



SCIENCE AND SUCCESS

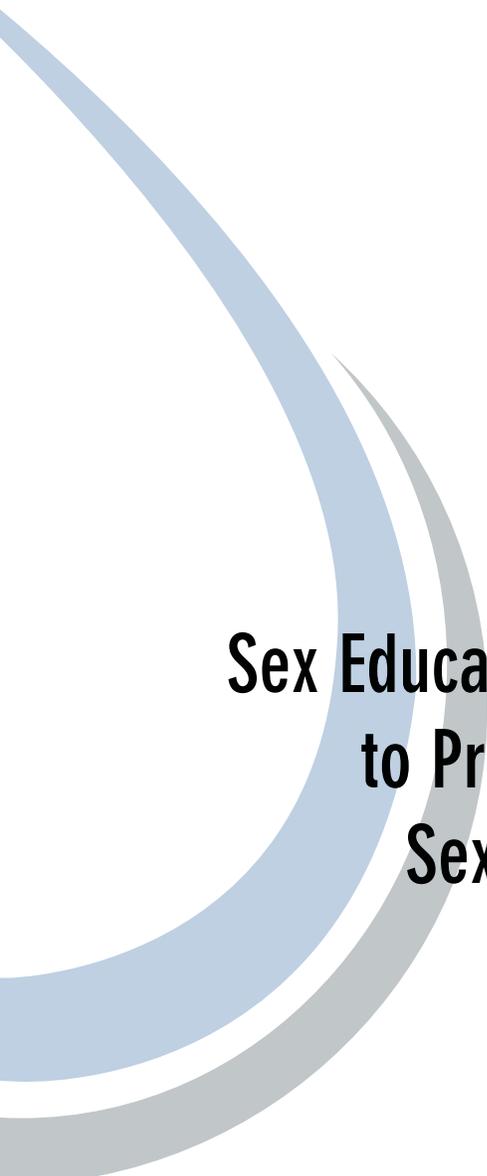
Second Edition

**Sex Education and Other Programs
That Work to Prevent Teen Pregnancy,
HIV & Sexually Transmitted Infections**



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For Youth**
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Second Edition



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**Sex Education and Other Programs that Work
to Prevent Teen Pregnancy, HIV and
Sexually Transmitted Infections**

Advocates for Youth
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Advocates for Youth – Helping young people make safe and responsible decisions about sex

Advocates for Youth is dedicated to creating programs and advocating for policies that help young people make informed and responsible decisions about their reproductive and sexual health. Advocates provides information, training, and strategic assistance to youth-serving organizations, policy makers, youth activists, and the media in the United States and the developing world.

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Table of Contents

Introduction	v
Table A. Effective Programs: Impact on Adolescents’ Risk for Pregnancy, HIV & STI Programs	viii
Table B. Effective Programs: Settings and Populations Served	x
Program Descriptions and Evaluation Results	
Section I. School-Based Programs	3
1. <i>AIDS Prevention for Adolescents in School</i>	4
2. <i>Get Real about AIDS</i>	8
3. <i>Postponing Sexual Involvement (Augmenting a Five-Session Human Sexuality Curriculum)</i>	10
4. <i>Postponing Sexual Involvement, Human Sexuality and Health Screening</i>	14
5. <i>Reach for Health Community Youth Service</i>	18
6. <i>Reducing the Risk</i>	22
7. <i>Safer Choices</i>	26
8. <i>School / Community Program for Sexual Risk Reduction among Teens</i>	30
9. <i>Seattle Social Development Project</i>	34
10. <i>Self Center (School-linked health center)</i>	38
11. <i>Teen Outreach Project (TOP)</i>	42
Section II. Community-Based Programs	47
12. <i>Abecedarian Project</i>	48
13. <i>Adolescents Living Safely</i>	52
14. <i>Be Proud! Be Responsible!</i>	56
15. <i>Becoming a Responsible Teen</i>	60
16. <i>California’s Adolescent Sibling Pregnancy Prevention Program</i>	64
17. <i>Children’s Aid Society – Carrera Program</i>	68
18. <i>Community-Level HIV Prevention for Adolescents in Low-Income Developments</i>	72
19. <i>¡Cuidate!</i>	76
20. <i>Making Proud Choices!</i>	80
21. <i>Poder Latino</i>	84
Section III. Clinic-Based Programs	87
22. <i>HIV Risk Reduction for African American and Latina Teenage Women</i>	88
23. <i>Project SAFE (Sexual Awareness for Everyone)</i>	92
24. <i>SiHLE</i>	98
25. <i>Tailoring Family Planning Services to the Special Needs of Adolescents</i>	102
26. <i>TLC: Together Learning Choices</i>	106
Glossary of Terms	109
References	110

Science and Success, Second Edition: Sex Education and Other Programs that Work to Prevent Teen Pregnancy, HIV & Sexually Transmitted Infections

Introduction

Until recently, teen pregnancy and birth rates had declined steadily in the United States in recent years. Despite these declines, the United States has the highest teen birth rate and one of the highest rates of sexually transmitted infections (STIs) among all industrialized nations. To help young people reduce their risk for pregnancy and STIs, including HIV, program planners should look to the body of available evaluation and research to identify effective programs. To this end, Advocates for Youth established a set of stringent criteria for determining program effectiveness. Staff then conducted an exhaustive literature review. This paper describes only those programs that meet the rigorous criteria listed below.

Criteria for Inclusion—The programs included in this document all had evaluations that:

- Were published in peer-reviewed journals (a proxy for the quality of the evaluation design and analysis);
- Used an experimental or quasi-experimental evaluation design, with treatment and control / comparison conditions;
- Included at least 100 young people in treatment and control / comparison groups.

Further, the evaluations either:

- Continued to collect data from both groups at three months or later after intervention

And

- Demonstrated that the program led to at least two positive behavior changes among program youth, relative to controls:
 - Postponement or delay of sexual initiation;
 - Reduction in the frequency of sexual intercourse;
 - Reduction in the number of sexual partners / increase in monogamy;
 - Increase in the use, or consistency of use, of effective methods of contraception and/or condoms;
 - Reduction in the incidence of unprotected sex.

Or:

- Showed effectiveness in reducing rates of pregnancy, STIs, or HIV in intervention youth, relative to controls.

Program Effects: Twenty-six programs met the criteria described above: these 26 programs strongly affected the behaviors and/or sexual health outcomes of youth exposed to the program.

- **Risk Avoidance Through Abstinence:** 14 programs demonstrated a statistically significant delay in the timing of first sex among program youth, relative to comparison / control youth. One of these programs is an intervention for elementary school children and their parents. The other 13 programs target middle and high school youth and all include information about both abstinence and contraception, among other topics and/or services. (See Table A, Page viii)
- **Risk Reduction for Sexually Active Youth:** Many of the programs also demonstrated reductions in other sexual risk-taking behaviors among participants relative to comparison / control youth. (See Table A, Page viii)
 - 14 programs helped sexually active youth to increase their use of condoms.
 - 9 programs demonstrated success at increasing use of contraception other than condoms.
 - 13 programs showed reductions in the number of sex partners and/or increased monogamy among program participants.
 - 7 programs assisted sexually active youth to reduce the frequency of sexual intercourse.
 - 10 programs helped sexually active youth to reduce the incidence of unprotected sex.
- **Reduced Rates of Teenage Pregnancy or Sexually Transmitted Infections—**Thirteen programs showed statistically significant declines in teen pregnancy, HIV or other STIs. Nine demonstrated a statistically significant impact on teenage pregnancy among program participants and four, a reduced trend in STIs among participants when measured against comparison / control youth. (See Table A, Page viii)
- **Increased Receipt of Health Care or Increased Compliance with Treatment Protocols—**Six programs achieved improvements in youth’s receipt of health care, compliance with treatment protocols, or other actions that improved their health. (See Table A, Page viii)

Program Content: Of the 26 effective programs described here, 23 include information about abstinence *and* contraception within the context of sexual health education. Of the three that do not include sexual health education, two are early childhood interventions and one is a service-learning program.

- Programs’ Setting:** The programs and their evaluations are grouped in this document in three sections.
- Section I describes 11 effective programs designed for and evaluated in school settings, including some that are linked to reproductive health care.
 - Section II describes 10 effective programs implemented by community agencies outside of the school or clinic environment.
 - Section III describes five effective, clinic-based programs.

To view a table summarizing programs’ settings as well as the grade range, locale, and populations served by each, please see Table B, page x. For a more detailed description of each program and its evaluation refer to the relevant sections of this document.

Within the description of each program, Advocates for Youth includes information about the program’s components, the populations with whom the program is most effective, evaluation methodology, and evaluation findings. When applicable, Advocates includes this same information regarding replications. Finally, each program summary includes contact information for learning more about and/or ordering the program.

Note: A number of evaluated programs did not meet all the criteria for inclusion in this document, yet may be worth considering. Programs were not included here if the evaluation:

- Has not been published in a peer-reviewed journal;
- Found or measured only one positive behavior change;
- Did not include a comparison or control group; and/or
- Did not include at least 100 young people in participation and comparison / control groups, combined.

For information about these and other programs, please visit www.advocatesforyouth.org/programsthatwork/.

This paper uses the researchers' own language to identify race/ethnicity. In program summaries, the terms African American, Black, Hispanic, and Latino/a all may occur.

Table A. Effective Programs: Impact on Adolescents' Risk for Pregnancy, HIV & STIs

■ School-Based Programs
 ■ Community-Based Programs
 ■ Clinic-Based Programs

	<i>Delayed Initiation of Sex</i>	<i>Reduced Frequency of Sex</i>	<i>Reduced Number of Sex Partners</i>	<i>Increased Monogamy</i>	<i>Reduced Incidence of Unprotected Sex</i>	<i>Increased Use of Condoms</i>	<i>Increased Use of Contraception</i>	<i>Increased Use of Sexual Health Care/ Treatment Compliance</i>	<i>Reduced Incidence of STIs</i>	<i>Decreased Number or Rate of Teen Pregnancy / Birth</i>
1. AIDS Prevention for Adolescents in School			★	★		★			★	
2. Get Real about AIDS			★			★				
3. Postponing Sexual Involvement (Augmenting a Five-Session Human Sexuality Curriculum)	★	★					★			
4. Postponing Sexual Involvement: Human Sexuality & Health Screening	★						★			
5. Reach for Health Community Youth Service	★	★				★	★			
6. Reducing the Risk	★				★		★			
7. Safer Choices	★				★	★	★	★		
8. School / Community Program for Sexual Risk Reduction among Teens	★					★				★
9. Seattle Social Development Project	★		★			★				★
10. Self Center (School-Linked Reproductive Health Care)	★				★		★	★		★
11. Teen Outreach Program										★
12. Abecedarian Project										★
13. Adolescents Living Safely: AIDS Awareness, Attitudes & Actions		★	★			★				

Note: Blank boxes indicate either 1) that the program did not measure nor aim at this particular outcome/impact or 2) that the program did not achieve a significant positive outcome in regard to the particular behavior or impact.

Table A. Effective Programs: Impact on Adolescents' Risk for Pregnancy, HIV & STIs

■ School-Based Programs
 ■ Community-Based Programs
 ■ Clinic-Based Programs

	<i>Delayed Initiation of Sex</i>	<i>Reduced Frequency of Sex</i>	<i>Reduced Number of Sex Partners</i>	<i>Increased Monogamy</i>	<i>Reduced Incidence of Unprotected Sex</i>	<i>Increased Use of Condoms</i>	<i>Increased Use of Contraception</i>	<i>Increased Use of Sexual Health Care/ Treatment Compliance</i>	<i>Reduced Incidence of STIs</i>	<i>Decreased Number or Rate of Teen Pregnancy / Birth</i>
14. Be Proud! Be Responsible!		★	★			★				
15. Becoming a Responsible Teen	★	★			★	★				
16. California's Adolescent Sibling Pregnancy Prevention Project	★						★			★
17. Children's Aid Society – Carrera Program	★					★	★	★		★
18. Community-level HIV Prevention for Adolescents in Low-Income Developments	★					★				
19. ¡Cuidate!		★	★		★	★				
20. Making Proud Choices!	★	★			★	★				
21. Poder Latino: Community AIDS Prevention Program for Inner-City Latino Youth	★		★							
22. HIV Risk Reduction for African American & Latina Adolescent Women			★		★				★	
23. Project SAFE: Sexual Awareness for Everyone			★	★	★			★	★	
24. SiHLE			★		★	★			★	★
25. Tailoring Family Planning Services to the Special Needs of Adolescents							★	★		★
26. TLC: Together Learning Choices			★		★			★		

Note: Blank boxes indicate either 1) that the program did not measure nor aim at this particular outcome/impact or 2) that the program did not achieve a significant positive outcome in regard to the particular behavior or impact.

Table B. Effective Programs: Settings & Populations Served

School-Based Programs
 Community-Based Programs
 Clinic-Based Programs

	Urban	Suburban	Rural	Elementary School	Middle School	Sr. High	18-24	White	Black	Hispanic/Latino	Asian	Sex
1. AIDS Prevention for Adolescents in School	★					★		★	★	★	★	Both Sexes
2. Get Real about AIDS	★	★	★			★		★		★		Both Sexes
3. Postponing Sexual Involvement (Augmenting a Five-Session Human Sexuality Curriculum)	★				★				★			Both Sexes
4. Postponing Sexual Involvement: Human Sexuality & Health Screening	★				★				★	★		Females
5. Reach for Health Community Youth Service	★				★				★	★		Both Sexes
6. Reducing the Risk	★	★	★			★		★	★	★	★	Both Sexes
7. Safer Choices	★	★				★		★	★	★	★	Both Sexes
8. School / Community Program for Sexual Risk Reduction among Teens			★	★	★	★		★	★			Both Sexes
9. Seattle Social Development Project §	★	★		★				★	★		★	Both Sexes
10. Self Center (School-Linked Reproductive Health Care)	★			★	★	★			★			Females
11. Teen Outreach Program	★	★	★			★		★	★	★		Both Sexes
12. Abecedarian Project	★	★		★					★			Both Sexes
13. Adolescents Living Safely: AIDS Awareness Attitudes & Actions	★			★	★	★	★		★	★		Both Sexes

§ This program is also effective with Native American youth.

Table B. Effective Programs: Settings & Populations Served

School-Based Programs
 Community-Based Programs
 Clinic-Based Programs

	Urban	Suburban	Rural	Elementary School	Middle School	Sr. High	18-24	White	Black	Hispanic/Latino	Asian	Sex
14. Be Proud! Be Responsible!: A Safer Sex Curriculum	★			★	★	★	★		★			Males
15. Becoming a Responsible Teen	★			★		★	★		★			Both Sexes
16. California’s Adolescent Sibling Pregnancy Prevention Project	★	★	★	★	★	★				★		Both Sexes
17. Children’s Aid Society—Carrera Program	★			★	★	★			★	★		Females
18. Community-level HIV Prevention for Adolescents in Low-Income Developments	★			★	★	★			★		★	Both Sexes
19. ¡Cuidate!	★			★		★				★		Both Sexes
20. Making Proud Choices	★			★	★				★			Both Sexes
21. Poder Latino: A Community AIDS Prevention Program for Inner-City Latino Youth	★			★		★	★			★		Both Sexes
22. HIV Risk Reduction for African American and Latina Adolescent Women	★			★	★	★	★		★	★		Females
23. Project Safe – Sexual Awareness for Everyone	★			★		★	★		★	★		Females
24. SiHLE	★	★		★		★	★		★			Females
25. Tailoring Family Planning Services to the Special Needs of Adolescents		★	★	★		★	★	★				Females
26. TLC: Together Learning Choices	★			★	★	★	★		★	★		Both Sexes



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Program Descriptions and Evaluation Results

Section I. School-Based Programs

Over the past 20 years, school-based sex education, including information about *both* abstinence *and* contraception, has been evaluated to ascertain its ability to affect behaviors that have an impact on rates of teenage pregnancy, and more recently, on rates of sexually transmitted infections (STIs), including HIV. Evaluation has shown that some programs achieve significant behavior changes. Evaluation has also shown that sex education that includes information about both abstinence and contraception does *not* increase the frequency nor hasten the onset of sexual intercourse.^{1,2}

This section describes 11 school-based programs with positive evaluations, including nine sex education programs and two youth development programs. Each of these programs fits the stringent criteria for inclusion in this document, as described in the introduction. Each program's evaluation showed either a reduction in pregnancy or STI rates *or* an impact on at least two of the following behaviors:

- Postponement or delay of sexual initiation;
- Reduction in the frequency of sexual intercourse;
- Reduction in the number of sexual partners / increase in monogamy;
- Increase in the use of effective contraception and/or condoms;
- Reduction in the incidence of unprotected sex.

In addition, one program encouraged youth to increase their use of health care – in this case, HIV testing.

Educators interested in effective sex education programs designed for the school setting should explore replicating one of the eleven programs described in this section:

- *AIDS Prevention for Adolescents in School*
- *Get Real About AIDS*
- *Postponing Sexual Involvement (Augmenting a Five-Session Human Sexuality Curriculum)*
- *Postponing Sexual Involvement, Human Sexuality and Health Screening*
- *Reach for Health Community Youth Service*
- *Reducing the Risk*
- *Safer Choices*
- *School / Community Program for Sexual Risk Reduction among Teens*
- *Seattle Social Development Project*
- *Self Center (School-linked health center)*
- *Teen Outreach Program (TOP)*

AIDS Prevention for Adolescents in School

Program Components

- HIV/STI prevention curriculum
- Six sessions, each lasting one hour, delivered on consecutive days
- Experiential activities included to build skills in refusal as well as in risk assessment and risk reduction
- Educator training recommended

For Use With

- High school students
- Urban youth
- Multiethnic populations – black and Hispanic youth and also white and Asian youth

Evaluation Methodology

- A quasi-experimental design, including treatment and comparison conditions, in four high schools in New York, New York
- Urban youth (n=1,201 at baseline; n=867 at follow-up); mean age 15.7
- Pretest and follow-up survey at three months post-intervention

Evaluation Findings

- Increased monogamy
- Reduced number of high risk sexual partners
- Increased condom use
- Long-term: Reduced incidence of STIs

Evaluators' comments: *[This] special, theoretically and empirically based HIV/AIDS preventive curriculum was feasible to implement on a large scale in an inner-city school system, was acceptable to key constituent groups, and was associated with favorable changes in students' involvement in sexual...risk behaviors.*

Source: Walter and Vaughan, 1993

Program Description

This school-based, teacher-delivered curriculum for urban high school students seeks to increase knowledge about HIV and AIDS, build skills to recognize and prevent behaviors that put youth at risk of HIV infection, and encourage youth to make healthy decisions. Based on three theories of health behavior change (the health belief model, social cognitive theory, and a model of social influence), the curriculum emphasizes delaying the initiation of sex and, among youth who choose to have sex, consistently using condoms. The program uses role-playing and other experiential activities to enhance students' confidence and their ability to avoid risky situations. The overall goal of the program is to prevent unprotected sexual intercourse.³

The curriculum comprises six hour-long lessons, implemented on consecutive days.

The first two lessons focus on conveying correct information about HIV transmission and prevention, including:

- Teaching students to accurately appraise their risk of HIV infection;
- Fostering appropriate concern about HIV infection, based on youth's individual risk behaviors; and
- Directing students to HIV prevention resources within the school and community.

The next two lessons focus on:

- Correcting students' misperceptions regarding their peers' HIV risk behaviors;
- Helping students clarify their individual values; and
- Empowering students, via role-playing, with negotiation skills to delay the initiation of sexual intercourse.

The final two lessons focus on:

- Empowering students with skills to negotiate condom use; and
- Giving youth the skills to obtain and use condoms correctly when they become sexually active.

Teachers receive an eight-hour in-service training prior to implementing this curriculum, which is also suitable for use in community-based organizations.³

Evaluation Methodology

The study population consisted of ninth and 11th grade students (n=1,201) enrolled in required general education courses in four academic high schools in New York City. The four schools were selected on the basis of their combined demographic representation of the total population of schools in the borough and were grouped into two pairs of schools. Thirty percent of ninth grade classrooms in the first two schools were randomly selected to receive the HIV prevention curriculum. Twenty percent of ninth grade classes in the second pair of schools were randomly selected as comparison classes and received no formal HIV prevention education. At the same time, 30 percent of 11th grade classrooms in the second pair of schools received the intervention, while 20 percent of 11th grade classes in the first pair of schools acted as comparisons.³

In evaluation, participating (n=667) and comparison (n=534) students were mostly female (59 percent). Youth were mostly black (37 percent) or Hispanic (35 percent); the remaining 28 percent of youth were mostly non-Hispanic white or Asian. The mean age of students was 15.7. Forty-eight percent were in ninth grade and 52 percent, in 11th grade. At baseline, one-third of students reported having had sex in the past three months. Among these sexually experienced students: over half reported inconsistently or never using condoms; one-fifth reported two or more sexual partners; and one in 20 reported having a high risk* sexual partner.³

At baseline, 11th graders reported more risk factors (i.e., inconsistent or no use of condoms, multiple sexual partners, sex with high-risk partners, or diagnosis with an STI) than did ninth graders; males reported more risk factors than females; and blacks reported more risk factors than whites, Asians, or Hispanics. When assessed against the comparison group at baseline, a higher percentage of students in the intervention

* A high risk sexual partner was one who injected, inhaled, or smoked drugs.

Section I. School-Based Programs

group were older, male, black or Hispanic, and held more unfavorable beliefs about the benefits of preventive action. The program's effectiveness was assessed at three-months post-intervention, when 71 percent of intervention youth and 73 percent of comparison youth completed the follow-up assessment.³

Outcomes

- **Knowledge**—Evaluation showed that participants' net change in knowledge regarding HIV transmission was significantly greater than that of comparison students.³
- **Attitudes and perceptions**—Participants' net change in attitudes related to risk reduction and self-efficacy[§] was significantly greater than comparisons' net change in attitudes. Significant, favorable net change was observed in the participants' beliefs about their susceptibility to HIV, attitudes about the benefits of using condoms, and self-efficacy related to condom use.³
- **Behaviors***—
 - **Increased monogamy**—A significantly greater percentage of intervention than comparison youth reported behaviors baseline to follow-up that included initiating or continuing monogamy (approximately 23 and 16 percent, respectively).³
 - **Reduced number of high risk sexual partners**—A significantly smaller percentage of intervention participants than comparison youth reported having high-risk sexual partners between baseline and follow-up (approximately two and eight percent, respectively).³
 - **Increased condom use**—A significantly greater percentage of intervention participants than comparison youth reported consistent condom use from baseline to follow-up (approximately six and three percent, respectively).³
 - **Timing of sexual initiation unaffected**—The program had no significant impact on delaying the initiation of sex.³

Long-Term Impact

- **Reduced incidence of STIs**—The intervention appeared to be associated with a favorable trend in incidence of STIs.³

For More Information or to Order, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>

[§] Self-efficacy means a belief in one's own ability to perform a task or get a desired result.

* Effects did not vary significantly by students' age, race /ethnicity, or gender.

Get Real about AIDS

Program Components

- HIV risk reduction curriculum
- Fifteen sessions, each lasting one class period and delivered over consecutive days
- Experiential activities included to build skills in refusal, communication, and using condoms
- Activities to reach more youth, such as making public service announcements (PSAs) and distributing wallet-size HIV information cards
- Educator training recommended

For Use With

- High school students in grades nine through 12
- Urban, suburban, and rural youth
- Sexually active youth
- Multiethnic populations – white and Hispanic youth

Evaluation Methodology

- Quasi-experimental design, including treatment and comparison conditions, in 17 schools in Colorado, including two alternative schools
- Rural, urban, and suburban youth (n=2,015 at baseline; n=1,816 at two-month follow-up; n=1,477 at six-months follow-up); average age 15.0
- Pretest and two- and six-month follow-up assessment

Evaluation Findings

- Reduced number of sex partners
- Increased condom use

Evaluators' comments: *Skills-based HIV risk reduction programs should be implemented before the onset of sexual activity and continued through high school. They should be taught by trained teachers who are comfortable teaching skills-based HIV curricula and programs and [they] should be taught in their entirety... If anything less than this occurs, the impact of the programs will likely be minimal...*

Source: Main, Iverson, McGloin *et al*, 1994

Program Description

Get Real about AIDS is a skills-based, HIV risk reduction curriculum designed for high school students. It consists of 15 sessions delivered over consecutive days. It utilizes interactive activities, such as discussions, role-playing, simulation, and videos, to give teens the knowledge and skills to reduce their risk of HIV infection. The goal of *Get Real about AIDS* is to reduce sexual risk behaviors by delaying the initiation of sex. The goal for youth who choose to have sex is to encourage them to abstain from drug use, use condoms consistently and correctly, practice monogamy, and get tested for HIV. Class lessons are reinforced through activities implemented by teachers, such as displaying posters and distributing wallet cards with HIV information. This intervention is based on social cognitive theory and the theory of reasoned action.⁴

Evaluation Methodology

Seventeen high schools in six Colorado school districts were assigned to intervention (n=10) or comparison (n=7) groups. Two were alternative schools. One alternative school was included in the intervention group and one in the comparison group. Within each district, intervention and comparison schools were matched as closely as possible with respect to grade, gender, and racial/ethnic distribution. In comparison schools, teachers were encouraged to offer their usual HIV prevention programs. In fact, four comparison schools offered no HIV education. The remaining comparison schools offered minimal HIV education. Teachers for the intervention program received a five-day, 40-hour training, designed to enhance fidelity to the written curriculum. Students completed a baseline survey (n=2,015), a follow-up survey at two months post-intervention (n=1,816), and another at six-months post-intervention (n=1,477).⁴

At baseline, 65 percent of students were white; 21 percent were Hispanic; six percent were black; and three percent were Asian. Forty-nine percent were female. Students' average age was 15; and 60 percent of youth were in ninth grade. At baseline, 44 percent of students indicated that they had had sexual intercourse. Less than two percent said they had injected drugs. Students' self-reports, comparing baseline and follow-up results at two and six months post-intervention, were used to determine the program's effectiveness.⁴

Outcomes

- **Knowledge**—At six-month follow-up, students in intervention classes scored significantly higher on knowledge of HIV and HIV prevention, relative to those in the comparison group.⁴
- **Attitudes and perceptions**—At six-month follow-up, students in intervention classes demonstrated significantly healthier intentions than did youth in comparison classes, especially their intentions to engage in sex less often and to use a condom when they have sexual intercourse.⁴
- **Behaviors**—
 - **Reduced number of sexual partners**—At six-month follow-up, sexually active intervention students reported significantly fewer sex partners within the past two months than did those in comparison schools.⁴
 - **Increased condom use**—At six-month follow-up, sexually active intervention students reported significantly more frequent use of condoms during sexual intercourse in the past two months than did those in comparison schools.⁴
 - **Increased condom purchases**—At six-month follow-up, students in intervention classes were more likely than those in comparison schools to report purchasing a condom.⁴
 - **Timing of sexual initiation unaffected**—The intervention did not significantly postpone the initiation of sexual intercourse among participants, relative to comparison youth, measured at six-month follow-up.⁴
 - **Frequency of sex and use of alcohol and other drugs unaffected**—At six-month follow-up, the intervention had not reduced the frequency of sex among sexually experienced students nor had it reduced their use of alcohol and other drugs before having sex.⁴

For More Information or to Order, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>

Postponing Sexual Involvement (Augmenting a Five-Session Human Sexuality Curriculum)

Program Components

- Peer-led sex education, including information about abstinence and contraception, designed to augment a human sexuality curriculum
- Five, 50-minute sessions, delivered by trained peer educators, and five, 50-minute sessions on reproductive health, led by health professionals
- Referral of sexually active youth for nearby reproductive health care, including contraception

For Use With

- Eighth grade students
- Black youth
- Sexually inexperienced youth
- Youth at high risk*

Evaluation Methodology

- Quasi-experimental design, including treatment and comparison conditions, in inner-city schools in Atlanta, Georgia
- Urban eighth graders (n=536 who completed five surveys)
- Surveys at the beginning, middle, and end of eighth grade (during the program) and at the beginning and end of ninth grade (three months and 12 months after the intervention)

Evaluation Findings

- Delayed initiation of sexual intercourse
- Reduced frequency of sex
- Increased use of contraception

Replication Evaluation Methodology & Findings: Postponing Sexual Involvement (Omitting the Five Session Human Sexuality Curriculum)

- Experimental design, including treatment and control conditions, in 56 middle or junior high schools and 17 community-based agencies throughout California
- Seventh and eighth graders (n=10,600 at baseline; n= 3,843 at three-month follow-up; n=7,340 at 17-month follow-up)
- Surveys at baseline and at three- and 17-month follow-up
- Findings—No significant changes in sexual behavior in participants as compared to controls

* The evaluators defined youth as being at high risk if they were low-income and relied primarily on publicly funded hospitals for their health care.

Evaluators' comments: *Educational programs must be age-specific, promoting attitudes and skills that young adolescents can use until they gain more mature skills in managing their sexuality...[Finally], program staff believes that the student leaders are extremely important, because they make the program more interesting and acceptable to the younger students...help[ing] them seriously consider the messages being given.*

Source: Howard and McCabe, 1990

Program Description

Postponing Sexual Involvement is designed for use in eighth grade to augment course information on human sexuality, including contraceptive information. The five-session *Postponing Sexual Involvement* curriculum (taught by 10th and 11th grade peer educators) involves participants in discussions about social and peer pressures to have sex. It gives youth opportunities to practice skills that help them resist these pressures. The program is based on social inoculation theory.⁶

Evaluation Methodology

The study population in Atlanta, Georgia, comprised 536 low-income, mostly black, eighth graders, followed through ninth grade. The evaluation was designed to determine the impact of augmenting the five-unit human sexuality curriculum with the five sessions of *Postponing Sexual Involvement*. Students in program schools were divided into two groups: those who had initiated sex and those who had not. Both these groups were compared to students who did not participate in the program. At baseline, students in program schools were slightly more likely to report having had sex than were youth in non-program schools (25 and 23 percent, respectively). At baseline, eighth grade males (44 percent) were more likely to report having had sex than were females (nine percent). Of the 536 students who completed all five interviews, 131 (25 percent) reported having had sexual intercourse before the first interview.⁶

Outcomes

- **Knowledge**—At the end of eighth grade, participants had more knowledge of contraception than did non-program youth.⁶
- **Attitudes**—At the end of eighth grade, 95 percent of participants felt that what they had learned would help them to refuse sex.⁶
- **Behaviors**—
 - **Delayed initiation of sexual intercourse**—Participants were significantly more likely than comparison youth to postpone the initiation of sexual intercourse. By the end of eighth grade:
 - Participants were five times less likely than comparison youth to have initiated sex (four and 20 percent, respectively).⁶
 - Participating males were over one third less likely than comparison males to have initiated sex (eight and 29 percent, respectively).⁶
 - Female participants were 15 times less likely than comparison females to have initiated sex (one and 15 percent, respectively).⁶
 - By the end of ninth grade, just 24 percent of participants had initiated sex, compared to 39 percent of non-participants. By gender, the percentages that had initiated sex were: males, 39 percent of participants and 61 percent of comparison youth; females, 17 and 27 percent, respectively.⁶

Section I. School-Based Programs

- **Reduced frequency of sex**—After the program was offered, 55 percent of comparison youth described themselves as having sex “often” or “sometimes,” compared to 39 percent of the treatment group. Students in the treatment group were more likely to report “having tried sex only once or twice” (43 percent versus 28 percent of comparison youth).⁶
- **Increased use of contraception**—Among students who had never had sex at baseline but initiated sex thereafter, nearly half of participants used contraception, compared to one-third of non-participants.⁶

Replication Evaluation Methodology: Postponing Sexual Involvement (Omitting the Five Session Series on Reproductive Health)

In June 1992, the California Office of Family Planning funded a statewide, teen pregnancy prevention initiative entitled *Education Now and Babies Later* (ENABL), that utilized *Postponing Sexual Involvement*, but omitted the five sessions on human sexuality. School-wide and community-based activities, and a statewide media campaign accompanied the intervention. To evaluate the impact of the program, 10,600 youth were assigned to treatment and control conditions—students within selected schools, the entire seventh and eighth grade classes at some schools, and youth recruited at community-based agencies. The final sample included 7,340 youth who completed both the baseline and 17-month follow-up survey; 3,843 of these youth also completed the three-month post-test survey.^{7,8}

ENABL differed in significant ways from the original program, implemented in Atlanta, Georgia:

- **Age of students**—In Georgia, only eighth grade students received the program compared to seventh and eighth graders in California.^{6,7}
- **Five-session unit on reproductive health**—In Georgia, the program was implemented along with a five-session unit that included information about human sexuality, contraception, and making decisions. In California, this five-session unit was omitted.^{6,7}
- **Peer educators and adult leaders**—In Georgia, adults led the five-session reproductive health unit and trained youth led the five-session *Postponing Sexual Involvement* curriculum. In California, youth, accompanied by adults, led only about 10 percent of classroom sessions. Ninety percent of classrooms and all community-based programs were adult-led.^{6,7}
- **Video**—A video was used faithfully in Georgia and was used by only about half of program implementers in California.^{6,7}

Replication Outcomes

At three- and 17-month follow-up surveys, evaluators found no significant differences in sexual behavior between the treatment and control groups. Youth in treatment and control groups were equally likely to have initiated sexual intercourse. Moreover, youth in the treatment and control groups were equally likely to report involvement in a pregnancy or diagnosis with an STI.^{7,8}

For More Information or to Order *Postponing Sexual Involvement* to Augment Human Sexuality Education, Contact

- **Marian Apomah, Coordinator, Jane Fonda Center; Emory University School of Medicine:** Building A Briarcliff Campus, 1256 Briarcliff Road, Atlanta, GA, 30306; Phone, 404.712.4710; Fax, 404.712.8739

Postponing Sexual Involvement, Human Sexuality & Health Screening

Program Components

- Two-year intervention, beginning in the seventh grade
- Three 45-minute classroom sessions on reproductive health, delivered by health professionals to seventh graders and again the next year to eighth graders
- Five 45-minute sessions of *Postponing Sexual Involvement* for seventh graders, led by trained peer educators in 10th and 11th grades
- Eight brown bag sessions for small groups of eighth grade program participants
- Eighth grade assembly
- Contest for eighth grade participants
- Full-time health professional from outside the school, working in each school
- Individual health risk screening of students

For Use With

- Seventh and eighth grade students
- Urban youth at high risk*
- African American and Hispanic youth
- Economically disadvantaged youth

Evaluation Methodology

- Experimental evaluation design, including treatment and control conditions, in six junior high schools in Washington, DC
- Urban seventh graders (n=522 at baseline; n=503 at first follow-up; n=459 at second follow-up; n=422 at final follow-up at the end of eighth grade)
- Surveys at baseline (winter of seventh grade) with follow-up at the end of seventh and beginning of eighth grades and post-intervention follow-up at the end of eighth grade

Evaluation Findings

- Delayed initiation of sexual intercourse – females only
- Increased use of contraception – females only

Evaluators' comments: *The study's positive findings in reproductive health knowledge and contraceptive use suggest that recruiting outside health professionals to provide education and outreach in the school setting may be a useful prevention strategy.*

Source: Aarons, Jenkins, Raine *et al*, 2000

* For this evaluation, high risk was defined by responses to the health assessment survey, including reports of substance use, physical abuse, sexual activity, and/or emotional problems.

Program Description

This pregnancy and HIV/STI prevention intervention combines elements of two evaluated programs: *Postponing Sexual Involvement* and *Self Center*.[§] Here, the *Postponing Sexual Involvement* peer education curriculum is coupled with individual and small group educational methods, adapted from the *Self Center*, bringing outside health professionals to provide education and assistance to students in school settings. The goal of the program is to delay students' initiation of sexual intercourse. This intervention is based on social cognitive theory.⁹

A full-time health professional serves as the project facilitator and leads three 45-minute classroom sessions for seventh grade classes on reproductive health, including information about abstinence and contraception. These classes are followed by five 45-minute classroom sessions of *Postponing Sexual Involvement*, led by trained peer educators. The peer educators are 10th and 11th grade students recruited from nearby high schools. Toward the end of the first year of the program, students complete a health risk assessment questionnaire that addresses self-rated health, risk behavior, school performance, physical fitness, social support, and depression. Using a series of questions adapted from GAPS (Guidelines for Adolescent Preventive Services), health professionals conduct individual interviews with students whose questionnaires indicated substance use, physical abuse, sexual activity, and/or emotional problems.⁹

In the fall of the next year, facilitators present the three reproductive health classes again to all eighth grade students. A series of booster activities reinforces the concepts of abstinence and self-care. Booster activities include: brown bag sessions for small, informal groups of no more than 15 students; an eighth grade assembly; and a contest for eighth grade participants, featuring their poetry, artwork, etc. Eight brown bag sessions are offered—one per week, covering a range of adolescent health issues, such as gang violence, drug use, and teen pregnancy. Facilitators speak privately with each student who attends a brown bag session, asking if the student has any questions about the topic or other health related matters. The assembly is presented by health professionals from affiliated clinics. Eighth grade intervention students may also participate in a contest on a topic related to the intervention. Contestants enter poems, songs, essays, drawings, and T-shirt designs.⁹

Evaluation Methodology

A non-probability sample of six schools was selected from among 18 middle and junior high schools in the District of Columbia. Schools were chosen based on their proximity to one of the three adolescent health clinics affiliated with the study. Two schools were selected because of their high enrollment of Hispanic students. Schools were paired according to seventh grade class size, location, and racial / ethnic distribution. Pairs of schools were then randomly assigned to the intervention or control group.⁹

Of 896 seventh graders enrolled in the six schools at the beginning of the study, 522 received parental consent to participate. Of these, 274 were female (52 percent); 85 percent were African American and about 12 percent were Hispanic. Participants' average age at baseline was 12.8 years. Sixty-three percent of youth participated in the free or reduced price school lunch program. Forty-six percent of students lived with both parents and an equal percentage lived with one parent or with one parent and another adult. The intervention was assessed by comparing the answers of intervention participants and control students at baseline (n=522); at the end of the seventh grade (n=503); at the beginning of eighth grade (n=459); and at the end of eighth grade (n=422).⁹

[§] For more information on these programs, please visit <http://www.advocatesforyouth.org/programsthatwork/toc.htm>

Section I. School-Based Programs

Outcomes

- **Knowledge**—Participating males had significantly more knowledge of birth control methods and services than did control males at all follow-up times. Participating females had significantly more knowledge than control females only at the end of eighth grade.⁹
- **Attitudes and perceptions**—
 - At the end of seventh grade, female program participants were significantly more likely than control females to say that they would not have sex in the next six months (57 and 46 percent, respectively).⁹
 - A significantly higher percentage of participating females than control females reported feeling able to refuse sex.⁹
 - Participating males had significantly more positive beliefs about the benefits of delaying childbearing than did control males.⁹
- **Behaviors**—
 - **Delayed initiation of sexual intercourse**—In post-intervention surveys, intervention group females had higher virginity rates than did control females. The odds ratios were statistically significant at the end of seventh grade (2.09) and at the end of eighth grade (1.9).⁹
 - **Increased use of contraception**—At three measurement intervals, sexually active female participants were 3.5 to five times more likely than control females to report using birth control at most recent sex.⁹
 - **Behavioral findings relating to young men**—The program had no statistically significant impact on sexual behaviors in participating males. Evaluators noted that knowledge gains made by participating males had no impact on their timing of sexual initiation or on their contraceptive use.⁹

For More Information or to Order, Contact

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- For *Postponing Sexual Involvement*—**Marian Apomah, Coordinator, Jane Fonda Center; Emory University School of Medicine:** Building A Briarcliff Campus, 1256 Briarcliff Road, Atlanta, GA, 30306; Phone, 404.712.4710; Fax, 404.712.8739
- For the *Self Center*—**Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>

Reach for Health Community Youth Service

Program Components

- Health promotion curriculum
- Forty lessons per year in each of two years, each lesson lasting one class period
- Three hours per week of community service in assigned placements
- Reflection and activities to help students learn from their community experiences
- Educator training recommended

For Use With

- Seventh and eighth graders / middle school students
- Urban youth
- Black and Hispanic youth
- Economically disadvantaged youth

Evaluation Methodology

- Quasi-experimental and experimental designs, including treatment and comparison groups, in two large, public middle schools in New York, New York
- Urban youth (n=1,157 at baseline; n=1,061 at spring follow-up); average age at baseline, 12.2 for seventh graders and 13.3 for eighth graders
- Pretest and follow-up nine months later; longitudinal follow-up after a further 24 months

Evaluation Findings

- Delayed initiation of sexual intercourse
- Reduced frequency of sex
- Increased condom use
- Increased use of contraception
- Long-term: Sustained reduction in rates of initiation of sexual intercourse
- Long-term: Sustained reduction in frequency of sex

Evaluators' comments: *A service learning intervention that combines community involvement with [sexual] health instruction can have a long-term benefit by reducing sexual risk-taking among urban adolescents.*

Source: O'Donnell, Steuve, O'Donnell *et al*, 2002

Program Description

The *Reach for Health Community Youth Service* (CYS+) program builds upon community-based service learning. It includes a health promotion curriculum (*Reach for Health*) that is based upon *Teenage Health Teaching Modules*. The curriculum includes information regarding human sexuality and is delivered to seventh and eighth graders by educators trained specifically in the curriculum. The health curriculum consists of 40 core lessons that focus on three primary health risks faced by urban youth: 1) drug and alcohol use; 2) violence; and 3) sexual behaviors that may result in pregnancy or infection with HIV and other STIs.¹⁰

Students spend about three hours each week providing service in community settings, such as nursing homes, senior centers, full-service clinics, and child day care centers. Under the guidance of their health teachers as well as staff from placement sites, students perform such tasks as reading to elders, assisting with meals, and helping with exercise, recreation, and arts. Students prepare for their service activities by learning more about the organization to which they are assigned and by setting personal goals for their service learning.¹⁰

The program is based on the health belief model and theories of social learning. As such, the program expects students to learn both by doing and by reflecting on their experiences.¹⁰

Evaluation Methodology

The evaluation was designed to compare the impact of receiving CYS+ (*Reach for Health* curriculum plus service learning) to that of receiving the health curriculum only and of receiving no intervention. The study sites included two large, urban middle schools. One school served as the intervention school and one as the comparison. Classes in the intervention school were randomly assigned to receive:

- Health curriculum only (*Reach for Health*, including information about human sexuality) or
- Health curriculum plus the service-learning component (CYS+).

All students in grades seven and eight at the two school sites were eligible to participate in the evaluation study if they had written parental consent. Ninety-four percent of eligible students participated. Forty-eight percent of the students who completed surveys at both baseline and follow-up were eighth graders.¹⁰

Among participants in the study, 47 percent were male. At baseline, the average age of seventh graders was 12.2. Average age of eighth graders was 13.3. Sixteen percent of students self-identified as Hispanic and 79 percent as non-Hispanic black. Five percent self-identified as ‘other’. Of 1,061 students completing both fall and spring surveys, 255 participated in the CYS+ intervention; 222 participated in the curriculum only intervention; and 584 served as comparisons. At baseline, 68 percent of the sample had never had sex while 23 percent reported having had sex in the three months prior to the survey. Among those reporting recent sex at baseline, 40 percent reported no use or inconsistent use of condoms.¹⁰

Outcomes

- **Behaviors—**
 - **Delayed initiation of sexual intercourse—**Rates of sexual initiation increased by eight percentage points among comparison youth. Rates increased less among curriculum-only and CYS+ youth (three and four percentage points, respectively).¹⁰
 - **Reduced frequency of sex—**Rates of recent sex increased five percentage points among comparison youth and by three percentage points among curriculum-only youth. Rates *decreased* by nearly half a percentage point among CYS+ youth. The difference between comparison and CYS+ youth was statistically significant.¹⁰
 - **Increased condom use—**Comparison students reported an increase of three percentage points in recent sex without a condom. Rates among curriculum-only and CYS+ youth *decreased* by 13 and 16 percentage points, respectively.¹⁰
 - **Increased use of contraception—**Comparison students reported an increase of nine percentage points in recent sex without birth control pills. Rates *decreased* by five and eight percentage points, respectively, among curriculum-only and CYS+ youth.¹⁰

Section I. School-Based Programs

- **Behavioral changes among special education students**—Although the number of special education students in this study was small and findings must be used with caution, this group appeared to experience some of the greatest benefits of the curriculum alone.¹⁰
 - Among special education students, comparison youth reported a 26 percentage point increase in ever having had sex and CYS+ youth reported a four percentage point increase. The rate *decreased* by 13 percentage points among curriculum-only youth.¹⁰
 - Among special education students, comparison and CYS+ youth reported an increase of 31 and three percentage points, respectively, in recent sex. The rate *decreased* 11 percentage points among curriculum-only youth.¹⁰
 - Rates of recent sex without a condom decreased by eight, 100, and 27 percentage points, respectively, among comparison, CYS+, and curriculum-only groups of special education students.¹⁰
 - Special education comparison youth reported an increase of 22 percentage points in recent sex without birth control pills. Rates *decreased* by 50 and 22 percentage points, respectively, among CYS+ and curriculum-only youth.¹⁰

Long-Term Impact

- **Delayed initiation of sexual intercourse**—Follow-up when youth had reached 10th grade found that CYS+ youth were less likely than youth who received the health curriculum only to report having initiated sex or to report recent sex. Among those who had not had sex at baseline, 44 percent of male and 57 percent of female CYS+ youth had not initiated sex by 10th grade, compared to 27 percent of males and 47 percent of females who received the curriculum only.¹¹
- **Reduced frequency of sex**—Similarly, sexually experienced curriculum-only youth were more likely to report recent sex than were sexually experienced CYS+ youth. Among sexually experienced curriculum-only youth, 69 percent of males and 47 percent of females reported recent sex versus 45 percent of sexually experienced CYS+ males and 38 percent of sexually experienced CYS+ females.¹¹

For More Information, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>

Reducing the Risk

Program Components

- Sex education curriculum, including information on abstinence and contraception
- Sixteen sessions, each lasting 45 minutes and expandable to 90 minutes, if desired
- Experiential activities included to build skills in refusal, negotiation, and communication
- Educator training recommended

For Use With

- High school students, especially those in grades nine and 10
- Low risk youth*
- Sexually inexperienced youth
- Multi-ethnic populations – white, Latino, Asian, and black youth
- Urban, suburban, and rural youth

Evaluation Methodology

- Quasi-experimental design, including treatment and comparison conditions, in 13 California high schools
- Urban and rural high school students (n=1,033 at baseline; n=758 at 18 month follow-up); mean age at baseline, 15.3 years
- Pretest and post-test at program exit, with six- and 18-month follow-up

Evaluation Findings

- Increased parent-child communication – especially among Latino youth
- Delayed initiation of sexual intercourse
- Reduced incidence of unprotected sex – among lower risk youth

Replication Evaluation Methodology & Findings

- Quasi-experimental design, including treatment and comparison conditions, in five school districts in Arkansas
- Rural and urban, mostly white youth (n=512 at baseline; n=212 at 18-month follow-up); average age 15 to 16
- Pretest and 18-month follow-up
- Achieved knowledge and behavior changes similar to those of original evaluation and also achieved ***increased use of contraception among sexually active youth***

* Evaluators defined low risk youth as those who were not higher risk. Higher risk students were any who did not live with both parents, whose mother did not finish high school, whose high school grades were mostly Ds or lower, who drank alcohol one or more times during the preceding month, and/or who normally drank five or more drinks on each drinking occasion.

Evaluators' comments: *The curriculum...reduced the chance that a student would initiate intercourse, possibly by as much as 24 percent. Moreover, it did not increase the frequency of intercourse among students who had already initiated intercourse.*

Source: Kirby, Barth, Leland *et al*, 1991

Program Description

Reducing the Risk is a sex education curriculum for grades nine through 12, but especially recommended for grades nine and 10. Lasting 16 class periods and instructor-led, it focuses on the overall behavioral goal of encouraging youth to avoid unprotected sex by:

- Practicing abstinence *or*
- Using contraception.

Nearly every activity supports this goal, by assisting teens to personalize information on the risks of unprotected sex and by teaching them how to avoid unprotected sex. As such, *Reducing the Risk* addresses sexual risk-taking related to both pregnancy and HIV/STI prevention.^{12,13}

Through experiential activities, participants learn to recognize and resist peer pressure, make decisions, and negotiate safer sex behaviors. The curriculum is based on social learning theory, social inoculation (social influence) theory, and cognitive behavioral theory. *Reducing the Risk* also encourages students to talk to their parents about abstinence and birth control.^{12,13}

Evaluation Methodology

Reducing the Risk was implemented in 13 high schools in urban and rural California school districts. Although 1,033 students took the pretest, 758 completed all surveys and were included in the evaluation. The treatment participants (n=429) and comparison youth (n=329) were surveyed at four points—prior to their exposure to the curriculum, immediately afterwards, and at six and 18 months after receiving the curriculum. Students were mostly in ninth (27 percent) or 10th (56 percent) grade and female (53 percent). Youth were mostly white (62 percent) or Latino (20 percent). Nine percent were Asian; two percent were black; and two percent, Native American; five percent checked ‘other’. The average age at baseline was 15.3. Seventy percent of students lived with both their parents; 24 percent lived with a single parent. Seven percent lived in other situations.¹²

At pretest, there were no significant differences between students assigned to participate in *Reducing the Risk* (treatment condition) or to comparison groups that received whatever sexual health education teachers were already providing (comparison condition). In evaluation, 46 classrooms of students taking a mandatory health education class were randomly assigned to either the treatment or the comparison condition. Thus, the evaluation measured the impact of *Reducing the Risk* relative to other sex education curricula.¹²

Outcomes

- **Knowledge**—Participating and comparison students’ knowledge of contraception increased substantially over time. However, knowledge increased significantly more among participants than among comparison youth.¹²
- **Attitudes and perceptions**—The curriculum significantly affected students’ perceptions of the proportion of their peers who had ever had sexual intercourse. The two groups’ perceptions were similar at pretest (all respondents believed that about one-half of their peers had initiated sex). By the six-month post-test, comparison group members believed that more than half of their peers had initiated sex, while no such change was apparent in the perceptions of the treatment group.¹²

Section I. School-Based Programs

- **Behaviors—**
 - **Increased parent-child communication about abstinence and contraception—**Participating students, particularly Latinos, significantly increased their discussions with parents about abstinence and contraception at six-months post-intervention.¹²
 - **Delayed initiation of sexual intercourse—**Among youth who had not initiated sex at the time of receiving *Reducing the Risk*, a significantly smaller percentage (29 percent) had initiated sex 18 months later versus comparison youth (38 percent). This amounted to a 24 percent reduction in the initiation of sex among participants as opposed to that among comparison youth.¹²
 - **Reduced incidence of unprotected sex among lower risk youth—**Among all lower risk youth, regardless of sexual experience at pretest, there were significant differences in unprotected sexual intercourse (as measured by comparing those who delayed initiating sexual intercourse *and* those who had sex but used contraception at most recent sexual intercourse with those who had sex and did not use contraception at most recent intercourse). At pretest, 11 percent of both comparison and treatment groups had engaged in unprotected sexual intercourse. At 18 months follow-up, only 13 percent of the treatment group had engaged in unprotected sex; but 23 percent of the comparison group had done so.¹²

Replication Evaluation Methodology

Reducing the Risk was replicated in Arkansas. Participants and comparison youth (n=212) were white (85 percent) and black (14 percent); 52 percent were female; 49 percent were in grade 10, and 31 percent in grade 11. The comparison group consisted of five school districts matched to five treatment school districts based on geographic location, racial / ethnic distribution, and average per capita income. Comparison classes received a one-semester health education program that included whatever sexuality education was provided in that school district. One classroom in each treatment and comparison school district was randomly selected for testing.¹³

Replication Outcomes

- **Behaviors—**
 - **Increased parent-child communication—***Reducing the Risk* resulted in a significantly higher proportion of participants than comparison youth talking with their parents about birth control and about protection from HIV/STI.¹³
 - **Delayed initiation of sexual intercourse—**Evaluation showed that a significantly smaller percentage of participants than comparison youth who were sexually inexperienced at pretest had initiated sex after 18 months (28 and 43 percent, respectively).¹³
 - **Increased use of contraception—**Significantly more participants than comparison youth who initiated sexual intercourse after baseline also reported using effective methods to prevent pregnancy and HIV/STI (89 and 46 percent, respectively).¹³

For More Information or to Order, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>
- **ETR Associates:** Phone, 1.800.321.4407; Fax, 1.800.435.8433; Web, <http://www.etr.org/>

Safer Choices

Program Components

- HIV/STI and teen pregnancy prevention curriculum
- Twenty sessions, each lasting one class period, divided evenly over two years
- Experiential activities included to build skills in communication, delaying sex, and among sexually active youth, using condoms
- School health protection council
- Peer team or club to host school-wide activities
- Parenting education
- Links to community services
- HIV-positive speakers (optional)
- Educator training recommended

For Use With

- High school students in ninth and 10th grades
- Sexually inexperienced Hispanic youth
- Urban and suburban youth
- Multiethnic populations – including white, Hispanic, African American, and Asian youth
- Sexually experienced youth

Evaluation Methodology

- Experimental design, including treatment and control conditions, in 20 schools in Texas and California
- Urban and suburban youth (n=3,869 at baseline; n=3,058 at final follow-up)
- Pretest and follow-up surveys at seven months (end of first year of intervention), at 19 months (end of second year of the intervention), at 31 months after baseline, and at 12 months after second year of the intervention

Evaluation Findings

- Delayed initiation of sexual intercourse – among Hispanic youth only
- Increased use of effective contraception
- Increased condom use
- Reduced incidence of unprotected sex and reduced number of sexual partners without the use of condoms
- Increased HIV testing – among students who heard an HIV-positive speaker

Evaluators' comments: *First, Safer Choices had positive impacts across a variety of groups, regardless of their gender, ethnicity, or sexual experience before taking Safer Choices... Second, regarding all four outcome measures affected by condom use, Safer Choices appeared to have a greater impact among males than females... Third, Safer Choices appeared to have a greater number of positive behavioral effects on Hispanics... Fourth, Safer Choices appeared to have a greater impact on condom-related measures among higher-risk youth who engaged in unprotected sex before the intervention.*

Source: Kirby, Baumler, Coyle *et al.* 2004

Program Description

Safer Choices is a two-year, school-based, HIV/STI and teen pregnancy prevention program with the primary goal of reducing unprotected sexual intercourse by encouraging abstinence and, among students who report having sex, encouraging condom use. The program seeks to modify:

- HIV/STI knowledge;
- Attitudes and norms about abstinence and condom use as well as barriers to condom use;
- Students' belief in their ability to refuse sex and avoid unprotected sex, use condoms, and communicate with partners about safer sex;
- Perceptions of risk for infection with HIV or other STIs; and
- Communication with parents.¹⁴

Based on social cognitive theory, social influences theory, and models of social change, *Safer Choices* is a high school program that includes:

- 1) A school health protection council;
- 2) The curriculum;
- 3) Peer club or team to sponsor school-wide activities;
- 4) Parenting education; and
- 5) Links between schools and community-based services.
- 6) In some schools, programs also incorporate an HIV-positive speaker.¹⁴

The program is delivered in 20 sequential sessions, divided evenly between ninth and 10th grades. Parents receive a newsletter and participate in some student-parent homework assignments. School-community links center on activities to enhance students' familiarity with and access to support services in the community. Each year of the program, schools implement activities across all five components.^{14,15,16}

Evaluation Methodology

Safer Choices was evaluated in 20 high schools in California and Texas. In each state, five high schools were randomly assigned to receive *Safer Choices*. At the same time, five schools were randomly assigned to receive a standard, knowledge-based, HIV prevention curriculum. A total of 3,869 ninth grade students completed the baseline survey in fall 1993. Twenty-nine percent of participants and control youth were white; 29 percent, Hispanic; 20 percent, African American; and 14 percent, Asian. Participants and control youth were 50 percent male, 50 percent female. The cohort was tracked for 31 months, and follow-up data were collected from 3,058 students, using self-reported surveys administered by trained data collectors.^{14,15,16}

Section I. School-Based Programs

Outcomes

- **Knowledge**—At 31-month follow-up, evaluation found significant improvements in participants' knowledge about HIV and STIs, in comparison to control youth.¹⁴
- **Attitudes and perceptions**—At 31-month follow-up, intervention participants expressed significantly more positive attitudes about condoms and reported greater condom use self-efficacy, fewer barriers to condom use, and higher levels of perceived risk for HIV than did control youth.¹⁴
- **Behaviors**—
 - **Delayed initiation of sexual intercourse**—Early analysis of evaluation data found no significant differences between intervention and control youth in the incidence of sexual initiation, either at three-month post-test or at final follow-up.^{14,15} Yet, when the evaluators later analyzed the data by race/ethnicity, they found that Safer Choices had a significant impact on delaying the initiation of sexual intercourse among Hispanic students (OR=0.57; P=.02).¹⁶ Safer Choices did not significantly delay the onset of sexual intercourse among white, Asian, or black participants, nor did it have a significant effect by gender.¹⁶
 - **Increased use of effective contraception**—Sexually experienced students in intervention schools were 1.76 times more likely to use an effective pregnancy prevention method (birth control pills, birth control pills plus condoms, or condoms alone) than were students in comparison schools.¹⁴
 - **Increased condom use**—Safer Choices had its greatest effect regarding condom use. Sexually experienced intervention students were less likely to report having sex without a condom in the three months prior to follow-up surveys than were sexually experienced control students. Intervention students who reported having sexual intercourse during the prior three months were 1.68 times more likely to have used condoms than were control students.¹⁵ Safer Choices increased condom use at most recent sex more among Hispanics and whites than among blacks (OR=1.65 and 1.57 versus 1.07, respectively).¹⁶
 - **Reduced incidence of unprotected sexual intercourse**—Safer Choices did not have a significant direct effect on incidence of unprotected sex among blacks, Hispanics, or whites. Yet, one or more condom-related measures were significant or close to significance in the desired direction. Among blacks, effects were close to significance for number of partners unprotected (P=.07). Among Hispanics effects were significant or close to significance for number of times of unprotected sex (P=.03), condom use at last sex (P=.04), and use of contraception (P=.06). Among whites effects were significant for number of times of unprotected sex (P=.04) and condom use at last sex (P=.04).¹⁶

In combination, these results suggest that blacks decreased risk by reducing their number of unprotected partners. Hispanics reduced risk by delaying sex, increasing condom use, and increasing contraceptive use, thereby decreasing frequency of unprotected sex. Whites decreased risk by increasing condom use and thereby decreasing frequency of unprotected sex.¹⁶
 - **Reduced number of partners with whom teens had intercourse without a condom**—Intervention students reduced the number of sexual partners with whom they had sexual intercourse without a condom by a ratio of 0.73.¹⁵
 - **Number of sexual partners and use of substances prior to sex unaffected**—Evaluation found no significant differences between intervention and control youth on number of sexual partners reported in the last three months, nor on use of alcohol and other drugs before sexual intercourse in the last three months.^{14,15}

- **Outcomes from integrating HIV-positive speakers into the program**

Separate evaluation found that integrating HIV-positive speakers into the program also produced positive outcomes for inner-city youth. During the two-year intervention in Texas, about 384 high school classrooms (mostly ninth and 10th grade) heard an HIV-positive speaker.¹⁷

- **Attitudes**—Evaluation found that students who heard the speaker’s presentation reported significantly higher perceived risk of HIV infection, compared to control students. Results also suggested that students in the intervention who heard the speaker were more willing to help a person with HIV and were less fearful of hugging an HIV-infected classmate than were those who did not hear the speaker.¹⁷
- **Behaviors**—
 - **HIV testing**—Students in the intervention condition who heard the HIV-positive speaker were more likely to get tested for HIV, compared to students who did not hear the speaker.¹⁷

For More Information or to Order, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>
- **ETR Associates:** Phone, 1.800.321.4407; Fax, 1.800.435.8433; Web, <http://www.etr.org>

School / Community Program for Sexual Risk Reduction among Teens

Program Components

- Sex education integrated into biology, science, social studies, and other courses
- Graduate level sex education courses for teachers
- Training of peer educators
- School-based clinic services, including contraceptive provision as well as referral and transportation to reproductive health care in the community
- Workshops to develop parents' and community leaders' skills as role models
- Media coverage on a spectrum of health topics

For Use With

- Kindergarten through 12th grade
- Multiethnic youth – especially white and black youth
- Rural youth

Evaluation Methodology

- Quasi-experimental design, including treatment and comparison conditions, in rural counties in South Carolina
- Rural young women, ages 14 to 17 (n=4,800)
- Estimated pregnancy data (live births plus fetal deaths plus abortions) for the intervention county and three contiguous counties, compared prior to the program (1981-1982), during the two years of the program (1984-1986), and for two years post-program (1987-1988)

Evaluation Findings

- Long-term: Reduced teen pregnancy rate

Replication Evaluation Methodology & Findings

- Quasi-experimental design, including treatment and comparison conditions
- Rural and urban students (n=1,714) in grades nine through 12 in two counties in Kansas during 1994-1996
- ***Delayed initiation of sexual intercourse***
- ***Increased condom use – males only***

Evaluators' comments: *Our reanalysis strongly suggests that the incidence of adolescent pregnancies... decreased between 1984 and 1986 as a result of the overall efforts of the Denmark program... In 1987-1988, pregnancy rates returned to a higher level, probably because of both the cessation of provision of contraceptive counseling and supplies in school and the loss of momentum of the program.*

Source: Koo, Dunteman, George *et al*, 1994

Program Description

This intensive, school-based intervention has the overall goal of reducing unintended teen pregnancy. Based on social learning and diffusion theories, its behavioral objectives include postponing the initiation of voluntary sexual intercourse among teens and promoting the consistent use of effective contraception, including condoms, among teens that choose to have sex.^{18,19}

As originally implemented in Denmark, South Carolina, the program includes several components. Teachers are offered graduate level courses in sex education. Sex education is then integrated into the curriculum for all grades (kindergarten through 12th grade). The intervention offers mini-courses (five sessions of two hours each) for parents, clergy, and community leaders to improve their skills as role models. Students are trained to serve as peer educators. Local media reinforce messages about avoiding unintended pregnancy and highlight special, community events of the initiative. Finally, a school nurse provides contraceptive counseling, condoms to requesting students, and transportation to a local family planning clinic.¹⁸

Evaluation Methodology

In the mid-1980s, the county was 58 percent black and 42 percent white, lacked public transportation, and was primarily agricultural. Little migration into or out of the county occurred. For evaluation, annual estimated pregnancy rates for the intervention portion of the county (western) were compared with the estimated rates for the non-intervention portion of the county (eastern) and for three other South Carolina counties with socio-demographic indicators similar to the target community. Trends in estimated pregnancy rates were then examined by comparing the average pregnancy rates for the pre-intervention years (1981-1982) with the average rates for the intervention years (1984-1986) and post-intervention years (1987-1988) and comparing changes from pre-intervention to post-intervention between areas.¹⁸ A second evaluation, conducted in the early 1990s, re-examined the impact of the program by comparing pregnancy rates in the intervention community with rates in other portions of the county, and six more counties (contiguous and non-contiguous) that analysis had shown to be most similar to the intervention county.¹⁹

Long-Term Impact

- **Reduced teen pregnancy rate**—Evaluation found that the pregnancy rates in the intervention portion of the county declined significantly as compared to pre-program levels (from 77 pregnancies per 1,000 women ages 14 through 17 in 1981-1982 to 37 per 1,000 women the same age in 1984-1986).^{18,19}
- **Teen pregnancy rates in comparison counties**—When compared to the marked decline that occurred in the intervention portion of the county, no other county's pregnancy rate showed a similar, large decline. Pregnancy rates in the comparison counties ranged from 74 to 90 pregnancies per 1,000 women ages 14 through 17 in 1981-1982 and from 67 to 82 pregnancies per 1,000 women the same age in 1984-1986.¹⁸
- **Return to a higher teen pregnancy rate after some program components were discontinued**—Reanalysis showed that the pregnancy rate returned to a higher level (66 per 1,000 women ages 14 through 17) in 1987-1988, after the discontinuation of some program components, including the contraceptive services provided by the school nurse during the years 1984-1986.¹⁹

Section I. School-Based Programs

Replication Evaluation Methodology

In Kansas in 1994-1996, evaluators measured the effects of a replication of the intervention. Replication occurred in Geary and Franklin Counties as well as in portions of Wichita. Wichita was not included in the evaluation, because teenage sexual behavior data were not available for the city's youth. In Geary County, the population was 66 percent white, 23 percent black, six percent Hispanic, and four percent Asian. In Franklin County, the population was 97 percent white, two percent Hispanic, and one percent black.²⁰

Data for Geary and Franklin Counties on teen pregnancies and births were compared to data for 20 similar Kansas counties in 1991-1993 (pre-intervention years) and 1994-1996 (intervention years). Youth's sexual behaviors in the intervention counties were compared across the years, using self-reported data for high school students in both counties at the inception of the program (1994) to self-reported data for high school students at the end of the program in Geary County (1997) and near the end of the program in Franklin County (1996). For this later data, evaluators used responses to the 1993 Youth Risk Behavior Survey and the Adolescent Curriculum Evaluation, given in 1994, 1996, and 1997.²⁰

Replication Outcomes

- **Behaviors—**
 - **Delayed initiation of sexual intercourse**—In Geary County, students' reports of ever having had sex decreased significantly among males and females in ninth and 10th grades between 1994 and 1997 (down from 51 to 38 percent of females and 63 to 43 percent of males, respectively).²⁰
 - **Increased condom use**—In Franklin County, more male students in the upper grades reported using condoms in 1996 (55 percent) than in 1994 (39 percent).²⁰

For More Information or to Order, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>

Seattle Social Development Project

Program Components

- School-based program providing developmentally appropriate, social competence training for elementary school children
- Educator training in each program year
- Developmentally appropriate, voluntary parenting classes

For Use With

- Elementary school children in grades one through six
- Urban and suburban children
- African American children
- Multiethnic populations – specifically white, African American, Asian American, and Native American youth
- Socio-economically disadvantaged children

Evaluation Methodology

- Quasi-experimental design, including treatment and comparison conditions in Seattle, Washington
- Elementary school children (n=643 at baseline; n=598 at follow-up at age 18; n=349 at age 21)
- Post-test at age 18 and at age 21, including self-reported measures of behavior along with California Achievement Test scores and disciplinary records

Evaluation Findings

- Delayed initiation of sexual intercourse
- Reduced number of sexual partners
- Increased condom use
- Long-term: Reduced rates of teen pregnancy and birth – females only

Evaluators' comments: *A theory-based social development program that promotes academic success, social competence, and bonding to school during the elementary grades can prevent risky sexual practices and adverse health consequences in early adulthood.*

Source: Lonczak, Abbott, Hawkins *et al* 2002

Program Description

This is a multi-year intervention, provided in grades one through six. Components include:

- Five days of in-service training for teachers in each intervention year
- Developmentally appropriate parenting classes offered to parents
- Developmentally adjusted social competence training for children in all six grades.

The intervention is based on the social development model, an integrated theory of human behavior.²¹

Each year, as the children move through the elementary grades, teachers receive in-service training on proactive classroom management, interactive teaching, and cooperative learning. First grade teachers also receive instruction in fostering children’s interpersonal problem solving skills. In addition, when students are in grade six, they receive four hours of training in skills to recognize and resist social influences to engage in problem behaviors. Parents can participate in voluntary, parenting training classes.²¹

Evaluation Methodology

The full intervention group consisted of all students randomly assigned to intervention classrooms in grades one through four in eight elementary schools in Seattle, Washington, and who remained in schools assigned to the intervention in grades five and six. The late intervention group included students who received the intervention in grades five and six only. The comparison group consisted of students in schools assigned to receive no intervention in grades five and six and who were not in intervention classrooms in grades one through four.²¹

Participants in all three groups (n=643) were approximately equal by gender. Fifty-six percent were from poor families, as evidenced by their participation in the national school lunch / breakfast program. Forty-four percent were white; 26 percent, African American; 22 percent, Asian American; and five percent Native American. The intervention was evaluated when youth (n=598) were interviewed at age 18 and again at age 21 (n=349).²¹

Self-reported violent and nonviolent crime, substance use, sexual activity, pregnancy, bonding to school, school achievement, grade repetition, school dropout, and suspension and/or expulsion were assessed. In addition, data came from Youth Risk Behavior survey responses and California Achievement Test scores, as well as from court and school records regarding disciplinary actions and grade point average.²¹

Outcomes

- **Behavior—**
 - **Delayed initiation of sexual intercourse**—Fewer full intervention youth than comparison youth reported having initiated sexual intercourse by age 18 (72 versus 83 percent). By age 21, 10 percent of the full intervention group reported never having had sex, versus six percent of the comparison group.^{21,22}
 - **Reduced number of sexual partners**—Fewer full intervention youth than comparison youth reported having had multiple sexual partners by age 21. Forty-three percent of comparison youth reported six or more partners, versus 32 percent of the full intervention group.²¹
 - **Increased condom use**—At age 21, the difference in condom use frequency between the full intervention group and the comparison group was significantly greater for single African Americans than for other ethnic groups. For example, 50 percent of single African Americans in the full intervention group reported always using a condom, versus 12 percent of single African Americans in the comparison group.²¹
 - **Increased condom use at last intercourse**—At age 21, youth in the full intervention group were significantly more likely to report condom use at last intercourse (60 percent) versus 44 percent in the comparison group. For African Americans, 79 percent of those in the full intervention group reported using a condom during last intercourse, compared to 36 percent of those in the comparison group.²¹

Section I. School-Based Programs

Long-Term Impact

- **Decreased involvement in pregnancy and birth**—At age 21, 56 percent of comparison females reported ever having been pregnant, versus 38 percent of females in the full intervention. By age 21, 40 percent of comparison females had given birth, versus 23 percent of females in the intervention group. The proportion of males involved in a pregnancy or birth did not differ by intervention condition.²¹
- **Increased academic achievement and reduced delinquency and misbehavior**—Relative to comparison youth, full intervention students reported fewer violent acts and delinquent acts, less school misbehavior, better academic achievement, less involvement in heavy drinking, and more commitment to school.^{21,22}
- **Late intervention findings**—Evaluation found that late intervention, in grades five and six only, did not significantly affect health risk behaviors during adolescence and up to age 18.²²

For More Information, Contact

- **Social Development Research Group, University of Washington:** 9725 Third Avenue NE, Suite 401, Seattle, Washington, 98115

(This program is not available for purchase)

Self Center (School-Linked Reproductive Health Services)

Program Components

- School-linked health center (SLHC) near a high school and a junior high school
- Free reproductive and contraceptive health care at the SLHC
- SLHC staff working daily in participating schools
- SLHC staff providing sex education lessons in each homeroom and in the clinic
- Daily hours for individual and group counseling by social worker and/or nurse (SLHC staff) in the school health suite

For Use With

- Junior and senior high school students
- Urban female youth
- Black female youth
- Economically disadvantaged female teens

Evaluation Methodology

- Quasi-experimental design, including treatment and comparison conditions, at four inner-city junior and senior high schools in Baltimore, Maryland
- Urban youth (n=3,646 at baseline; n=2,950 at final follow-up), in grades seven through 12
- Pretest in the fall and follow-up surveys each spring of the next three years

Evaluation Findings

- Delayed initiation of sexual intercourse – females
- Reduced incidence of unprotected sex – females
- Increased use of contraception – females
- Increased receipt of reproductive health care
- Long-term: Reduced teen pregnancy rates

Evaluators' comments: *The rapid effect on clinic use, exerted by an intervention program designed to supplement the basic sex education program already in place, suggests that it was the accessibility of the staff and of the clinic, rather than any "new" information about contraception that encouraged the students to obtain services.*

Source: Zabin, Hirsch, Smith *et al*, 1986

Program Description

As originally implemented in Baltimore, Maryland, the program is an adolescent health clinic offering reproductive health care, including contraceptive counseling and pregnancy testing as well as other medical services and referral. The center is located very near to junior and senior high schools. The program is designed to provide year-round contraceptive and reproductive health services and education to students.²³

In the model program, a team from the clinic, consisting of a nurse practitioner and a social worker, make presentations at least once a year in each homeroom. These discussions deal with services offered in the clinic and with other reproductive and sexual health topics. The clinic staff then spends several hours each day in the school health suite, available to students for counseling or group discussions. In the afternoon, these same health professionals provide services in the reproductive health clinic near the schools. Any student can drop in to talk, to receive counseling and education, or to participate in group discussions. Staff places strong emphasis on developing personal responsibility, setting goals, and communicating with parents. Reproductive health services are available free of charge to students who enroll in the clinic and remain in school. This program is intended to augment school-based sex education.²³

Evaluation Methodology

In evaluation, 1,201 black students in the two participating schools were compared with 1,749 black students with similar backgrounds attending schools not participating in the program. At baseline, 3,646 students completed the survey. The socioeconomic status of participants and comparison youth was similar. Almost 90 percent of youth qualified for the school lunch program. Prior to baseline, almost 92 percent of males and 54 percent of females in ninth grade had initiated sex. About 47 percent of females in seventh and eighth grades had also initiated sex. Among sexually active youth, 56 percent of those in junior high and 73 percent of senior high students reported using contraception at most recent sex. Evaluation relied on self-administered student surveys—a pretest in the fall before the program began and follow-up surveys in the spring of the succeeding three years. At final follow-up, 2,950 students completed the survey.²³

Outcomes

- **Knowledge**—Over the course of the program, the proportion of participating females who correctly identified the fertile period during the menstrual cycle increased significantly from 30 to 44 percent, versus an increase from 31 to 38 percent among comparison females.²³
- **Attitudes and perceptions**—The proportion of participating females who believed that less effective contraceptive methods could prevent pregnancy dropped significantly from 38 to 24 percent, relative to a drop from 47 to 44 percent among comparison females. Among male participants, the proportion believing that less effective methods could prevent pregnancy dropped significantly from 53 to 34 percent, while the proportion of comparison males who believed in less effective methods rose from 50 to 60 percent.²³
- **Behavior**—
 - **Delayed initiation of sexual intercourse**—Significantly more young women who were exposed to the program for three years delayed the initiation of sexual intercourse, by a median of seven months, compared to those not exposed to the program. At age 14, about two-thirds more teenage women had initiated sex before the program started as had done so after three years of exposure to the program. Delay in initiating sex was smaller for young women with only one or two years of exposure to the program.²³
 - **Increased use of reproductive health care prior to initiating sex**—Significantly more program students attended a family planning clinic before initiating sex and during the first months of sexual activity, compared to non-program youth.²³

Section I. School-Based Programs

- **Reduced incidence of unprotected sex**—Use of no contraceptive method at most recent sex was reduced to extremely low levels among young women exposed to the program. Less than 20 percent of these young women failed to use contraception in the months following first coitus. This finding held even among seventh and eighth grade students, whose age is often associated with poor use of contraception. Among comparison young women, up to 49 percent reported no use of contraception.²³
- **Increased use of contraception**—Sexually active youth exposed to the program for two years were significantly more likely to report using birth control pills at most recent sex, compared to non-program youth. Program females' reports of pill use rose from 33 to 50 percent, while reports of pill use by comparison females rose only from 33 to 36 percent.²³

Long-Term Impact

- **Reduced teen pregnancy rate among high school females**—By the program's third and final year, the pregnancy rate among high school students in program schools had dropped by 30 percent, while it had risen by 58 percent among students in non-program schools.²⁴
- **Reduced pregnancy rate among younger females**—Among the youngest students, the pregnancy rate decreased slightly in program schools while it increased dramatically in non-program schools.^{23,24}

For More Information, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>

Section I. School-Based Programs

Teen Outreach Program

Program Components

- School-based teen pregnancy and school dropout prevention program, lasting nine months
- Supervised community volunteer service
- Classroom discussion of service experience
- Classroom discussion and activities related to key social and developmental tasks
- Educator training recommended

For Use With

- High school students
- Youth at high risk*
- Multi-ethnic populations – including white, black, and Hispanic youth
- Adolescent mothers
- Students with academic difficulties, such as previous suspension
- Urban, suburban, and rural youth

Evaluation Methodology

- Quasi-experimental design, including treatment and comparison conditions in 30 schools nationwide in 1986-1987
- Students in grades seven through 12 (n=1,487); average age 15.65
- Pretest and posttest at program end (nine months after pretest)

Evaluation Findings

- Long-term findings: Reduced rates of behavior-related problems (pregnancy, school suspension, class failure, and/or school dropout)

First Replication Evaluation Methodology (1991-1995) & Findings

- Experimental design, including treatment and control conditions at 25 sites nationwide
- High school students (n=695)
- Pretest and posttest at program exit (nine months after pretest)
- Long-term findings: Reduced rate of teen pregnancy

Second Replication Evaluation Methodology (1996-2000) & Findings

- Quasi-experimental design, including treatment and comparison conditions at 60 sites nationwide
- High school students (n=3,277)
- Pretest and posttest at program exit (nine months after pretest)
- Long-term findings: Reduced rate of teen pregnancy

* High risk youth are defined in this program as youth with a history of class failure, school dropout, school suspension, or involvement in pregnancy.

Evaluators' comments: *One of the more striking features of the Teen Outreach Program is that it does not explicitly focus upon the problem behaviors it seeks to prevent but rather seeks to enhance participants' competence in decision making, in interacting with peers and adults, and in recognizing and handling their own emotions. Particularly in the field of teen pregnancy prevention, this focus has important practical implications, because it means the program may be politically acceptable in communities where programs that explicitly focus upon sexual behavior may not be feasible to implement.*

Source: Allen JP, Philliber S, Herrling S, et al. 1997

Evaluators' comments: *The most striking finding was that Teen Outreach appeared most effective as a prevention program with youths who were most at-risk of the specific type of problem behaviors being assessed. The program had the greatest impact in reducing future pregnancies among the group at highest risk of such pregnancies (those who have already given birth to a child). For this group, the likelihood of an additional pregnancy was less than one-fifth as large in the Teen Outreach group as in the comparison group, even after accounting for other background factors that may have also affected pregnancy rates. For academic failure, Teen Outreach demonstrated greater efficacy for youths who had been previously suspended than for those who had not. The program was also found to be more effective for members of racial ethnic minority groups, who were also at greater risk for academic difficulty in this study.*

Source: Allen JP, Philliber S, 2001

Program Description

The *Teen Outreach Program* is a program for high school-aged students, consisting of three interrelated components: supervised community service, classroom discussion of service experiences, and classroom discussion and activities related to key social and developmental tasks of adolescence. In class, participants work in small groups with a facilitator or mentor. The groups discuss:

- Values
- Human growth and development
- Relationships
- Dealing with family stress and
- Issues related to the social and emotional transitions from adolescence to adulthood.

During group discussions, youth develop skills in communication and making decisions.²³

Service learning projects take students into their communities, creating a combination of education and community service that is intended to empower young people to succeed. In keeping with the program's broad developmental focus, the program places little direct emphasis upon its two target behaviors: 1) preventing pregnancy and 2) preventing school dropout. Sex education materials constitute only 10 to 15 percent of the overall curriculum and are incorporated within the general program emphasis on making good decisions about life options. Trained facilitators, usually teachers or guidance counselors, lead the classroom discussions, which also incorporate opportunities for youth to reflect on their volunteer activities in the community and to ratify the meaning of these activities for their own lives. *Teen Outreach Program* is based on the "helper-therapy" principle and the theory of empowerment.^{25,26,27}

Evaluation Methodology

High school students (n=1,487) were randomly assigned to either an intervention or comparison group in each of 30 schools across the United States. Although programs varied widely, all involved both classroom and volunteer activities. Participating and comparison youth were in grades seven through 12, most in grades nine or 10. Over 70 percent of intervention participants were female; 67 percent of comparison youth were female. Among all youth, about one-third were black, about 50 percent were white, less than 10 percent were Hispanic. Program effects were assessed by students' self-reports of pregnancy or pregnancy involvement, course failure, and suspension at baseline and nine months later at program exit.²⁵

Section I. School-Based Programs

At entry, nearly 54 percent of intervention participants and 44 percent of comparison youth reported course failure in the prior year. Rates of suspension in the prior year were also relatively high (22 and 17 percent, respectively). About five percent in each group reported a previous pregnancy. Because each problem behavior had a low base rate, problem behaviors were combined into an overall problem behavior syndrome scale.²⁵

Long-Term Findings

The evaluation did not provide information about specific knowledge, attitudes, or behavior changes. Rather, the evaluation focused on specific health and academic indicators.²⁵

- **Fewer problem behaviors**—At entry, *Teen Outreach* participants reported significantly more problem behaviors (class failure, school suspension, school dropout, and involvement in a pregnancy) than did comparison students. At exit, *Teen Outreach* participants reported significantly fewer problem behaviors in the past nine months, than did comparison youth. Moreover, the program was significantly more effective with high school than with junior high school students.²⁵

First Replication Evaluation Methodology (1991-1995)

Teen Outreach Program was re-evaluated, using data collected during 1991-1995 at 25 sites nationwide. Students (n=695) were randomly assigned to either the *Teen Outreach Program* or the control condition, either at the individual level or at the classroom level. Participants and control youth were in grades nine through 12; 69 percent were in ninth or 10th grade. Average age of intervention participants was 15.8; that of control youth, 15.9. Less than 85 percent were female. About 67 percent were black. Students were surveyed regarding school suspension, course failure, and pregnancy at pretest and nine months later, at the program's end.²⁶

First Replication Outcomes

- **Reduced teen pregnancy rate**—At program exit and after controlling for demographic factors and past problem behaviors, the risk of pregnancy was only 41 percent as large among *Teen Outreach* participants as was the risk among the control group.²⁶
- **Reduced risk of school suspension**—After controlling for demographic variables and prior problem behaviors, risk of school suspension in the *Teen Outreach* group was less than half (42 percent) that of the risk for school suspension for members of the control group.²⁴
- **Reduced risk of course failure**—After controlling for demographic variables and prior problem behaviors, the risk of course failure among *Teen Outreach* participants was 39 percent less than among the control group.²⁶

Second Replication, Evaluation Methodology (1996-2000)

Another evaluation of *Teen Outreach Program* (conducted in 1996-2000) was designed to assess the program's impact on youth at highest risk for teen pregnancy and school dropout. Data were collected from 3,277 participants and comparison youth at 60 sites nationwide. Youth's average age was 15.9 to 16.0; youth were in ninth through 12th grade; and about three-quarters were male. About 45 percent were black. Nearly 37 percent were white. Nearly 13 percent Hispanic. Once again, youth were surveyed at baseline and at program exit, nine months later.²⁷

Second Replication Outcomes

- **Reduced rate of teen pregnancy and involvement in pregnancy**—Students in *Teen Outreach* were at 53 percent the risk of pregnancy as those in the comparison group.²⁷
- **Reduced repeat teen pregnancy outcomes**—Teenage parents who participated in *Teen Outreach Program* were at one fifth the risk of repeat pregnancy (or of fathering another pregnancy) at the end of nine months relative to teen parents in the comparison group.²⁷
- **Reduced risk of course failure**—Participants in *Teen Outreach* were at 60 percent less the risk of course failure as comparison youth.²⁷

- **Reduced risk of suspension from school**—Participants in *Teen Outreach* were at 52 percent less the risk of suspension from school as the comparison youth.²⁷
- **Reaching youth at highest risk**—The program was most effective as a prevention program for youth most at risk of the specific types of problems the intervention sought to prevent (academic problems, school dropout, and teen pregnancy).²⁷

For More Information or to Order, Contact

- **Wyman Teen Outreach Program:** 600 Kiwanis Drive, Eureka, MO 63025; Phone, 636-938-5245; E-mail, teenoutreachprogram@wymancenter.org; Web, <http://www.wymanteens.org>.

Section II. Community-Based Programs

While school districts throughout the United States provide classes of varying quality and type on sex education, many communities also work to provide programs tailored especially for those youth who are out of school or whose needs are not being adequately met in schools. Following are descriptions of 10 effective community-based programs. Each program demonstrated a reduction in pregnancy and/or HIV/STI rates among youth exposed to the program. *Or*, the program showed an impact on at least two of the following behaviors:

- Postponement or delay of sexual initiation;
- Reduction in the frequency of sexual intercourse;
- Reduction in the number of sexual partners / increase in monogamy;
- Increase in the use of contraception and/or condoms;
- Reduction in the incidence of unprotected sex.

Each of these programs fits the stringent criteria for inclusion in this document, as described in the introduction. Program planners interested in implementing an effective, community-based sex education program should explore replicating one of the following 10 programs:

- *Abecedarian Project*
- *Adolescents Living Safely: AIDS Awareness, Attitudes and Actions*
- *Be Proud! Be Responsible!*
- *Becoming a Responsible Teen*
- *California's Adolescent Sibling Pregnancy Prevention Program*
- *Children's Aid Society – Carrera Program*
- *Community-Level HIV Prevention for Adolescents in Low-Income Developments*
- *Cuidate!*
- *Making Proud Choices!*
- *Poder Latino*

Abecedarian Project

Program Components

- Full-time educational intervention in a high quality child care setting, from infancy through age five
- Individualized educational games that focus on social, emotional, and cognitive development, with a particular emphasis on language
- Home School Resource Teacher serving as liaison between school and families in the first three years of attendance at public school
- Individualized curriculum packets, devised to meet each school child's needs, delivered every other week to parents
- Encouragement to parents to work with their school children for 15 minutes each day
- Supportive social services, as needed, for families in intervention and control groups

For Use With

- Healthy infants from families that meet federal poverty guidelines
- African American infants

Evaluation Methodology

- Experimental design, randomized prospective trial, with two possible treatment phases (during preschool and during the primary grades)
- Four study groups: both phases; one phase but not the other; and neither phase
- One hundred nine eligible families enrolled 111 infants (n=57 intervention infants and 54 control infants)
- Family assessment, based on 13 socio-demographic factors, identified families at baseline (infants n=111); cognitive tests at 48 months, to match children within preschool treatment and control groups (n=111); follow-up at age 21 (n=104)

Evaluation Findings

- Long-term: Reduced number of adolescent births
- Long-term: Delayed first births

Evaluators' comments: *The outcomes show that high quality educational childcare can make a dramatic difference in the lives of young African American adults reared in poverty. Individuals assigned to the preschool treatment group had, on average, significantly higher cognitive test scores as young adults than did untreated controls, they earned higher scores on tests of reading and mathematics skills, they attained more years of education, they were more likely to attend a four-year college or university, and they were less likely to become teen parents.*

Source: Campbell, Ramey, Pungello *et al*, 2002

Program Description

The Abecedarian Project is grounded in general systems theory. The program views development as an ongoing process of interactions. These important interactions range from the individual with factors that directly affect survival to interactions with caregivers, social systems in home, school, and neighborhood, and societal forces.²⁸

Service delivery begins in infancy with child-centered, full-day, year-round childcare. Free transportation to and from childcare is also available. The curriculum includes “educational games” that emphasize and develop skills in cognition, language, and adaptive behaviors. Activities are individualized to meet the needs of each child and become more skills-based and group oriented for older pre-school children.²⁸

In the school-age phase, the goal is to involve parents in their children’s learning. Families are assigned a Home School Resource Teacher (HSRT) who serves as a liaison between the school and home for the first three years that the child attends public school. To involve parents in their children’s education, homeroom teachers develop individualized curriculum packets, based on the needs of each treatment child. The HSRT delivers the curriculum packets to parents every two weeks and encourages parents to use the packets with their children for 15 minutes each day. HSRTs seek continuous feedback from the parents regarding the curriculum packets and activities in the packets, and classroom teachers and parents also meet regularly.²⁸

Evaluation Methodology

Starting with pilot research in 1971 and enrollment of subjects in 1972, the Abecedarian Project identified multi-risk families and their children in North Carolina. Selection criteria were based on 13 socio-demographic factors that were weighted to create a High Risk Index. In addition, infants had to appear free of biological conditions associated with mental, sensory, and motor disabilities.²⁸

Four cohorts of families were enrolled between 1972 and 1977. During admission, recruited pairs of families were matched on High Risk Index scores and then assigned to preschool treatment or control status on the basis of a table of random numbers. A total of 109 eligible families, to whom 111 infants were born, accepted their random assignments and agreed to take part. Characteristics of families in the two groups were similar: all families met poverty guidelines. Most mothers were young (mean, 20 years of age), had less than a high school education (mean, 10 years of education), were unmarried, lived in multigenerational households, and reported no earned income. One-third of participants were on public assistance. Although ethnicity was not a factor for participation, 98 percent of participants were African American.²⁸

Families in both treatment and control conditions received supportive social services, as needed. Control infants also received nutritional supplements through age 15 months. Although control group children did not receive systematic educational intervention, a number of them attended other childcare centers. Thus, early treatment and control comparisons were between children who received the Abecedarian educational childcare and others cared for at home or in a variety of childcare settings.²⁸

In the next phase of the evaluation, pairs of children were again matched within treatment and control groups and randomly assigned to school-age treatment and control conditions. This created four treatment conditions: children with preschool plus school age treatment; children with preschool treatment only; children with school age treatment only; control children (no intervention treatment).²⁸

Section II. Community-Based Programs

At age 21, 105 of the original 111 infants were living and eligible for follow-up. Of the 105 eligible individuals, 104 took part in the follow-up survey. Pre-school attrition meant that only 96 individuals were given school-age group assignments, and 95 were available for the four-group comparison. Data were collected from the young adults using standardized tests, questionnaires, and an interview, typically during a single session.²⁸

Long-Term Impact

- **Reduced numbers of teenage births**—Fifty-six percent of preschool treatment young women reported no birth by age 21, compared to 43 percent of control females (n=51). Of the 44 percent of treatment females who reported a birth prior to age 21 (n=11), only three had a second child and none had three children. By comparison, 57 percent of control females had one child by age 21 (n=16); six had two children; and two had three children. In other words, almost twice as many children were born to females in the preschool control group as in the preschool treatment group.²⁸
- **Delayed first birth**—Among young women in the preschool treatment group, only 26 percent reported being age 19 or younger at the birth of her first child, compared with 45 percent of control young women. Among those who did have children by age 21, preschool treatment was associated with a significant delay in the average age at first birth. The mean age at the birth of a first child was 19.1 years for the preschool treatment group, compared with 17.7 years for the preschool control group.²⁸
- **Reduced rates of marijuana use**—At 21 years, 18 youth in the preschool treatment condition reported using marijuana in the previous month, significantly less than the 39 control youth.²⁸
- **Increased skilled employment and/or higher education**—Youth in the preschool treatment group were equally as likely as control youth to be employed but significantly more likely to be engaged in skilled jobs (47 versus 27 percent, respectively). Almost three times as many individuals in the preschool treatment group as in the control group had attended or were attending a four-year college (36 versus 14 percent, respectively).²⁸

Note: There were no significant findings related to the school-age only treatment group.

For More Information, Contact

- **FPG Child Development Institute, University of North Carolina at Chapel Hill:** www.fpg.unc.edu/~abc/

This program is not available for purchase.

Adolescents Living Safely: AIDS Awareness, Attitudes, and Actions

Program Components

- HIV prevention program to augment services traditionally available at shelters for runaway youth
- 30 discussion sessions in small groups, each session lasting one-and-a-half to two hours
- Experiential activities included to build cognitive and coping skills
- Health care, including mental health services
- Intensive training of shelter staff

For Use With

- Runaway youth
- Youth living in city shelters
- Black and Hispanic youth
- Urban youth, ages 11 to 18

Evaluation Methodology

- Quasi-experimental design, involving a non-randomized control trial at two residential shelters in New York, New York
- Urban, runaway youth (n=197 at baseline; n=145 at follow-up) living in shelters; average age, 15.5
- Baseline interview and reassessment at three and six months after baseline
- Participants received monetary incentives for participating in interviews

Evaluation Findings

- Reduced frequency of sex
- Reduced number of sexual partners
- Increased condom use

Evaluators' comments: *This study... has potentially important implications. First, adolescents do change their behaviors in response to an intensive intervention... Second, these data indicate that programs designed to prevent HIV infection need to provide more than the two or three sessions currently being implemented with adolescents.*

Source: Rotheram-Borus, Koopman, Haignere *et al*, 1991

Program Description

The goal of this intervention is to promote behavior change to prevent HIV infection among runaway youth, ages 11 to 18. The program is designed to augment traditional services at shelters for runaway youth. An important program component is the small group discussion, designed to:

- Develop and improve interpersonal skills
- Promote behavioral self-management
- Increase HIV prevention knowledge and
- Provide peer support for HIV preventive behaviors.

Because the program targets runaways, a group experiencing many stressful life events and highly unstable living arrangements, the program also provides access to ongoing physical and mental health care. Shelter staff receives intensive training in intervention techniques.²⁹

The intervention is based on successful programs targeting: 1) other adolescent health risk behaviors, such as cigarette smoking; and 2) HIV prevention among adult men who have sex with men. Such programs have demonstrated the effectiveness of skills training, behavioral self-management, and group and social support from peers.²⁹

Evaluation Methodology

Runaways were recruited at two residential shelters in New York City. Seventy-nine runaways at the non-intervention site and 118 runaways at the intervention site volunteered to participate. Ninety-eight percent of runaways were from the New York metropolitan area. Each youth was paid \$2.00 for participating in the initial assessment and \$20 to \$25 for each follow-up interview. During six months, 145 runaways received a three- and/or a six-month follow-up interview (78 intervention participants and 67 non-intervention youth). About 64 percent of participants were female; nearly 36 percent were male. Sixty-three percent were black; 22 percent were Hispanic. Eight percent were white while the rest identified as ‘other’. The youth ranged in age from 11 to 18 years (median age, 15.5). Most runaways identified as heterosexual (93 percent of males, 99 percent of females).²⁹

Runaways at the two sites did not differ significantly in age, gender, race / ethnicity, or length of time since living at home. The duration of runaways’ stay in shelters varied because of the availability of permanent housing in group homes and independent living situations. However, the median length of stay was 37 days (range from one to 214 days). At baseline, 19 percent of comparison youth and 25 percent of intervention youth reported high risk patterns of behavior, including multiple sex partners. At baseline, 24 percent of sexually experienced runaways reported consistent condom use in the past three months. The only sexual behavior that was significantly related to age at baseline was abstinence. Forty-eight percent of younger runaways (ages 11 to 15) and 23 percent of older runaways (ages 16 to 18) had been sexually abstinent in the preceding three months.²⁹

Outcomes

- **Behaviors—**
 - **Reduced frequency of sex and number of sexual partners—**The number of sessions attended by participants was significantly associated with a reduction in high-risk pattern (frequency of sex and number of sexual partners in the past three months) reported by participants at three- and six-month follow-up. For sexually experienced runaways, attending 15 or more sessions was significantly associated with a reduction in sexual risk behaviors from 20 percent at baseline to zero percent at three- and six-month follow-up.²⁹

Receiving no intervention (comparison youth) or as many as two sessions of the intervention was associated with an increase in such behaviors (from 17 to 20 percent) at six-month follow-up. Receiving three to 14 sessions was associated with a decrease in such behaviors (from 30 to 18 and from 28 to 10 percent, respectively) at six-months follow-up.²⁹
 - **Increased condom use—**Runaways who received 15 or more of the sessions were significantly more likely to be consistent condom users at three- and six-month follow-up, compared to youth who received fewer sessions or to non-intervention youth. Among sexually experienced runaways who received 15 or more sessions, consistent condom use rose from 33 percent at baseline to 57 percent at three-month and 63 percent at six-month follow-up.²⁹

Section II. Community-Based Programs

Among sexually experienced runaways who attended fewer than 15 sessions, condom use increased and decreased in a discouraging pattern, with reported condom use at six-months follow-up only slightly higher than at baseline for those attending 10 to 14 sessions, and less than baseline for those attending fewer than 10 sessions and for comparison youth.²⁹

- **Timing of sexual initiation unaffected**—Receiving the intervention had no significant effect on reported abstinence, neither hastening nor delaying the onset of sexual activity. Findings showed that abstinence at baseline was associated with abstinence at three- and six-month follow-up.²⁹

For More Information or to Order, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>

Be Proud! Be Responsible! A Safer Sex Curriculum

Program Components

- HIV prevention curriculum
- Six sessions, each lasting 50 minutes
- Experiential activities included to build skills in negotiation, refusal, and condom use
- Educator training recommended

For Use With

- Black male youth
- Urban 13- to 18-year-old youth

Evaluation Methodology

- Experimental design, including treatment and control conditions, in Philadelphia, Pennsylvania
- Urban male teens (n=157 at baseline; n=150 at follow-up), recruited from multiple venues; mean age 14.6
- Participants received a monetary incentive for participating
- Pretest, post-test, and three-month follow-up survey

Evaluation Findings

- Reduced frequency of sex
- Reduced number of sexual partners
- Reduced number of female partners also involved with other men
- Increased condom use
- Reduced incidence of heterosexual anal intercourse

Evaluators' comments: *These results provide scant support for the view that matching the gender of facilitator and intervention participants enhances the effectiveness of AIDS interventions with black male adolescents.*

Source: Jemmott, Jemmott, Fong, 1992

Program Description

This five-hour, six-part intervention aims to prevent HIV and other STIs among adolescents ages 13 to 18 by improving their HIV-related knowledge, attitudes, and behaviors. As such, it also addresses sexual behaviors related to pregnancy prevention, including avoiding risky situations, using condoms, and being monogamous. Through discussion in small groups of six to 12, participants learn the risks of injected drug use and unsafe sexual behaviors. Videos, role-playing, games, and exercises reinforce learning and encourage participation. Educators may receive advance training in the delivery of this program. This intervention is based on three theories of health behavior change: social cognitive theory, the theory of reasoned action, and the theory of planned behavior.^{29,30}

The program is culturally appropriate for inner city, black youth. It builds on young people's sense of community and addresses the importance of protecting one's community, as well as oneself, against the potentially negative consequences of unprotected sexual intercourse. The curriculum addresses youth's self-esteem and self-respect by emphasizing that it feels good to make proud and responsible safer sex decisions.^{30,31}

Evaluation Methodology

Participants (n=157) were black males from Philadelphia, mean age 14.6 years, recruited from among: 1) the outpatients at a medical clinic (44 percent); 2) students in a 10th, 11th, and 12th grade assembly in a local high school (32 percent); and 3) youth attending a local YMCA (24 percent). Most participants (97 percent) were enrolled in school. Few participants reported sharing needles (five percent), having receptive anal intercourse (two percent), or sexual relationships exclusively with males (two percent) or with both males and females (one percent).³⁰

Youth's chief HIV risk was from heterosexual activities. Thirty-four percent reported more than one coital partner in the past three months and about 21 percent of those youth reported never using condoms. Only 30 percent of currently sexually active youth reported always using condoms. Risk behaviors did not vary significantly by recruitment venue. The young men completed a 90-minute pre-intervention questionnaire and were randomly assigned to the HIV/AIDS risk reduction intervention or to a comparison intervention focused on career opportunities. Afterwards, youth completed a post-test and another follow-up survey three months later. Participants were paid \$15 for participating in the intervention and \$25 for participating in the follow-up survey.³⁰

Outcomes

- **Knowledge**—Intervention participants had greater knowledge of HIV and AIDS immediately after the intervention and at three-month follow-up than did control youth.²⁹
- **Attitudes and perceptions**—At post-test and at three-month follow-up, intervention participants reported weaker intentions to engage in unsafe sexual behavior in the next three months than did control youth.³⁰
- **Behaviors**—
 - **Reduced frequency of sex**—Intervention participants were significantly less likely than control youth to report coitus in the three months following the intervention. They also reported coitus on fewer days than did control youth (2.15 versus 5.48 days).³⁰
 - **Reduced number of sexual partners**—Intervention participants reported significantly fewer sexual partners than did control youth in the three months following the intervention (0.85 versus 1.79).³⁰
 - **Reduced number of female partners also involved with other men**—Intervention participants reported significantly fewer female partners also involved with other men than did control youth in the three months following the intervention (0.19 versus 1.75).³⁰
 - **Increased use of condoms**—Intervention participants reported significantly fewer acts of sexual intercourse without the use of condoms than did control youth in the three months following the intervention. (In evaluation, where five = always using condoms, participants' reports equaled 4.35; controls' equaled 3.50.)³⁰
 - **Reduced incidence of heterosexual anal intercourse**—Intervention participants reported less heterosexual anal intercourse than control youth in the three months following the intervention (0.07 versus 0.27).³⁰

Section II. Community-Based Programs

Findings related to the gender of the facilitator—

- **Attitudes**—Intervention participants who received the intervention with a trained female facilitator had less favorable attitudes towards unsafe sexual behavior compared to participants who received the intervention with a trained male facilitator and to youth in the non-program, control group.³⁰
- **Behaviors**—Receiving the intervention with a female facilitator was more effective in reducing HIV risk behaviors among the young men than was receiving it with a male facilitator. Specifically, significant differences emerged in frequency of coitus or coitus without a condom and on young men's reports of heterosexual anal intercourse in the previous three months.³⁰

For More Information or to Order, Contact

- **Select Media:** Phone, 1.800.707.6334; Web, <http://www.selectmedia.org>
- For educator training, contact **ETR Associates:** Phone, 1.800.321.4407; Fax, 1.800.435.8433; Web, <http://www.etr.org>

Becoming a Responsible Teen

Program Components

- HIV prevention, sex education, and skills training curriculum
- Eight sessions, each lasting one-and-a-half to two hours, delivered once per week
- Experiential activities included to build skills in assertion, refusal, problem solving, risk recognition, and condom use
- Designed for single-sex groups of youth, each group facilitated by both a female and a male leader

For Use With

- African American youth
- Youth ages 14 to 18
- Urban youth

Evaluation Methodology

- Experimental design, including treatment and control conditions, in Jackson, Mississippi
- Urban, African American youth (n=246 at baseline; n=225 at 12-month follow-up); mean age 15.3
- Pretest and follow-up assessment at two-, six-, and 12-months post intervention

Evaluation Findings

- Delayed initiation of sexual intercourse
- Reduced frequency of sex
- Reduced incidence of unprotected sex
- Increased condom use – among males
- Cessation of unprotected anal intercourse

Evaluators' comments: *Clearly, the more explicit intervention did not promote increased sexual activity or accelerate onset of sexual activity. Instead, the skills training intervention appears to have both lowered rates of sexual activity among youth who were sexually active and deterred the onset of sexual activity for youth who were still abstinent at program entry.*

Source: St. Lawrence, Brasfield, Jefferson *et al*, 1995

Program Description

Becoming a Responsible Teen is a culturally appropriate, HIV prevention curriculum designed especially for African American adolescents in non-school, community-based settings. Consisting of eight, one-and-a-half to two-hour sessions, *Becoming a Responsible Teen* combines HIV/AIDS education with behavioral skills training, including assertion, refusal, self-management, problem solving, risk recognition, and correct condom use. Teens learn to clarify their own values about sexual decisions and to practice skills to reduce sexual risk-taking.³²

Based on social learning and self-efficacy theories, the curriculum's primary goal is promoting safer sexual behaviors. It encourages teens to share what they have learned and to practice their skills outside

the group setting. It utilizes interactive sessions, including games, role-playing, discussions, and videos. The intervention is intended for use with gender-specific groups, each facilitated by both a male and a female group leader.³¹

Evaluation Methodology

In the evaluation study, 246 African American youth, attending a comprehensive health center serving predominantly low-income minority clients were randomly assigned, over a three-year period, to either a two-hour HIV prevention educational program that met one time or to a more sexually explicit, eight-week, education plus behavioral skills training intervention (*Becoming a Responsible Teen*). Participants met in gender-specific groups of five to 15 youth.³²

Participants' mean age was 15.3 years. Their average school grade was 9.7. Seventy-two percent were female. Participants reported an average of nearly three lifetime sex partners and two sex partners within the previous 12 months. Average age at first sexual intercourse was 12.9 years. Thirteen percent of participants already had one or more children. Nearly nine percent of participants had been diagnosed with an STI within two months of their recruitment into the study. Over the course of three years, 14 repetitions of the interventions (eight sessions each) and control intervention (one session each) were conducted. Evaluation relied on pretest and follow-up assessments at two, six, and 12 months after the intervention.³²

Outcomes

- **Knowledge**—Although intervention and control groups received the same basic informational component, the intervention group scored higher on HIV/AIDS knowledge at both post-test and 12-month follow-up.³²
- **Skills**—Youth from the intervention group demonstrated more skill than did control youth in handling pressure to engage in unprotected sex and in providing information to peers. Specifically, intervention youth more often acknowledged a partner's wishes, provided a rationale for refusal, stressed the need for safety, and recommended safer alternatives than did those in the control group.³²
- **Behavior**—
 - **Delayed initiation of sexual intercourse**—Of the youth who were sexually abstinent prior to the intervention, less than 12 percent of youth who received the education plus skills training had initiated sex one year later, compared to 31 percent of control youth.³²
 - **Reduced frequency of sex**—Among sexually experienced youth, 42 percent of control youth reported continuing to have sex across the following year, compared to 27 percent of skills trained youth.³²
 - **Reduced incidence of unprotected sex**— Compared to intervention males, females in the intervention group reported a relatively low level of unprotected sexual intercourse at pre-intervention. Unprotected sexual intercourse remained at stable, low levels for intervention females across the following year, whereas levels of unprotected sexual intercourse rose among control females and were significantly higher among control females at 12-month follow-up.³²

Sexually experienced intervention males significantly reduced the frequency of unprotected vaginal intercourse from pre-intervention at all subsequent assessments. Sexually experienced intervention males were also less likely to report engaging in unprotected anal intercourse than were control males – a change that continued at six- and 12-months follow-up.³²

Section II. Community-Based Programs

- **Increased condom use**—Sexually experienced intervention males were significantly more likely to report using condoms at post-intervention than were control youth (82.9 percent of the time versus 61 percent of the time, respectively). Their reports of condom use remained higher throughout the following year, while control youth reported less condom use.³²
- **Cessation of unprotected anal intercourse**—Both male and female intervention youth reported entirely discontinuing unprotected anal intercourse.³²

For More Information or to Order, Contact

- **ETR Associates:** Phone, 1.800.321.4407; Fax, 1.800.435.8433; Web, <http://www.etr.org/>

California's Adolescent Sibling Pregnancy Prevention Program

Program Components

- Individualized case management
- Some combination of services, possibly including academic guidance, access to health care, sports, and activities to improve social skills and competency
- Sex education, including information on abstinence and contraception

For Use With

- Siblings of pregnant and parenting teens
- Youth at high risk* ages 11 through 17
- Hispanic youth
- Economically disadvantaged youth

Evaluation Methodology

- Quasi-experimental design, including treatment and comparison conditions, at 16 Adolescent Sibling Pregnancy Prevention Program (ASPPP) social service agencies across the state of California
- Urban and rural, mostly Hispanic youth, ages 11 through 17.25
- Siblings of pregnant or parenting adolescents; average age 13.5; (n=1,594 at baseline; n=1,271 at nine-month post-test; n=1,466 at final evaluation)
- Pretest and follow-up after nine months

Evaluation Findings

- Delayed initiation of sexual intercourse – females only
- Increased use of contraception – males only
- Long-term: Reduced teen pregnancy rate

Evaluators' comments: *California's special sibling program was effective at reducing the pregnancy rate and several pregnancy-related behaviors in this high risk sample... Although such specially targeted programs are certainly a challenge to implement, they hold great promise for significantly lowering rates of teenage pregnancy and births.*

Source: East, Kiernan, Chavez, 2003

Program Description

In 1996, California created the *Adolescent Sibling Pregnancy Prevention Program (ASPPP)*. It operates at 44 nonprofit social service agencies, community-based organizations, school districts, and county health departments throughout California. ASPPP targets the brothers and sisters of pregnant and parenting teens. Each program site provides some combination of services that may include individual case management, academic guidance, decision-making skills, job placement, self-esteem enhancement, and sex education, including information on abstinence and contraception. The overall goal of the program is to reduce rates of teen pregnancy among young adolescents.³³

* In this program, high risk teens are defined as those who have pregnant or parenting siblings that also participate in California's CAL-LEARN program.

No specific program services are required of providers other than to have at least one face-to-face contact with each client each month. Program personnel are expected to implement a variety of services to prevent pregnancy and related risk behaviors. Sample programs offer:

- Counseling about abstinence and contraception;
- Access to quality reproductive health care;
- Transportation to health care facilities;
- Incentives to avoid sexual risk-taking;
- Tutoring and assistance with library research;
- Advocacy at expulsion and court hearings;
- Assistance in meeting with teachers, school administrators, and counselors;
- Help in acquiring medical insurance;
- Access to sports;
- Education about media messages regarding body image and sexual behavior;
- Field trips; and
- Group activities to improve social skills and social competency.³³

Evaluation Methodology

When evaluation began, approximately 3,300 youth were participating in ASPPP at all the program sites across the state. Sixteen sites were selected to participate in the evaluation. The 16 sites served 1,011 youth (31 percent) participating in ASPPP. Sites were chosen on the basis of being representative geographically, by area of residence (urban or rural), and by clients' age and race / ethnicity. Overall, clients at chosen sites were more likely than all ASPPP clients to be urban, Hispanic, and younger than average. However, the gender breakdown was identical to overall gender representation in ASPPP (60 percent female, 40 percent male).³³

Evaluation involved a group of current participants and a comparison group of youth not in ASPPP. Overall, 1,594 youth were enrolled in the evaluation: 1,011 ASPPP participants and 583 comparison youth. All youth (participants and comparisons) were ages 11 to 17.25, had never been pregnant or caused a pregnancy, and were the biological teenage sibling (half or full sibling) of another teen who was pregnant or parenting and also enrolled in California's Adolescent Family Life Program. Adolescents in the participating group also had to be currently enrolled in ASPPP. Comparison youth were usually identified through providers' existing caseloads, since providers were normally familiar with the families and siblings of teens already enrolled in their programs. Neither comparison youth nor their siblings could ever have been enrolled in ASPPP. Post-test data were collected nine months after enrollment from 1,271 adolescents. In final evaluation, the information from 731 program participants was compared with a weighted sample of 735 comparison youth.³³

Characteristics of program and comparison groups included the following: program youth were 77 percent Hispanic, 10 percent black, eight percent white, and five percent 'other.' Comparison youth were 71 percent Hispanic, 11 percent black, nine percent white, and nine percent 'other.' The groups differed in that 59 percent of ASPPP youth spoke Spanish at home while 46 percent of comparison youth did so. Sixty-six percent of participating youth had a family that currently received public assistance, while 75 percent of comparison youth did so. Youth were mostly urban (71 percent of participants and 70

Section II. Community-Based Programs

percent of comparison youth) or rural (17 and 18 percent, respectively). Slightly over half lived in two-parent households. Mean age of all youth participating in the evaluation was 13.5 for participants, 13.6 for comparison youth; mean grade in school was eighth. The program was assessed using data from an enrollment survey and a post-test at nine months after enrollment.³³

Outcomes

- **Attitudes and perceptions**—At nine months post-test, participating females scored significantly higher than comparison females on intentions to practice abstinence.³³
- **Behaviors**—
 - **Delayed initiation of sexual intercourse**—A significantly lower proportion of participating females than comparison females initiated sex over the nine-month study period (seven and 16 percent, respectively).³²
 - **Increased use of contraception**—Sexually active participating males were significantly more likely than sexually active comparison males to have increased their consistency of contraceptive use. Over time, comparison males were more likely to decrease their consistent use of contraceptives.³³
 - **Decreased rate of truancy**—Program females' frequency of truancy (staying out of school without permission) declined from pretest to post-test while it rose among comparison females.³³

Long-Term Impact

- **Decreased teen pregnancy rate**—A significantly lower proportion of participating than comparison females experienced pregnancy during the nine-month study period. The reduced pregnancy rate among participating females versus comparison females (four and seven percent, respectively) translates into a 43 percent reduction in teenage pregnancy.³³

For More Information, Contact

- **California Department of Health Services, Maternal & Child Health Branch:** 714 P Street, Room 750, Sacramento, CA 95814; Phone: 1.866. 241.0395

This program is not available for purchase. Please note the California Department of Public Health no longer implements this program. With the permission of the California Department of Public Health, an overview of the program and a sample scope of work is available on the Advocates for Youth website at: http://www.advocatesforyouth.org/programsthatwork/aflp_background.pdf and http://www.advocatesforyouth.org/programsthatwork/aflp_scopeofwork.pdf.

Children's Aid Society – Carrera Program

Program Components

- Youth development program
- Daily after-school activities, lasting three to five hours, and including
 - Job club and career exploration
 - Academic tutoring and assistance
 - Comprehensive sex education, including information about abstinence and contraception
 - Arts workshops
 - Individual sports activities
- Summer program, offering enrichment activities, employment assistance, and tutoring
- Comprehensive health care, including primary care and also mental, dental, and reproductive health care
- Family involvement
- Activities to develop interpersonal skills
- Access to social services

For Use With

- Youth at risk*
- Socio-economically disadvantaged youth
- Urban youth, ages 13 through 15
- Black and Hispanic young women

Evaluation Methodology

- Experimental design, including treatment and control conditions, in seven community-based service agencies in New York City
- Urban youth ages 13 through 15 (n=600 at baseline; n=484 at three-year follow-up)
- Pre-test and annual follow-up in each of three succeeding years

Evaluation Findings

- Delayed initiation of sexual intercourse – females only
- Increased resistance to sexual pressure – females only
- Increased use of dual methods of contraception (condoms plus another effective method of contraception) – females only
- Increased use of reproductive health care
- Long-term: Reduced rates of teen pregnancy

* In this program, youth at risk are defined as 'disadvantaged, inner-city populations' who are not already enrolled in an after-school program AND were neither pregnant nor parenting at enrollment.

Evaluators' comments: *Our study clearly documents the effectiveness among females of a comprehensive program to prevent adolescent pregnancy. Although our analyses cannot determine the relative importance of the model's components, the philosophy, structure, and specific staff roles may each contribute to the successful long-term relationships that a large proportion of the young people formed with the program and its staff.*

Source: Philliber, Williams, Herrling *et al*, 2002

Program Description

This is a sex education, pregnancy prevention, and youth development program for urban youth considered to be at high risk. The comprehensive intervention rests on six principles:

- 1) Staff treats young participants as if they were family.
- 2) Staff views each young person as pure potential.
- 3) The program offers holistic services and comprehensive, integrated case management.
- 4) The program includes continuous, long-term contact with participants.
- 5) The program involves parents and family.
- 6) All services are available under one roof in a non-punitive, gentle, generous, and forgiving environment.³⁴

The program has five activity components and two service components. Activity components include:

- 1) Job Club, offering stipends, help with bank accounts, employment experience, and career awareness
- 2) Academics, including individual assessment, tutoring, PSAT and SAT preparation, and assistance with applying to colleges
- 3) Comprehensive family life and sex education
- 4) Arts, including weekly music, dance, writing, and drama workshops
- 5) Individual sports activities that emphasize impulse control, such as squash, golf, and swimming.³⁴

The two service components are 1) mental health care and 2) medical care, including primary care, reproductive health care, and dental care.³⁴

Throughout the school year, program activities run all five weekdays, generally for about three hours per day. Participants are divided into groups which rotate among the five major activities offered. One group might receive sex education on Tuesdays and Thursdays, for example, while another group attends Job Club. On Monday and Wednesday, the groups would be reversed. Most students participate in sports and creative activities at least once a week and receive academic assistance daily. Over the summer, program activities include maintenance meetings to reinforce youth's sex education and academic skills. Also during the summer, participants receive job assistance and participate in social events, recreational activities, and cultural trips.³⁴

Evaluation Methodology

A multi-site evaluation compared youth in the Children's Aid Society Carrera Program to youth recruited at six other service agencies throughout New York City. Youth were randomly assigned to the Children's Aid Society Carrera Program or to an alternative program. At most sites, the alternative was the agency's

Section II. Community-Based Programs

regular program for youth. Young people (n=600 at baseline; n=484 at three-year follow-up) ranged in age from 13 to 15. Fifty percent of participants were male. Among females, 54 percent of participants were black and 46 percent were Hispanic. Among males, 47 percent were black and 53 percent were Hispanic. The majority of the youth (55 percent) lived in single parent homes. The program's effectiveness was assessed using annual surveys.³⁴

Outcomes

- **Knowledge**—Overall after three years, program participants' knowledge of sexual health issues rose by 22 percent, compared to 11 percent among control youth, a statistically significant difference. Male participants showed higher sexual health knowledge gains than did control males (18 and six percent, respectively).³⁴
- **Behavior**—
 - **Delayed initiation of sexual intercourse**—Program young women were significantly *less* likely than control females to have ever had sex; 46 percent had *never* had sex versus 34 percent of control females.³⁴
 - **Increased resistance to sexual pressure**—Females in the program were significantly *more* likely than those in the control group to say they had successfully resisted pressure to have sex (75 percent and 36 percent, respectively).³⁴
 - **Increased use of contraception and condoms together**—Sexually experienced program females were significantly *more* likely than control females to have used a condom along with another effective method of contraception (i.e., the pill, injection, or implant) at most recent sex (36 percent and 20 percent, respectively).³⁴
 - **Increased receipt of good health care**—Both male and female participants had significantly increased odds of receiving good health care. Among sexually experienced males, the proportion who had made a visit for reproductive health care was significantly higher among program than control males (74 and 46 percent, respectively).³⁴
 - **Other findings related to young men**—Overall, program males showed no positive, significant behavioral differences relative to control males, except increased receipt of good health care. Program males were less likely than control males to report use of dual methods of contraception at most recent sex.³⁴

Researchers speculated that the program effects may have been weaker among young men, in part because:

- 1) Young men who had initiated sex prior to enrolling in the program were the least likely to attend regularly.
- 2) Strong social norms among these inner-city young males might stress the benefits of early sexual intercourse and parenthood.
- 3) Program males may not have repeated the program's messages to their non-enrolled female partners.³⁴

The data suggest that reaching young men sooner may strengthen outcomes, and, as a result, the Children's Aid Society has begun implementing programs with 11- and 12-year-old males.³⁴

Long-Term Impact

- **Reduced rates of teen pregnancy**—At third-year follow-up, females in the Children’s Aid Society—Carrera Program had significantly lower rates of pregnancy and births than did control females.³⁴

For More Information, Contact

- **Children’s Aid Society:** 105 East 22nd Street, New York, NY 10010; Phone, 212.949.4800; Web, <http://www.childrensaidsociety.org>

Community Level HIV Prevention Intervention for Adolescents in Low-Income Developments

Program Components

- Gender and age specific workshops -- two three-hour workshops held one week apart delivered in low-income housing projects
- Workshop activities to build skills in refusal, negotiation, communication, self-management, and condom use
- Multi-component community intervention following the workshop sessions and including:
 - Follow-up sessions for workshop participants
 - Teen Health Project Leadership Council (THPLC)
 - THPLC-sponsored activities, including media projects, social events, talent shows, musical performances, and festivals
 - HIV/AIDS workshops for parents
- Facilitator training recommended

For Use With

- Low-income adolescents living in housing projects
- Urban youth
- Multi-ethnic youth – mostly African American and Asian youth as well as immigrants from East Africa

Evaluation Methodology

- Quasi-experimental evaluation with two treatment and one comparison condition, conducted in 15 low-income housing developments in Milwaukee and Racine, Wisconsin; Roanoke, Virginia; and Seattle and Tacoma, Washington
- Resident adolescents (n=1,172), ages 12 through 17, recruited and divided into three groups: community-level intervention plus workshop (community + workshop treatment condition); workshop-only (workshop treatment condition); and control condition
- Baseline assessment (n=1,172); follow-up at three months post workshop (n=644); and at 18 months after baseline (n=580)
- Participants received monetary incentives for completed surveys

Evaluation Findings

- Delayed initiation of sexual intercourse
- Increased use of condoms

Evaluators' comments: *This multi-component, community intervention implemented with adolescents living in low-income housing developments shows considerable promise and produced substantial effects, both in relation to age of sexual debut over time and also in condom use for sexually active adolescents... Among sexually active adolescents in the sample, the skills training component presented in both treatment conditions increased use of condoms at last intercourse. The effect of the community-level intervention was apparent in the continued abstinence rates of teens not sexually active at baseline*

Sikkema, Anderson, Kelly *et al*, 2005

Program Description

This intervention relies on two major components:

- 1) Workshops to build skills in:
 - Avoiding unwanted sexual activity;
 - Sexual negotiation;
 - Condom use; and
 - Risk behavior self-management
- 2) Community-level intervention designed to encourage social networks to reinforce sex and drug risk avoidance among the community's youth.³⁵

The workshop component is modeled on three evaluated and highly effective programs: 1) *Be Proud! Be Responsible!*; 2) *Adolescents Living Safely: AIDS Awareness, Attitudes, and Actions*; and 3) *Becoming a Responsible Teen* (all described elsewhere in this document). The workshop is led by two trained facilitators in two three-hour sessions, held one week apart. Tailored workshops are conducted separately for males and females who are also divided by age: 12 through 14 years and 15 through 17 years. Content of the workshops focuses on HIV and STI education and on interactive work to build skills in avoiding and/or refusing unwanted sex, negotiating and communicating regarding safer sex or abstinence, and using condoms. The activities are integrated with themes of personal pride and self-respect, especially as they relate to risk avoidance.³⁵

The community-level intervention follows the workshop. This portion of the program includes four distinct components:

- 1) *Follow-up sessions for adolescents who attended the workshop*—Adolescents are invited to attend two follow-up sessions with peers from their social networks in the housing development. One follow-up session occurs prior to the implementation of the THPLC. The second follow-up session involves peer leaders and the THPLC.³⁵
- 2) *Selection of peer leaders*—Adolescents nominate up to three peers from their workshop as someone they like and trust. Facilitators also nominate three teens from each workshop group, based on their leadership, communication skills, HIV knowledge, and ability to motivate others. Opinion leaders, selected on the basis of these nominations and also for representation in terms of gender, age, and ethnicity, become members of the Teen Health Project Leadership Council (THPLC).³⁵
- 3) *THPLC-sponsored activities*—The THPLC meets weekly for six months, developing and implementing four program activities for adolescents who participated in the workshops and two community-wide events. Such activities include the second follow-up session; posters and other small media actions; as well as talent shows, musical performances, social events, and festivals.³⁵
- 4) *HIV/AIDS workshops for parents*—Parents of participating adolescents are offered a 90-minute workshop focused on information about HIV and AIDS and on strategies to discuss sexual health related issues with their children.³⁵

Section II. Community-Based Programs

Evaluation Methodology

The research was conducted between 1998 and 2000 in 15 low-income housing developments in Milwaukee and Racine, Wisconsin; Roanoke, Virginia; and Seattle and Tacoma, Washington. Sets of three housing developments, generally similar in size and the ethnicity of residents, were identified in each of the five urban areas. Each development had between 56 and 350 adolescents ages 12 through 17. All developments were located in urban areas with high rates of poverty, STIs, and drug use. In each city, chosen developments were at least two miles apart to minimize the possibility of cross-contamination of the sites.³⁵

All households containing adolescents of the right age were informed about the study. Researchers contacted parents or guardians and obtained their consent for the teens to participate; adolescents also gave their own assent to participate. Each adolescent received \$20 upon completion of the assessment form. A total of 1,172 adolescents (85 percent of all adolescents living in the housing developments) completed surveys at baseline.³⁵

Of the 27 percent of adolescents in the study cohort who reported having had sex at baseline (n=316), 76 percent reported using a condom at most recent sex. In the year preceding baseline, sexually active adolescents reported an average of nearly four sex partners. Eleven percent (n=37) reported anal intercourse while nine percent (n=25) reported having had an STI. Less than one percent (0.5; n=5) reported using injection drugs in the three months prior to baseline.³⁵

Following baseline data collection, each development was randomly assigned to the community + workshop intervention, the workshop-only intervention, or the education-only control condition. As such, 392 adolescents were assigned to the community + workshop treatment condition; 428 to the workshop-only condition; and 352 to the control education condition. At the final follow-up, participants included: n=237 in the community + workshop condition; n=274 in the workshop-only condition; and n=252 control youth.³⁵

Adolescents who reported never having had sex at baseline (n=841; 73 percent) and who completed follow-up surveys constituted the cohort for evaluating intervention effects on continued abstinence. Of these, 644 (77 percent) returned for short-term follow-up; 580 (69 percent) returned for long-term follow-up. Of all adolescents completing the short-term follow-up, 276 (32 percent) were sexually active; of all adolescents completing the long-term follow-up 282 (37 percent) were sexually active. These sexually active youth comprised the study cohort used to analyze intervention effects on condom use.³⁵

Among the 1,172 adolescents who completed baseline surveys, 587 were male; 585 were female. Participants averaged 14.5 years and were mostly African American (51 percent), followed by Asian (20 percent), East African (10 percent), white (10 percent), Hispanic (three percent), and Native American (one percent). Five percent of participants indicated 'other' race/ethnicity. Compared to adolescents who did not complete short-term follow-up, the study cohort was slightly younger (by about one-half year) and lived longer in the developments. They were also less likely than those that didn't complete the short-term follow-up to have had sexual intercourse (25 versus 34 percent); to have had an STI (one versus six percent); or to have used tobacco (12 versus 23 percent), alcohol (14 versus 23 percent), or illegal drugs (10 versus 17 percent). These differences were also evident in the long-term follow-up. Attrition did not differ across study condition.³⁵

Outcomes

- **Behaviors—**
 - **Delayed initiation of sexual intercourse**—The community intervention component, in particular, showed evidence of continued abstinence at 18-month follow-up among adolescents who reported never engaging in sex at baseline. At long-term follow-up, adolescents in the community + workshop intervention (85 percent) were more likely to have remained abstinent than were control adolescents (76 percent; $P < 0.05$). In addition, the difference in abstinence rates between the community + workshop and the workshop-only participants approached significance ($P = 0.07$).³⁵

At long term follow-up, continued sexual abstinence was more likely among females (OR, 1.92; 95 % CI, 1.18, 3.10) and more likely among adolescents who did not have a boyfriend/girlfriend in the year preceding baseline (OR, 5.31; 95% CI, 2.69, 10.49).³⁵
 - **Increased condom use**—At short-term follow-up, condom use rates were higher among adolescents in the community + workshop group and in the workshop-only group than among control youth ($P = 0.01$). At long-term follow-up, condom use rates were higher among community + workshop youth (77 percent) and workshop-only youth (76 percent) when compared to control youth (62 percent).³⁵

For More Information, Contact

- Kathleen Sikkema, PhD, Department of Epidemiology and Public Health, Yale University, 60 College Street, P.O. Box 208034, New Haven CT 06520-8034; e-mail: Kathleen.sikkema@yale.edu

This program is not available for purchase.

¡Cuidate!

Program Components

- HIV-prevention curriculum tailored for use with Latino adolescents
- Six one-hour modules, delivered over consecutive days
- Interactive format, including small group discussion, videos, interactive exercises, and activities to build skills
- Salient aspects of Latino culture, including the importance of family and gender role expectations
- Spanish and English versions, led by trained, bilingual facilitators
- Facilitator training highly recommended

For Use With

- Latino youth
- Latino youth whose first language is Spanish
- Urban, high school youth

Evaluation Methodology

- Randomized, controlled trial, including treatment and control youth from three high schools and community-based organizations in Philadelphia, Pennsylvania
- Self-identified Latino youth (n=553 at baseline), divided into treatment (n=263) and control conditions (n=287); pre- and post-tests; and follow-up at three, six, and 12 months post-intervention

Evaluation Findings

- Reduced frequency of sexual intercourse
- Reduced number of sexual partners
- Reduced incidence of unprotected sex
- Increased condom use

Evaluators' comments: *The intervention was tailored to Latino culture, and we found that it had greater effects among Spanish-speaking adolescents on several outcomes. Specifically, Spanish speakers who participated in the HIV risk-reduction intervention had a higher proportion of days of protected sex and more frequent condom use at last sexual intercourse. To our knowledge, this is the first randomized controlled trial to demonstrate greater efficacy of a culturally tailored HIV risk-reduction intervention [in the United States] among people who speak the language of the culture for which it was tailored.*

Villarruel, Jemmott, Jemmott, 2007

Program Description

The HIV risk reduction curriculum was culturally adapted from *Be Proud! Be Responsible! Cuidate* is based on social cognitive theory and the theories of reasoned action and planned behavior. It incorporates salient aspects of Latino culture, especially the importance of family and gender role expectations. It presents both abstinence and condom use as culturally acceptable and effective ways to prevent STIs, including HIV.³⁶

The program's goals are to: 1) influence attitudes, beliefs, and self-efficacy regarding HIV risk reduction, especially abstinence and condom use; 2) highlight cultural values that support safer sex practices; 3) reframe cultural values that might be perceived as barriers to safer sex; and 4) emphasize how cultural values influence attitudes and beliefs in ways that affect sexual risk behaviors.^{36,37}

Youth receive the course over six consecutive days. Bilingual facilitators receive a two-and-a-half day training to deliver *Cuidate!*, which is available in both Spanish and English. Each version is designed to meet the sexual health education needs of Latino adolescents in their own preferred language.^{36,37}

Evaluation Methodology

Latino students were recruited from three northeast Philadelphia high schools and nearby community-based organizations. The study was implemented with a pilot group and five subsequent groups enrolled sequentially across five months. Youth were eligible to participate if they self-identified as Latino, were aged 13 through 18, and provided assent and parental consent. Non-Latino students (n=102) were eligible to participate in the intervention, but were excluded from analysis. Students were asked their language preference and subsequently received the English (n=412) or Spanish (n=141) versions.³⁶

Data analysis included 553 self-identified Latinos; 249 were male and 304 were female. Most (85 percent) were Puerto Rican; nearly half (n=249; 45 percent) were born outside the mainland United States. Participants' mean age was 14.9 years; 87 percent of students were in grades eight through 11. At baseline, 235 (43 percent) reported ever having had sex; the mean age for first sexual intercourse among sexually experienced students was 13.5 years.³⁶

Adolescents were randomly assigned to the HIV risk-reduction intervention (participants; n=263) or to a health promotion intervention (controls; n=287) that focused on behaviors related to significant health issues for Latinos, such as cigarette, alcohol, and other drug use. Both the HIV-risk reduction and the health promotion intervention presented Latino cultural values as an important context for positive health behaviors.³⁶

At baseline, there was no significant difference between participants and controls in gender, primary language, or age; nor were there significant differences between the two groups in sexual behavior. Forty-one percent of participants (n=106) and 45 percent of controls (n=127) had ever had sex at baseline. Twenty-six percent of participants reported sex in the previous three months as did 29 percent of controls. Twenty-one percent of participants reported having had two or more sexual partners, as did 16 percent of control youth. For condom use, 47 percent of sexually experienced participants and 35 percent of sexually experienced controls reported consistent condom use; 58 and 50 percent, respectively, reported condom use at most recent sex.³⁶

Evaluators found little attrition and no significant differences in attrition between participating and control youth. The only significant predictor of attrition was primary language. English speakers were 90 percent more likely to attend a follow-up session than were Spanish speakers (OR=1.91).³⁶

Section II. Community-Based Programs

Outcomes

- **Behaviors—**
 - **Reduced frequency of sexual intercourse**—Across follow-up, participants were less likely than control youth to report sexual intercourse in the previous three months (OR, 0.66; 95% CI, 0.46-0.96). Specifically, 26 percent, 28 percent, and 36 percent of participants reported sexual intercourse in the previous three months at three-, six-, and 12- month follow-up, respectively. By comparison, control youth's percentages were 31, 33, and 41 percent at each follow-up, respectively.³⁶
 - **Reduced number of sex partners**—Assessed across 12 months, sexually active adolescents in the HIV risk reduction intervention were less likely than sexually active control youth to report having multiple partners (OR, 0.53; 95% percent CI, 0.31-0.90). Although participants were more likely than controls to report having had multiple partners in the previous three months at baseline and at three-month follow-up, this pattern reversed at six- and 12-month follow-up. At baseline, 10 percent of sexually experienced participants reported multiple partners, compared to eight percent of sexually experienced control youth. By six-month follow-up, nine percent of sexually experienced participants and 10 percent of sexually experienced control youth reported having had multiple partners in the previous three months. At 12-month follow-up, the percentages were 11 percent and 17 percent, respectively, for sexually experienced participants and control youth.³⁶
 - **Increased use of condoms**—Participants were more likely than control youth to report using condoms consistently (OR, 1.91; 95% CI, 1.24-2.93). At baseline and at all follow-up points, significantly larger percentages of sexually active participants than sexually active control youth reported consistent condom use. Forty-seven percent of sexually active participants reported consistent condom use at baseline; 43 percent at three months, 45 percent at six months, and 42 percent at 12-month follow-up. By comparison, 35 percent of sexually experienced participants reported consistent use at baseline; 26 percent at three months; 29 percent at six months; and 28 percent at 12 months. In addition, *Spanish speaking participants had a higher proportion of protected sex than did Spanish speaking control youth (mean difference, 0.35; p<.01)*.³⁶
 - **Condom use at most recent sex**—Among Spanish speaking adolescents, the odds of having used a condom at most recent sexual intercourse were nearly five times higher for participants than for control youth (OR, 4.73; 95% CI, 1.72-12.97).³⁶
 - **Reduced incidence of unprotected sex**—Sexually active participants were less likely than sexually active control youth to report days of unprotected sex (relative risk, 0.47; 95% CI, 0.26-0.84). Among adolescents who were sexually inexperienced at baseline, participants had fewer days than control youth of unprotected sex (relative risk, 0.22; 95% CI, 0.08-0.63).³⁶

For More Information, Contact

- **Susan S. Witte at Columbia University**, Room 813, 1255 Amsterdam Avenue, New York, New York 10027; Phone 202.851.2394; e-mail SSW12@columbia.edu

Section II. Community-Based Programs

Making Proud Choices!

Program Components

- HIV prevention curriculum emphasizing safer sex, including information about both abstinence and condoms
- Eight culturally appropriate sessions, each lasting 60 minutes
- Experiential activities included to build skills to delay initiating sex and to communicate with partners and, among sexually active youth, to use condoms
- Educator training recommended

For Use With

- African American youth, ages 11 to 13
- Middle school students / sixth and seventh graders
- Urban youth

Evaluation Methodology

- Experimental design, including a randomized, controlled trial in Philadelphia, Pennsylvania
- Urban, African American youth in sixth and seventh grades (n=659 at baseline; n=610 at 12-month follow-up); mean age 11.8
- Pretest and follow-up after three, six, and 12 months
- Participants received monetary incentives for completing surveys

Evaluation Findings

- Delayed initiation of sexual intercourse
- Reduced frequency of sex
- Reduced incidence of unprotected sex
- Increased condom use

Evaluators' comments: *Our findings that the safer sex intervention curbed unprotected sexual intercourse, whereas the abstinence intervention did not, suggests that if the goal is reduction of unprotected sexual intercourse, the safer sex strategy may hold the most promise, particularly with those adolescents who are already sexually experienced. Moreover, safer sex interventions may have longer lasting effects than abstinence interventions.*

Source: Jemmott, Jemmott, Fong, 1998

Program Description

This HIV risk reduction curriculum for urban, African American youth, ages 11 to 13, acknowledges that abstinence is the best choice. But it also emphasizes the importance of condoms to reduce the risk of pregnancy and STIs, including HIV, if participants choose to have sex. The intervention is based on social cognitive theory and the theories of reasoned action and of planned behavior.³⁷

The intervention consists of eight, one-hour modules. Designed to be educational, entertaining, and culturally sensitive, *Making Proud Choices!* involves group discussion, videos, games, brainstorming, experiential exercises, and activities to build skills. The curriculum also incorporates themes from *Be Proud! Be Responsible!*, encouraging participants to take pride in themselves and their community, to behave responsibly for their own sake and for the sake of their community, and to consider their goals for the future and how unhealthy behavior might thwart those goals.³⁸

Evaluation Methodology

Making Proud Choices! emphasizes the importance of condoms to reduce the risk of pregnancy and STIs, including HIV. In evaluation, it was tested against two other programs: 1) a similarly structured, abstinence-focused curriculum that emphasized abstinence but also acknowledged that condoms can reduce risk for HIV and other STIs; and 2) another health curriculum unrelated to sexuality.³⁸

Participants (n=659) were African American adolescents (mean age 11.8 years), recruited from sixth and seventh grade classes of three middle schools serving low-income, African American communities in Philadelphia, Pennsylvania. About 53 percent were female; 27 percent of the youth lived with both parents. On the pre-intervention questionnaire, 25 percent of respondents reported ever having had sexual intercourse and 15 percent, having had sex in the previous three months. Less than two percent of respondents reported same-gender sexual relationships.³⁸

Adolescents were paid up to \$100 for participating: \$40 at the end of the two-session interview and an additional \$20 for each of three follow-up interviews. Adult facilitators were 25 African Americans (mean age 39.5), skilled in working with adolescents and trained for 2.5 days in the intervention to which they had been randomly assigned. Peer facilitators were 45 Philadelphia high school students (mean age 15.6 years) who had a three-day intensive leadership training retreat on basic facilitation skills. The effectiveness of the interventions was measured at three-, six-, and 12-month follow-up.³⁸

Outcomes

- **Knowledge**—Evaluation showed that participants in both the abstinence-focused and the safer sex curricula increased their HIV prevention knowledge significantly more than did control youth. In addition, youth in the safer sex intervention scored significantly higher in knowledge of HIV prevention than did the youth in the abstinence-focused intervention. Adolescents in the safer sex intervention also scored significantly higher on condom use knowledge compared to youth in the abstinence-focused or health promotion (control) programs.³⁸
- **Attitudes**—
 - Findings showed that both abstinence-focused and safer sex intervention participants increased significantly more than control youth in their belief in their ability to choose abstinence.³⁸
 - Adolescents in the abstinence-focused intervention believed more strongly that practicing abstinence would prevent pregnancy and expressed less favorable attitudes toward sexual intercourse, compared to those in the safer sex or control groups.³⁸
 - Adolescents in the safer sex intervention scored significantly higher on attitudes about condoms and in confidence that they could acquire and use condoms, compared to abstinence-focused or control groups.³⁸

Section II. Community-Based Programs

- **Behaviors—**

- **Delayed initiation of sexual intercourse—**Among youth who had never had sex at the time of the intervention, abstinence-focused intervention participants were significantly less likely than were control youth to report having sex in the three months after the intervention (odds ratio = 0.26). They were marginally less likely to report having initiated sex than were safer sex intervention participants (odds ratio = 0.32). Safer sex intervention participants were also less likely than control youth to report having initiated sex. But, at six- and 12- month follow-up, abstinence-focused youth were *not* significantly less likely to report having had sex than were control youth (17.2 versus 22.7 percent at six-month follow-up; 20.0 versus 23.1 percent at 12-month follow-up) and marginally less likely to report having initiated sex than the safer sex intervention participants.³⁸
- **Reduced frequency of sex—**Among youth who reported sexual experience at baseline, the safer sex intervention group reported less sexual intercourse in the previous three months at both six- and 12-month follow-up than did either control or abstinence-focused intervention participants (adjusted mean days over the prior three months, 1.34 versus 3.77 for control youth and 3.03 for abstinence-focused youth).³⁸
- **Reduced incidence of unprotected sex—**Among youth who had reported sexual experience at baseline, the safer sex intervention group reported significantly less unprotected intercourse than did controls at six- and 12-month follow-up. (adjusted mean days, 0.04 versus 1.85, respectively). The intervention had no significant effect on unprotected sexual intercourse among participants who had never had sex at baseline.³⁸
- **Increased condom use—**Among sexually experienced youth, safer sex intervention participants reported significantly more consistent condom use than did control youth at three months follow-up (odds ratio=3.38) or abstinence-focused intervention participants (odds ratio=3.01) and higher frequency of condom use at all follow-up points.³⁸

For More Information or to Order, Contact

- **Select Media:** Phone, 1.800.707.6334; Web, <http://www.selectmedia.org>
- For information regarding training, contact **ETR Associates:** Phone, 1.800.321.4407; Fax, 1.800.435.8433; Web, <http://www.etr.org>

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

Program Components

- Peer education workshops on HIV awareness and prevention and peer-led group discussions in various settings in the community
- Peer-led efforts to make condoms available via door-to-door and street canvassing
- Presentations at major community events
- Radio and television public service announcements (PSAs)
- Posters in local businesses and public transit
- Quarterly newsletter produced by the peer educators
- Extensive training for peer educators
- Length of intervention—18 months

For Use With

- Latino adolescents, ages 14-19
- Urban youth

Evaluation Methodology

- Quasi-experimental design, including treatment and comparison conditions
- Latino teens (n=586 at baseline; n=536 at follow-up) in Boston, Massachusetts (intervention community) and Hartford, Connecticut (control community); ages 14 to 20
- Pretest and 18-month follow-up

Evaluation Findings

- Delayed initiation of sexual intercourse (males)
- Reduced number of sex partners (females)

Evaluators' comments: *Evaluation of an HIV prevention program that included the promotion and distribution of condoms provided no evidence to suggest that the availability of condoms increased sexual activity or promoted promiscuity... Adolescents in the intervention city who were not sexually active prior to the intervention were no more likely to become sexually active than those in the comparison city. In fact, male respondents in the intervention city were less likely than those in the comparison city to experience the onset of sexual activity.*

Source: Sellers DE, McGraw SA & McKinlay JB, 1994

Program Description

This multifaceted, community-wide intervention is designed to increase HIV/AIDS awareness and to reduce the risk of HIV infection by increasing condom use among sexually experienced Latino teens. Activities are led by specially trained peer leaders and include workshops in schools, community organizations, and health centers; group discussions in the homes of Latino youth; presentations at community-wide events; and door-to-door and street corner canvassing to make available both condoms and pamphlets on how to use them. Radio and television PSAs, posters in local businesses and public transit facilities, and a quarterly newsletter published by the peer leaders provide messages promoting the use of condoms.³⁹

Evaluation Methodology

In the 18-month intervention, trained, bilingual staff completed baseline and post-intervention interviews among Latino youth (n=586 at baseline; n=536 at follow-up) in Boston, Massachusetts (intervention site) and in Hartford, Connecticut (comparison site). Adolescents were identified in two ways. First, many Latino youth participated in a smoking prevention project begun three years earlier. Members of the households of these teens were screened for eligibility in the evaluation of *Poder Latino*. Second, city blocks were identified in which at least 20 percent of households had Latino residents. Bilingual researchers then screened the selected blocks for eligible Latino youth, who were then interviewed either in-home (under circumstances that protected youth's confidentiality) or by phone, in cases where in-home visits could not be scheduled. Initial personal interviews were completed with 586 Latino teens, ages 14 through 19, and follow-up interviews with 536.³⁹

This evaluation used an infection probability model to estimate youth's risk for HIV infection. Latino youth were classified for analysis as 1) never having had vaginal or anal intercourse; 2) sexually experienced but not having had vaginal or anal intercourse in the past six months; 3) sexually experienced and having had vaginal or anal intercourse in the past six months. Youth were then placed into risk groups. Teens were considered at high risk if they reported needle sharing, anal intercourse, or sex with a prostitute, a bisexual or homosexual man, or an intravenous drug user. Teens were considered at moderate risk if they reported using a condom inconsistently and had vaginal sex in the past six months. Teens were considered at no risk if they reported no sexual activity or needle sharing during the previous six months. Ninety-four percent of the youth were Puerto Rican; 48 percent reported never having had sex at baseline. Nearly all of the 46 youth considered to be at high risk were female (43 of 46).^{39,40}

Outcomes

- **Behaviors—**
 - **Delayed initiation of sexual intercourse—**At 18-month follow-up, males in the intervention community (Boston) were less likely than males in the comparison community (Hartford) to have initiated sexual intercourse (odds ratio=0.08). The intervention did not significantly increase or decrease the odds of females initiating sex.³⁹
 - **Reduced number of sexual partners—**At 18-month follow-up, female teens in the intervention community were significantly less likely to report multiple sexual partners in the last six months, compared to females in the comparison community (odds ratio=0.06).³⁹
 - **Increased likelihood of possessing a condom—**Sexually active male and female youth in the intervention community were more than twice as likely to have a condom in their possession at 18-month follow-up as were youth in the comparison community (odds ratio=2.3 and 2.0 greater for males and females, respectively).³⁹
 - **Frequency of sex unaffected—**The intervention did not significantly affect the frequency of sex for either male or female participants, relative to comparison youth.^{39,40}

For More Information or to Order, Contact

- **Sociometrics Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>

Section III. Clinic-Based Programs

Clinics are uniquely positioned to meet young people's need for confidential, low-cost family planning and HIV/STI prevention services. Clinic-based programs can help at-risk youth develop prevention strategies as well as offering low-cost medical care and access to condoms and contraception. Following are descriptions of five clinic-based programs that work. Each of these programs fits the stringent criteria for inclusion in this document, as described in the introduction. All but one program demonstrate a reduction in pregnancy and/or HIV/STI rates among youth exposed to the program. All five demonstrate an impact on at least two of the following behaviors:

- Postponement or delay of sexual initiation
- Reduction in the frequency of sexual intercourse
- Reduction in the number of sexual partners / increase in monogamy
- Increase in the use of effective methods of contraception and/or condoms
- Reduction in the incidence of unprotected sex.

Clinicians interested in implementing an effective, community-based sex education program should explore replicating one of the following five programs:

- *HIV Risk Reduction for African American and Latina Teenage Women*
- *Project SAFE (Sexual Awareness for Everyone)*
- *SiHLE*
- *Tailoring Family Planning Services to the Special Needs of Adolescents*
- *TLC: Together Learning Choices*

HIV Risk Reduction for African American and Latina Adolescent Women

Program Components

- Clinic-based HIV-risk reduction program
- Culturally specific program
- Gender specific program
- Single 250-minute (four and one-quarter hours) group session
- Interactive exercises, discussions, games, and experiential activities
- 8-hour training for facilitators

For Use With

- Urban African American adolescent females
- Urban adolescent Latinas
- Economically disadvantaged young women

Evaluation Methodology

- Experimental evaluation design with two randomized treatment conditions and one control condition
- Sexually active clients (n=682) at an adolescent medicine clinic randomly assigned to skills-based treatment (n=235), information-based treatment (n=228), and health-promotion control (n=219) conditions
- Baseline data and follow-up at three, six, and 12 months after the intervention
- Participants received reimbursement for participating in baseline and follow-up surveys

Evaluation Findings

- Reduced number of sex partners
- Reduced incidence of unprotected sexual intercourse
- Long-term: Reduced incidence of STIs

Evaluators' comments: *In the present study, the effects of the intervention were significant primarily at 12-month follow-up, not at shorter-term follow-ups. Such a delayed effect has been observed in other prevention trials. One possible explanation for why the magnitude of intervention effects might increase at later follow-ups is that people have difficulty introducing safer-sex practices into existing relationships. As they become involved with new partners over time, they are able to implement those practices. Hence, intervention effects on behavior are larger at longer-term follow-up. ... [From the results of this intervention] it cannot be assumed that an intervention developed for one ethnic group will be ineffective with another group.*

Jemmott, Jemmott, Braverman *et al*, 2005

Program Description

The skills-based HIV and STI risk reduction intervention is based in cognitive behavioral theories and formative research. Designed for use in an adolescent medicine clinic that also provides young clients with confidential and free family planning services, the program teaches young women skills necessary to use condoms. In particular, it illustrates correct condom use, and depicts effective condom-use negotiation with a sexual partner. In addition to providing accurate information, it also addresses personal vulnerability and the heightened HIV risk facing young, inner-city Latinas and African American women. It addresses barriers to condom use, including negative beliefs and alcohol and drug use as well as ways to surmount these barriers. Most importantly, the young women practice handling condoms correctly on anatomical models and engage in role plays to increase their partner negotiation skills.⁴¹

Evaluation Methodology

Evaluators tested the effects of the skills-based intervention in relation to an information-based HIV prevention intervention and to a generalized health promotion intervention. Participants had volunteered for a women's health project designed to reduce young women's risk of eventually developing serious health problems like heart disease, cancer, and AIDS. Each was reimbursed up to \$120 (\$40 for completing the intervention and pre- and post-intervention questionnaires; \$25 for the three- and the six-month follow-up; and \$30 for the 12-month follow-up). The young women completed a confidential, self-administered questionnaire immediately before and after the intervention and at three, six, and 12 months later. All questionnaires assessed sexual behavior and variables on demographics and conceptual mediators. Biological specimens for STI testing were collected at baseline and at 6- and 12-month follow-up.⁴¹

Participants were 682 sexually experienced African American (n=463) and Latina (n=219) young women, ages 12 to 19, who were family planning clients at an adolescent medicine clinic within a children's hospital that served low-income, inner-city youth in Philadelphia, PA. Participants were randomly assigned to the skills-based intervention (n=235), to an information-based treatment (n=228), or to a health promotion control condition (n=219). Of all the adolescents (n=1,150) eligible for the study, 59 percent chose to participate, including a greater percentage of eligible African Americans than Latinas (69 versus 46 percent, respectively; $P \leq .001$). Participants were also somewhat younger than non-participants (15.5 versus 16.1 years; $P \leq .001$). Participants and eligible non-participants did not differ in STI prevalence at baseline.⁴¹

At baseline, 87 percent of respondents reported previous sexual intercourse. About 52 percent reported unprotected sexual intercourse. Sixteen percent reported sexual intercourse with multiple partners in the previous three months. Ten percent of respondents had at least one child. Twenty-two percent tested positive for gonorrhea, chlamydia, or trichomoniasis. Less than one percent reported having same-gender sexual relationships (0.4 percent) or using injection drugs (0.6 percent).⁴¹

Ninety-eight percent of participants attended at least one follow-up; 94 percent, the 3-month; 93 percent, the six-month; and 89 percent, the 12-month follow-up. There were few significant differences between those who returned for follow-up and those did not. Non-returnees reported more frequent sex at baseline (mean, 3.44 versus 0.40; $P \leq .001$) and more unprotected sex while intoxicated (mean 0.94 versus 0.24; $P \leq .001$); were more likely to be Latina than African American (96 versus 99 percent; $P = .04$); and were less likely to live with their mother (94 versus 99 percent; $P = .001$). At follow-up, evaluators found no significant differences between adolescents assigned to the information-based HIV/STI prevention condition and to the health promotion control condition.⁴¹

Section III. Clinic-Based Programs

Outcomes

- **Reduced incidence of unprotected sexual intercourse**—By 12-month follow-up, participants in the skills-based intervention reported significantly fewer days in the past three months when they had sex without using a condom, compared to either the information-based or the health promotion condition (2.27 days versus 4.04 [$P=.03$] and 5.05 [$P=.002$], respectively). In addition, young women in the skills-based intervention reported significantly fewer days when they had unprotected sex while using drugs or alcohol, compared to those in the health promotion condition (0.1 days versus 0.22 days; $P=.02$).⁴¹
- **Reduced number of sex partners**—By 12-month follow-up, a significantly smaller proportion of participants in the skills-based intervention reported multiple sex partners in the previous three months compared to youth in the health promotion condition (seven percent versus 17 percent, respectively; $P=.002$).⁴¹

Long-Term Impact

- **Reduced incidence of STIs**— By 12-month follow-up, a significantly smaller proportion of participants in the skills-based intervention tested positive for STIs compared to youth in the health promotion condition (mean 11 percent versus 18 percent, respectively; $P=.05$).⁴¹

Note: There were no significant differences in outcomes related to frequency of unprotected sex, number of sex partners, or rates of STIs by intervention at the three- or six-month follow-up.

For More Information, Contact:

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There is little replication information available for this program.

Project SAFE—Sexual Awareness for Everyone

Program Components

- STI clinic-based behavioral intervention to reduce risk for HIV
- Culturally specific
- Gender specific
- STI screening, counseling, and treatment
- Three small group sessions once a week for consecutive weeks and each lasting three to four hours, focusing on: 1) recognizing risk; 2) committing to change; and 3) building skills
- Interactive teaching, including games, discussion, role plays, and behavior modeling
- Follow-up screening visits at six and 12-months after baseline as well as whenever symptoms or concerns about re-infection arise
- Trained facilitators of the same gender and race/ethnicity as participants
- Optional support groups meeting once a month for five months

For Use With

- Latinas, ages 15 through 24
- African American women, ages 15 through 24
- Urban minority young women

Evaluation Methodology

Project SAFE:

- Experimental evaluation using a randomized controlled trial with treatment (n=313) and control (n=304) conditions
- Baseline data on African American (n=193) and English-speaking Mexican-American (n=424) women
- Follow-up at six- and 12-months post intervention
- Participants received incentives for taking the baseline and follow-up surveys

Project SAFE-2:

- Experimental evaluation with two treatment conditions (n=237 standard intervention; n=262 enhanced intervention) and one control condition (n=276)
- Baseline data on English-speaking Mexican-American (n=585) and African American (n=190) women
- Follow-up at six-, 12-, 18-, and 24-months after baseline
- Participants received incentives for taking the baseline and follow-up surveys

Evaluation Findings

- Increased monogamy (Project SAFE-2)
- Reduced number of new sex partners (both)
- Reduced incidence of unprotected sex (Project SAFE)
- Increased compliance with STI treatment protocols (both)
- Long-term: Reduced incidence of STIs (both)

Evaluators' comments: *Despite substantial observed ethnic differences in attitudes, behaviors, and re-infection rates, the cognitive-behavioral intervention used in Project SAFE resulted in similar, proportionate reductions in the rate of re-infection among both ethnic groups, comparing study women with control women. This accomplishment is encouraging, in light of the disproportionate burden of sexually transmitted disease borne by low-income minority populations in the United States.*

Korte, Shain, Holden *et al*, 2004

Program Description

This gender specific and culture specific behavioral intervention is based on cognitive behavioral theories, including the Health Belief Model, self-efficacy theory, diffusion theory, and decision-making models. It conforms to the stages of the AIDS Risk Reduction Model. The intervention consists of three multi-component sessions, each lasting three to four hours. Participants (ranging from three to 12 in a group) and a female facilitator (of the same race or ethnicity as participants) meet once a week for three consecutive weeks. Contents of the culture specific interventions are the same, although emphases and cultural cues vary. Highly trained facilitators provide information and also actively involve participants in lively and open discussions and games as well as in watching videos, modeling behaviors, and participating in role plays. Facilitators encourage participants to identify realistic risk-reduction strategies within the context of their own life and values. Discussion covers abstinence, mutual monogamy, correct and consistent condom use, full compliance with STI treatment protocols, and reducing the number of one's sex partners. In addition, participants are also encouraged to continue with optional support groups in meeting in five once-a-month sessions.^{31,32}

In addition to the multi-component sessions, participants receive screening and treatment for STIs along with routine follow-up appointments at six, 12, 18, and 24 months after the baseline screening as well as encouragement to come in for screening whenever symptoms of STIs arise.^{31,32}

Evaluation Methodology

Project SAFE:

Participants were recruited from public health clinics in San Antonio, Texas. They were Latinas and African American women who had a non-viral STI, such as chlamydia, gonorrhea, syphilis, or trichomoniasis. All participants spoke English. After giving informed consent, participants were interviewed and received baseline examination, screening for STIs, treatment where necessary, and counseling. At this point, participants were randomly divided into treatment and control conditions. Controls received standard STI counseling, lasting about 15 minutes, provided by nurse clinicians and conforming to guidelines issued by the Centers for Disease Control & Prevention. Participants, whether treatment or control, also received follow-up appointments for six and 12 months later and encouragement to come in if and when they experienced STI symptoms or feared re-infection. Participants received \$25.00 for their initial visit and for their six-month visit; they received \$50.00 for the 12-month visit.³¹

Section III. Clinic-Based Programs

Seventy-one percent of participants were younger than age 24; the mean age of intervention group was 21.8 years and that of the control group was 21.3 years. Monthly income for the intervention group was a mean of \$243.00 while that of the control group was \$267.00. Women's mean educational attainment was 10.8 years in both groups. Seventy percent of participants were Mexican American (70 percent of intervention group and 68 percent of control group); the rest of the women were African American (30 and 32 percent, respectively). At baseline, 28 percent of women in the intervention group and 33 percent of the control group were pregnant. There were no significant differences at baseline between intervention and control group participants in the proportion infected with various STIs. Among the intervention group, 21 percent were infected with gonorrhea, 67 percent with chlamydia, 26 percent with trichomoniasis, and six percent with syphilis. Among the control group, 21 percent were infected with gonorrhea, 71 percent with chlamydia, 21 percent with trichomoniasis, and six percent with syphilis.³¹

After stratification according to race/ethnicity, a total of 424 Mexican American and 193 African American women were randomly assigned to study (n=313) or control (n=304) conditions. Rates of participation among the study group were 90 percent for the first session, 82 percent for at least two sessions, and 75 percent for all three sessions. Enrollment began in January 1993 and ended in July 1994. Six- and 12-month retention rates were 82 percent at six months (84 percent of study group; 80 percent of controls; total=508); and 89 percent at 12 months (91 percent of study group; 87 percent of controls; total=549). Twenty-six women with six-month visits were lost to follow-up at 12 months, while 67 women who missed the six-month screening returned at 12 months. Repeat screening for chlamydia and gonorrhea were also performed at a total of 260 problem visits. The analysis included 509 women at six months, 545 at 12 months, and 549 for the total study period. Behavioral analysis included results for 477 women who attended both follow-up visits. Rates of loss at follow-up did not differ significantly between study and control groups for any subgroup analysis.³¹

Project SAFE-2:

The evaluation protocol was nearly the same as in the first Project SAFE except that there were two treatment conditions (with and without optional support group meetings). All Mexican American and African American women diagnosed with gonorrhea, chlamydia, syphilis, or trichomoniasis in public health clinics were referred to the study for potential participation. Eligible English speaking women of reproductive age (15 to 45 years old) were offered enrollment.³²

Fourteen-year-old women were enrolled only at the specific request of the Health Department or their guardians and with special IRB permission. Researchers unexpectedly enrolled a much higher proportion of alcoholics and drug addicts in this study than in the previous study. Substance users were not excluded unless they were under age 18, used hard drugs, and had dropped out of middle or high school. Women with only two of these three risk factors were still allowed to enroll. Young teens, ages 14 and 15, who had been sexually abused were allowed to participate but were excluded from analysis. Fifty-three enrolled women were later declared ineligible because of: protocol violations (n=5); severe mental illness (n=2); criminal activity in the clinic (n=1); being sexually abused 14- to 15-year-olds (n=16); or 14- to 17-year-old dropout users of hard drugs (n=29).³²

A total of 585 Mexican American and 190 African American women were randomly assigned to enhanced intervention (Project Safe-2; n=262; with follow-up for a full two years), standard intervention (Project SAFE; n=237; with follow-up for one year), or a control group (n=276). All participants received follow-up appointments for six, 12, 18, and 24 months later and were encouraged to come in if and when they experienced STI symptoms or feared re-infection. Participants received \$25.00 for their initial and their six-month visits; they received \$15.00 for the 18-month visit and \$50.00 for each of the two annual visits (12 and 24 months).³²

Enrollment began in March 1996 and ended in June 1998. Of 1,271 potentially eligible women 33 percent declined to participate. Intervention show rates (before the six-month visit) were 96 percent for at least one session, 92 percent for at least two sessions, and 86 percent for all three sessions. Among women assigned to the enhanced intervention, 63 percent chose not to attend the optional support groups; however, 37 percent attended at least one session prior to their six-month visit and 26 percent attended two or more sessions. Twelve-month and 24-month retention rates (based on 775 eligible women) were both 91 percent ($n=709$ and 707 , respectively). No group differences in retention rates were detected although, within the enhanced intervention group, women who attended support groups had higher retention rates than those who did not attend (96 versus 84 percent, $P=0.004$). Support-group non-attendees subsequently lost to follow-up (compared to non-attendees who were retained in the program) were more likely to have had more than one partner at baseline ($P\leq 0.06$) and to have had syphilis ($P\leq 0.001$).³²

Low levels of income and education characterized the study participants; 53 percent were under age 20 and 85 percent under age 25. Less than 10 percent were married and over 60 percent had more than one partner in the previous year. Most importantly and despite random assignment, one or both intervention groups had a higher percentage of women who were under age 20, were in high substance risk categories, and/or had multiple additional screenings for gonorrhea and/or chlamydia. Support group attendees, compared to non-attendees, had less education (10.1 versus 10.7 years; $P\leq 0.02$), were more likely to be young (62 versus 50 percent; $P=0.056$), and were likely to report three or more partners in the previous three (13 versus five percent; $P\leq 0.03$) and six month periods (27 versus 13 percent; $P=0.007$).³²

Project SAFE Outcomes:

- **Reduced number of sex partners**—Significantly fewer women in the intervention group than in the control group reported multiple partners ($P=0.004$). Specifically, nearly 68 percent of women in the intervention group reported no partner or only one partner in the 12 months after baseline compared to 56 percent of women in the control group. Nearly 33 percent of women in the intervention group reported more than one sexual partner, compared to 44 percent in the control group.³²
- **Reduced incidence of unprotected sex**—Significantly fewer women in the intervention group than in the control group reported multiple acts of unprotected sexual intercourse ($P=0.03$). Specifically, 30 percent of women in the intervention group reported fewer than five acts of unprotected sex in the three months preceding each follow-up appointment, compared to 20 percent of women in the control group. Of those reporting five or more acts of unprotected sex, the proportions were 70 and 80 percent, respectively.³¹
- **Compliance with treatment protocols**—Significantly fewer women in the intervention group than controls were noncompliant with treatment protocols ($P\leq 0.001$). Specifically, 84 percent of women in the intervention group were in compliance with treatment protocols, compared to 72 percent of the control group. Noncompliance with treatment protocols was defined as having sex with an untreated or incompletely treated partner, having multiple partners, and having five or more acts of unprotected sex during the three-month period preceding each follow-up visit. Follow-up analysis showed that women in mutually non-monogamous unions and who had sex with partners who were untreated or incompletely treated were also 13 times more likely to have an STI infection than those who were monogamous and who complied with treatment protocols.^{31,33}

Section III. Clinic-Based Programs

Long-Term Impact

- **Reduced incidence of STI infection**—Women in the intervention group were significantly less likely than those in the control group to have gonorrhea or chlamydia infections at six months after baseline ($P=0.05$), at between six and 12 months ($P=0.008$) after baseline, and from entry through 12 months ($P=0.004$).³⁰ The infection rate in the intervention group was 34 percent less than in the control group at six months, 49 percent less at 12 months, and 38 percent less overall.^{31,33,34}

Project SAFE-2 Outcomes:

- **Increased monogamy**—Significantly more participants in the enhanced intervention group (especially support group attendees) and standard intervention group had only one partner during the entire study, compared to control group participants. Specifically, 37 percent of enhanced intervention participants and 39 percent of support group attendees had only one partner throughout the study compared to 24 percent of controls. Among standard intervention participants, 31 percent reported only one partner during the entire two-year period.³²
- **Reduced incidence of unprotected sex**—Significantly fewer women in the standard and enhanced intervention groups than in the control group reported multiple partners in any follow-up year ($P=0.004$). Specifically, 43, 43, and 55 percent of participants, respectively, reported more than one sexual partner in year one. In year two, 38, 36, and 51 percent, respectively, reported more than one sexual partner. During the two-year period, 69, 63, and 76 percent ($P\leq 0.052$, 0.003), respectively, reported more than one sexual partner.³²
- **Compliance with treatment protocols**—Significantly more women in both the standard and enhanced intervention groups than in the control group were compliant with treatment protocols (92, 90, and 82 percent, respectively; $P\leq 0.001$ and $P\leq 0.01$, respectively for standard and enhanced interventions compared to controls). Noncompliance with treatment protocols was defined as having sex with an untreated or incompletely treated partner.³²

Long-Term Impact

- In Project SAFE-2, women in both the enhanced and standard interventions were significantly less likely at all intervals to be infected with either gonorrhea or chlamydia. Over the two-year study period, women in the enhanced and standard interventions, respectively, were 41 and 34 percent less likely to be infected than were controls ($P\leq 0.001$, $P\leq 0.008$, respectively). Additionally, enhanced and standard intervention participants were significantly less likely than controls to be infected in year one (43 and 41 percent less likely; $P=0.004$, 0.006, respectively) and in year two (36 and 36 percent less likely; $P\leq 0.03$, 0.03, respectively).³²

Note: Analysis of the effects of support group attendance indicated that both attendees and non-attendees were less likely than controls to be infected with gonorrhea or chlamydia (45 and 37 percent less likely; $P\leq 0.004$, 0.01, respectively). In year two, attendees were 42 percent less likely than controls to be infected ($P\leq 0.05$) whereas differences between non-attendees and controls did not reach statistical significance.³²

Note on Project SAFE: When the evaluators looked at racial/ethnic differences in regard to risk and protective behaviors of women in the intervention and control groups, they found that the intervention was equally effective with both groups (OR=0.58 and 0.54, respectively). African American women reported more douching after sex, less mutual monogamy, and more rapid partner turnover. However, Mexican American women appeared slightly more likely to have sex with an untreated partner. There were no other differences in sexual behaviors likely to lead to STIs. A consistent pattern emerged in which most sexual risk behaviors were less common in intervention group participants than in control participants, regardless of their race/ethnicity.^{31,33}

For More Information or to Order, Contact:

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>.

SiHLE—STI & HIV Prevention for African American Teenage Women

Program Components

- Community-based HIV prevention program for use in family medicine and health clinics
- Gender-specific and culturally tailored program
- Four, four-hour interactive group sessions, held on successive Saturdays
- Sessions utilizing poetry and artwork of African American women, role plays, and discussions, demonstrating use of a condom
- Health educator and peer educators (all trained, African American, and female)
- Compensation (\$25.00) for travel and child care

For Use With

- Sexually active African American females, ages 14 to 18
- Urban and suburban youth

Evaluation Methodology

- Experimental evaluation design with treatment and control conditions in Birmingham, Alabama
- Eligible African American adolescent females (n=522) seeking services at four community health agencies between December 1996 and April 1999 and randomly assigned to treatment (n=251) and control (n=271) conditions
- Data from baseline questionnaire, interview, demonstration of condom use skills, and STI testing
- Follow-up after six and 12 months

Evaluation Findings

- Reduced number of new sex partners
- Reduced incidence of unprotected sex
- Increased condom use
- Long-term: Reduced incidence of STIs
- Long-term: Reduced incidence of pregnancy

Program Description

SiHLE comes from a Swahili word for beauty and also is an acronym for Sisters Informing, Healing, Living, and Empowering. This STI/HIV prevention intervention is based on social cognitive theory and theories of gender and power. The program is culturally and gender-specific for African American adolescent women at risk for negative sexual health outcomes. The program's designers, working in partnership with community African American female teens, developed both the intervention and the study conditions. The intervention consists of four sessions, each lasting four hours and implemented on consecutive Saturdays at a community health clinic, by a trained, female, African American health educator. She is assisted by two female African American peer educators. The peer educators model skills and promote group norms supportive of HIV prevention.⁴⁶

In the four sessions:

- Session one emphasizes ethnic and gender pride. It encourages participants to explore and discuss the joys and challenges of being an African American adolescent female. Participants also acknowledge the accomplishments of African American women through reading their poetry and framing their art.
- Session two raises awareness of HIV risk reduction strategies, such as abstaining from sex, using condoms consistently, and having fewer sex partners.
- Session three uses role-plays and cognitive rehearsal to increase young women's confidence in their ability to: initiate safer sex conversations with a partner; negotiate safer sex; and refuse unsafe sex. During session three, peer educators also discuss the importance of abstinence and consistent condom use and model condom use skills.
- Session four emphasizes the importance of healthy relationships. The health educator and peer educators lead discussions in how unhealthy relationships can make it difficult to practice safer sex.⁴⁶

Evaluation Methodology

From December 1996 through April 1999, recruiters screened 1,130 self-identified African American adolescent females seeking health care services at any of four community health agencies. Of these, 609 (54 percent) met eligibility criteria for the study. Eligibility criteria included: 1) being African American and female; 2) being 14 to 18 years of age; 3) having had vaginal intercourse in the preceding six months; and 4) providing written, informed parental consent. Among those not eligible, nearly 93 percent were not sexually experienced.⁴⁶

Of the 609 eligible adolescents, 522 agreed to participate in the study, completed baseline assessments, and were randomly assigned to treatment (n=251) or control (n=271) conditions. Treatment youth received the HIV intervention. Control youth received a general health promotion program of equal length and duration (four, four-hour sessions). Each participant received \$25.00 as compensation for anticipated travel and child care expenses.⁴⁶

Evaluators collected data at baseline and at six- and 12-month follow-up, each time from four sources.

- 1) Participants completed a self-administered questionnaire on socio-demographics and psychosocial aspects of HIV preventive behaviors.
- 2) A trained African American female health counselor then interviewed each participant to assess 1) sexual behaviors; and 2) condom use skills. Self-reported, consistent condom use in the 30 days prior to each assessment was the main outcome measure. Other self-reported sexual behaviors included incidence of protected and unprotected sex and a new partner in the 30 days preceding assessment.
- 3) Participants provided two self-collected vaginal swab specimens, one to test for gonorrhea and chlamydia and the other, for trichomoniasis.
- 4) Self-reported pregnancy and STI incidence (determined by testing) were also assessed.⁴⁷

At baseline, evaluators detected significant differences between the treatment and control conditions in terms of HIV-related sexual behaviors; these were included as covariates in subsequent data analyses. Covariates included: history of douching; gang involvement; alcohol use; nonconsensual sex; depression; having a new partner; desiring to be pregnant; and/or not attending school.⁴⁶

Section III. Clinic-Based Programs

No significant differences were seen on socio-demographic characteristics, condom use, or other outcome measures. For example, the mean age of intervention participants was 15.99; that of control youth was 15.97. Forty-six percent of treatment youth had not completed 10th grade, compared to 49 percent of control youth; 18 and 18.5 percent, respectively, received public assistance; 74 and 72 percent, respectively, lived in a single parent home; 24 percent and 23 percent, respectively, had children. Thirty-eight percent of each group reported using a condom in the past 30 days; three and two percent, respectively, reported unprotected vaginal sex in the past thirty days. At baseline, 19 percent of treatment young women and 16 percent of controls tested positive for chlamydia; six and five percent, respectively, tested positive for gonorrhea; 13 and 12 percent, respectively, tested positive for trichomoniasis.⁴⁶

Of the 251 participants assigned to the HIV intervention, 226 (90 percent) completed the six-month assessment and 219 (87 percent) completed the 12-month assessment. Of the 271 youth assigned to the control condition, 243 (90 percent) completed the six-month assessment and 241 (89 percent) completed the 12-month assessment. No differences in attrition were observed between study conditions at either the six-month or the 12-month assessment. Additionally, evaluators found no differences at either follow-up in: socio-demographic factors; or differences in baseline variables for study condition participants versus those lost to follow-up.⁴⁶

Outcomes

- **Behaviors—**
 - **Increased condom use—**Intervention participants were more likely than controls to use condoms consistently in the 30 days preceding the six-month assessment (75 versus 58 percent; $P=.06$), in the 30 days preceding the 12-month assessment (73 versus 57 percent; $P=.02$), and during the entire 12 month period (odds ratio 2.01; $P=.003$). Intervention participants were more likely than controls to report consistent condom use in the six months preceding the six-month assessment (61 versus 43 percent; $P=.001$) and in the six months preceding the 12-month assessment (58 versus 45 percent; $P=.01$).⁴⁶
 - **Reduced incidence of unprotected sex—**Intervention participants were significantly less likely than controls to report unprotected sex in the 30 days prior to the six-month assessment (mean difference -1.82 versus 0.27; relative change -50.69; $P=.046$).⁴⁶
 - **Reduced number of new sex partners—**Intervention participants were less likely than controls to report having a new sex partner in the 30 days preceding follow-up at six months (three versus seven percent; $P=.01$) and 12 months (four versus six percent; $P=.01$).⁴⁶

Long-Term Impacts

- **Reduced incidence of pregnancy—**Intervention participants were significantly less likely than controls to report a pregnancy in the six months after baseline (four versus seven percent; $P=.04$) or in the 12 months after baseline (six versus nine percent; $P=.06$).⁴⁶
- **Reduced incidence of chlamydia—**Results of STI-specific analyses over the entire 12-month follow-up period, adjusting for baseline variable and covariates, suggested a treatment advantage in reducing chlamydia infections (OR 0.17; $P=.04$). There were no observed treatment effects in reducing either gonorrhea or trichomoniasis. Evaluators suggest that the small STI treatment effects are due, in part, to the relatively small number of incident STIs and to missing data for some covariates.⁴⁶

For More Information, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone, 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>

Tailoring Family Planning Services to the Special Needs of Adolescents

Program Components

- Clinic-based contraceptive education, counseling, and services for adolescents
- Tailored services to meet the psychosocial information, reassurance, and support needs of youth under age 18
- Personal Information Form, completed by the teenage client
- Increased counseling time, including an extra five minutes for initial phone contact and an extra 15 to 20 minutes for one-on-one counseling
- Lasting six weeks, including two-part first appointment and later follow-up appointment
- First appointment divided into two visits: 1) one-on-one education and counseling in the first visit, including use of videos and other visual aids; 2) medical services in the second visit no more than two weeks later for examination and contraceptive prescription
- Follow-up appointment six weeks after the second half of the first session
- Encouragement of involvement by parents, friends, and/or partner, while ensuring one-on-one counseling for the client
- Reassurance as to confidentiality and strict maintenance of confidentiality
- Training for counselor educators as well as for regular clinic staff
- Training on adolescent psychosocial development for every staff member

For Use With

- Suburban and rural, white, teenage females, age 17 and younger
- Developmentally delayed teenage females

Evaluation Methodology

- Quasi-experimental design, with treatment and comparison groups of non-randomly selected patients in six pre-selected family planning clinics in non-metropolitan Pennsylvania
- Females ages 17 or younger (n=1,256) divided into treatment (n=518) and control (n=738) groups
- Survey at the initial visits and follow-up visit (Knowledge Quiz), at the conclusion of the index visit (Patient Satisfaction Survey), follow-up survey completed by staff at all follow-up visits (Method-Use Questionnaire), and No-Show/Continuation Report, completed for all clients enrolled in the study
- Data collected at enrollment, at three to eight months after baseline, and at nine to 20 months after baseline

Evaluation Findings

- Increased use of contraception
- Increased contraceptive compliance
- Long-term: Decreased pregnancy rate

Evaluators' comments: *Tailoring family planning services to the special psychosocial needs of teenagers has beneficial effects on most outcomes and undesirable effects on none... The cost of the intervention was in the extra personnel time needed to counsel and instruct patients... However, the extra time spent on counseling and education and the earlier return visit represented an investment that paid off in patients' improved skill and success in using contraceptives.*

Winter, Breckenmaker, 1991

Program Description

This pregnancy prevention protocol for family planning clinics and other reproductive health care providers works to meet the special psychosocial needs of family planning clients who are under the age of 18. Such special needs include:

- Education geared to an adolescent's level of cognitive development;
- Reassurance of confidentiality;
- Extra time for counseling, especially to address teens' concerns about contraceptive methods and to answer questions about difficulties with a contraceptive method;
- Information and reassurance regarding medical exams; and
- Medical services.⁴⁷

A Personal Information Form, completed by the teenage client, helps counselors identify young women who are at higher risk for pregnancy than are other young women. These include young women who:

- Are age 17 or younger;
- Are developmentally delayed;
- Have no plans for the future;
- Believe that a pregnancy would be okay;
- Lack parental support;
- Have sexual intercourse infrequently;
- Are involved in short-term relationships; or
- Do not initiate the clinic visit themselves.

The Personal Information Form also allows the teen to identify worries or fears related to her visit or to using contraception, so that the counselor can discuss these issues with the teen.⁴⁷

The teenage woman has longer than usual with a counselor for one-on-one education about contraception and sexual health. She returns within two weeks for the second half of the initial visit. At that time, the teen receives medical services, such as pelvic exam and/or pregnancy and STI tests and a prescription for the method of contraception she has chosen. She is also scheduled for another return visit in six weeks when she can ask any additional questions and discuss with a counselor any problems she has encountered with her chosen contraceptive method. The teen is encouraged to make appointments for additional return visits at about six months and one year in the future.⁴⁷

Section III. Clinic-Based Programs

Evaluation Methodology

The evaluation was designed to assess three broad components of the intervention: 1) the knowledge that clients acquired; 2) their feelings about the clinic; and 3) their experience with family planning—particularly their use of contraception and contraceptive continuation and whether they experienced unintended pregnancy. Four survey tools provided data—the Knowledge Quiz, the Patient Satisfaction Survey, The Method Use Questionnaire, and the No-Show/Continuation Report.⁴⁷

The intervention was evaluated using a pretest/post-test design with intervention and non-intervention groups of non-randomly selected clients in six family planning clinics. During a two-month baseline phase, six clinics administered the Patient Satisfaction Survey and the Knowledge Quiz. At the end of this phase, staff from the three clinics designated as experimental sites attended a two-day training. During the next six months, clients attending the experimental sites received services as outlined by the experimental protocols. Clients included both first-time visitors and those making an annual (repeat) visit. The three comparison clinics continued their usual service delivery practices. Clients filled out forms at both experimental and comparison clinics at six months and one year after each client's index visit.⁴⁷

Adolescent females, ages 17 and under, participated in the study (n=1,256 total; n=251 enrolled at baseline; and n=1,010 enrolled during the treatment phase). A few 18-year-old women were enrolled if counselors felt they were developmentally delayed or at especial risk for unintended pregnancy for other reasons. Overall, 62 percent of participants were making their first visit to a family planning clinic while the rest were making an annual (repeat) visit. Almost all clients were white; one percent was black and less than one percent was Hispanic. More than 40 percent were age 17. Almost 34 percent were age 16. About 16 percent were age 15. About 22 percent were Roman Catholic, the largest single religious affiliation in the sample and reflective of the community demographic.⁴⁷

Outcomes

- **Knowledge**—Analysis showed that knowledge scores were initially high at both experimental and control sites and that contraceptive knowledge of clients improved more across time at experimental than at control sites (scores rose from 83 to 87 at experimental sites while holding steady at 82 at control sites).⁴⁷
- **Behavior Outcomes**—
 - **Contraceptive use, original method**—Clients at experimental sites were significantly more likely at six-month follow-up to be still using their initial contraceptive method, relative to clients from comparison sites (92 versus 85 percent, respectively). The difference was even larger for clients for whom the index visit was a first-ever visit for family planning (95 versus 83 percent, respectively). At 12-month follow-up, original method use remained significantly higher among clients from experimental sites relative to clients from comparison sites (90 versus 81 percent, respectively).⁴⁷
 - **Contraceptive use, any method**—Clients at experimental sites were significantly more likely to report use of any method at six-month follow-up, compared to clients from comparison sites (97 versus 92 percent, respectively). At 12-month follow-up, use of any method remained higher among clients from experimental sites than from comparison sites, but the difference was no longer statistically significant.⁴⁷
 - **Contraceptive continuation among clients experiencing method problems**—Clients who had problems with their contraceptive method were significantly more likely at experimental sites than at comparison sites to report continuing their method (79 versus 56 percent). The percentage

difference was even more significant among those whose index visit was their first-ever family planning visit (83 versus 55 percent). The percentage of clients experiencing method difficulties and continuing use of the method remained significantly higher among those from experimental sites than comparison sites at 12-month follow-up (71 versus 40 percent).⁴⁷

Long-Term Impact

- **Reduced pregnancy rates**—Pregnancy rates were calculated in two ways: as a proportion of the continuing sample (n=740) and as a proportion of treatment phase sample (n=1,010). The 45 pregnancies identified among study participants, both experimental and comparison, represent 5.4 percent of the continuation sample and 4.5 percent of the treatment sample. With considerable consistency, the pregnancy rate among clients from the experimental sites was lower than that among clients at the comparison sites. Significant findings include the following:
 - Four percent of continuing clients from experimental sites had a pregnancy versus eight percent at comparison sites.⁴⁷
 - Three percent of all clients from experimental sites had a pregnancy versus six percent at comparison sites.⁴⁷
 - Three percent of continuing 16- to 17-year-old clients at experimental sites had a pregnancy, versus eight percent at comparison sites.⁴⁷
 - Nearly three percent of all 16- to 17-year-old clients at experimental sites had a pregnancy, versus nearly six percent at comparison sites.⁴⁷

For More Information or to Order, Contact

- **Sociometrics, Program Archive on Sexuality, Health & Adolescence:** Phone 1.800.846.3475; Fax, 1.650.949.3299; E-mail, pasha@socio.com; Web, <http://www.socio.com>.

TLC: Together Learning Choices (formerly Teens Linked to Care)

Program Components

- Health promotion intervention for HIV-positive adolescents and young adults
- Sixteen sessions in two parts: *Staying Healthy* and *Acting Safe* modules, each eight sessions
- Small group intervention
- Activities to promote problem solving, goal setting, assertive behavior, communication and negotiation skills, and self-awareness
- Interactive techniques, including role playing, discussions, and appreciation
- Two trained facilitators

For Use With

- HIV-positive youth, ages 13 through 24
- African American youth
- Latino youth
- Urban youth

Evaluation Methodology

- Quasi-experimental design, conducted in nine adolescent clinical care sites in four AIDS epicenters: Los Angeles, New York, San Francisco, and Miami
- HIV-infected youth receiving care at the clinical sites, randomly assigned to treatment (n=208) and control (n=102) conditions
- Two pre-intervention assessments, three months apart (n= 310); follow-up at nine months (n=257) and 15-months (n=154) post intervention
- Participants received incentives for taking each survey

Evaluation Findings

- Reduced numbers of sexual partners
- Reduced incidence of unprotected sex
- Increased positive lifestyle changes – females only
- Increased positive coping actions

Evaluators' comments: *HIV-infected youth who do not change their sexual risk acts or injection drug use may infect others and also become re-infected with new viral strains... It is important to note that the behavioral changes were specific to the content of each module. For example, the Stay Healthy module did not affect sexual risk even though health behaviors did change. The Act Safe module changed substance use and sexual risk but no further changes occurred in health acts.*

Rotheram-Borus, Lee, Murphy *et al*, 2001

Program Description

This small group intervention is designed to help young people who are living with HIV or AIDS to maintain their health, reduce transmission of HIV and other sexually transmitted infections (STIs), and improve the quality of their life. The intervention is based on social action theory and comprises two eight-session modules: *Staying Healthy* and *Acting Safe*.^{48,49}

Under the guidance of trained facilitators, participants learn skills in solving problems, setting goals, communicating effectively, being assertive, and negotiating safer sex practices. They also improve their self-awareness regarding their feelings, thoughts, and beliefs, especially related to health promotion and positive social interactions. Techniques used in TLC include: role playing; helping youth discern his/her own ideal self; helping participants discuss their feelings of comfort and discomfort; and actions to acknowledge and appreciate participants' positive behaviors. Sessions are highly interactive and include about 15 participants and two facilitators (usually one male and one female). The program can be delivered in clinical settings or community agencies. The program requires a large room, free from interruptions.^{48,49}

Evaluation Methodology

Evaluation comprised nine adolescent clinical care sites in four AIDS epicenters: Los Angeles, New York, San Francisco, and Miami. Evaluation occurred over a 21-month period between 1994 and 1996. Of the 393 HIV-infected youth eligible to participate, 25 refused and 17 were too ill to participate; 351 HIV-infected youth agreed to participate. Every youth gave informed consent and evaluators received parental consent, as well, for non-emancipated youth under age 18. Evaluators conducted two baseline assessments, three months apart, to establish the stability of risk behaviors. Of the 351 recruited, 41 were lost to follow-up at the second pretest. Thus, 310 HIV-infected youth participated in the study: 126 from Los Angeles; 91 from New York City; 49 from San Francisco; and 44 from Miami.⁴⁸

Both baseline assessments were conducted *before* youth were assigned to treatment or control condition. Then, cohorts of about 15 youth were assigned sequentially to treatment and control conditions. Across nine sites, there were 16 cohorts in the intervention condition (n=208) and nine cohorts in the control condition (n=102). Youth received an incentive of \$20 to \$25 for each assessment. Regression analysis found no significant differences between treatment and control youth across the two pretests.⁴⁸

Module One, *Stay Healthy* was delivered over a period of three months to the youth in the treatment cohorts. Treatment and control cohorts were both reassessed at nine months after the second pretest. At nine months, 257 youth were successfully reassessed (treatment youth n=181; control youth n=76). Module Two, *Act Safe*, was then delivered over a period of three months and youth were re-assessed at 15 months after the second pretest. At 15 months, 154 were successfully reassessed (treatment youth n=124; control youth n=30).⁴⁸

At baseline, 72 percent of participants were male; 88 percent of males self-identified as gay or bisexual. Participants ranged in age from 13 to 24 years; mean age 20.7. Female participants were younger than males by about 1.5 years ($P < .001$). Most (64 percent) belonged to ethnic minority groups; 55 percent had graduated from high school. For those still enrolled in school (31 percent), the mean grade was 11th. On average, participants had tested positive for HIV more than two years prior to recruitment.⁴⁸

Section III. Clinic-Based Programs

Extensive analyses to assess the presence of selection bias found that subgroups were comparable throughout the study. Evaluation found only three differences. 1) Treatment and control conditions were not balanced by site because seven of nine sites ended with a treatment cohort. 2) Because Miami had more female HIV-infected youth and because Miami's youth were ineligible for Module Two, more males attended only Module One than attended both modules. 3) Treatment youth were more likely than controls to use social support as a coping strategy (an outcome measure at baseline). In assessment, evaluators controlled for city, gender, ethnicity, and baseline status so that these factors would not confound the findings.⁴⁸

Outcomes

- **Behaviors—**
 - **Positive lifestyle changes—**Evaluation found that female participants in Module One showed a significant number of positive lifestyle changes compared to controls (relative effect size [RES]=46 percent; $P=.003$) and also compared to intervention non-attendees (RES=35 percent; $P=.016$).⁴⁸
 - **Positive coping changes—**Evaluation found that female participants in Module One had a significantly higher positive action coping score than did female controls (RES=18 percent; $P=.029$). In addition, both male and female participants showed higher social support coping scores than did controls (RES=11 percent; $P=.04$) or intervention non-attendees (RES=17 percent; $P=.006$).⁴⁸
 - **Reduced number of sex partners—**Compared with non-attendees, treatment youth in Module Two reported significantly fewer sexual partners (RES=55 percent; $P=.033$) and fewer HIV-negative sexual partners (RES=54 percent; $P=.035$).⁴⁸
 - **Reduced incidence of unprotected sex—**Compared to control youth, treatment youth reported a lower percentage of unprotected sex acts (RES=82 percent; $P=.013$). Treatment youth also had a lower percentage of unprotected sex acts than did non-attendees (RES=74 percent; $P=.075$).⁴⁸
 - **Other findings—**
 - **Reduced substance use—**Evaluation found significant reductions in the weighted substance use index between treatment youth and non-attendees (RES=50 percent; $P=.024$). Differences included prevalence of alcohol or marijuana use (RES=26 percent; $P=.045$) and the use of hard drugs (RES=45 percent; $P=.097$).⁴⁸
 - Evaluation found *no* significant differences between treatment youth and controls or non-attendees in emotional distress or in the number of drugs used.⁴⁸
 - Evaluation also found *no* significant difference between treatment and control youth or non-attendees in disclosure of serostatus to sexual partners.⁴⁸

For More Information, Contact

- A detailed manual for the two sessions is available online at <http://chipts.ucla.edu>
- In addition, this program is a part of CDC's Diffusion of Effective Behavioral Interventions (DEBI) project. For additional information and training visit http://www.cdc.gov/hiv/topics/prev_prog/rep/packages/TLC.htm

Glossary of Terms

Although Advocates for Youth strove for consistency in terminology, it may still vary. For example, some evaluations provide information about African American participants, others about black participants. These two terms are not necessarily interchangeable since they may denote different populations. Therefore, Advocates for Youth used the evaluators' language as to race/ethnicity and risk (i.e., low risk, high risk, or moderate risk).

Participant Groups

- **Control or comparison group** = young people with similar socioeconomic, ethnic, and demographic characteristics as the intervention group, yet who did not receive the program being evaluated, and whose answers at pretest and post-intervention follow-up provided evaluators with data for comparison with intervention participants, in order to determine the effectiveness of the program. The nonparticipant group is called a control group when youth are selected randomly and a comparison group when they are not.
- **Treatment or intervention group** = the young people who received the program being evaluated.

Evaluation Design

- **Experimental design** = an evaluation design that involves gathering a set of individuals equally eligible and willing to participate in a program and randomly dividing them into two groups: those who receive the intervention (treatment group) and those from whom the intervention is withheld (control group). By randomly allocating the intervention among eligible beneficiaries, the assignment process creates comparable treatment and control groups that are statistically equivalent with one another, given appropriate sample sizes.
- **Non-experimental design** = an evaluation design for use when it is not possible to select a control group, identify a suitable comparison group through matching methods, or use methods, or use reflexive comparisons.*
- **Quasi-experimental design** = an evaluation design that constructs a comparison group using matching or reflexive comparisons. Matching involves identifying non-program participants comparable in essential characteristics to participants; both groups are matched on the basis of either a few observed characteristics or a number of characteristics that are known, or believed, to influence program outcomes. Reflexive comparison involves program participants, compared to themselves before and after the intervention and who function as both treatment and control group.*

Related Terms

- **Replication** = the same program, evaluated in another place with different young people.
- **Fidelity** = careful replication of a program to include all its elements as included in the original evaluation. Where programs were altered, lack of fidelity is noted in this document.
- **For Use With** = used here to denote the populations of young people with whom evaluation has shown a particular program to be most effective as well as the population for whom it was designed.
- **Significant** = statistically significant, or meaningful difference, as determined by evaluation.

* Definition from <http://www.worldbank.org/poverty/impact/methods/overview.htm>

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