The Program Archive on Sexuality, Health & Adolescence: Promising "Prevention Programs in a Box"

By Josefina J. Card, Starr Niego, Alisa Mallari and William S. Farrell

The Program Archive on Sexuality, Health & Adolescence (PASHA) identifies programs aimed at preventing pregnancies and sexually transmitted diseases among teenagers, and makes materials from interventions with demonstrated effectiveness available to practitioners around the country. With the assistance of a panel of experts, PASHA has identified an initial group of 15 pregnancy prevention and 15 sexually transmitted disease prevention programs for inclusion in its collection; to date, 24 programs have accepted PASHA's invitation to participate. Once a program agrees to participate, PASHA packages all materials required to replicate or adapt the intervention, along with a user's guide, two evaluation instruments and a directory guiding users to sources of assistance. As additional effective programs are identified and agree to submit their materials for archiving and distribution, they will be added to the collection.

(Family Planning Perspectives, **28:**210–220, 1996)

If intervention programs are to qualify for funding, funders and lawmakers are increasingly requiring those aimed at preventing pregnancy, infection with sexually transmitted diseases (STDs)—including the human immunodeficiency virus (HIV)—and AIDS among teenagers to be based on effective prevention strategies. Moreover, for funding to continue, programs are generally expected to document their effectiveness in preventing pregnancy or STDs among teenagers or in changing the antecedents to these problems. Change in behavior that is known to lead to pregnancy and STDs among teenagers—as opposed to change simply in knowledge or attitudes—has emerged as the standard criterion of effectiveness.

The Program Archive on Sexuality, Health & Adolescence (PASHA) is a new resource aimed at assisting practitioners around the country by assembling and disseminating materials from promising teenage pregnancy and STD/HIV/AIDS prevention programs and encouraging rigorous reevaluation of these programs at sites other than the ones at which they were developed. Programs are included in the PASHA collection if an expert panel judges them effective and if their developers or the current holders of the program and evaluation materials agree to submit those materials for archiving and distribution. Initially, the panel selected 30 programs; as of summer 1996, 24 had agreed to participate. As other effective programs are identified and agree to participate, materials for these will be added to the collection.

For each participating program, PASHA is preparing a package containing all of the materials required to replicate or adapt the intervention, a user's guide prepared by PASHA staff, two evaluation instruments, and a directory, organized by state, of evaluators who are willing to provide assistance. Each program package can be used as a stand-alone intervention. Program packages also can be creatively combined or used in tandem for coordinated, community-wide teenage pregnancy or STD/HIV/AIDS prevention initiatives. An information and order packet describes all available and forthcoming programs, and provides guidance on how to choose the programs best suited to a community's, school's or clinic's needs.

The project contributes to the field in several ways. First, it pulls together research findings on the effectiveness of existing teenage pregnancy and STD/HIV/AIDS prevention programs, highlighting the most promising for national attention and scrutiny. Second, for participating programs, it goes beyond identification to provide access to materials needed to reimplement and reevaluate them. Third, it supports the valid use of the program packages by providing free telephone technical assistance on program implementation. Users desiring more formal training, onsite technical assistance or assistance with program evaluation are directed to knowledgeable consultants (the original developer or local evaluation specialists) who can provide the required assistance.

In this article, we describe the methods and principles guiding PASHA's development, including the strategies used to identify candidate programs, to review and select programs for the collection and to package materials for public use. We then look at the key features, approaches, target groups and effects of the selected programs. Because PASHA's contribution lies as much in applied research (the identification of promising programs based on rigorous evaluation of their effectiveness) as in practice (the formation of a national resource that should facilitate the acquisition of materials needed to implement and reevaluate these programs), we describe the scientific assessment methods supporting the credibility of the collection, as well as the design and content of the resultant resource.

Methods

Establishing Criteria for Effectiveness

At the project's inception, five nationally recognized experts in teenage pregnancy or STD/HIV/AIDS prevention research were invited to serve on the PASHA Scientist Expert Panel, which was charged with selecting promising programs for PASHA.* Following a review of the evaluation literature, we worked with the panel to delineate the following key criteria for assessing the effectiveness of teenage pregnancy and STD/HIV/AIDS prevention programs.

•*Substantive relevance.* We required that pregnancy prevention programs be targeted toward adolescents aged 10–19. For STD/HIV/AIDS prevention programs, we

Josefina J. Card is principal investigator, Alison Mallari is chief archivist and Starr Niego is project director, Program Archive on Sexuality, Health & Adolescence (PASHA). William S. Farrell directed the preparation of briefing materials for the PASHA Scientist Expert Panel. PASHA is being assembled at Sociometrics Corp., Los Altos, Calif., with funds provided by small-business innovation research grant APR 0000964-02-1 from the U. S. Office of Population Affairs. The authors wish to thank the members of the Scientist Expert Panel for their work in ranking the programs that were eventually included in PASHA.

*The panel members were Claire Brindis, University of California, San Francisco; Jeffrey Fisher, University of Connecticut, Storrs; Brent Miller, Utah State University, Logan; Kristin Moore, Child Trends, Washington, D. C.; and Freya Sonenstein, Urban Institute, Washington, D. C.

included programs aimed at youths aged 10–21, since the early college years are a high-risk period for STDs because of sexual experimentation and multiple partners.

•*Positive behavioral impact.* We required that evaluation data demonstrate the program's contribution to one or more of the following behaviors or outcomes for one or more subgroups of the target population: postponing sexual intercourse; decreasing the frequency of intercourse or the number of sexual partners; increasing the use of effective methods to prevent pregnancy or STD transmission at first intercourse, most recent intercourse or each intercourse; substituting lower risk sexual behavior for high-risk behavior; increasing behavior related to STD/HIV prevention (e.g., purchasing or carrying condoms); and preventing pregnancy or STDs.

•*For the youngest teenagers, positive impact on skills, values and attitudes.* For programs aimed primarily at youths aged 15 or younger, we accepted a demonstrated salutary impact on fertility- or STD/HIV-related refusal or negotiation skills, intentions, values or attitudes (perception that the above behaviors are worthwhile and of value) as preliminary, age-appropriate evidence of effectiveness. These factors, unlike knowledge alone, have a demonstrated association with sexual health protective behaviors.[1]

Identifying and Selecting Programs

We conducted a systematic and extensive investigation of programs in the field, gathering nominations through on-line and bibliographic literature searches (paying particular attention to recent publications reviewing the effectiveness of relevant interventions[2]), telephone calls to funding agencies and principal investigators, and requests printed in practitioner-oriented publications. The process identified programs developed in a variety of sites (community, school and clinic) that utilized a range of approaches (abstinence, behavioral skills development, community outreach, contraceptive education, life option enhancement, sexuality and STD/HIV education, and self-efficacy or self-esteem enhancement) and components (adult involvement, case management, group discussion, lectures, peer counseling or instruction, public service announcements, role-playing and video).

A program was a potential candidate if at least one evaluation-related paper or publication documented, in scientifically acceptable fashion, its success in changing at least one fertility- or STD-related behavior in teenagers or young adults. We considered an evaluation scientifically acceptable if it had an appropriate design and methodology (e.g., pretest and posttest assessments, and random assignment to a control group, where feasible) and included a follow-up assessment. Follow-up had to occur at least six months after the end of the intervention for pregnancy prevention programs and at least three months afterward for STD/HIV/AIDS prevention programs.* Our search identified 55 prevention programs that appeared to meet this screening standard; all were presented to the panel for review.

To assist the panel in making final selection decisions, we prepared briefing materials for each candidate program. These materials consisted of a 3–5-page summary describing the program content, procedures (rationale, history, schedule and materials) and evaluation methods and findings, together with copies of the evaluation reports on which the summary was based.

On the basis of the key criteria, every member of the panel rated each candidate program on a scale of 1–10, indicating its priority for PASHA. The panel members were instructed that a score of 7 or higher would suggest that the program be included. Programs with a median score of 7 or higher and a mean score of 6.6 or higher were included in the collection. Of the 55 candidate programs, 30 were selected—11 that are aimed at averting first pregnancies among teenagers (primary pregnancy prevention), four that seek to avert repeat pregnancies among young mothers (secondary pregnancy prevention) and 15 STD/HIV/AIDS prevention programs.

Preparation of Program Packages

After programs are selected, we ask the program developers or current holders of the program and evaluation materials for permission to archive and disseminate materials. Materials for each participating program are packaged in a box (the PASHA program package) containing everything needed to replicate the program or adapt its implementation in accordance with a group's specific needs.

The package includes all items needed to implement the program (e.g., training manuals, a curriculum guidebook, a program manual, student workbooks, videos and board games) and a user's guide. The user's guide, prepared by PASHA staff, outlines the program's history and rationale, summarizes the evidence for its effectiveness, describes the materials in the package and provides tips and guidelines for implementing the program. Two accompanying evaluation instruments (the original questionnaires used to assess the program's effectiveness and the modular Prevention Minimum Evaluation Data Set, which can be used with most teenage pregnancy prevention and STD/HIV/AIDS prevention programs[3]) provide a starting point for reevaluating the program. A directory of evaluation consultants, organized by state, also is provided.

All program packages include a number for free telephone technical assistance on program implementation and evaluation; several include training materials for staff. For users desiring more intensive, up-front training or on-site technical assistance, a section of the user's guide points to where and how these opportunities may be obtained.

Review and Field Test of Packages

A three-pronged, comprehensive review of each PASHA package is the final step in its development. After the package has been assembled, we ask the original program developer to certify the accuracy and comprehensiveness of the materials.

To ensure the packages' usability, clarity and appeal, we have engaged several community advisory panels of practitioners to review the content and design of program packages as they are completed. Additionally, program packages will be field-tested and reevaluated in settings other than the sites in which they were developed. The field tests will provide feedback on how the packages can be made even more self-contained and user-friendly, will enrich our understanding of factors in successful program implementation and will provide data on programs' effectiveness in various sites.

Findings

Program Characteristics

Key features of all 30 pregnancy and STD/HIV/AIDS prevention programs selected to date are presented in Tables 1 and 2 (pages 212 and 213), respectively; programs that have agreed to participate are indicated by a footnote in the tables. (One primary pregnancy intervention, Reducing the Risk, also focuses on STD/HIV/AIDS, as indicated in Table 1.) Abstracts containing additional information about each program and summarizing the evaluation results are provided in the appendix (page 216).

In all, 14 of the programs are school-based, 11 are community-based and 10 are clinic-based. These categories are not mu-

*We chose three months for the latter programs because they are relatively new and therefore have not had the time for longer intervals to elapse between immediate posttest and follow-up assessments or they have not invested in long-term follow-up.

Table 1. Characteristics of pregnancy prevention programs selected for the Program Archive on Sexuality, Health & Adolescence (PASHA)

Program	Site	Behavioral change approach	Instructional component	No. of sessions	Length of program	Priority score*	
						Mean	Median
Primary prevention							
Adolescent Compliance in the Use of Oral Contraceptives	Clinic	Contraceptive ed., contraceptive access	Peer counseling	4	Approx. 4 hours	8.4	9
Human Sexuality—Values & Choices†	School	Abstinence, behav. skills dev., contraceptive ed., sex/STD ed.	Adult involvement, group disc., lectures, role-play, video	15	11–13 hours	7.5	7.5
New Adolescent Approach Protocols: Tailoring Family Planning Services to Meet the Special Needs of Adolescents†	Clinic	Behav. skills dev., contraceptive ed., contraceptive access, sex/STD ed.	Adult involvement	3	5 hours + add'l time as needed	7.8	8
Postponing Sexual Involvement	School	Abstinence, behav. skills dev., contraceptive ed., sex/STD ed.	Group disc., lectures, peer counseling, role-play, video	5	Approx. 5 hours	8.8	9
Project Taking Charge†	School	Abstinence, behav. skills dev., life options, sex/STD ed., self-efficacy/self-esteem	Adult involvement, group disc., lectures, role-play, video	30	Approx. 50 hours	6.6	7
Reducing the Risk†,‡	School	Abstinence, behav. skills dev., contraceptive ed., sex/STD ed.	Adult involvement, group disc., lectures, role-play	16	Approx. 12 hours	8.8	8.5
Reproductive Health Counseling for Young Men†	Clinic	Abstinence, behav. skills dev., sex/STD ed.	Role-play	1	1 hour	8.4	8
School/Community Program for Sexual Risk Reduction Among Teens†	School, comm.	Abstinence, behav. skills dev., comm. outreach, contraceptive ed., contraceptive access, life options, sex/STD ed., self-efficacy/self-esteem	Adult involvement, group disc., lectures, role-play, public svc. announcements	na	1 year, suggested minimum	8.0	8
School-Linked Reproductive Health Services (Self Center)†	School, clinic	Behav. skills dev., contraceptive ed., contraceptive access, sex/STD ed.	Case mgmt., group disc., lectures, video	na	1 year, suggested minimum	8.8	8.5
Teen Outreach	School	Behav. skills dev., life options, sex/STD ed.	Group disc.	1/week in school year	1 school year	7.7	8.5
Teen Talk†	School, comm.	Behav. skills dev., contraceptive ed., sex/STD ed.	Group disc., lectures, role-play, video	6	12–15 hours	8.0	8
Secondary prevention							
Elmira Nurse Home Visiting Program	Clinic, comm.	Behav. skills dev., contraceptive ed., life options, sex/STD ed.	Adult involvement, case mgmt., group disc.	Approx. 22	Pregnancy until 48 months postpartum	7.8	8
Health Care Program for First-Time Adolescent Mothers and Their Infants†	Clinic	Behav. skills dev., contraceptive ed., sex/STD ed.	Case mgmt., video	na	Pregnancy until 18 months postpartum	7.2	7
Queens Medical Center's Comprehensive Teenage Pregnancy Program†	Clinic	Behav. skills dev., contraceptive ed., life options, sex/STD ed.	Case mgmt., group disc.	na	Pregnancy until age 20	7.6	8
School-Based Intervention Program for Adolescent Mothers	School	Behav. skills dev., contraceptive ed., life options, sex/STD ed.	Group disc., lectures	na	Pregnancy until delivery	7.0	8

*PASHA Scientist Expert Panel members rated candidate programs from 1 (lowest priority for PASHA) to 10 (highest priority); scores of 7 and higher were interpreted as "include in PASHA." †The developer or holder of the program has agreed to participate in PASHA. ‡Program focuses on primary pregnancy and STD/HIV/AIDS prevention. *Note:* In this and subsequent tables, na=not applicable.

tually exclusive; two of the programs have been developed as school-community partnerships, two are community-clinic partnerships and one is a clinic-school venture.

All interventions are guided by at least one approach (i.e., rationale or theory for behavioral change), and the use of multiple approaches is common. On average, the programs incorporate four approaches; one broad-based community-wide pregnancy intervention includes all eight delineated approaches. Nearly all of the interventions incorporate behavioral skills development (e.g., negotiating condom use, practicing saying no and practicing how to avoid risky situations), contraceptive education and sexuality education into their approach. In addition, 10 programs offer participants access to contraceptives, and nine concentrate on improving self-efficacy. Nine programs (six primary pregnancy prevention and three STD/HIV/AIDS prevention) promote abstinence as the preferred, but not exclusive, choice for adolescents.

Four instructional techniques or components of program delivery predomi-

Table 2. Characteristics of STD/HIV/AIDS prevention programs selected for PASHA

Program	Site	Behavioral change approach	Instructional component	No. of sessions	Length of program	Priority score*	
						Mean	Median
AIDS Prevention and Health Promotion Among Women†	Clinic	Behav. skills dev., contraceptive ed., contraceptive access, sex/STD ed., self-efficacy/self-esteem	Group disc., role-play, video	4	6–8 hours	8.2	8
AIDS Prevention for Adolescents in School†	School	Abstinence, behav. skills dev., contraceptive ed., contraceptive access, sex/STD ed., self-efficacy/self-esteem	Group disc., lectures, role-play, video	6	6 hours	8.8	9
AIDS Risk Reduction Education and Skills Training Program†	Comm.	Behav. skills dev., contraceptive ed., sex/STD ed.	Group disc., lectures, role-play	3	4.5 hours	7.2	7
AIDS Risk Reduction for College Students†	School	Behav. skills dev., contraceptive ed., sex/STD ed.	Group disc., lectures, peer counseling, role-play, video	3	6 hours	8.5	8.5
Be Proud! Be Responsible!†	Comm.	Behav. skills dev., contraceptive ed., sex/STD ed., self-efficacy/self-esteem	Group disc., lectures, role-play, video	1–6	5–6 hours	8.8	9
Becoming a Responsible Teen	Comm.	Behav. skills dev., contraceptive ed., comm. outreach, sex/STD ed., self-efficacy/self-esteem	Group disc., lectures, role-play, video	8	12–16 hours	9.3	9
Clinic-Based AIDS Education Program for Female Adolescents†	Clinic	Behav. skills dev., contraceptive ed., contraceptive access, sex/STD ed.	Lectures, video	1	1 hour	6.8	7
Get Real About AIDS†	School	Abstinence, behav. skills dev., contraceptive ed., sex/STD ed., self-efficacy/self-esteem	Group disc., lectures, public svc. announcements, role-play, video	14	11–15 hours	6.8	7
Poder Latino: A Community HIV Prevention Program for Inner-City Latino Youth†	Comm.	Behav. skills dev., comm. outreach, contraceptive ed., contraceptive access, sex/STD ed.	Group disc., lectures, peer counseling, public svc. announcements	na	1 year, suggested minimum	8.0	8
Rikers Health Advocacy Program†	Comm.	Behav. skills dev., contraceptive ed., sex/STD ed., self-efficacy/self-esteem	Group disc., lectures, role-play	4	4 hours	7.2	7
Safer Sex Efficacy Workshop†	School	Behav. skills dev., contraceptive ed., sex/STD ed., self-efficacy/self-esteem	Group disc., peer counseling, role-play	1	2.5–3 hours	8.0	8
Stay Safe for Adolescents at Risk†	Comm.	Behav. skills dev., contraceptive ed., contraceptive access, sex/STD ed.	Case mgmt., group disc., lectures, role-play, video	20	30–40 hours + add'l services as needed	8.2	8
Stay Safe for Gay, Lesbian & Bisexual Adolescents†	Comm.	Behav. skills dev., contraceptive ed., contraceptive access, sex/STD ed.	Case mgmt., group disc., lectures, role-play, video	25	30–40 hours + add'l services as needed	7.0	7
Youth AIDS Prevention Project†	School	Abstinence, behav. skills dev., contraceptive ed., sex/STD ed.	Adult involvement, group disc., lectures, role-play, video	15	8–9 hours in year 1; 4–5 hours in year 2	7.0	7
Youth and AIDS Project's HIV Prevention Program†	Comm., clinic	Behav. skills dev., contraceptive ed., sex/STD ed.	Case mgmt., group disc., lectures, peer counseling, role-play, video	3 + support mtgs.	4.5 hours + optional peer support mtgs.	7.0	7

*Panel members rated candidate programs from 1 (lowest priority for PASHA) to 10 (highest priority); scores of 7 and higher were interpreted as "include in PASHA." †The developer or holder of the program has agreed to participate in PASHA. *Note:* For information on Reducing the Risk, see Table 1.

nate: group discussions (used in 25 programs), lectures (21 programs), role-plays (20 programs) and videos (17 programs). Adult involvement (such as special evening sessions introducing parents to school-based programs and encouraging communication with their children regarding sexuality) is used in more primary pregnancy prevention programs (five) than in secondary pregnancy prevention or STD/HIV/AIDS prevention programs (one each). Case management is common in secondary pregnancy prevention programs, where young mothers receive a broad array of services matched to their educational, social and psychological needs. Finally, drawing upon principles of social learning theory, a few primary pregnancy and STD/HIV/AIDS programs invite specially trained adolescents to serve as peer counselors or leaders, thus aiming to provide persuasive and powerful role models for participants.

Program intensity—as indicated by the number of sessions and the total length of the intervention—varies tremendously among programs. For example, two STD/HIV/AIDS prevention programs rely on single-session workshops lasting 1–3 hours, while one clinic-based secondary pregnancy prevention program serves mothers from pregnancy through their 20th birthday. Overall, it appears that programs directed to high-risk youths (such as gay and bisexual teenagers or runaways) are the most intensive, involving perhaps 30–40 hours of participation. In contrast, programs directed toward a wider audience, often implemented as family life ed-

Table 3. Characteristics of participants in pregnancy prevention programs selected for PASHA

Program	Original sites	No. of participants	Age	Sex	Race/ ethnicity	Residence	Other
Primary prevention							
Adolescent Compliance in the Use of Oral Contraceptives	Clinic, Atlanta	57	14–19	100% fem.	4% white, 96% black	Urban	
Human Sexuality—Values & Choices	9 jr. high schools, Detroit, Minneapolis, Denver and the S.F. Bay Area	657	12–14	48% male, 52% fem.	62% white, 19% black, 10% Hisp., 9% other	Rural, urban, suburban	
New Adolescent Approach Protocols: Tailoring Family Planning Services to Meet the Special Needs of Adolescents	6 family planning clinics, Penn.	1,261	15–17	100% fem.	1% white, 98% black, 1% other	u	Low-income, high-risk
Postponing Sexual Involvement	8th-grade classes, Atlanta	1,005	13–15	*	99% black	Urban	Low-income
Project Taking Charge	3 jr. high schools	136	12–13	50% male, 50% fem.	63% white, 29% black, 4% Hisp., 4% other	u	Low-income
Reducing the Risk†	13 high schools, Calif.	758	15 (avg.)	*	61% white, 2% black, 21% Hisp., 9% Asian, 6% other	Rural, urban, suburban	
Reproductive Health Counseling for Young Men	2 HMOs, northwestern cities	1,195	15–18	100% male	91% white, 5% black, 4% Asian, 1% other	Urban	
School/Community Program for Sexual Risk Reduction Among Teens	1 county, rural S.C.	na	na	*	42% white, 58% black	Rural	Low-income, high teen preg. rate
School-Linked Reproductive Health Services (Self Center)	1 high school, 1 jr. high school, 1 clinic, Baltimore	Enrollment varied	12–18	*	100% black	Urban	Low-income, high teen preg. rate
Teen Outreach	Schools nationwide	985	11–21	25% male, 75% fem.	41% white, 40% black, 13% Hisp., 6% other	u	
Teen Talk	7 schools, family planning clinics, Calif., Texas	1,444	13–19	*	15% white, 24% black, 53% Hisp., 8% other	Rural, urban	
Secondary prevention							
Elmira Nurse Home Visiting Program	Homes, Elmira, N.Y.	400 women and their infants	47%<19	100% fem.	88% white	Small rural city	Many low-income
Health Care Program for First-Time Adolescent Mothers and Their Infants	Gyn. clinic	243 teens and their infants	<17	100% fem.	100% black	Urban	
Queens Medical Center's Comprehensive Teenage Pregnancy Program	Gyn. clinic, New York, N.Y	498 teens and their infants	<20	100% fem.	u	Urban	Low-income
School-Based Intervention Program for Adolescent Mothers	Alternative school, New Haven, Conn.	102	17 (avg.)	100% fem.	100% black	Urban	Low-income

*Program serves males and females; breakdown by sex is unavailable. †Program focuses on primary pregnancy and STD/HIV/AIDS prevention. *Note:* In this table and Table 4, u=unavailable.

ucation programs, may span a few weeks but involve only 5–15 hours of instruction.

The last two columns of Table 1 show that the mean priority scores for the 15 teenage pregnancy prevention programs ranged from 6.6 to 8.8. For the 15 STD/HIV/AIDS prevention programs, the mean ranged from 6.8 to 9.3. The scarcity of strong evidence for effectiveness (especially for the STD/HIV/AIDS prevention programs) is seen in the distribution of priority scores: Two of the teenage pregnancy prevention programs and seven of the STD/HIV/AIDS prevention programs had a median score of 7 (the minimum score required for inclusion), coupled with a mean score of 7.5 or less.

Participants' Characteristics

The demographic profiles of these programs and their participants reveal great geographic and social diversity. Tables 3 and 4 show that the programs originated in all parts of the country, often in multiple locations; the number of participants ranged from fewer than 100 to nearly 3,000. The age range of participants was wide, encompassing early, middle and late adolescence and early adulthood. Only a few programs target a specific age-group. For example, Human Sexuality—Values & Choices encourages seventh- and eighth-grade students to postpone sexual intercourse. At the other end of the age range, the Safer Sex Efficacy Workshop teaches the basics of HIV transmission and

Table 4. Characteristics of participants in STD/HIV/AIDS programs selected for PASHA

Program	Original sites	No. of participants	Age	Sex	Race/ ethnicity	Residence	Other
AIDS Prevention and Health Promotion Among Women	Medical clinic	206	16–29	100% fem.	40% white, 57% black, 3% other	Urban	Low-income
AIDS Prevention for Adolescents in School	4 high schools, New York, N.Y.	1,201	12–20	42% male, 58% fem.	37% black, 35% Hisp., 28% white & Asian	Urban	
AIDS Risk Reduction Education and Skills Training Program	3 comm. orgs., New York, N.Y.	87	12–16	45% male, 55% fem.	41% black, 59% Hisp.	Urban	High-risk
AIDS Risk Reduction for College Students	College	744	20 (avg.)	49% male, 51% fem.	88% white, 3% black, 4% Hisp., 4% Asian	na	
Be Proud! Be Responsible!	School, Philadelphia	157	15 (avg.)	100% male	100% black	Urban	
Becoming a Responsible Teen	Comm. org., Miss.	u	14–18	*	100% black	Mid-sized city	Low-income
Clinic-Based AIDS Education Program for Female Adolescents	Medical clinic	75	13–21	100% fem.	48% white, 52% black	u	
Get Real About AIDS	17 high schools, Colo.	2,849	15 (avg.)	51% male, 49% fem.	65% white, 6% black, 21% Hisp., 3% Asian, 5% other	Rural, urban, suburban	
Poder Latino: A Community HIV Prevention Program for Inner-City Latino Youth	Comm., Boston	586	14–20	*	100% Hisp.	Urban	High-risk
Rikers Health Advocacy Program	Prison, New York, N.Y.	110	16–18	100% male	33% white, 64% black, 3% other	Urban	High-risk
Safer Sex Efficacy Workshop	Undergrad. health ed. class	209	22 (avg.)	33% male, 67% fem.	82% white	na	
Stay Safe for Adolescents at Risk	2 youth shelters, New York, N.Y.	78	11–18	36% male, 64% fem.	8% white, 63% black, 22% Hisp., 7% other	Urban	High-risk
Stay Safe for Gay, Lesbian & Bisexual Adolescents	Social service agency, New York, N.Y.	138	14–19	100% male	12% white, 31% black, 51% Hisp., 6% other	Urban	High-risk
Youth AIDS Prevention Project	15 jr. high schools, Chicago	1,454	12–14	48% male, 52% fem.	23% whiteß, 56% black, 17% Hisp., 5% other	Urban	High-risk
Youth and AIDS Project's HIV Prevention Program	Comm. org., Minn.	139	13–21	100% male	75% white, 14% black, 3% Hisp., 4% Asian, 3% other	u	High-risk

*Program serves males and females; breakdown by sex is unavailable. *Note:* For information on Reducing the Risk, see Table 3.

prevention to college students in their dorms; AIDS Prevention and Health Promotion Among Women reaches some women in their late 20s. However, most of the programs are suitable for use with youths from a broad range of ages.

These tables also indicate that researchers have paid particular attention to teenagers who are at the greatest risk of negative fertility and sexual health outcomes. Five of the primary pregnancy prevention programs, three of the secondary pregnancy prevention programs and two of the STD/HIV/AIDS prevention programs target adolescents in low-income communities, where rates of adolescent pregnancy and STDs are often elevated. In addition, seven STD/HIV/AIDS prevention programs target "high-risk youths," whereas only one pregnancy prevention focuses on young people at elevated risk.

There are two differences in program content that result from this finding. First, the STD/HIV/AIDS programs, on the whole, have much more explicit content than the pregnancy prevention programs. Second, as mentioned earlier, three STD/HIV/AIDS prevention programs stress abstinence as an approach to prevention, compared with six primary pregnancy prevention programs. None of the secondary pregnancy prevention programs stress abstinence, probably because program participants are already sexually active.

Several programs, particularly in urban settings, use culturally sensitive materials to appeal to one or more racial or ethnic minority groups, including blacks and Hispanics. Examples include Poder Latino: A Community HIV Prevention Program for Inner-City Latino Youth, Becoming a Responsible Teen, and Be Proud! Be Responsible! Typically, these interventions are developed and facilitated by members of relevant groups, and instructional materials are presented in culturally appropriate language.

Program Impacts

Among the primary pregnancy prevention programs, three behavioral impacts are most common: increased abstinence or a delay in initial intercourse, improved patterns of contraceptive behavior and lower pregnancy rates. The programs have had little effect on the number of sexual partners or the frequency of intercourse among teenagers.

As noted earlier, for programs targeting younger adolescents, we accepted evidence

of a program's positive impact on skills, values or attitudes as preliminary measures of effectiveness. Human Sexuality—Values & Choices, for example, demonstrated a positive impact on participants' beliefs about the consequences of sexual activity, as well as on their perceptions of the frequency of intercourse among peers.

For the secondary pregnancy prevention programs, the repeat pregnancy rate was the principal outcome documented in these interventions. Additionally, the evaluators of one program, Queens Medical Center's Comprehensive Teenage Pregnancy Program, observed an increase in participants' contraceptive use after the birth of their first child.

The STD/HIV/AIDS prevention programs show a greater variety of impacts. These programs had positive effects on patterns of sexual activity, contraceptive behavior and substitution of lower risk for high-risk behavior. A few programs (including Becoming a Responsible Teen and AIDS Prevention and Health Promotion Among Women) also emphasize communication skills and have improved participants' ability to negotiate the use of a condom or to avoid risky situations.

Additionally, several programs present measures of self-efficacy regarding sexual behavior. The use of such measures appears to reflect a common theoretical approach across many of the STD/HIV/AIDS prevention initiatives. In particular, programs guided by social learning theory aim to enhance participants' beliefs in their ability to modify risk by changing risky sexual practices and therefore prevent infection.

Conclusion

The PASHA program packages represent possible starting points for schools, community groups, service agencies and clinics to consider as they launch new initiatives, modify existing ones or consolidate efforts into a community-wide intervention. Each program has demonstrated its effectiveness in improving relevant behaviors, values or attitudes. Our criteria for effectiveness, however, err in the direction of overinclusion: Most of these programs have not yet been distributed or evaluated beyond their original development site.

The "relaxed" nature of the criteria mandates care in interpreting what inclusion in PASHA means. It does not mean that a particular program will work for any given setting. It does mean that the program is worth considering as a starting point for a new endeavor. It means that if the program is chosen for replication, relevant materials will be easy to acquire and assistance will be available to facilitate implementation. And it means that the program, if implemented, will be worth reevaluating.

PASHA is the exclusive source of materials for 19 of the programs that have thus far agreed to participate; without PASHA, acquiring these materials and implementing the interventions would be difficult or, in many cases, impossible. Practitioners would have to rely on brief program descriptions in journal articles or books, or would have to incur the cost of hiring the original developer to provide materials, training or on-site technical assistance. Many developers may be reluctant to serve in this fashion, because of time constraints and conflicting work priorities.

Materials for three of the primary pregnancy prevention programs and two of the STD/HIV/AIDS prevention programs included in PASHA are also available from their developers or publishers. For these programs, the PASHA packages make smaller, still useful, value-added contributions, particularly through the user's guide and evaluation instruments.

While the PASHA program packages have been designed to be self-contained, given the diversity in scope and complexity of the programs, some users may desire additional training or on-site technical assistance. For example, we expect that practitioners implementing community-wide programs will require more assistance than those working with school- or clinic-based interventions. We also expect that practitioners will differ in terms of learning style. Some will feel comfortable learning a software program from the accompanying manual; others will prefer in-person training. The telephone technical assistance and the information in the user's guide on where to obtain further assistance are designed to accommodate a wide variety of users.

The 1980s saw the burgeoning of teenage pregnancy prevention programs, and the 1990s of teenage STD/HIV/AIDS prevention programs. While research evaluating the effectiveness of these interventions was relatively slow in developing, scores of papers, technical reports and books now exist on the topic. Our goal in evaluating the evidence contained in these publications has been to select the most promising programs and to make these programs relatively easy to replicate and reevaluate, thus demonstrating the utility of science for the development of practical resources. It is our hope that the PASHA collection will help sharpen the most promising intervention programs so as to promote and facilitate their usability; create low-cost access to and widespread awareness of these programs; and encourage additional rigorous tests of the programs' effectiveness in a variety of populations, including ones that differ from those in which the programs were developed and evaluated.

Appendix

Primary Pregnancy Prevention

Adolescent Compliance in the Use of Oral Contraceptives[4]

This program uses peer counselors to educate and support family planning patients aged 14–19. Counselors, who are typically 17 or 18 years old, receive training in conversational and interaction skills, observational skills, decision-making, formal counseling, confidentiality, problem-solving and birth control. During patients' initial clinic visit, they receive their first cycle of oral contraceptives, and peer counselors provide instruction and guidance. Follow-up visits are scheduled, which include measuring patients' compliance with the instructions on pill use.

The program was implemented in an Atlanta adolescent gynecology clinic, with 57 teenagers participating. At the one- and two-month follow-up assessments, program participants had higher levels of compliance than did their peers receiving instruction and guidance from nurses. By the four-month follow-up, participants were more likely than their peers to still be using oral contraceptives.

Human Sexuality—Values & Choices: A Values-Based Curriculum for 7th and 8th Grades[5]

This program aims to reduce teenage pregnancy by promoting seven core values that support sexual abstinence and healthy social relationships: equality, self-control, promise-keeping, responsibility, respect, honesty and social justice. The curriculum—including 15 student lessons and three adult-only sessions—is distinguished by an emphasis on parent-child communication and the use of a standardized, video-assisted format. Participants gain mastery through role-plays, group discussions and behavioral skills exercises.

Initial implementation took place in nine schools in Detroit, Minneapolis, Denver and the San Francisco Bay Area; 657 students were enrolled. At the end of the intervention, participants showed a greater understanding of the risks associated with early sexual involvement than did their peers outside the program, and they expressed greater support for postponing sexual activity.

New Adolescent Approach Protocols: Tailoring Family Planning Services to Meet the Special Needs of Adolescents[6]

This family planning clinic–based intervention, originally developed for teenagers younger than 18, encourages contraceptive use by providing family planning services in a manner designed to increase teenagers' comfort and self-confidence and reduce any fears that may discourage regular and effective use. The first appointment is divided into two visits, one for education and counseling, and the second for the medical examination (and contraceptive prescription). The intervention also includes individual education; use of visual aids; a follow-up visit scheduled six weeks after the initial appointment; and encouragement of participation by family members, partners and friends (while respecting the patient's right to confidential services).

Initially, 1,261 teenagers participated in the pro-

gram at six Pennsylvania family planning clinics. At six- and 12-month follow-up assessments, participants demonstrated significantly greater gains in knowledge and contraceptive use and had had significantly fewer pregnancies than their peers who had received standard services.

Postponing Sexual Involvement[7]
This junior high school program begins with the premise that teenagers should not be having sexual intercourse and encourages them to remain abstinent. Participants learn about relationships, sources of sexual pressure and assertive responses to use in high-risk situations. Class sessions, which are directed by trained peer leaders, emphasize interaction and repeated role-plays. Video presentations demonstrating refusal and negotiation skills are also used.

The program was field-tested in Atlanta, with 1,005 eighth-grade students from low-income communities participating. Participants who had not had sexual intercourse before the program were significantly more likely than their peers outside the program to remain abstinent through the end of ninth grade. The pregnancy rate among participants was only two-thirds the expected rate.

Project Taking Charge[8]
This program, developed for junior high school home economics classrooms, integrates family life education with lessons on vocational exploration, interpersonal and family relationships, decision-making and goal-setting. It promotes abstinence as the correct choice for adolescents and includes no material on contraception. The curriculum comprises five instructional units (with 27 class lessons) and three parent-youth sessions, during which adults are encouraged to communicate their own sexual values and assist teenagers in defining and attaining occupational goals.

In the initial field study, 136 youths from three low-income communities with elevated rates of teenage pregnancy were enrolled in the program. Six months following the intervention, participants showed significantly greater knowledge of sexual development, STDs and the risks of adolescent pregnancy than a comparison group of students. There was also some evidence, falling just short of statistical significance, that participation was associated with a delay in the initiation of sexual intercourse.

Reducing the Risk[9]
This 16-session high school sexuality education curriculum focuses on both primary pregnancy and STD/HIV/AIDS prevention. It aims to delay sexual activity or reduce the frequency of intercourse, and to increase awareness about and use of methods that protect against pregnancy and STDs. The curriculum also seeks to strengthen parent-child communication concerning abstinence and contraception. Lessons are reinforced through role-plays, homework activities, quizzes and skill-building activities.

A field study including 758 students in 13 California high schools showed that program participation significantly increased teenagers' knowledge of and communication with parents regarding abstinence and contraception. In addition, participation significantly reduced the likelihood that students who had not already initiated intercourse would do so by the 18-month follow-up assessment. However, it did not affect the frequency of sexual intercourse or the use of contraceptives among teenagers who were already sexually active.

Reproductive Health Counseling for Young Men[10]
Originally developed for boys aged 15–18, this one-hour, single-session, clinic-based intervention is designed to meet the needs of sexually active and inactive teenagers, and to promote abstinence as well as contraceptive use. At the beginning of the session, each teenager privately views a set of slides that are accompanied by an audiotape presentation. The materials address reproductive anatomy, fertility, hernia, testicular self-examination, STDs (including HIV/AIDS), sexuality and contraception (including abstinence), communication skills and access to health services. A half-hour private consultation with a health care practitioner follows the presentation. Guided by the young men's interests, the consultation may include such topics as sexuality, fertility goals and reproductive health risks, along with rehearsal and modeling of sexual communication.

The program was implemented in two health maintenance organizations in the Northwest; 1,195 high school–aged males participated. Compared with a group of their peers who were not enrolled in the program, sexually active participants were significantly more likely to be using effective contraceptives at the one-year follow-up assessment, especially if they had not been sexually active at the beginning of the intervention. Likewise, participants' partners were more likely than the partners of young men in the comparison group to be using effective contraceptives at the follow-up.

School/Community Program for Sexual Risk Reduction Among Teens[11]
This program is a community-wide public outreach campaign aimed at preventing pregnancy among unmarried adolescents. Public schools, universities, church groups and civic organizations are sites for training and workshops concerning human physiology, sexual development, self-concept and sexual awareness, values clarification and communication skills. All activities promote abstinence as the preferred sexual health decision; contraceptive information is provided for teenagers who choose to become sexually active.

The intervention was developed and field-tested in a rural, low-income, predominantly black community in South Carolina. A significant drop in the pregnancy rate was recorded during the full implementation period.

School-Linked Reproductive Health Services (Self Center)[12]
Originally launched as a partnership between a junior and a senior high school and a neighborhood clinic, this program combines education, counseling and reproductive services into a comprehensive intervention for youth. School-based components include at least one presentation to each homeroom class per semester to introduce the program and begin discussing values clarification, decision-making and reproductive health; informal discussion groups on such themes as pubertal development, drug use and parenting; and individual counseling sessions with a social worker. At the clinic, reproductive and extended counseling services are provided, and referrals are given for teenagers requiring medical care.

A three-year field test of the intervention was conducted in a low-income neighborhood in Baltimore. Students in the target schools were less likely than their peers in comparable schools to be sexually active; if they were sexually active, they were more likely to be using contraceptives effectively. The effect on contraceptive behavior was greatest among the younger sexually active students, whose contraceptive use was minimal at the start of the program. A delay in the onset of sexual activity was also recorded.

Teen Outreach[13]
Designed to prevent early pregnancy and encourage academic progress among 12–17-year-olds, this school-based program has two main components: small-group discussion sessions with a facilitator and participation in volunteer service-learning in the community. During the school year, students meet to discuss topics in a life skills curriculum, including growth and development, values clarification, communication skills, parenting issues, family relationships and community resources. The service-learning component of the program varies; it may include, for example, working in a hospital or nursing home, participating in a walkathon or tutoring a younger student.

Field studies of the program have taken place at diverse sites across the country; together, they have involved 985 students, mostly female, aged 11–21. Overall, participants have had fewer pregnancies, used contraceptives more regularly and registered better school attendance and academic success than their peers in control groups.

Teen Talk[14]
This sexuality and contraceptive education intervention for 13–19-year-olds is a collaborative effort between schools and community health centers. The pregnancy prevention program begins with two lectures covering reproductive physiology and contraceptive methods and effectiveness. Students participate in small-group discussions that are designed to help them understand and personalize the risks and consequences associated with teenage pregnancy, develop and practice the skills that will make abstinence an easier decision to implement and become more knowledgeable regarding contraception. The sessions include games, role-plays and films that encourage group discussion.

A field study of the intervention was conducted in seven rural and urban communities in Texas and California; 1,444 teenagers of diverse ethnicities participated. Enrollment in the program was especially beneficial to males, leading to a delay in the onset of sexual activity and, among those who were sexually active, to the use of more effective contraceptives.

Secondary Pregnancy Prevention

Elmira Nurse Home Visiting Program[15]
This comprehensive program of prenatal and postpartum care was designed for first-time mothers with limited social resources. Nurses visit pregnant women and young mothers to provide information about fetal and infant development, enlist family and friends in providing care and support for the new mother, and link family members to other health and social services.

A field study of the intervention was conducted with 400 women, mostly white, in Elmira, New York. Each nurse followed 20–25 families from pregnancy through the child's fourth birthday, typically making nine visits before the birth. By the final assessment, the program participants had had 43% fewer repeat pregnancies, postponed the birth of their second child 12 months longer and participated in the work force 83% longer than had a comparison group of their peers. In addition, an 80% reduction in the rate of child abuse was observed between the participant and comparison groups.

A Health Care Program for First-Time Adolescent Mothers and Their Infants[16]

Designed for low-income, unmarried women younger than 17, this clinic-based program aims to help first-time mothers prevent repeat pregnancies, return to school, improve immunization rates for their infants and reduce their use of hospital emergency room services for routine infant care. Services include well-baby care; discussion of family planning and referral to a birth control clinic; instruction from a social worker on parenting skills; and informal parenting education through videotapes, slides and discussions with a nurse practitioner or trained volunteer.

A field study was conducted with 243 black mothers at an urban teaching hospital. Eighteen months after the intervention, program participants had had significantly fewer repeat pregnancies than a group of teenagers receiving routine well-baby care, were less likely to use the emergency room for routine care and were more likely to obtain full immunization for their newborns.

Queens Medical Center's Comprehensive Teenage Pregnancy Program[17]

This clinic-based program provides medical care, psychosocial support and education to teenage mothers, their partners and their families. For the duration of the intervention, each patient and her infant remain with a team of providers: an obstetrician-gynecologist, pediatrician, social worker and health educator. The program also includes a physician/practitioner 24-hour "on-call" system and a reproductive health and family life education program, featuring biweekly classes for the participant, her partner and her family.

Initial implementation of this program involved 498 low-income New York City adolescents and their infants. Compared with their counterparts in a control group, program participants had higher rates of school attendance, graduation and regular contraceptive use, and a lower repeat pregnancy rate. Additionally, both they and their infants had significantly better health than controls.

A School-Based Intervention Program for Adolescent Mothers[18]

This intervention comprises a comprehensive array of services offered at an alternative public high school for pregnant students. In addition to the regular academic curriculum, the school provides social and medical services, childbirth education and counseling to help young women plan for their immediate and long-term futures. The school's staff includes teachers, nurses and social workers of diverse racial and ethnic backgrounds.

A field study of the intervention was conducted with 102 low-income students in New Haven. For the analysis, outcomes were compared for teenagers attending seven weeks or less versus more than seven weeks. Overall, more favorable outcomes were observed for teenagers enrolled for a longer period of time. At two and five years postpartum, the mothers who had been enrolled for more than seven weeks were significantly less likely than the others to have experienced a second pregnancy and showed significantly greater educational attainment and economic self-sufficiency.

STD/HIV/AIDS Prevention

AIDS Prevention and Health Promotion Among Women[19]

This program is designed to assist women aged 16–29 to effectively negotiate safer-sex behavior with their partner and maintain safer-sex goals. The program comprises four small-group sessions conducted over three months. Video segments promote group discussion, spark group role-plays and engage participants in cognitive rehearsal and guided exercises designed to encourage healthy choices about one's body and sexuality. Specifically, the program helps women achieve a sense of mastery when talking to their partner about sexual history, HIV/AIDS testing, monogamy, spermicide and condom use, and other health-related concerns.

This program was field-tested with 206 low-income black and white women who were using medical center obstetric services in Akron, Ohio. Compared with a control group, participants showed significant and sustained improvement in HIV/AIDS knowledge and safer-sex goals and behavior, including spermicide and condom purchases and use.

AIDS Prevention for Adolescents in School[20]

This six-session program for high school students is delivered by regular classroom teachers. The curriculum aims to improve students' knowledge, beliefs, self-efficacy and risk behavior concerning HIV/AIDS. The first two classes provide general information about the transmission and prevention of HIV and teach students how to appraise their own risk behavior. During the next two sessions, myths about peers' sexual behavior are corrected, values clarification is introduced, and students use role-play and negotiation skills to practice delaying sexual intercourse. The final lessons involve discussions about purchasing and using condoms.

A field study of the program was conducted with a predominantly black and Hispanic sample of 1,201 students attending four New York City public high schools. Participants scored significantly higher than a comparison group on measures of knowledge, beliefs about the benefits of risk reduction and beliefs about one's own ability to effect positive change. At the three-month follow-up assessment, the program was found to have been particularly effective in reducing sexually active participants' total number of sex partners and likelihood of having sex with high-risk partners, and in increasing the use of condoms.

AIDS Risk Reduction Education and Skills Training Program (ARREST)[21]

Designed for 12–16-year-olds, this intervention includes three small-group sessions in which participants receive information about the transmission and prevention of HIV/AIDS; instruction in purchasing and using condoms with spermicide; guidance in self-assessment of risk behaviors; training in decision-making, communication and assertiveness skills; and peer-group support for HIV/AIDS prevention and risk reduction. Teenagers also engage in role-plays, skill-building exercises and homework activities.

A field study of the program was conducted with 87 black and Hispanic youths from three community-based organizations in New York City. Four weeks after the intervention, participants showed significant gains in knowledge and attitudes about AIDS, as well as in sexual refusal and negotiation skills, relative to those of a comparison group. However, no differences were found between the groups' risk-related sexual behaviors.

AIDS Risk Reduction for College Students[22]

Designed as a workshop for college students, this program consists of three two-hour sessions that are led by specially trained peer educators and that incorporate information, motivation and behavioral strategies for AIDS risk reduction. The information component includes a slide show that explains the transmission and prevention of HIV, testing for the virus and the importance of condoms for protection against HIV/AIDS among those who are sexually active. The motivation component is addressed through small-group discussions and a video narrated by persons who contracted HIV through unsafe heterosexual intercourse. Finally, behavioral skills development is encouraged through role-plays of safer-sex communication.

In a field study of the program with 744 college students, participants showed significant gains in knowledge, motivation and behavior. In particular, sexually active participants were more likely than their peers in a comparison group to purchase and use condoms during a 2–4-month period following the intervention.

Be Proud! Be Responsible! Strategies to Empower Youth to Reduce Their Risk for AIDS[23]

This program targets teenagers of various ethnic groups at the junior and senior high school levels. The curriculum aims to increase knowledge of STDs/HIV/AIDS, enhance feelings of pride and build support for safer sexual behaviors. A small-group format is used, with teams led by an adult facilitator. The groups participate in games, role-plays and other oral and written exercises. Discussions of condom use are included. All materials have been selected and designed for their appeal to inner-city youth; one video segment, for example, features a female black narrator and a multiethnic cast.

In 1988, a field study of the intervention was conducted in Philadelphia with 157 youths. Compared with a control group of their peers, program participants showed greater knowledge about HIV/AIDS and risky sexual behavior immediately after and three months following the intervention. Participants also reported engaging in significantly less high-risk sexual behavior than their peers at the three-month follow-up.

Becoming a Responsible Teen (B.A.R.T.)[24]

This eight-session HIV/AIDS risk-reduction intervention was specifically designed for black 14–18-year-olds. In small-group discussions, role-play, games and video segments with black actors, the program stresses the importance of condom use for those who are sexually active. It also incorporates STD/HIV/AIDS education with training and repeated practice in sexual assertion, self-management, problem-solving, risk recognition, refusal and partner negotiation skills.

A field study of the program was conducted in Mississippi. Researchers identified a significant impact on several sexual risk behaviors, including increased use of condoms during intercourse and a decrease in the number of sex partners. The proportion of students who became sexually active during the year following the intervention was significantly lower among participants than among a comparison group.

A Clinic-Based AIDS Education Program for Female Adolescents[25]

This is a single-session group intervention originally targeted toward sexually active girls aged 13–21. The session, held at a hospital clinic, includes a brief lecture on the transmission and prevention of HIV/AIDS (based on guidelines from the Centers for Disease Control and Prevention), followed by a video explaining the purpose and use of condoms. As the session ends, participants receive coupons for obtaining condoms on a confidential basis at a

hospital pharmacy; the coupon redemption rate provides a measure of the program's impact.

A field study of the intervention was conducted with 75 white and black females. Among prior purchasers of condoms, young women who took part in the intervention were significantly more likely to redeem the coupons than were their peers in a comparison group. Overall, 60% of program participants obtained condoms, a rate 2.5 times that recorded in comparable programs without a confidential redemption procedure.

Get Real About AIDS[26]

This 14-session program for high school students emphasizes behavioral skills development. During the first seven classes, students study the transmission and prevention of HIV, teenage vulnerability to the virus and determinants of risky behaviors. Students then learn and practice skills to help them identify, manage, avoid and leave risky situations. Class lessons may be reinforced through such activities as displaying posters and distributing wallet-sized HIV information cards in participating schools.

A field study of the curriculum was conducted in 17 Colorado high schools serving rural, suburban and urban populations. At a six-month follow-up assessment, program participants expressed greater intention than members of a comparison group to reduce their level of sexual activity and use condoms; however, on behavioral measures of sexual activity, there were no significant differences between the groups.

Poder Latino: A Community HIV Prevention Program for Inner-City Latino Youth[27]

This community-based intervention targets Hispanic 14–20-year-olds who are at elevated risk for HIV/AIDS. Increased awareness of the disease is achieved by saturating target neighborhoods with public service announcements broadcasting risk-reduction messages. In addition, the program aims to reduce infection by encouraging sexually active teenagers to use condoms. Project messages are reinforced through ongoing activities conducted by specially trained peer leaders, including workshops in schools, community organizations and health centers, group discussions in teenagers' homes, presentations at large community centers and door-to-door canvasing. At all activities, condoms are available, along with pamphlets explaining their correct use.

In a field study of the intervention in Boston, researchers compared the sexual behavior of 586 teenagers in the target community and a control community. At the 18-month follow-up assessment, the intervention was shown to reduce the incidence of multiple sexual partners among females and delay the onset of sexual activity among males.

Rikers Health Advocacy Program[28]

This four-session program was originally developed for use with incarcerated male drug users aged 16–18. A facilitator guides small groups in discussing general health, HIV and AIDS, drug abuse and its consequences, sexual behavior, health and AIDS risk behavior, and strategies for seeking health and social services. Active learning is emphasized, with opportunities for youths to define high-risk attitudes and behaviors, suggest alternative actions and engage in role-play and rehearsal activities.

The program was implemented in a New York City prison and involved 110 young men (who were primarily black and Hispanic). Following the intervention, program participants were more likely than a group of teenagers selected from a waiting list for the program to use condoms during intercourse.

The Safer Sex Efficacy Workshop[29]

This three-hour workshop is designed to increase college students' self-efficacy, or belief in their own ability to act successfully to prevent HIV/AIDS and other STDs. The program includes mastery experiences, role modeling and social persuasion, and is led by specially trained peer educators. The leaders begin by facilitating a group discussion about HIV/AIDS and STDs, including transmission and prevention. Participants then discuss personal experiences with and feelings about AIDS and other STDs. Finally, the students role-play safer-sex discussions and learn about correct condom use.

The workshop was initially conducted with 209 undergraduate students enrolled in a health education class. Compared with a control group of their peers, participants showed significant increases in self-efficacy and (among the sexually active) frequency of condom use at the two-month follow-up assessment.

Stay Safe for Adolescents at Risk[30]

To meet the comprehensive needs of runaway youths aged 11–18, this program combines 20 small-group discussion sessions with case management and private counseling. The group sessions provide general instruction about HIV/AIDS through video and art workshops in which youths create their own educational materials and review commercially available videos. Participants also receive behavioral and cognitive skills training for coping with high-risk situations. The case management and counseling components are designed to identify individual needs and provide youths with appropriate services (e.g., legal, medical and vocational).

A field study at two urban shelters involved 78 predominantly black runaways. For runaways who attended at least 15 sessions, the high-risk pattern of sexual behavior dropped in frequency from 20% to zero over a six-month period. At the two-year follow-up assessment, program effects remained strongest for male and black participants.

Stay Safe for Gay, Lesbian & Bisexual Adolescents[31]

Designed to provide education, social and medical services, and peer support to gay, lesbian and bisexual youths aged 14–19, this program combines case management, comprehensive health care and risk-assessment counseling with 25 small-group discussion sessions. During the group sessions, transmission and prevention of HIV/AIDS are investigated through workshops in which youths create their own educational materials. Participants also receive behavioral and cognitive skills training for coping with high-risk situations. The case management and counseling components are designed to identify individual needs and provide youths with appropriate services (e.g., legal, medical and vocational).

A field study of the intervention was initiated with 138 males at a community-based agency in New York City. Black and white teenagers showed a significant decrease in unprotected anal intercourse at the three-month follow-up assessment; at six months, the decrease was recorded only among whites. On measures of unprotected oral intercourse, white and Hispanic youths engaged in fewer high-risk acts through the 12-month assessment; for blacks, the decrease was maintained only until six months following the intervention.

Youth AIDS Prevention Project[32]

Originally designed for high-risk youths, including blacks, this program aims to prevent STD/HIV/AIDS and substance abuse among high-risk junior high school students. The intervention includes 10 sessions for seventh-grade students, delivered in regularly scheduled health or science classes, and a five-part booster session offered one year later. Classes cover transmission and prevention of STDs/HIV/AIDS; the importance of using condoms for those who choose to have sex; and the development of decision-making, resistance and negotiation skills. Active learning is emphasized, with opportunities for students to participate in small-group exercises and role-plays. There are also homework activities, video segments and opportunities for parental involvement.

A field study of the intervention was conducted in 15 high-risk school districts in Chicago and involved 1,454 students. Following the booster session, students who first became sexually active during the study period were more likely than a control group of peers to report using condoms with foam; they also expressed greater intention to use condoms with foam in the future.

Youth and AIDS Project's HIV Prevention Program[33]

A community, clinic and university partnership launched this program to provide education, peer support, counseling and case management to gay and bisexual males aged 13–21 who are at high risk of HIV/AIDS. The program begins with individualized HIV/AIDS risk-assessment and risk-reduction counseling, which is followed by a 90-minute interactive peer education program. The program's lessons are reinforced in an educational video. Optional peer support groups meet weekly. Finally, the program includes a one-hour follow-up visit for reassessment and referrals, as needed, to medical and social services.

A field study of the program was conducted with a predominantly white sample of 139 males who identified themselves as gay or bisexual. Following the intervention, sexually active participants reported less frequent unprotected anal intercourse and more frequent use of condoms.

References

1. J. D. Fisher and W. A. Fisher, "Changing AIDS-Risk Behavior," *Psychological Bulletin*, **111**:455–474, 1992; L. J. D'Angelo and R. J. DiClemente, "Sexually Transmitted Diseases Including Human Immunodeficiency Infection," in R. J. DiClemente, W. B. Hansen and L. E. Ponton, eds., *Handbook of Adolescent Health Risk Behavior*, Plenum, New York, 1996, pp. 333–367; and M. J. Rotheram-Borus, K. A. Mahler and M. Rosario, "AIDS Prevention with Adolescents," *AIDS Education and Prevention*, **7**:320–336, 1995.

2. B. Miller et al., eds., *Preventing Adolescent Pregnancy: Model Programs and Evaluations*, Sage Publications, Newbury Park, Calif., 1992; D. Kirby et al., "School-Based Programs to Reduce Sexual Risk Behaviors: A Review of Effectiveness," *Public Health Reports*, **109**:339–360, 1994; Institute of Medicine, *The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families*, National Academy Press, Washington, D.C., 1995; K. A. Moore et al., *Adolescent Pregnancy Prevention Programs: Interventions and Evaluations*, Child Trends, Washington, D.C., 1995; J. J. Frost and J. D. Forrest, "Understanding the Impact of Effective Teenage Pregnancy Prevention Programs," *Family Planning Perspectives*, **27**:188–195, 1995; S. O. Aral, "Sexual Behavior in Sexually Transmitted Disease Research: An Overview," *Sexually Transmitted Diseases*, **21**:S59–S64, 1994; J. D. Fisher and W. A. Fisher, 1992, op. cit. (see reference 1); D. R. Holtgrave et al., "An

Overview of the Effectiveness and Efficiency of HIV Prevention Programs," *Public Health Reports*, **110:**134–146, 1995; and J. A. Kelly, "Sexually Transmitted Disease Prevention Approaches That Work: Interventions to Reduce Risk Behavior Among Individuals, Groups and Communities," *Sexually Transmitted Diseases*, **21:**S73–S75, 1994.

3. J. J. Card, ed., *Handbook of Adolescent Sexuality and Pregnancy: Research and Evaluation Instruments*, Sage Publications, Newbury Park, Calif., 1993.

4. M. S. Jay et al., "Effect of Peer Counselors on Adolescent Compliance in Use of Oral Contraceptives," *Pediatrics*, **73:**126–131, 1984.

5. M. J. Donahue, "Technical Report of the National Demonstration Project Field Test of Human Sexuality—Values and Choices," Search Institute, Minneapolis, 1987.

6. L. Winter and L. C. Breckenmaker, "Tailoring Family Planning Services to the Special Needs of Adolescents," *Family Planning Perspectives*, **23:**24–30, 1991.

7. K. Collomb and M. Howard, "Georgia Schools Help Teens Postpone Sexual Involvement," *Journal of the Medical Association of Georgia*, **77:**230–232, 1988; M. Howard and J. B. McCabe, "Helping Teenagers Postpone Sexual Involvement," *Family Planning Perspectives*, **22:**21–26, 1990; ——, "An Information and Skills Approach for Younger Teens: Postponing Sexual Involvement Program," in B. Miller et al., 1992, op. cit. (see reference 2), pp. 83–109; and M. Howard and M. Mitchell, "Preventing Teenage Pregnancy: Some Questions to Be Answered and Some Answers to Be Questioned," *Pediatric Annals*, **22:**109–111 & 115–118, 1993.

8. S. R. Jorgensen, "Project Taking Charge: An Evaluation of an Adolescent Pregnancy Prevention Program," *Family Relations*, **40:**373–380, 1991; and S. R. Jorgensen, V. Potts and B. Camp, "Project Taking Charge: Six-Month Follow-Up of a Pregnancy Prevention Program for Early Adolescents," *Family Relations*, **42:**401–406, 1993.

9. R. P. Barth et al., "Enhancing Social and Cognitive Skills," in B. Miller et al., 1992, op. cit. (see reference 2), pp. 53–82; R. P. Barth, *Reducing the Risk: Building Skills to Prevent Pregnancy*, ETR Publications, Santa Cruz, Calif., 1989; and D. Kirby et al., "Reducing the Risk: Impact of a New Curriculum on Sexual Risk-Taking," *Family Planning Perspectives*, **23:**253–263, 1991.

10. R. Danielson et al., "Reproductive Health Counseling for Young Men: What Does It Do?" *Family Planning Perspectives*, **22:**115–121, 1990.

11. H. P. Koo et al., "Reducing Adolescent Pregnancy Through a School- and Community-Based Intervention: Denmark, South Carolina, Revisited," *Family Planning Perspectives*, **26:**206–211 & 217, 1994; M. L. Vincent et al., "Practical Needs Assessment and Evaluation Methods for Establishing a Successful Sexual Risk Reduction Program," South Carolina Association for the Advancement of Health Education and South Carolina Alliance for Health, Physical Education, Recreation and Dance, Myrtle Beach, S. C., 1993; M. L. Vincent, A. F. Clearie and M. D. Schluchter, "Reducing Adolescent Pregnancy Through School and Community-Based Education," *Journal of the American Medical Association*, **257:**3382–3386, 1987; M. L. Vincent, H. Dills and C. Johnson, "School/Community Sexual Risk Reduction Program for Teens," School of Public Health, University of South Carolina, Columbia, 1987; and School of Public Health, University of South Carolina, "Reducing Unintended Adolescent Pregnancy Through School/Community Educational Interventions: A South Carolina Case Study," Columbia, n.d.

12. S. D. Clark, Jr., L. S. Zabin and J. B. Hardy, "Sex, Contraception and Parenthood: Experience and Attitudes Among Urban Black Young Men," *Family Planning Perspectives*, **16:**77–82, 1984; J. B. Hardy and L. S. Zabin, *Adolescent Pregnancy in an Urban Environment: Issues, Programs and Evaluation*, Urban Institute Press, Washington, D. C., 1991; L. S. Zabin et al., "The Baltimore Pregnancy Prevention Program for Urban Adolescents: How Did It Work?" *Family Planning Perspectives*, **20:**182–187, 1988; ——, "Evaluation of a Pregnancy Prevention Program for Urban Teenagers," *Family Planning Perspectives*, **18:**119–126, 1986; and L. S. Zabin, "School-Linked Reproductive Health Services: The Johns Hopkins Program," in B. Miller et al., 1992, op. cit. (see reference 2), pp. 156–184.

13. J. P. Allen et al., "Programmatic Prevention of Adolescent Problem Behaviors: The Role of Autonomy, Relatedness, and Volunteer Service in the Teen Outreach Program," *American Journal of Community Psychology*, **22:**617–638, 1994; J. P. Allen, S. Philliber and N. Hoggson, "School-Based Prevention of Teen-Age Pregnancy and School Dropout: Process Evaluation of the National Replication of the Teen Outreach Program," *American Journal of Community Psychology*, **18:**505–524, 1990; and S. Philliber and J. P. Allen, "Life Options and Community Service: Teen Outreach Program," in B. Miller et al., 1992, op. cit. (see reference 2), pp. 139–155.

14. M. Eisen, "Testing an Intervention Model for Teen Fertility Control: Final Report to the National Institute of Child Health and Human Development," Sociometrics, Los Altos, Calif., 1989; M. Eisen and G. Zellman, "Changes in the Incidence of Sexual Intercourse of Unmarried Teenagers Following a Community-Based Sex Education Program," *Journal of Sex Research*, **23:**527–533, 1987; ——, "A Health Beliefs Field Experiment: Teen Talk," in B. Miller et al., 1992, op. cit. (see reference 2), pp. 220–264; ——, "The Role of Health Belief Attitudes, Sex Education, and Demographics in Predicting Adolescents' Sexuality Knowledge," *Health Education Quarterly*, **13:**9–22, 1986; M. Eisen, G. Zellman and A. McAlister, "Evaluating the Impact of a Theory-Based Sexuality and Contraceptive Education Program," *Family Planning Perspectives*, **22:**261–271, 1990; ——, "A Health Belief Model Approach to Adolescents' Fertility Control: Some Pilot Findings," *Health Education Quarterly*, **12:**185–210, 1985; and ——, "A Health Belief Model–Social Learning Theory Approach to Adolescent Fertility Control: Findings from a Controlled Field Trial," *Health Education Quarterly*, **19:**249–262, 1992.

15. D. L. Olds et al., "Effect of Prenatal and Infancy Nurse Home Visitation on Government Spending," *Medical Care*, **31:**155–174, 1993; ——, "Improving the Life-Course Development of Socially Disadvantaged Mothers: A Randomized Trial of Nurse Home Visitation," *American Journal of Public Health*, **78:**1436–1445, 1988; and ——, "Preventing Child Abuse and Neglect: A Randomized Trial of Nurse Home Visitation," *Pediatrics*, **78:**65–78, 1986.

16. A. O'Sullivan and B. Jacobson, "A Randomized Trial of a Health Care Program for First-Time Adolescent Mothers and Their Infants," *Nursing Research*, **41:**210–215, 1992.

17. J. Rabin et al., "The Long-Term Benefits of a Comprehensive Teenage Pregnancy Program," *Clinical Pediatrics*, **30:**305–309, 1991.

18. V. Seitz and N. H. Apfel, "Adolescent Mothers and Repeated Childbearing: Effects of a School-Based Intervention Program," *American Journal of Orthopsychiatry*, **63:**572–581, 1993.

19. S. E. Hobfoll et al., "Reducing Inner-City Women's AIDS Risk Activities: A Study of Single, Pregnant Women," *Health Psychology*, **13:**397–403, 1994; and O. H. Levine et al., "The Empowerment of Women: A Key to HIV Prevention," *Journal of Community Psychology*, **21:**320–334, 1993.

20. H. J. Walter and R. D. Vaughan, "AIDS Risk Reduction Among a Multiethnic Sample of Urban High School Students," *Journal of the American Medical Association*, **270:**725–730, 1993.

21. M. D. Kipke, C. Boyer and K. Hein, "An Evaluation of an AIDS Risk Reduction Education and Skills Training (ARREST) Program," *Journal of Adolescent Health*, **14:**533–539, 1993.

22. J. D. Fisher et al., "Changing AIDS Risk Behavior: Effects of an Intervention Emphasizing AIDS Risk Reduction Information, Motivation, and Behavioral Skills in a College Student Population," *Health Psychology*, **15:**114–123, 1996.

23. J. B. Jemmott III, L. S. Jemmott and G. T. Fong, "Reductions in HIV Risk-Associated Sexual Behaviors Among Black Male Adolescents: Effects of an AIDS Prevention Intervention," *American Journal of Public Health*, **82:**372–377, 1992.

24. J. S. St. Lawrence et al., "Cognitive-Behavioral Group Intervention to Assist Substance-Dependent Adolescents in Lowering HIV Infection Risk," *AIDS Education and Prevention*, **6:**425–435, 1994; ——, "Cognitive-Behavioral Intervention to Reduce African-American Adolescents' Risk for HIV Infection," 1994; and ——, "Comparison of Education Versus Behavioral Skills Training Interventions in Lowering Sexual HIV-Risk Behavior of Substance-Dependent Adolescents," *Journal of Consulting and Clinical Psychology*, **63:**154–157, 1995.

25. V. I. Rickert, A. Gottlieb and M. S. Jay, "A Comparison of Three Clinic-Based AIDS Education Programs on Female Adolescents' Knowledge, Attitudes and Behavior," *Journal of Adolescent Health Care*, **11:**298–303, 1990; and V. I. Rickert et al., "Is AIDS Education Related to Condom Acquisition?" *Clinical Pediatrics*, **31:**205–210, 1992.

26. D. S. Main et al., "Preventing HIV Infection Among Adolescents: Evaluation of a School-Based Education Program," *Preventive Medicine*, **23:**409–417, 1994.

27. D. E. Sellers, S. A. McGraw and J. B. McKinlay, "Does the Promotion and Distribution of Condoms Increase Teen Sexual Activity? Evidence from an HIV Prevention Program for Latino Youth," *American Journal of Public Health*, **84:**1952–1959, 1994.

28. S. Magura, S. Y. Kang and J. L. Shapiro, "Outcomes of Intensive AIDS Education for Male Adolescent Drug Users in Jail," *Journal of Adolescent Health*, **15:**457–463, 1994.

29. K. Basen-Engquist, "Evaluation of a Theory-Based HIV Prevention Intervention for College Students," *AIDS Education and Prevention*, **6:**412–424, 1994.

30. M. J. Rotheram-Borus et al., "Preventing HIV Among Runaways: Victims and Victimization," in R. J. DiClemente and J. L. Peterson, eds., *Preventing AIDS: Theories and Methods of Behavioral Intervention*, Plenum Press, New York, 1994, pp. 175–188; and ——, "Reducing HIV Sexual Risk Behaviors Among Runaway Adolescents," *Journal of the American Medical Association*, **266:**1237–1241, 1991.

31. M. J. Rotheram-Borus, H. Reid and M. Rosario, "Factors Mediating Changes in Sexual HIV Risk Behaviors Among Gay and Bisexual Male Adolescents," *American Journal of Public Health*, **84:**1938–1946, 1994.

32. S. R. Levy et al., "Impact of a School-Based AIDS Prevention Program on Risk and Protective Behavior for Newly Sexually Active Students," *Journal of School Health*, **65:**145–151, 1995; and ——, "A Longitudinal Comparison of the AIDS-Related Attitudes and Knowledge of Parents and Their Children," *Family Planning Perspectives*, **27:**4–10 & 17, 1995.

33. G. Remafedi, "Cognitive and Behavioral Adaptations to HIV/AIDS Among Gay and Bisexual Adolescents," *Journal of Adolescent Health*, **15:**142–148, 1994.