education program located in 15 Chicago-area school districts, was designed for seventh graders. Its primary goal was to prevent STDs, including HIV and AIDS, and substance abuse. *YAPP* consisted of ten, 50-minute classes held over a two-week period during seventh grade and a five-session “booster” during the eighth grade year.

An experimental evaluation conducted immediately after the two-year program ended found no impact on sexual initiation. However, at the eighth-grade follow-up, program participants were more likely to report using condoms with foam and were marginally less likely to have had recent sexual activity than were control group members. One year after *YAPP* ended, the groups did not differ with regard to sexual activity or condom use.

YAPP was tested in urban and suburban settings, and many of the program materials initially developed for seventh and eighth graders have been used in programs serving older and younger children. Some new materials also have been created for fourth, fifth, and sixth graders and for high school students.

A kit that includes the curriculum, videos, role playing cards, a student and parent handbook, and handouts is available for \$590 from the Program Archive on Sexuality, Health, and Adolescence

(PASHA). Condoms, spermicidal foam, and vaginal contraceptive film must be purchased separately. Instructor training takes one to two days and costs \$500–\$600 for duplicating program lessons and materials.

INSIGHTS AFTER THE FACT

Key challenges

- *YAPP* was developed in the late 1980s before the public understood HIV as a disease that could affect youth. This made it challenging to convince school districts to participate.
- One important strategy for securing and maintaining schools’ participation was the development of contracts that clearly laid out the respective roles of those conducting the program and the school district.

Lessons Learned

- Engaging parents through homework assignments, rather than having them directly participate in the program, seemed a more effective and comfortable strategy for the kids and the adults in their lives.
- In hindsight, program representatives believe it would have been more effective to direct more resources towards the kids in the program rather than towards efforts to engage parents.
- When serving younger adolescents, it is important to make sure that an age-appropriate curriculum is used.

SOURCE: SUSAN LEVY, PH.D., PREVENTION RESEARCH CENTER

Youth AIDS Prevention Project (YAPP)

PROGRAM DESCRIPTION

The *Youth AIDS Prevention Project (YAPP)* was an STD, HIV/AIDS, and substance abuse prevention program that was carried out during the 1991–1992 school year in 15 school districts in the Chicago metropolitan area. The school districts were selected based on the prevalence of HIV infection, rates of teen pregnancy and STDs, school dropout rates, and reading scores from state exams. Also taken into account were the proportion of the population living in poverty and the proportion of minorities in the school districts.

Population Served

Seventh grade males (48 percent) and females (52 percent) participated in the *YAPP* program. More than half were African American (56 percent), while 23 percent were white, 17 percent were Latino, and five percent comprised other racial/ethnic groups. Approximately one-third of all students reported having had sexual intercourse before the program started.

Setting

YAPP took place in Chicago area schools as part of the school day. Participants also had assignments to complete at home, and one intervention group had to complete several assignments with a parent.

Goals

YAPP's primary goals were to prevent STDs, including HIV/AIDS, and substance abuse. Secondary goals included increasing AIDS knowledge, improving condom use, enhancing sexual negotiation skills, and promoting abstinence.

Type of Intervention

The program was designed using social cognitive theory and the social influence model of behavior change. Social cognitive theory posits that knowledge alone is not enough to create behavioral change. Also necessary are four other components: 1) information; 2) social skills for translating

knowledge into behavioral change; 3) opportunities to develop skills and self-efficacy; and 4) efforts to strengthen social supports. The social influence model approach uses peer group discussions and other opportunities for students to build social skills.

Main Messages

Students received information about transmission and prevention of HIV/AIDS and other STDs. Abstinence was presented as the only certain prevention strategy, but sexually active youth were urged to use condoms consistently.

Operation/Logistics

Length of program: Youth received 10 classroom-based sessions in the seventh grade and five follow-up sessions in the eighth grade. Sessions were held daily and lasted 40 to 50 minutes. The program spanned two weeks during the seventh grade and one week in the eighth grade.

Size of program: All together, 1,459 students in 11 schools participated in *YAPP*, and 933 students in six schools served as the control group.

Components of intervention: The intervention had two components: 1) classroom instruction, which was given to all program participants, and 2) parental involvement, which included homework assignments to be completed with a parent as well as parent meetings.

Staffing requirements: Although *YAPP* was designed to be led by a master's level health professional (although, teachers can serve in this capacity with appropriate training). Each session required one instructor.

Curriculum: The seventh grade *YAPP* curriculum includes classroom discussion, a workbook, videos, role-playing, an anonymous "question box," and homework assignments.

■ **Session 1: Decision-Making** introduces students to the *YAPP* program and presents the SAFER method of decision-making: studying a

situation, determining alternative choices, finding the best alternative by considering the advantages and disadvantages of each choice, executing a plan, and reviewing the outcome. Students are given an opportunity to practice the SAFER method.

- **Session 2: Resistance/Negotiation Skills** focuses on helping youth identify large and small decisions. Students also are taught “the Six Ss” of negotiating: 1) Stop, look, and listen; 2) Say no; 3) State your response repeatedly, and in different ways; 4) Suggest other things to do; 5) Say good-bye; and 6) Stay away. Role-playing is used throughout this session.
- **Session 3: A is for AIDS** provides information on HIV/AIDS transmission and prevention, the stages of HIV, and the treatment of AIDS. Students view the video “A is for AIDS”.
- **Session 4: Prevention (Abstinence & Safer Sex)** teaches abstinence as the only certain way to prevent STDs, including HIV/AIDS. Contraceptive methods are taught, and students are shown how to properly use condoms and spermicidal foam/film.
- **Session 5: Whose decision is it?** This session allows students to discuss the influence of the media on decision-making.
- **Session 6: Teen AIDS** uses the video “Teen AIDS in Focus,” which presents information on how AIDS has affected teens. Youth discuss the video and participate in an “HIV Express” activity, which clarifies how HIV is spread.
- **Session 7: Prevention (Be Safe—Don’t Do Drugs)** describes prescription, over-the-counter, and illegal drugs as well as substance abuse and misuse. Students discuss the story “Drugs: A Story About Kirk,” and brainstorm about why teenagers use drugs.
- **Session 8: STDs: Stop that Disease** presents information about STDs. The goal is to enable students to identify at least four STDs and STD symptoms, and to know how STDs are transmitted.

- **Session 9: Drugs and STDs** uses a story, “STDs: A Story About Steve and Laura,” to discuss taking responsibility for STD prevention. “Give Me Your Best Jive Line!” is an activity through which students learn negotiation skills regarding safer sex practices.
- **Session 10: Program Review** provides an opportunity for students to review the content of previous classes. In addition, the session includes an activity, “Wipe Out AIDS”, to assist students in integrating all they have been taught.

The seventh grade parental involvement component seeks to increase parents’ knowledge about AIDS so they can reinforce what the teens have learned in the classroom. The parents complete five homework assignments with their teens and participate in one parent workshop, which provides an overview of the *YAPP* program and information on trends in sexual behavior and drug use among teens.

The eighth grade *YAPP* program consists of five sessions:

- **Session 1: Making Decisions** allows students to review SAFER decision-making skills (seventh grade session 1) and to review the “Six Ss” of negotiating (seventh grade session 2). Students do role-playing exercises and prepare autobiographies that project what their lives will be like five years in the future.
- **Session 2: Sexuality and STDs (HIV/AIDS)** reviews the stages of HIV and AIDS (seventh grade session 3). Students also discuss HIV testing and review issues related to STDs.
- **Session 3: Relationships, Abstinence, & Safer Sex** includes discussion about relationships and how to manage them. Facilitators explain proper use of condoms and spermicide foam/film. Students complete a worksheet, “STDs: Check Your Knowledge,” as homework.
- **Session 4: Preventing Risky Behavior** has students role play to practice the SAFER method

of decision-making and the “Six Ss.” Students also discuss why teens use drugs and possible consequences.

- **Session 5: Ready for the Future** includes a discussion of the students’ autobiographies, including what they need to do to achieve their goals. They also focus on the transition to high school using a homework assignment, “Next Step: High School.”

EVALUATION

Type

Fifteen school districts were randomly assigned (five districts in each group) to either the classroom sessions/parent involvement intervention (five schools); the classroom sessions/no parent involvement intervention (six schools); or the control group (six schools). The seventh grade baseline survey was administered to 2,392 students (1,459 program participants and 933 control group students). The retention rate was about 67 percent at the eighth grade follow-up and 56 percent at the ninth grade follow-up.

Components

Instruments and Frequency: Surveys were administered three times: at baseline in the seventh grade, in the eighth grade following the booster program, and in the ninth grade.

Outcomes measured:

- age at first sex;
- frequency of sexual intercourse in the past 30 days;
- number of sexual partners in the past 12 months;
- condom use or condom use with foam at last sexual intercourse;
- ever used condoms, condoms with foam;
- for sexually experienced teens, intentions to use condoms or condoms with foam at the next sexual intercourse experience; and

- for students not sexually experienced, intentions to use condoms or condoms with foam at the first sexual intercourse experience.

Findings

At baseline, the control group had a higher proportion of students who were African American than did the program group (64 percent vs. 56 percent) and a lower proportion of students who were Latino (six percent vs. 17 percent).

Sexual initiation: There were no differences between the program group and control group on sexual initiation at either of the follow-ups.

Other outcomes: For the eighth grade follow-up, students in both treatment groups (parent involvement and no parent involvement) were combined for analyses because there were no differences on outcomes. Program group members (24 percent) were more likely to report ever using condoms with foam than were control group students (15 percent), but there were no differences on ever using only condoms. Program group members were marginally more likely to report not having sex in the past 30 days than were control group students (74 percent vs. 65 percent). No differences were found following the intervention (eighth grade follow-up) between the treatment and control groups on the number of sexual partners in the past 12 months or on condom use measures. Among those sexually active in the past 30 days, students in the program and the control group did not differ on use of condoms alone, use of condoms with foam, or intentions to use just condoms. However, program participants were more likely to report intentions to use condoms with foam when engaging in sexual intercourse than were control group students (85 percent vs. 63 percent).

When combining both program groups, the ninth grade follow-up found they were more likely to report planning on using condoms with foam the first (or next) time they had sexual intercourse than the control group. Program participants and control group students did not differ on age at first

sexual intercourse, purchase of condoms, use of condoms at first or most recent intercourse, or intentions to use condoms at first (or next) sexual intercourse.

Evaluator Viewpoints

To bolster the program's impacts, the evaluator suggested that *YAPP* be introduced to younger teens and be extended over a longer period of time.

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Facts and Feelings **(Detailed Description)**

****Experimentally Evaluated Program That Did Not Have An Impact On Teen Sexual Behavior****

PROGRAM DESCRIPTION

Facts and Feelings was an in-home HIV/AIDS and sex education intervention administered to 548 families in Northern Utah. Participating adolescents were in either seventh or eighth grade. The goals of the intervention were to increase the frequency and quality of discussions between adolescents and their parents about sex and to reduce the likelihood of early sexual initiation. The *Facts and Feelings* program was evaluated three months and twelve months after it ended.

Population Served

Facts and Feelings served seventh- and eighth-grade adolescents aged 12 to 14, as well as their families. The program was targeted at this age group because of the likelihood that these adolescents, who were primarily Mormon, had not yet had sex. Of the mothers who participated in the program, 93 percent were white, 85 percent were Mormon, and 35 percent were college-educated. Among fathers who participated in the program, 97 percent were white, 88 percent were Mormon, and 56 percent were college-educated.

Setting

Facts and Feelings was designed for family participation. It took place in participants' homes because it was more convenient for families than attending evening or weekend programs. Participating families came from four school districts (two urban and two rural) in Northern Utah.

Goals

The main goal of *Facts and Feelings* was to improve communication between parents and adolescents on sexual issues so that adolescents would be more likely to abstain from sexual intercourse. *Facts and Feelings* was based on the premise that parents play an important role in the development of their children's sexual values and understanding.

Type of Intervention

Facts and Feelings used brief videos and newsletters to present information on sex. On each video, two hosts (one male and one female) introduced topics, led viewers through several skits, and raised issues for further discussion. The intent was for the materials to function as a catalyst for more open discussion of between adolescents and their parents on sexual issues.

Main Messages

Facts and Feelings promoted abstinence, which was considered the most appropriate message for the 12–14-year-old age group. While the program's materials emphasized abstinence for young teens, the program left specific discussions of sexual values to the teens and their parents.

Operation/Logistics

Length of intervention: *Facts and Feelings* consisted of six units, each presented on a separate 15–20 minute videocassette.

Components of intervention: The six topics covered in the program were: 1) changes experienced during puberty; 2) sexual values; 3) facts about reproduction and anatomy; 4) the significance of sex and of images about sex depicted in the media; 5) the implications of having sex; and 6) assertiveness and refusal skills. Participating families kept the videos over the course of three months and received several newsletters by mail. They also received a follow-up phone call once every two weeks to monitor and encourage use of the videos.

Staffing requirements: Staffing for the *Facts and Feelings* intervention included the two people in the videos and staff to make follow-up phone calls.

EVALUATION

Type

An experimental evaluation of the *Facts and Feelings* program was conducted with the 548 participating families. This evaluation consisted of

baseline data collection, a three-month follow-up, and a twelve-month follow-up. The participating families were divided randomly into three groups, two experimental groups and one control group. One experimental group received both the videos and the newsletter, and the other experimental group received only the videos. Control group members received neither the videos nor the newsletter.

Researchers collected the evaluation data at three points using a separate self-administered questionnaire for the mother, the father, and the adolescent. Baseline data were collected when the videos were initially delivered to the families. After three months, the videos were retrieved from the home and follow-up data were collected. Twelve months after baseline, the families were contacted again to collect follow-up data. Approximately 92 percent of these families completed the 12-month follow-up. At each point of assessment, respondents completed self-administered questionnaires in the presence of a home visitor. To measure sexual behavior, participants were asked a series of “yes/no” questions.

Findings

Sexual experience: Analyses found that the intervention did not impact sexual initiation.

Other outcomes: The program did not impact other sexual behavior either.

Evaluator Viewpoints

The evaluators suggest three reasons why *Facts and Feelings* did not impact sexual behavior. First, the highly homogeneous sample, which did not include many high-risk adolescents, made it difficult to find statistically significant relationships between variables to show an intervention impact. Second, conducting only a twelve-month follow-up limited the evaluation’s ability to measure the program’s impact during the later teen years. Lastly, the authors suggest that the program should consider allowing families to keep the program videos permanently and receive more newsletters and other supporting materials so they can use them over a longer period of time.

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*Healthy Oakland Teens*⁸ (Detailed Description)

*** Quasi-Experimental Program Associated With Sexual Behavior ***

PROGRAM DESCRIPTION

Healthy Oakland Teens was an HIV-prevention program that served seventh-grade students in a junior high school in Oakland, California, during the 1992–1993 school year. The goal of this 13-session program was to deter participants from behavior that would put them at risk for HIV/AIDS. The program emphasized delaying sex as the best method for avoiding HIV/AIDS. It also focused on teaching participants skills (such as decision-making and communication skills) to make it easier to use condoms and other contraception in case some of the teens became sexually active within the next several years.

Population Served

The *Healthy Oakland Teens* program served a group of inner-city seventh-grade students. Among the participants, 68 percent were African-American, 16 percent were Latino, 10 percent were white, 4 percent were Native American, and 3 percent were of other racial and ethnic backgrounds. Forty-four percent of the group was male and 56 percent was female. Most of the participants came from families that spoke English at home (86 percent), 11 percent came from Spanish-speaking families, and three percent came from families that spoke another language at home. Seventeen percent of students in the program reported having had sex before the start of the program.

Setting

The program took place in an urban junior high school. Program sessions were held in social science classes during regular school hours.

Goals

Healthy Oakland Teens sought to reduce participants' risk for contracting HIV primarily by

encouraging them to delay having sex, but also by providing information about ways to use contraception through sound decision-making and communication skills.

Type of Intervention

Healthy Oakland Teens included adult- and peer-led sessions. The adult-led sessions were information-based, while the peer-led sessions were more interactive. The program curriculum was designed to be culturally appropriate for a diverse group of participants.

The *Healthy Oakland Teens* curriculum was developed from the social influence model of behavior change. This model involves drawing on factors from multiple areas of the adolescent's life, such as cognition, affect (emotions), behavior, and environment, to promote behavioral change. Program leaders promoted preventive behaviors (i.e., delaying sexual activity) and dispelled peer norms that encouraged sexual risk-taking.

Operation/Logistics

Length of program: *Healthy Oakland Teens* ran during the 1992–1993 schoolyear in 13 sessions. Adults led five of the sessions and peers led the other eight.

Components of intervention: *Healthy Oakland Teens*' adult-led sessions were similar to the AIDS education classes taught in California schools, covering subjects such as human sexual anatomy, substance abuse, HIV/AIDS, STDs, and preventive behaviors such as abstinence. The peer-led sessions consisted of interactive activities on topics that included perception of HIV/STD risk; values, costs and benefits of preventive behaviors; the influence of alcohol/drugs on decision-making; and peer norms. These sessions also built communication, decision-making, and condom use skills.

Staffing requirements: Peer leaders, who were nominated by teachers, counselors, and students,

8 This profile is brief because the evaluation was conducted with a less rigorous quasi-experimental methodology.

took a one-semester “Peer Helping” course. They learned important leadership skills including team-building, communication, and conflict resolution.

Healthy Oakland Teens also required that a teacher with experience in leadership training and conflict resolution be assigned to the “Peer Helping” class. The school principal recommended the teacher for the class, and the program provided that teacher with supplemental training.

EVALUATION

Type

Healthy Oakland Teens was evaluated using a quasi-experimental design. The evaluation was conducted among 250 students in three schools. One of the schools received the intervention (107 students), while the other two served as the comparison group (143 students). Participants completed surveys at baseline (one week before the program started in seventh grade), one week after the program ended in seventh grade, and once during eighth grade (8–11 months post-intervention). Sixty percent of students participated in the eighth grade follow-up.

Findings

At baseline, 17 percent of students in the intervention group and 25 percent of students in the comparison group reported having ever engaged in vaginal intercourse.

Sexual experience: All analyses of follow-up data included only those participants who were virgins at baseline. These data showed that 5 percent of program group students initiated sexual intercourse compared with 18 percent of comparison group students at the eighth-grade follow-up.

Other outcomes: The intervention was associated with reducing other sexual behavior. At follow-up,

fewer students in the program group than the comparison group had participated in deep kissing (12 percent vs. 30 percent), breast touching (10 percent vs. 23 percent), and genital touching (9 percent vs. 20 percent).

Evaluator Viewpoints

Evaluators suggested that *Healthy Oakland Teens* showed positive associations with reducing sexual behavior because participants received messages from adults and peers. They did note, however, that a previous evaluation of the adult-only sessions showed no behavioral changes. The evaluators believe that the peer-led format was effective because program participants viewed their peer leaders as being similar to themselves and as a reliable source for information. Thus participants were more likely to accept the messages they heard from these peers and to look to these leaders to establish norms for appropriate behavior (Ekstrand, et al, in press).

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*Poder Latino: A Community AIDS Prevention Program for Inner City Latino Youth*⁹

(Detailed Description)

*** Quasi-Experimental Program Associated With Sexual Behavior ***

PROGRAM DESCRIPTION

Poder Latino, an 18-month HIV prevention program, operated in Boston, Massachusetts, between June 1990 and December 1991 among Latino youth aged 14 to 20. The program used a community-based approach to increase knowledge of HIV/AIDS among youth, increase condom use among sexually active youth, and decrease the risk of HIV infection. Program activities included group discussions, workshops, presentations at community events, TV and radio public service announcements, and neighborhood canvassing. Through this canvassing, the program distributed kits that included condoms and informational pamphlets describing how to use them. The program also made condoms available during activities and at the program office. *Poder Latino* was evaluated 18 months after it ended.

Population Served

Poder Latino served Latino youth between the ages of 14 and 20. All participants were Latino. The majority (94 percent) of participants were Puerto Rican. Before the program started, 52 percent of all participants in the study had already had sex.

Setting

Poder Latino operated in urban school and community settings.

Goals

The primary goals of *Poder Latino* were to increase awareness of HIV/AIDS, increase condom use among sexually active youth, and reduce the risk of contracting HIV.

Type of Intervention

Poder Latino held workshops in schools, community organizations, health centers, and group discussions in homes. In addition, it provided presentations at large community events. The program also used public service announcements, posters, and a quarterly newsletter to promote program messages. It distributed condoms through door-to-door and street corner canvassing and at program offices.

Operation/Logistics

Length of program: The program ran for 18 months.

Components of intervention: Trained peer leaders conducted workshops, group discussions, and presentations at community events. As noted, the program used public service announcements, posters, and a quarterly newsletter to promote program messages, and door-to-door and street corner canvassing to distribute condoms.

Staffing requirements: *Poder Latino* employed and trained 40 peer leaders who were selected through community agencies and by word-of-mouth. The program trained 55 parents to teach other parents about HIV/AIDS and how to discuss sexuality, HIV/AIDS, and condom use with their own teenagers. These parents received a small stipend for their involvement. In addition to peer leaders and parents, eight community agencies were selected and their staff trained to run the program.

EVALUATION

Type

Poder Latino was evaluated with a quasi-experimental, longitudinal design. Teens in the Boston, MA program comprised the program group and teens in the Hartford, CT program were the comparison group. At baseline, 586 Latino adolescents between the ages of 14 and 20 completed a questionnaire and approximately 92 percent

9 This profile is brief because the evaluation was conducted with a less rigorous quasi-experimental methodology.

(536) completed an 18-month follow-up interview. The evaluation studied the initiation of sexual intercourse among teens who were virgins at baseline, the frequency of sexual activity, and the likelihood of multiple sexual partners among teens who were sexually active at the 18-month follow-up. All analyses were run separately by gender.

Findings

Sexual experience: Among virgins at baseline, males in the program group (Boston) were 92 percent less likely to become sexually experienced than males in the comparison group (Hartford). No comparable association was found among females.

Other outcomes: Among sexually active teens at the follow-up, females in the program city (Boston) were 94 percent less likely to report multiple sex partners in the previous six months than females in the comparison group (Hartford). No comparable associations were found regarding frequency of sex for males and females.

Evaluator Viewpoints

The evaluators reported that youth in both cities reported attending a similar number of programs on AIDS. However, youth in Boston reported receiving free condoms at a significantly higher rate

than youth in Hartford. The evaluators noted that their findings were consistent with other studies that showed that promoting condom use and distributing condoms does not increase sexual activity.

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RESOURCES

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Rochester AIDS Prevention Project¹⁰

***** Quasi-Experimental Program Associated With Sexual Behavior *****

PROGRAM DESCRIPTION

The Rochester AIDS Prevention Project (RAPP) was an in-school AIDS prevention program for 7th graders attending middle school in Rochester, New York. *RAPP* was a semester-long 12-session program designed to teach about HIV/AIDS and to promote safe sexual behavior, including abstinence. *RAPP* was evaluated immediately after the program ended and between six and 12 months later.

Population Served

RAPP served 1,352 students in ten middle schools. All participants spoke either English or Spanish. Half were African-American, 16 percent were Latino, 20 percent were white, and 14 percent were of other racial and ethnic backgrounds. In regard to socioeconomic status, about 70 percent of families with a child in the school district had incomes below the federal poverty level. The average age of participants was 13.1 years old. Within each of the three program groups (described below) 45 percent, 42 percent, and 36 percent of students respectively reported having sex prior to the intervention.

Setting

RAPP ran during the seventh grade in health education classes.

Goals

The goal of *RAPP* was to promote responsible sexual behavior by increasing knowledge about HIV/AIDS and enhancing communication and decision-making skills. The program conveyed a strong abstinence message to participants who had not had sexual intercourse and emphasized careful contraception use for students who were sexually active.

Type of Intervention

RAPP promoted active learning through student participation and interactive exercises. Topics included assertive communication, decision-making, self-esteem, sexuality, as well as pregnancy, STD, and HIV/AIDS prevention. *RAPP* was based on five criteria for effective school-based interventions: 1) uses a theoretical framework; 2) includes the instruction of communication, negotiation, and behavioral skills; 3) is implemented with adequate time for behavior modification; 4) includes appropriate cultural ideas; and 5) is run by skilled instructors.

Operation/Logistics

Length of program: *RAPP* was administered during one semester of the seventh grade in 12 classroom sessions.

Components of intervention: The program included activities to build skills in communication, decision-making, and developing self-esteem, while also providing information on reproductive health and STDs. *RAPP* placed special emphasis on HIV prevention.

RAPP was designed to include concepts from the theory of reasoned action and theories of normal adolescent development. These ideas focus on the decision-making approaches of adolescents. For example, the theory of reasoned action posits that humans make reasoned decisions based on their personal beliefs, which are shaped by their level of knowledge and information. Thus, according to this theory, to create a change in behavior, it is essential to change the outlook towards that behavior (Fishbein, 1990).

Principles of normal adolescent development suggest that adolescents use three sets of skills when making decisions: 1) self-control skills, 2) social awareness and group participation skills,

10 This profile is brief because the evaluation was conducted with a less rigorous quasi-experimental methodology.

and 3) critical thinking skills (Elias & Kress, 1994). In the classroom, health educators can help students to strengthen and practice use of these skill sets.

Staffing requirements: The *RAPP* intervention was administered either by trained adult *RAPP* health educators or by trained peer educators. The peer educators were high school students who had received 50 hours of training. Adult *RAPP* health educators taught the program in ethnically mixed male-female pairs.

EVALUATION

Type

RAPP was evaluated using a quasi-experimental design with a sample size of 1,715 students from five schools. The evaluation consisted of three intervention groups (n=1,248) and one comparison group (n=467). The three intervention groups had different leaders teaching the *RAPP* curriculum: 1) A *RAPP* adult educator (n=523), 2) A *RAPP* peer educator (n=412), and 3) A schoolteacher (n=313). Participants completed questionnaires at the beginning of the program (baseline), immediately after the program ended (post-test follow-up), and six- to 12-months later (long-term follow-up).

Findings

Before the intervention started, 47 percent of comparison group students reported prior sexual experience compared with 45 percent, 42 percent, and 36 percent of students in each of the three program groups (*RAPP* adult educator, *RAPP* peer educator, and regular teacher), respectively.

Sexual experience: At long-term follow-up, no differences were found in the percentage of females in the comparison and program groups who had become sexually active. However, all three intervention groups had fewer males who had become sexually active (36 percent among males with an adult

educator, 29 percent among males with peer educators, and 21 percent among males with schoolteachers) compared with those in the comparison group (43 percent).

The evaluators used logistic regression analyses to test the association between the intervention and sexual initiation at the long-term follow-up. Among females, no significant results were found. Males in the peer-taught and schoolteacher groups were 60 percent less likely to initiate sex compared with comparison group males. Among females younger than 13 at pretest, those in the peer educator and schoolteacher-led groups were 60 percent less likely to initiate sexual intercourse than comparison group females. Among males, younger than 13 at pretest, all three intervention groups were 70 percent less likely to initiate sexual activity than their comparison group counterparts.

Evaluator Viewpoints

Evaluators suggested that the intervention showed more positive associations with delayed sexual initiation among males than among females because males overall had rates of sexual activity that were twice as high as females. (Aten, Siegel, Enaharo, and Auinger, 2002). Therefore, males who abstained from sex stood out more prominently from their counterparts than did females.

Evaluators also sought to explain why the program showed no associations on females. They proposed that there might have been other factors, not measured in the study, that were associated with delaying sexual initiation.

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RESOURCES

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Youth Development Programs

Children's Aid Society (CAS)—Carrera Program (Overview)

Experimentally Evaluated Program That Had An Impact on Teen Sexual Initiation

The *CAS-Carrera Program* was an intensive, multi-year after-school program for high-risk high school students. It ran year-round, five to six days each week and served teens until they completed high school. The program was held in six sites in New York City between 1997 and 2000. Its goal was to motivate youth to strive for a productive future and avoid behavior that could hinder achieving their goals.

Through a youth development approach, the *CAS-Carrera Program* addressed the underlying factors associated with teen pregnancy and childbearing, such as poverty, school failure, unemployment, and inadequate health care. The program sought to improve access to health care (including reproductive health services), reduce sexual activity rates, increase contraceptive use, and reduce pregnancy. It included seven components, including employment and academic assistance, family life and sexuality education, performing arts experience, sports training, and mental and physical health care.

An experimental evaluation of the *CAS-Carrera Program* primarily showed positive impacts for females. At the end of the third year of *Carrera*,

INSIGHTS AFTER THE FACT

Key challenges

- It can be challenging to find a setting to accommodate the *CAS-Carrera Program* because it is comprehensive and long-term.
- The program is more expensive than typical after-school programs. However, the evaluations have found that it is effective with certain populations and suggest that it is money well spent.
- In order to successfully operate such a comprehensive program, it is important to hire staff with stamina and a strong commitment to helping teens. The program requires very intensive oversight and collaboration between service providers. This is not something many programs are used to, but it needs to be built in during the early planning stages.
- In suburban and rural communities, transportation can be a challenge.

Lessons Learned

- It is more important to be “kind” than to be “right” when working with teens.
- Spending time on planning activities, such as community organizing, parent orientation, hiring and training staff, and completing consent forms before the program begins will pay off in the long run.
- Make the most of the evaluation. Hiring independent researchers is valuable. Using the results to improve the program on an ongoing basis is key to making it as effective as possible. For example, the *Carrera* program evaluation showed that older teens had already developed patterns of risky behaviors, so the program readjusted its focus to younger teens instead.
- It is important to provide “maintenance training,” that is, monthly training for teachers and staff in the seven program components.

SOURCE: MICHAEL CARRERA, ED.D

females in the program had a reduced likelihood of ever having had sexual intercourse. The program also had positive impacts among females on pregnancy rates and using a condom and a hormonal contraceptive method at last sexual intercourse. It had a positive impact on access to health care among males and females.

The cost of the program in New York City sites was \$4,000 per teen per year, or an average of \$16 a day per teen. These costs included staffing, medical and dental care, stipends, and wages for teens

to work in part-time or full-time jobs. These program costs are likely to be higher in New York City than they would be in other areas of the United States. The program has been funded privately through foundations and donors. In New York City, the Robin Hood Foundation provides principal support.

The program is being replicated in urban, suburban, and rural areas around the country, including Nebraska, Florida, New York State, and Baltimore, MD.

Children's Aid Society—Carrera Program (Detailed Description)

PROGRAM DESCRIPTION

The *CAS-Carrera Program* evaluation study ran between 1997–2000 in six New York City sites. It used a youth development approach to reduce risk factors associated with teen pregnancy. Staff members established confidential relationships with participants and provided ongoing mentorship and counseling. Numerous activities and services were available year round.

Population Served

The evaluated *CAS-Carrera Program* served low-income, high-risk males and females, aged 13–15. (Note: the program is currently starting with youth aged 11–12; this profile is based only on the programs evaluated with older teens.) Students were not eligible to participate if they were enrolled in any other structured after-school program, were pregnant, or were already parents. The majority of participants (60 percent) were African American; 39 percent were Latino. Only one in three participants (35 percent) lived in a two-parent family, and the majority of teens (61 percent) lived with an unemployed adult and/or received entitlement benefits. Before the program began, 26 percent of program participants reported having sexual intercourse, including 15 percent of females and 38 percent of males.

Setting

The *CAS-Carrera Program* ran year-round and was hosted by youth agencies such as Males and Females Clubs. Services were provided in community centers.

Goals

The program sought to help youth develop goals and to motivate them to pursue a productive future. To that end, the program tried to reduce sexual activity, increase contraceptive use, reduce teen pregnancy, and increase access to health care.

Type of Intervention

This intensive program took a “holistic” approach to addressing underlying factors associated with teen pregnancy and childbearing. It addressed economic disadvantage, low academic performance, limited job opportunities, and inadequate health care. The program encouraged teens to focus on the future in order to motivate them to delay sex and to use contraception. The program offered seven components, including mentoring and ongoing counseling, health care, academic assistance, career counseling, crisis intervention, and access to performing arts and sports activities. The *CAS-Carrera Program* involved parents and other adults in various activities.

Main Messages

The program encouraged teens to think about and plan for their futures. One part of that message was that they should abstain from sex or use contraception consistently.

Operation/Logistics

Length of intervention: The intervention took place over three years. During the school year, program activities were scheduled after school each day for approximately three hours. During the summer, the program provided employment, academic assistance, and sex education for approximately three hours a day. During the period studied, teens participated an average of 16 hours a month. Absenteeism was usually caused by family responsibilities, transportation issues, employment obligations, and educational and extracurricular activities. Almost half of the teens (48 percent) were involved in all program components. To supplement program hours, community organizers made an average of two contacts per month with participants and their families.

Size of program: Each of the six sites accommodated 100 participants—50 in the *CAS-Carrera Program* and 50 in a control group. The 2000 evaluation was based on a total of 484 youth with three-year follow-up data and took place at the end of the third program year (242 youth in the *CAS-*

Carrera Program and 242 youth in the control group).

Staffing requirements: The seven activity and service components were staffed with a full-time coordinator and part-time employees and volunteers. For example, the academic component was taught by education experts and community volunteers, the performing arts were taught by professional actors, the mental health services were provided by social workers, and the medical and health services were staffed by physicians. A full-time community organizer maintained contact with participants and their parents, made home visits, followed up on absenteeism, and coordinated the activity schedule for each site.

Components of intervention: The *CAS-Carrera Program* intervention includes seven components: five activities and two services.

The activity components include the following:

- 1) Job Club provided employment assistance including resume development, help filling out job applications, and practice with job interview skills. Teens also had to open bank accounts. They received a stipend for attending the Job Club, and it was possible for teens 14 and older to obtain summer jobs and part-time work during the school year.
- 2) Participants received daily academic assistance, including an individual academic performance assessment, tutoring and homework aid, help with preparation for PSATs and SATs, and assistance with college applications. The program provided one-on-one and small-group tutorials during the high school years and offered financial aid for college through a scholarship fund.
- 3) An educator and/or reproductive health counselor provided weekly information sessions on sex and related topics based on the students' age and developmental level. Topics included anatomy and reproduction, contraception,

HIV/AIDS, body image, relationships, and gender and family roles.

- 4) Teens participated in various performing arts workshops to help build their self-confidence and talent.
- 5) Individual sports included squash, tennis, golf, snowboarding, and swimming.

The service components included:

- 1) Supervised mental health and counseling provided through weekly sessions with a social worker.
- 2) Medical care provided off-site. Program staff scheduled medical appointments for program participants, including an annual comprehensive medical exam and dental services. Participants also received reproductive health care, including physical exams, STD testing, contraception, and counseling. Staff accompanied participants to medical visits.

EVALUATION

Type

The evaluation of the *CAS-Carrera Program* used a random-assignment experimental design in which teens were randomly assigned to the program group (receiving all services) or to a control group (receiving only the regular youth program provided by the host agency). Approximately 81 percent of youth completed both a baseline interview and a 3-year follow-up.

Components

Instruments and frequency: Each teen completed an initial "baseline interview." They were interviewed annually, and outcome data were measured at the end of the third program year. Data were collected from three sources: 1) annual self-report surveys; 2) annual tests of sexual knowledge; and 3) monthly attendance records.

Outcomes measured: Four primary outcomes were measured throughout the three-year period. These were: 1) whether teens ever had sexual intercourse; 2) receipt of certain designated health care services (termed “positive health care”); 3) whether teens had used a condom and/or other hormonal contraception at the most recent sexual encounter; and 4) whether teens had become pregnant or caused a pregnancy. Measures of sexual experience, contraceptive use, and pregnancy were based on self-reports and were confirmed with medical records where possible. Five health care outcomes were self-reported (receiving medical care in a setting other than the emergency room; having a medical check-up in the last few years; receiving a social assessment (items associated with family and environmental factors) at that checkup; getting a Hepatitis B vaccination; and having a dental checkup in the last year). Receiving four or more of these health care outcomes indicated “positive health care.”

Findings

The baseline interviews showed no differences between the *CAS-Carrera Program* participants and the control group members regarding health care, sexual intercourse (26 percent versus 25 percent for the program group and the control group, respectively), contraceptive use, and pregnancy.

Sexual experience: At the end of the program’s third year, the evaluation revealed better outcomes for females than for males. Females in the *CAS-Carrera Program* were significantly less likely to have had sexual intercourse than the control group females (54 percent vs. 66 percent). There were no significant program impacts on sexual initiation among males.

Other outcomes: At the end of the third year of the program, females in the program group were less likely to have become pregnant than females in the control group (10 percent vs. 22 percent). Females in the program group were almost twice as likely to have used a condom and hormonal method at last intercourse than the control group members (36 percent vs. 20 percent). Females in

the program group also were more likely to have received positive health care than control group females (74 percent vs. 61 percent).

Males in the program group participants were more likely to have received “positive health care” than males in the control group (64 percent vs. 45 percent). Males in the program were significantly less likely than males in the control group to use a condom and a hormonal method at last intercourse (9 percent vs. 20 percent). However, there were no significant differences between males in the two groups regarding whether they had caused a pregnancy.

Evaluator Viewpoints

Program evaluators offer several explanations for why the program had significant impacts for the females. As described previously, the *CAS-Carrera* approach is intensive and long-term. This likely delayed first intercourse and increased use of effective contraception among the females. Evaluators also suggest possible reasons for the mixed impact for males. First, males who were sexually experienced before entering the program (38 percent) were less likely to attend the program regularly. As mentioned previously, *CAS-Carrera Programs* are now engaging youth earlier—starting at 11–12 years old instead of 13–15. Second, the evaluators suggest that high-risk males from inner-city New York may have strong social norms that encourage early intercourse and that conflict with messages in the *CAS-Carrera Program*.

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Dr. Carrera’s book, *Lessons for Lifeguards* (\$13),

which highlights the philosophy and organizing principles of the program, is available through the *Carrera* website: <http://www.stopteenpregnancy.com>

Michael Carrera can be contacted directly for information about curricula and protocols for each of the seven program components. The Children's Aid Society also can help with fundraising, provide training, work with an evaluator, and conduct site visits.

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*Washington State Client-Centered Pregnancy Prevention Programs*¹¹

Experimentally Evaluated Program That Did Not Have An Impact On Teen Sexual Initiation But Did Have An Impact on Other Sexual Behavior

PROGRAM DESCRIPTION

The *Washington State Client-Centered Pregnancy Prevention Programs* included school-based and community-based programs that provided adolescents with education, support, and information to help them avoid early sexual activity and pregnancy. Three programs, all funded by the Washington State Department of Health, were carried out between 1995 and 1999.

Population Served

Most participants in these programs were white teens aged 14–17. Sixty-three percent of all students were sexually experienced prior to the start of the intervention.

Setting

The first program was held in a family planning clinic, the second in middle and high schools and administered by a family planning provider, and the third in school-based and community-based settings and administered by a local health department.

Goals

The goal of these programs was to help teens avoid sexual activity and pregnancy.

Type of Intervention

The programs incorporated a client-centered approach to pregnancy prevention. They provided individualized services, education, and skill-building related to contraceptive use and STD and pregnancy prevention. Sessions focused on meeting the individual needs of participants, taking into account their community circumstances.

Main Messages

The *Washington State Client-Centered Pregnancy Prevention Programs* promoted abstinence and encouraged the use of contraception for sexually active teenagers. Staff provided information on the risks of early sexual behavior and stressed responsible decision-making.

Operation/Logistics

Components of intervention: Each intervention combined sex education with a broader youth development approach. Intervention components included:

- an educational component to address issues related to sex, pregnancy, and STD prevention; relationships; self-esteem; decision-making; and life planning;
- individualized support services, referrals, and counseling tailored to meet the needs of each participant;
- family planning services; and
- social and recreational activities.

EVALUATION

The Washington State programs took place in three separate locations. Sixty-three percent of program and control group students reported sexual experience prior to the start of the intervention.

Sexual experience: An experimental evaluation reported no differences between the program group and control group on ever having sexual intercourse.

Other outcomes: Program group members reported a reduced likelihood of having recent sexual intercourse and increased contraceptive use at the middle/high school program compared to a control group. Participants in the family planning clinic program showed improved sexual and contraceptive intentions, but not behaviors, compared to a control group. No two sites had the same positive

11 This profile is brief because curricula are not available for specific programs.

outcome, and the program in the school- and community-based settings showed no impact.

According to the evaluators, the strongest impacts occurred in the site with the highest number of hours of participation. The evaluators also note that the sites are using the findings to modify their programs. In fact, the state has mandated a minimum number of hours of “service” per client based on the study’s findings.

Evaluator Viewpoints

The authors suggest that the number of hours spent in program activities may explain the

findings (increasing hours may have more positive results). Also, providing individually tailored services may have led to addressing the current crisis of a client rather than focusing more specifically on sexuality education or pregnancy prevention.

RESOURCES

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*Seattle Social Development*¹²

*** Quasi-Experimental Program Associated With Sexual Behavior ***

PROGRAM DESCRIPTION

Seattle Social Development was a classroom-based youth development program for children in grades one through six in Seattle, Washington. The program was implemented in 1981 in eight public schools. Individual participation began in the first grade and ended in the sixth grade. The program was set up to help children avoid risk-taking behaviors by strengthening their ties to their school and their families and by improving their social development. The program was evaluated when the students were 18 and 21 years old.

Population Served

Seattle Social Development served an equal number of first-grade boys and girls. Slightly more than half (55 percent) of the students experienced poverty at some point between fifth and seventh grades, as measured by their eligibility to receive free lunch. Forty-seven percent of the students were white, 26 percent were African-American, 21 percent were Asian, and 7 percent were of other racial or ethnic backgrounds. At the time of the age 21 interview, 75 percent of participants were single, 9 percent were married, 15 percent were cohabiting, and 2 percent were separated or divorced.

Setting

In 1981, the evaluated program served first graders in eight public schools in Seattle, Washington. An additional 10 schools were added in 1985 to include fifth-graders. The program was built into the school day.

Goals

The primary goal of *Seattle Social Development* was to reduce risky behavior by incorporating a youth development approach that enhanced child socialization and created a bond with the school.

The program did not provide information on sexual health or behavior.

Type of Intervention

Seattle Social Development was designed using a social development model, which suggests that providing opportunities for children to become actively involved in school and family strengthens the child's social competencies. The program had three components: teacher training, child development, and parent training. The teacher training component included instruction on classroom management, interactive teaching, and cooperative learning. The child development component concentrated on improving problem-solving abilities by building communication, decision-making, negotiation, and conflict resolution skills. The parent training component provided parents with information on behavior management, academic support skills, and parenting skills.

Operation/Logistics

Length of program: Students receiving the full program participated between the first and sixth grades. A shortened program was given to fifth grade students to test whether beginning earlier and participating longer led to better outcomes than briefer interventions begun with older kids. Those who began in the fifth grade participated for two school years (fifth and sixth grades).

Components of intervention: The three main components of *Seattle Social Development* are described below:

- **Teacher Training.** Teachers received five days of training on proactive classroom management, interactive teaching, and cooperative learning. First-grade instructors also were trained on using a curriculum that helped students identify problems and select appropriate solutions.
- **Child Development.** Students learned about social and emotional development each year of the program. In addition, sixth grade students received four hours skill-building on how to rec-

12 This profile is brief because the evaluation was conducted with a less rigorous quasi-experimental methodology.

ognize and resist pressure to engage in risk-taking behaviors.

- **Parent Training.** Parents could participate in voluntary training. The trainings covered behavior management skills for first and second graders; school success strategies for second and third graders; and how to talk about alcohol and other drug use with fifth and sixth graders.

Staffing requirements: Classroom teachers staffed the program in first through sixth grades.

EVALUATION

Type

Seattle Social Development used a quasi-experimental, longitudinal evaluation design. Sexual behavior outcomes were measured when participants were 18 and again when they were 21, with approximately 93 percent of students participating at age 18. Three hundred and forty-nine students were included in this evaluation (144 program participants and 205 comparison group students). The program participants were those who were in the program in the first through sixth grades. (Students who received the program during fifth and sixth grade only were not included in these analyses because no association was found between participation and sex-related outcomes at age 18.)

Findings

Sexual experience: At age 18, of participants who were in the program in the first through sixth grades, 72 percent reported having had sexual intercourse compared with 83 percent of the comparison group students (Hawkins, et al., 1999). At age 21, program participants reported an older age at first sexual experience (defined as anal, oral, or vaginal sex) compared with the comparison group (16.3 years old vs. 15.8 years old) (Lonczak, et al., 2002).

Other outcomes: Fewer program participants reported having multiple sex partners at age 18 than comparison group students (50 percent vs. 62 percent). These program participants also were less likely to report having been pregnant or having gotten someone pregnant (17 percent) compared with the comparison group (26 percent). At age 21, program participants reported fewer lifetime sexual partners than the comparison group (3.6 partners vs. 4.1 partners). At age 21, program participants were more likely to report using a condom at most recent intercourse than comparison group students (60 percent vs. 44 percent). And 38 percent of females in the program group reported having been pregnant compared with 56 percent of females in the comparison group. In addition, female program participants were less likely to report having had given birth than the comparison group (23 percent vs. 40 percent). No difference was found between male program group participants and the male comparison group on causing a pregnancy or fathering a child. (Lonczak, et al., 2002.)

Evaluator Viewpoints

The evaluators suggested that the association between *Seattle Social Development* and sexual health outcomes were due largely to the long-term early intervention nature of the program.

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RESOURCES

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Service Learning Programs

Reach for Health Community Youth Service (RFH-CYS)

(Overview)

Experimentally Evaluated Program That Had An Impact On Teen Sexual Initiation

Reach for Health Community Youth Service (RFH-CYS) was a school-based service learning program located in Brooklyn, NY that combined community field placements with classroom health instruction. This program, conducted from 1994-1996, was designed to help at-risk middle school students build knowledge, attitudes, and skills to guide them in making decisions about their own health and well-being. *RFH-CYS* was conducted over 30 school weeks.

Through field placements in health and social service settings, students gained experience and confidence. Weekly *RFH-CYS* classroom lessons reinforced teens' community service experiences and taught them how to reduce the risks related to sexual intercourse and other behaviors.

An experimental evaluation of *RFH-CYS* found that at a two-year follow-up, program participants were significantly less likely than the control group to report sexual initiation through the tenth grade.

The *RFH-CYS* program materials will be forthcoming through the Program Archive on Sexuality, Health, and Adolescence (PASHA). Other expenses include a full- or part-time program coordinator; additional student materials, such as certificates, badges, and t-shirts that students receive as rewards; local travel (particularly travel to and from field placement sites); compensation for teachers; photocopying and postage; and hiring and supervising an evaluator.

INSIGHTS AFTER THE FACT

Key challenges

- Some in the school community resisted service learning because these programs require students to be off-campus. Involving students, parents, teachers, and administrators at the outset in the planning process can help alleviate such resistance. Once on board, these community members can help with fundraising, public relations, and planning celebrations at the end of the service component.
- Organizational and logistical challenges include arranging travel to and from field-sites, recruiting new field sites that can provide community experiences, and monitoring field site activities.

Lessons Learned

- It is important to have support from administrators at the school and in community agencies where service happens. It is also important to have well-trained program staff, including health education teachers, program coordinators, and agency staff.
- Designating one person to manage program activities between school and community sites is very helpful.
- Select field placements carefully so they match the needs and interests of students, provide meaningful work opportunities, and are compatible with the goals.
- Ample time should be built into classroom instruction for student reflection and debriefing on community service experiences.

SOURCE: KIM DASH, EDUCATIONAL DEVELOPMENT CENTER

Reach for Health Community Youth Service (RFH-CYS)

PROGRAM DESCRIPTION

Reach for Health Community Youth Service Learning (RFH-CYS), conducted from 1994-1996 in two large Brooklyn, NY middle schools, was a school-based service learning program. It aimed to encourage at-risk adolescents to avoid risky sexual behaviors.

Population Served

RFH-CYS served seventh and eighth grade students at increased risk of early sex and related risky behavior. At the original urban evaluation site, almost all students were African American and Latino. Thirty-two percent of students reported having sex prior to beginning the program.

Setting

RFH-CYS was conducted during the school day in middle school health classes and in surrounding community healthcare and social service settings, such as day care centers, nursing homes, health clinics, or senior centers. Sites were required to have adequate staffing to provide supervision to student volunteers and meaningful work experiences.

Goals

RFH-CYS sought to prevent risky sexual behaviors and other detrimental behaviors among at-risk youth.

Type of Intervention

RFH-CYS was a school-sponsored program that combined service learning and skills-based health instruction. The program was designed in collaboration with a large public middle school in Brooklyn and built upon a pilot program conducted by the school community in collaboration with the School of Nursing at Medgar Evers College, City University of New York. School staff and a community advisory board worked with program developers from the Education Development Center to create a protocol for the service learning

component and to ensure that classroom health lessons were culturally and developmentally appropriate. Curriculum lessons were active, geared toward diverse learning styles, and designed to be easily integrated into school health programs.

The program linked the school with the community and provided students with meaningful opportunities for community engagement. In doing so, it aimed to instill youth with a citizenship ethic, a concept drawn from John Dewey's theory of associated learning, which emphasizes the relationship between personal achievement and intellectual growth. The health instruction component reinforced service experiences and was grounded in social cognitive theory. This theory emphasizes the importance of developing social competence and social skills that are critical to risk reduction. The program also is based on research exploring the culture- and gender-based reasons why young adolescents engage in unhealthy behaviors and how they can be supported to make healthy choices.

Main Messages

The program emphasized that the teens' contributions were valuable to the community and that the community cared about their future. *RFH-CYS* also highlighted the following themes:

- **Protection:** We must take action, individually and as a society, to protect our health and well-being and to protect the health and well-being of others in our community.
- **Responsibility:** We each must act responsibly, respecting ourselves and others, and identifying the things we can change in ourselves and our surroundings.
- **Interdependence:** We are all connected; therefore, our actions, the actions of our peers, and the actions of the greater community matter to all of us.
- **Affirmation of Positive Behaviors:** Our efforts to promote health in ourselves and our community are supported by members of our community, and we can take pride in staying healthy.

Operation/Logistics

Length of program: Over 30 weeks of the school year, students attended field placements on a weekly basis, with each visit lasting two or three hours. Classroom lessons prepared students for field placements and provided opportunities for debriefing and reflection. The *RFH* curriculum also included 10 lessons on growth and development.

Size of program: A total of 35 classrooms at the program school received the program; 22 classrooms (222 students) received the core *RFH* curriculum (classroom component only). An additional 13 classrooms (255 students) received the *RFH* curriculum and the service learning components (*CYS*).

Components: *RFH-CYS* included two core elements: the *RFH* growth and development curriculum and the community youth service (*CYS*) (i.e., community field placements coupled with in-class preparation, debriefing, and reflection).

Staffing requirements: *RFH-CYS* required collaboration between middle schools and community service sites. School administrators selected a school-based coordinator to manage activities between school and community sites. The coordinator was responsible for:

- developing a protocol for student travel to and from field-sites;
- reviewing teacher performance and providing feedback;
- recruiting new field sites;
- conducting discussion groups with students; and
- visiting field sites to monitor activities.

Classroom teachers, preferably with health instruction training and experience, taught the classroom component of *RFH-CYS*. They were responsible for selecting and working with community placement sites and integrating service into the curriculum.

At the field placement sites, agency staff mentored students. Before field placements began,

agency and school staff participated jointly in a program orientation that laid out goals of the *RFH-CYS* program and clarified the responsibilities of adults and youth.

Curriculum:

Reach for Health (RFH)

The *RFH* curriculum contains 10 seventh grade and 10 eighth grade lessons on healthy development designed to supplement existing health curricula. It focuses on sexual behaviors that can result in HIV infection, other STDs, and pregnancy. The curriculum seeks to help students choose healthy options, communicate their needs effectively, and avoid risky behaviors. It also offers opportunities for students to learn and practice skills such as self-assessment, risk assessment, communication, decision-making, goal-setting, healthy self-management, and refusal skills.

Community Youth Service (CYS)

Community Youth Service, or service learning, is a method of instruction in which students learn and develop through active participation in service experiences that meet community needs. These experiences are integrated into the student's academic curriculum. At the beginning of each school term, students participate in an orientation that defines the goals of service learning, provides codes of conduct, and prepares them for specific responsibilities and situations (such as what they are likely to see in a nursing home and how to be respectful of elders). During this time, they:

- learn more about the organization to which they are assigned;
- set personal goals for what they want to achieve in the field;
- recognize the importance of their role in the site where they will be working;
- make predictions about what to expect on site; and
- consider and, as necessary, challenge their current attitudes about the population with whom they will be working.

When they complete the orientation lessons, students receive a certificate of completion and an identification badge to wear to their field placements.

Students participate in two field placements per year (one each semester). Over the year, students spend approximately three hours per week for 30 weeks (90 hours per year) in community youth service and in the classroom.

At field placements, students work under the direction of site staff who serve as mentors. Students serve in settings such as nursing homes, senior centers, full-service clinics, and child day care centers. Their responsibilities range from reading to the elderly and assisting during medical examinations to answering phones, scheduling appointments, filing, and helping in recreation and arts and crafts groups. In the classroom, teachers work with students to help them make observations, pose questions, and analyze their experiences.

EVALUATION

Type

Between 1994 and 1996, two large middle schools in Brooklyn, NY were recruited to participate in an evaluation of *RFH-CYS*. One school participated in the program and the other served as the control group school. A total of 68 classrooms participated. In the control school, 33 classrooms (584 students) received the standard New York City health education program, which included mandated lessons on drug use and AIDS. Within the program school, 22 classrooms (222 students) were randomly assigned to receive the core *RFH* curriculum (classroom component only) and 13 classrooms (255 students) received the *CYS* and the *RFH* curriculum (community field placements and classroom component combined).

In 1998, a second study evaluated the sustained effectiveness of *RFH-CYS* on reducing sexual risk-taking. This study included students at the middle school that provided the *RFH-CYS* intervention or

just the classroom curriculum. Researchers compared the self-reported sexual behavior of students who received the full *RFH-CYS* intervention with the self-reported sexual behavior of students who received the *RFH* curriculum only. They then assessed the dosage impacts of the community youth service component by comparing three groups—those who received two years of *CYS*, those who received one year of *CYS* (i.e., one year of *CYS* and one year of curriculum only), and those who received two years of curriculum only.

Components

Instruments and frequency: Self-administered health surveys were conducted at baseline in the fall of 1994 and again in the spring of 1995 (a six-month follow-up). Nearly 92 percent of the 1,157 students who completed the baseline survey completed the spring survey. A two-year follow-up was completed at the end of tenth grade.

Outcomes measured: Youth were asked questions about sexual behavior at baseline and follow-up, including life-time experience with intercourse (yes/no); recent intercourse (i.e., previous three months); and use of condoms during recent intercourse. Responses to these questions were reported separately and combined into an ordinal, four-category Sex Behavior Index, scored as follows: (1) no lifetime experience with intercourse; (2) past but no recent intercourse; (3) recent, always protected intercourse; and (4) recent, unprotected intercourse.

Findings

The percent of students in the *RFH* curriculum-only group and *RFH-CYS* group who were sexually experienced before the start of the intervention was 34 and 28, respectively, compared to 33 percent of the control group.

Sexual experience: The two-year follow-up evaluation found that *RFH-CYS* participants were significantly less likely than the control group to report sexual initiation by the tenth grade. Those who received the full two years (seventh and eighth

grade) of the program (*Community Youth Service* component and the *Reach for Health* curriculum) demonstrated the greatest benefit through the tenth grade. Among those who were virgins in seventh grade, 80 percent of males in the curriculum-only class had initiated sex, compared with 62 percent of those who received one year of *CYS*, and 50 percent of those who received two years of *CYS*. Among females, the figures were 65 percent, 48 percent, and 40 percent, respectively.

Other outcomes: The evaluation showed that the *RFH-CYS* program had a positive impact on the sexual behavior of middle school students at risk for HIV, STDs, and unintended pregnancy. At the initial six-month follow-up, students participating in the *RFH-CYS* program were less likely to report recent intercourse (21 percent) than students in the *RFH* curriculum-only group (29 percent).¹³

Evaluator Viewpoints

The evaluators offer two possible explanations for why the community service component affected the outcomes: 1) The community service experience provides youth with a sense of self-efficacy and empowerment; and 2) community service gives students mentoring and involvement in social organizations and institutions (O'Donnell, Tueve, Doval, Dura, Haber, Atnafou, Johnson, Grant, Murray, Juhn, Tang, & Piessens, 1999).

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RESOURCES

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13 A quasi-experimental evaluation found that *RFH-CYS* students scored lower on the sexual behavior index than those in the control group, with the greatest effect among those who received the most intensive program (*RFH-CYS*). This quasi-experimental evaluation also found that *RFH-CYS* participants were less likely to report recent sexual activity than the control group.



Program Profile Grid

Compendium on Postponing Sexual Involvement

	Profile	Experimental Design	Positive Impact/ Association with Sexual Initiation	Other Positive Impacts/ Associations	Curricula Available
1. Abstinence programs					
Postponing Sexual Involvement (PSI)/ENABL	■	■		No positive impacts	■
Sex Respect, Teen-Aid, Values and Choices	■		■	No positive associations	
2. Sex education programs					
Draw the Line / Respect the Line	■	■	■	Sexual activity	■
Postponing Sexual Involvement (PSI), Human Sexuality, and Health Screening	■	■	■	Contraceptive use	■
Safer Choices	■	■	■	Condom use Contraceptive use	■
Teen Talk	■	■	■	Contraceptive use	■
McMaster Teen Program	■	■		Contraceptive use	■
Healthy for Life	■	■		No positive impacts	
Project SNAPP	■	■		No positive impacts	■
Postponing Sexual Involvement (PSI) and Human Sexuality	■		■	Contraceptive use	
Reducing the Risk	■		■	Contraceptive use	
3. HIV/AIDS and other STD education programs					
Becoming a Responsible Teen	■	■	■	Sexual activity Contraceptive use	■
Making a Difference! An Abstinence-Based Approach to HIV/STDs and Teen Pregnancy Prevention	■	■	■	Condom use	■
Youth AIDS Prevention Project (YAPP)	■	■		Condom use Sexual activity	■
Facts and Feelings	■	■		No positive impacts	
Healthy Oakland Teens	■		■	No positive impacts	
Poder Latino	■		■	Number of partners	
Rochester AIDS Prevention Project (RAPP)	■		■	No positive associations	
4. Youth development programs					
Children's Aid Society-Carrera Program (CAS-Carrera)	■	■	■	Contraceptive use Pregnancy/birth	■
Washington State: Client-Centered Pregnancy Prevention Program	■	■		Sexual activity Contraceptive use	
Seattle Social Development	■		■	Number of partners Condom use Pregnancy/birth	
5. Service learning programs					
Reach for Health Community Youth Service Learning	■	■	■	Sexual activity	■