



Preventing Teen Pregnancy in Your Community

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Dedicated to the well-being of Children and Families



Preventing Teen Pregnancy in Your Community

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This booklet is one of a series produced by the Planning Division of the Vermont Agency of Human Services to assist the work of its regional and local partners in achieving positive outcomes for Vermont's citizens. The State Team for Children, Families, and Individuals has identified 10 **outcomes**, or conditions of well-being, that form the basis for these efforts. Those outcomes are listed in the box below.

These outcomes will be achieved only by the collective efforts, formal and

informal, of individuals, families, organizations, and institutions; our communities, rather than any single program, "own" the outcomes. However, communities have expressed a need for guidance about which programs and practices are most effective. We need to learn from experience; and we sometimes need to make difficult choices between one program and another. Programs that focus on **preventing** problems before they start, especially in childhood, as opposed to programs that focus on remediation or treatment, hold more potential, over the long term, for achieving these outcomes. In addition, in the long run prevention programs save resources because they stop conditions from growing into larger problems that **cost the community more** in terms of lost human potential. Prevention is not a "stop-gap" strategy, but addresses the **long-term** health and well-being of the community.

Much has been learned in recent years about the strategies and characteristics, the "best practices," that underlie successful prevention programs.

10 Outcomes *Conditions of Well-Being for Vermonters*

- Families, youth, and individuals are engaged in and contribute to their community's decisions and activities
- Pregnant women and newborns thrive
- Infants and children thrive
- Children are ready for school
- Children succeed in school
- Children live in stable, supported families
- Youth choose healthy behaviors
- Youth successfully transition to adulthood
- Elders and people with disabilities live with dignity and independence in settings they prefer
- Families and individuals live in safe and supportive communities

The *What Works* series offers brief overviews of programs that research has shown to be effective in achieving the outcomes listed above—by preventing problem conditions and behaviors and promoting positive ones. As a practical matter, most booklets focus on programs addressing a particular aspect of our success (or failure) in achieving one of the outcomes. For example, preventing child abuse and neglect is an important measure, or indicator, of our progress toward the outcome, "Children Live in Safe and Supported Families." Some programs have been shown to be effective in impacting multiple indicators, or even multiple outcomes; thus, descriptions of these may appear in more than one of our booklets.

Although the focus here is on specific *programs*, we also know that any program's success—and the success of a community's collective efforts—is dependent on the wider community context. Thus, we identify (on p. 4) some key components of a coordinated community strategy.

Here, we call **Effective Programs** those for which research demonstrating success in changing the targeted behaviors has been published in peer-reviewed journals, or, if not so published, then those evaluated with a control-group and follow-up assessment of results. **Promising Programs** are those that appear to be successful in changing the targeted behaviors, but which do not meet the criteria

for Effective Programs—that is, they have not appeared in peer-reviewed journals, or do not have a control-group and follow-up in their design. Finally, **Noteworthy Programs** are prevention efforts that have demonstrated success in changing relevant attitudes and knowledge, but not the targeted behaviors themselves.

Many, probably most, prevention programs implemented at the community level have simply never been thoroughly evaluated, and some of these *may* be effective. However, our aim here is to identify those where we can say with some confidence, “it works.” On the one hand, our selection criteria (described above) are rigorous, so we run the risk of overlooking some worthwhile prevention activities. On the other hand, it can be useful to narrow the field to a few exemplary programs. Therefore, these booklets do not contain an exhaustive list of effective and promising programs; rather, they provide a number of illustrative examples.

Much has been learned in recent years about the strategies and characteristics, the “best practices,” that underlie successful prevention programs. The best strategies are **intensive**, rather than brief or superficial; **comprehensive**, rather than focusing on a piece of the problem; and **flexible**, rather than assuming the same approach will work for everyone. There is also research that supports the importance of a strengths-based approach which recognizes, nurtures, and builds on the resiliency and strengths present in young people (Werner & Smith, 1992; Benson, 1997). A separate booklet in this series (*What Works: Promoting Positive Youth Development*) describes this approach in detail. Other common characteristics or approaches of successful programs are described in each booklet.

One word of caution: No program, however effective in its original setting, can be transplanted to a new setting without modification, although it is possible that such alteration could weaken its effectiveness. However, any program must be sensitive to the unique attributes and needs of a particular community; there are no “cookie-cutter” programs here. Rather, we hope the information presented in the *What Works* series will provide communities with inspiration for new efforts and validation for those that are ongoing.

Booklets in the *What Works* series will be published periodically as the steady stream of new research informs us. This is what we know today; we will know more tomorrow.

The best strategies are intensive, comprehensive, and flexible.

COMPONENTS OF A COORDINATED COMMUNITY EFFORT: AN OVERVIEW

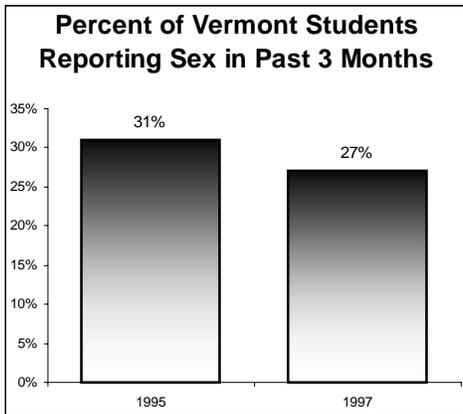
In Vermont, experts believe that no single program is responsible for the substantial reduction in our teen pregnancy and birth rates. Instead, a number of strategies, working together, and designed by community-state partnerships, are making the difference (U.S. General Accounting Office, 1998). While this booklet describes a number of individual programs that research has shown to be effective, the following are some strategies that professionals in the field consider to be "best practices" when formulating a community approach to this issue.

- ☆ ***Access to comprehensive, preventive health care***, including contraceptive services for youth who are sexually active. These services should be characterized by flexibility, privacy, and respect. Additional key components in Vermont are near-universal health insurance coverage for children, home-visiting for families with newborns, and a statewide network of Parent-Child Centers. (See p. 14.)
- ☆ ***Comprehensive sex-education curricula***, beginning in the early grades, that reflect the research on "what works," and for which teachers receive specific, ongoing training. For example, successful programs combine education about abstinence with information about contraception and sexually transmitted disease prevention, drug and alcohol abuse, and sexual harassment and sexual violence. Classroom strategies may include role-plays and other experiential activities, for instance, to teach refusal skills and responsible decision-making. (See pp. 9-13, 18.)
- ☆ ***Sexuality and family-life programs that reach out-of-school youth***. Often these are teens at high risk for pregnancy as well as other poor outcomes. (See pp. 15, 19.)
- ☆ ***Active participation by youth*** in prevention programs, including having older teens teaching younger teens or same-age peers. (See p. 18.)
- ☆ ***Community-wide engagement*** (including parents, schools, businesses, faith communities, health care providers, and civic organizations) in developing youth assets, addressing risk factors, and providing youth with links to opportunities in careers, further education, and service to community. (See pp. 13, 17, 20.)

THE CONTEXT FOR TEEN PREGNANCY PREVENTION

Promoting healthy, responsible decisions about sexual activity is important to everyone concerned with the health and well-being of young people. Pregnancy and sexually transmitted diseases (STDs) in adolescents can be prevented. The two topics are often addressed together, because STDs carry such a high cost, because the perceived risk of STDs can reinforce teens' decisions to avoid sex or use condoms, and because abstinence and condom use protect against both pregnancy and STDs. This booklet is intended to describe some of the programs shown to be effective in reducing risk of pregnancy and/or STDs in adolescents, although the emphasis is on pregnancy prevention.

We have included programs representing a broad spectrum of viewpoints, including abstinence-based sex education, skills training, and contraceptive services. Research indicates that effective approaches to reducing

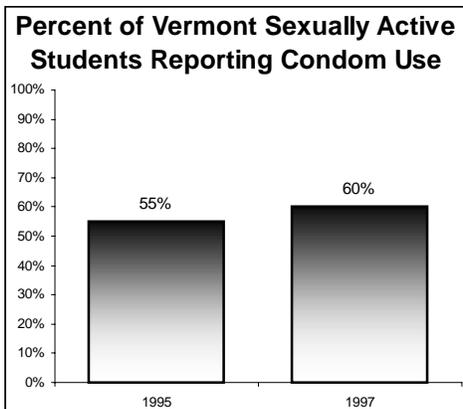


teen pregnancy incorporate **all** of these components. Adolescent sexual activity is a complex issue, and promoting safe and responsible decisions about sex will only be accomplished by providing a comprehensive array of services and programs. Communities will be relieved to know that research on sexuality education, skills-training, and contraception-distribution programs has consistently shown that none of these interventions have had the effect of *increasing rates*

of sexual activity or promoting earlier initiation of sexual intercourse. However, programs that focus **only** on promoting abstinence from sexual activity have not been shown to result in later initiation of sexual intercourse (Kirby, 1997).

Vermont adolescents' decisions about sexual activity

Trends in the data indicate that fewer of Vermont's young people are engaging in sexual activity, and more are using condoms when they do have sex. In 1997, about one-fourth of Vermont 8th-12th graders reported having had sexual intercourse within the past three months; this figure is lower than in the previous survey year (31 percent in 1995), which was, in



turn, lower than the national average (38 percent). In 1997, 60 percent of sexually active students reported that they had used a condom during their most recent sexual intercourse, compared to 55 percent in 1995 (Vermont Departments of Health and Education, 1997). While these statistics are encouraging, making responsible decisions about sexuality in adolescence will always be an important issue.

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The cost of teenage pregnancy and parenting

In Vermont, 291 young women aged 15-17 became pregnant in 1997, a rate of 23.0 pregnancies per 1000 women in this age group. This rate continues the decline observed over the past 10 years, from a high of 38.1 in 1988 (Vermont Agency of Human Services, 1998). A little over half of these young women continue their pregnancies and give birth, becoming teen mothers.

Teenage pregnancy and parenthood is an expensive problem, both in human terms (in the effect it has on young lives), and in terms of public

cost. It has been estimated that childbearing in adolescence costs U.S. taxpayers \$6.9 billion annually (Maynard, 1996). Therefore, even programs that are relatively expensive on a per-youth basis may be cost-effective.

The costs to mothers of becoming a parent during adolescence are most clearly seen in

lower educational attainment and earning potential, but may also include negative physical and emotional health consequences (Coley & Chase-Lansdale, 1998). Young mothers tend to be unmarried (Vermont Department of Health, 1995), compounding the burden of responsibility and economic hardship.

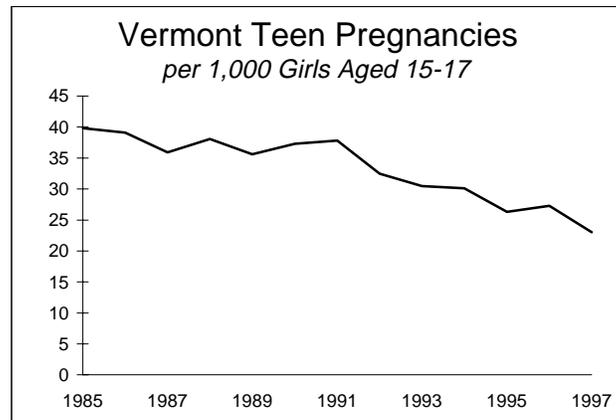
The children of teen mothers may also suffer, since their mothers may be less responsive and provide less stimulating environments to them than older mothers do (Coley & Chase-Lansdale, 1998). Children of teen parents are also more likely to grow up in impoverished neighborhoods, attend low-quality schools, score lower on achievement tests, and have cognitive and developmental deficits (National Research Council, 1994). Teen pregnancy tends to follow an intergenerational cycle: teen mothers' daughters are more likely to become single, teenage mothers themselves (Coley & Chase-Lansdale, 1998).

Boys who become fathers in adolescence may also experience economic repercussions. Some evidence indicates that teen fathers work more hours than their peers during the first years following the birth of their child. In the long run, this translates into fewer years of education, and a reduction in their long-term earning potential (Brien & Willis, 1997; Marsiglio, 1986). Although one study indicates that teen fathers have difficulty adjusting to parenthood (Robinson, 1988), very little research has been done on the psychological impact of becoming a father in adolescence.

Risk and protective factors

Poverty is the most significant risk factor related to teenage pregnancy. Nationally, race is also an important factor, with some minority groups having much higher teen pregnancy rates than whites (Ventura et al., 1997), even when accounting for economic status. Daughters of teen mothers are also at higher risk for pregnancy in adolescence than daughters of older mothers (Coley & Chase-Lansdale, 1998). Each of these separate effects may

Poverty is the most significant risk factor related to teenage pregnancy.



be compounded, since poverty, minority race status, social group and cultural influences, and parenthood in adolescence often occur together. Additionally, childhood sexual abuse is strongly associated with adolescent pregnancy, because girls who are sexually abused are more likely to engage in sexual intercourse at an earlier age and have sex with more partners, and are less likely to use birth control (Stock, Bell, Boyer, & Connell, 1997).

The good news is that research on family influences indicates that parent/child connectedness (measured by degree of closeness, warmth and support) is associated with later initiation of sexual intercourse and less frequent sexual intercourse in adolescents. Having parents whose attitudes and values express disapproval of early sexual intercourse is associated with lower risk for pregnancy in adolescence. Some studies also indicate that having greater parental supervision is related to lower risk of pregnancy for adolescents (Miller, 1998).

Profiles of young women who become pregnant

The reasons young women become pregnant are multifaceted and complex. Three categories among adolescent girls who become pregnant have been identified (MacFarlane, 1995). One group are young women who get pregnant because they are uninformed or misinformed about the causes of pregnancy and/or effective use of contraception. Another group are young women who do not intend to get pregnant: even though they know about contraception and understand how to use it, they don't do so consistently or effectively. Finally, there are teenage women who intentionally get pregnant. The reasons behind pregnancy for these young women may be of two kinds: They may live in communities where pregnancy and parenting are viewed positively, even for teens; or, they may get pregnant in an attempt to exert control over others (such as boyfriends or parents), or in a wish to have someone (a baby) to love, who will in turn love them. The issue is further complicated by larger social and cultural factors. For instance, perceived economic and job opportunities affect many choices teens make, and mixed messages in the media often glamorize risky sexual behavior.

The large number of factors influencing teen pregnancy presents a challenge to prevention efforts. It is likely that such efforts will be more successful if they focus on multiple factors, rather than on any single one.

A note on research methods

Although for all programs presented here the intended outcome is reduced levels of teen pregnancy and/or STDs, actual pregnancy rates may not always be the most appropriate or feasible measure of a program's success. Teen pregnancies are relatively uncommon, and a very large sample (or a very long period of monitoring) might be required to detect statistically significant effects. Second, reporting of pregnancies may not be accurate or complete. Often, instead of pregnancy rates, other measures of behavior change are used: age at initiation of intercourse, frequency of intercourse, use of contraception, etc. Of course, these data are self-reported; however, they are considered reasonably reliable and valid.

Like many areas of prevention research, evaluation of teen pregnancy prevention programs is still "a work in progress." Many of the available studies have methodological limitations that restrict our ability to judge the effectiveness of the programs they deal with (Kirby, 1997). Further, few evaluations that have reported positive results have been replicated; thus, it

is difficult to know how successful these programs would be in other settings. In short, there is still more to learn about "what works" in this area.

Program approaches

Programs presented here use one or more of the following approaches: skill-based sexuality education, abstinence-based sexuality education, health clinics linked with schools, life-options programs, and comprehensive programs. While programs do not typically focus on the family as the point of intervention, research supports the powerful impact parents have on adolescent sexual behavior. A sense of connectedness with family, and parental messages that pregnancy in adolescence is unacceptable, are related to lower adolescent pregnancy risk. (Miller, 1998).

The strategy we used to find research-validated adolescent pregnancy prevention programs was multi-layered, including a search of the Internet, using "adolescent, pregnancy, and prevention" as the key words; review of a library of teen pregnancy prevention research articles; and a structured search of the PsycLIT Database, using the following key words: "adolescent pregnancy," "prevention," "sex education," and "program evaluation," among others.

Useful Internet resources include the following:

- The Alan Guttmacher Institute: www.agi-usa.org/home.html
- Child Trends, Inc.: www.childtrends.org
- National Campaign to Prevent Teen Pregnancy:
www.teenpregnancy.org
- National Organization on Adolescent Pregnancy, Parenting, and Prevention: www.noapp.org
- The Office of the Assistance Secretary for Planning & Evaluation, U.S. Department of Health and Human Services: aspe.os.dhhs.gov

EFFECTIVE PROGRAMS***Skills-based sexuality education***

Be Proud, Be Responsible

This five-hour session is designed to reduce AIDS risk behaviors in youth aged 13-18. It includes information about how sexually transmitted diseases (particularly AIDS) are contracted and how to prevent them; practice of skills needed to refuse sex, negotiate use of a condom, and use condoms; and examination of attitudes that may contribute to risky sexual behavior. Role-plays, games, exercises, demonstrations, and videotapes are all used to increase active participation and enhance learning. Educators already knowledgeable about AIDS and adolescent sexuality receive 16 hours of training in the delivery of this program; others receive 24 hours of training.

The results

In comparison with a control group, program participants reported that over the three months since receiving the intervention they had:

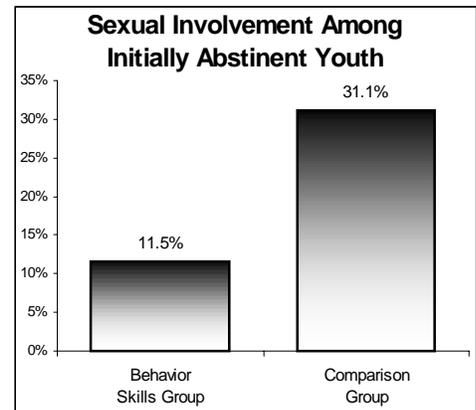
- had sex less often;
- used condoms more often;
- had fewer sexual partners;
- and engaged in anal intercourse less often.

For more information

Jemott, J., Jemott, L., & Fong, G. (1992). Reductions in HIV risk-associated sexual behaviors among black male adolescents: Effects of an AIDS prevention intervention. *American Journal of Public Health, 83*(3), 372-377.

Behavioral Skills Training

This program takes place over eight, 1 1/2- to 2-hour group meetings. Groups of five to 15 participants are led by trained project staff. The curriculum includes education about how AIDS is transmitted and how to minimize or prevent the risk of transmission (including abstinence as a strategy). Other components include: discussion and video about sexual decisions and values; practice using condoms and discussion of why adolescents might not use them; and role-plays using communication and assertiveness skills to help participants resist pressure to have sex, initiate discussion about using condoms with a sexual partner, and discuss HIV risk reduction information with peers. The curriculum also seeks to build accurate perceptions of risk for HIV; problem-solving skills in preparation for future high-risk situations; and social support from the group.

**The results**

One year after the program young women who received the behavioral skills training were using condoms significantly more often than girls in an education-only comparison group. Only 12 percent of participants who were abstinent at the beginning of the program had initiated sexual intercourse one year after the program, compared to 31 percent of youths in the comparison group.

For more information

St. Lawrence, J. S., Brasfield, T. L., Jefferson, K. W., Alleyne, E., Barron, R. E., Shirley A. (1995). Cognitive-behavioral intervention to reduce African American adolescents' risk for HIV infection. *Journal of Consulting and Clinical Psychology*, 63(2), 221-237.

Get Real About AIDS

This school-based sexuality education program is delivered over 14 class periods and includes the following topics: teens' perception of their vulnerability to HIV; knowledge about HIV and other sexually transmitted diseases, including how they are transmitted and prevented; how to use condoms, if engaging in sex; skills needed to identify, avoid, and resist situations that may lead to risky sexual behavior; and beliefs and norms about sex and AIDS. Teachers use entertaining activities as learning tools, including discussions, role-plays, and videos. For the demonstration from which results are reported here, teachers attended a five-day training (a minimum of three days' training is recommended), and the impact of the intervention was further strengthened by posters displayed in schools, and by student distribution of wallet-sized HIV information cards to fellow students.

The results

At a follow-up six months after the intervention, sexually active program participants reported that in the past two months, they:

- used condoms more frequently than students in comparison schools
- had fewer sexual partners than students in comparison schools

For more information

Main, D. S., Iverson, D. C., McGloin, J., Banspach, S., Collins, J., Rugg, D., and Kolbe, L. (1994). Preventing HIV infection among adolescents: Evaluation of a school-based education program. *Preventive Medicine, 23*, 409-417.

Program participants reported they used condoms more frequently and had fewer sexual partners.

Reducing the Risk: Building Skills for Pregnancy Prevention

This is a skill-building curriculum delivered to 10th graders by high school teachers over 15 sessions of approximately 50 minutes each. The curriculum includes sessions on abstinence and contraception, and gives students the skills to delay initiation of, or resist pressure to engage in, sexual intercourse, as well as skills necessary to obtain and use contraceptives for those who are already sexually active. Role-plays are used extensively, becoming more challenging as the curriculum builds upon skills learned earlier in the program. Examples of other exercises are visits to family planning clinics, and homework assignments to interview parents about their opinions on love, sex, abstinence, and contraception.

The results

At a six-month follow-up, participants reported using contraceptives significantly more often than members of a control group who received traditional sex education. This effect was particularly strong for those who initiated sexual intercourse subsequent to their participation in the program.

For more information

Barth, R. P., Fetro, J. V., Ieland, N., & Volkan, K. (1992). Preventing adolescent pregnancy with social and cognitive skills. *Journal of Adolescent Research, 7*(2), 208-232.

Barth, R. P. (1989). *Reducing the risk: Building skills to prevent pregnancy*. Santa Cruz, CA: Network Publications.

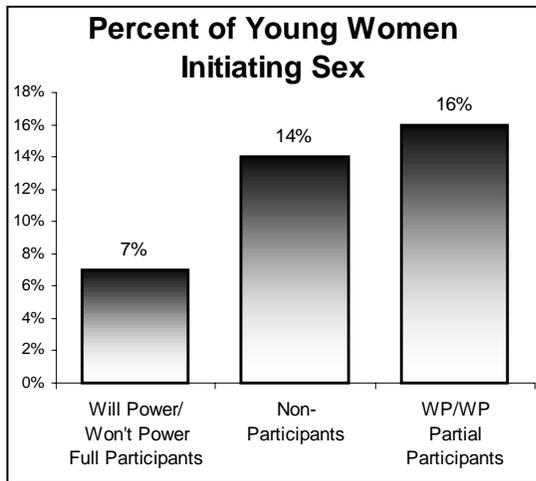
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EFFECTIVE PROGRAMS

Abstinence-based sexuality education

Girls Incorporated: Preventing Adolescent Pregnancy Project

The program, tested on a population of girls aged 12-14 who had never engaged in sexual intercourse, consists of two components: Will Power/Won't Power and Growing Together. Will Power/Won't Power is a curriculum held over six sessions of two hours each and includes discussion, exercises, activities, and films. The goals are to: 1) help participants recognize how social and peer pressure



push young people to engage in sexual activity; 2) review reasons to abstain from sexual intercourse; and 3) explore the consequences of early sexual involvement. Exercises and role-playing are also used to practice assertiveness skills for resisting pressure to have sexual intercourse.

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Growing Together is an additional component designed to promote communication between parents and their daughters, presented over five 2-hour sessions, the first of which is attended by parents only. The focus is on giving parents and their daughters practice in discussing difficult topics, such as myths and facts about sexuality and pregnancy, values around sexuality, and dating rules.

The results

Among girls with 10-12 hours of participation in Will Power/Won't Power, seven percent initiated sexual intercourse during the year in which the program was evaluated, compared to 14 percent among non-participants, and 16 percent among participants with only 1-9 hours of participation. Participants in Growing Together were two-and-a-half times less likely to initiate sexual intercourse than non-participants.

For more information

Postrado, L.T. & Nicholson, H. J. (1992). Effectiveness in delaying the initiation of sexual intercourse of girls aged 12-14: Two components of the Girls Incorporated Preventing Adolescent Pregnancy Program. *Youth & Society*, 23(3), 356-379.

School-Linked health clinics

Zabin et al. (1986)

A health clinic situated adjacent to one school and a couple of blocks from another provided contraceptive and other health services to students at the two schools. Students were African-American, and came from primarily poor neighborhoods. A social worker and a nurse practitioner or nurse midwife from the clinic were placed in each school to assist in classroom presentations, lead small group discussions, counsel students, and schedule appointments at the clinic. Contraception was among the services provided at the clinic, which was open only after school hours.

The results

There was a 30 percent decrease in the pregnancy rate for a sub-group of students who had access to the clinic for the maximum length of time (two-and-a-half years), compared to a 58 percent increase in pregnancy rates among students at comparison schools. Students at the program schools delayed initiation of sexual intercourse an average of seven months longer than students at the comparison schools.

For more information

Zabin, L. S., Hirsch, M.B., Smith, E. A., Streett, R., & Hardy, J. B. (1986). Evaluation of a pregnancy prevention program for urban teenagers. *Family Planning Perspectives*, 18, 119-126.

Life-options programs

Teen Outreach Program (TOP)

Through TOP, at-risk students aged 11-19 participate in volunteer activities in their communities for a minimum of a half-hour each week. Volunteer activities vary widely, including participation in walkathons, working as aides in nursing homes or hospitals, or volunteer work at school. Groups of program participants meet for curriculum-based discussions at least once a week for one hour throughout the school year. Topics covered in these discussions include: understanding yourself and your values, communication skills, dealing with family stress, human growth and development (including sexuality and sex education), and parenting issues. The general program emphasis is on making "good decisions about important life options," and prevention of teen pregnancy is one of these "life options" behaviors. These group meetings also provide a forum for discussion of the volunteer activities that students participate in as part of their experience in TOP.

The results

Students participating in TOP across several different sites became pregnant or caused pregnancy significantly less often than comparison students over each of the five years of this evaluation.

For more information

Philliber, S., & Allen, J. P. (1992). Life options and community service: Teen Outreach Program. In B.C. Miller, J. J. Gard, R. L. Paikoff, & J. L. Peterson (Eds.). *Preventing adolescent pregnancy: Model programs and evaluations* (pp.139-155). Newbury Park, CA: Sage.

Comprehensive programs**High/Scope Perry Preschool Project, Ypsilanti, Michigan**

The overall objective for this program was to prepare three- and four-year-old children for success in school. The children included in this evaluation were African-American and of low socio-economic status. They received two-and-a-half hours of intensive, high quality early childhood education five days a week for one or two years (depending on their age), coupled with weekly home visits. The program was designed to promote cognitive, social, behavioral, and language development, and to broaden each child's information base and experience. The program involved a high degree of interaction between children and adults. Teaching strategies incorporated active learning opportunities with a problem-solving curriculum. For example, the children set goals for themselves that they planned to accomplish each day. The families of participating children received home visits lasting 90 minutes each week, with the goal of promoting parental interest in their child's learning. Children receiving these services, along with a comparison group of children who did not receive these services, were followed for 16 years.

Children who participated in the pre-school program had fewer pregnancies during their teenage years.

The results

By the time the children in this program reached adulthood, the children who participated in the pre-school program had experienced fewer pregnancies during their teenage years, in comparison with children who did not receive these services (68 versus 117 pregnancies per 1000 girls).

For more information

Schweinhart, L. J. and Weikart, D. P. (1989). The High/Scope/Perry Preschool program. In Price, R.H. et al. (Eds.) *14 years of prevention: A casebook for practitioners*. Washington, D.C.: American Psychological Association.

School/Community Program for Sexual Risk Reduction Among Teens

This was an intensive adolescent pregnancy prevention initiative implemented in Denmark, South Carolina. The approach included several components. Teachers were offered graduate-level courses in sexuality education, which promoted an integrated curriculum approach to sexuality education. Workshops for parents, clergy and community leaders were designed to improve their skills as parents and role models. Students were trained to serve as peer counselors. Additionally, a school nurse provided contraceptive counseling, condoms to male students who requested them, and transportation to a family planning clinic for female students. Local media reinforced the message of avoiding unintended pregnancy, and highlighted special events associated with the initiative.

The results

The teen pregnancy rate in this community was compared to that of other communities before, immediately after, and several years after the active phase of this intervention.

- Pregnancy rates declined from 77 per 1,000 women before the intervention to 37 per 1,000 immediately after the initiative was implemented.

During the same period, the pregnancy rates of comparison communities also declined, though only slightly. Four years after the observed decrease, the pregnancy rate in the targeted community climbed again to 66 per 1000 women, a rate similar to that of the comparison communities. Researchers concluded this was due to the cessation of contraceptive counseling in the school, combined with loss of momentum of the program. They noted that communities attempting to replicate this program need to ensure that it not lose any of its important components, in order for reduction in teen pregnancy rates to be sustained.

For more information

Koo, H., Duntzman, G., George, C., Green, Y., & Vincent, M. (1994). Reducing adolescent pregnancy through a school- and community-based intervention: Denmark, South Carolina, revisited. *Family Planning Perspectives, 26*(5), 206-217.

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Abstinence-based Sexuality Education

Postponing Sexual Involvement

This is a sexuality education curriculum for young teens, led by slightly older peer educators. It focuses on providing teens aged 13-14 with the skills to resist social and peer pressure to engage in sexual activity. While information about contraception and basic reproductive health is included, a pro-abstinence message is emphasized.

The results

Fewer program participants reported being sexually active at 12 and 18 months following participation than did youth in a comparison group. Program participants who were sexually active reported using contraception more often than members of the comparison group.

For more information

U.S. Department of Health and Human Services (1996). *Preventing teen pregnancy: Promoting promising strategies: A guide for communities*. U.S. Department of Health and Human Services report released at a White House press conference on June 13, 1996. Excerpts can be found at Internet address: <http://aspe.os.dhhs.gov>, under examples.htm.

PROMISING PROGRAMS

Life Options Programs

Summer Training and Education Program (STEP)

This program for 14- and 15-year-olds was designed primarily to prevent youth from low-income families who were performing below grade level in reading or math from dropping out of school. The program provided summer instruction in reading and math, work experience, and support throughout the school year. Also included was a Life Skills and Opportunities component (18 total program hours), consisting of education about sexuality, ways to avoid pregnancy, taking responsibility for decisions about sexual behavior, and sources of family planning services. This component was one of three major areas of attention; the other two components addressed academic needs.

The results

Students in STEP were 53 percent more likely to use contraception during the summer of their participation in the program than were teens in a randomly-assigned control group.

For more information

Sipe, C., Grossman, J., & Milliner, J. (1987). *Summer training and education program (STEP): A report of the 1986 experience*. Philadelphia, PA: Public/Private Ventures.

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Comprehensive programs

Children's Aid Society's Adolescent Pregnancy Prevention Programs

These are intensive, comprehensive programs designed to provide poor, urban youth aged 10-20 with a broad spectrum of human services. Components include career awareness, family planning and sex education, medical and health services, mental health services, academic assessment and homework help, and self-esteem enhancement through participation in performing arts and individual sports activities. Select programs also offer guaranteed admission for all graduates to New York City's Hunter College.

The results

For the year in which evaluation information was collected, the birth rate for female program participants aged 15-19 was two percent, less than one-fifth the national rate for black females, and less than half the national rate for white females for the same year. Participants were also less likely to be sexually active when compared with national samples, and more likely to have used a condom at most recent intercourse.

For more information

U.S. Department of Health and Human Services (1996). *Preventing teen pregnancy: Promoting promising strategies: A guide for communities*. U.S. Department of Health and Human Services report released at a White House press conference on June 13, 1996. Excerpts can be found at Internet address: <http://aspe.os.dhhs.gov, under examples.htm>.

COMMON CHARACTERISTICS OF SUCCESSFUL TEEN PREGNANCY PREVENTION PROGRAMS

For many years, teen pregnancy was addressed through traditional sex education curricula. Research evidence suggests that fact-based education alone, as it has been typically offered in public schools around the country, has little or no effect on whether or not teens initiate sex or use contraception. While experts agree that providing factual information about the risks and responsibilities involved in sexual activity (including pregnancy and STD prevention) is a necessary component to any prevention program, it is not sufficient to change behaviors. There are a number of additional characteristics that have made for more effective education programs (Kirby, 1997):

- Focusing on a few specific behavioral goals, such as delaying initiation of intercourse, or using contraception, and conveying a consistent message regarding these behaviors.
- Gearing the program and materials to the characteristics (e.g., age, sexual experience) of the students involved.
- Basing the curriculum on learning theories that have been applied successfully in influencing other health-related behaviors.
- Using a variety of teaching methods, including active learning, such as role playing, assertiveness training and decision-making exercises, to build skills that help young people resist pressure to engage in sex, negotiate use of contraception, and use contraception effectively and consistently.
- Influencing students' attitudes and knowledge over time, with programs that start in elementary school and continue through high school.
- Creating open, supportive, respectful, and trusting relationships with staff
- Offering sex education and family life education in a broad range of settings, because many youth at risk are not in traditional school settings.
- Using older teen 'leaders' to teach younger teens about responsible sexual behavior.

Realizing one's own sexuality is a normal developmental task of adolescence. This knowledge can guide the interventions that will help teens to make healthy, responsible decisions about their own sexuality. Preventing all young people from engaging in sexual intercourse is probably an unrealistic goal. Therefore, we should give them the tools they need to make good choices about their own sexual behavior, including the skills to resist pressure to engage in sex, as well as access to contraception and the skills to use it effectively when they do choose to have sex. Accessibility of contraceptive services is an important component of pregnancy prevention programs. (School-based health centers are one proven strategy to improve accessibility of these services.)

However, a comprehensive approach to addressing teen pregnancy should include more than the combination of sex education and services to young people. Limited educational and occupational opportunities play a role in some young people's perceptions that parenthood is the only positive life option open to them. Therefore, a number of successful pregnancy

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A comprehensive pregnancy prevention approach would include the following five principles, identified by the U.S. Department of Health and Human Services (1997) as critical to successful adolescent pregnancy prevention efforts:

- Parent and adult involvement;
- Messages emphasizing abstinence and personal responsibility;
- Clear strategies for the future, including job and/or higher education opportunities;
- Community involvement from parents, schools, businesses, media, service, providers and religious organizations working together to provide comprehensive services;
- Sustained commitment to each adolescent participant over a long period of time.

REFERENCES

- Barth, R. P., Fetro, J. V., Leland, N., & Volkan, K. (1992). Preventing adolescent pregnancy with social and cognitive skills. *Journal of Adolescent Research, 7*(2), 208-232.
- Barth, R. P. (1989). *Reducing the risk: Building skills to prevent pregnancy*. Santa Cruz, CA: Network Publications.
- Brien, M. J. & Willis, R. J. (1997). Costs and consequences for fathers. In R. A. Maynard, (ed.), *Kids having kids: Economic costs and social consequences of teen pregnancy*, (pp. 95-144). Washington, D.C.: The Urban Institute Press.
- Coley, R. L. & Chase-Lansdale, P.L. (1998). Adolescent pregnancy and parenthood: Recent evidence and future directions. *American Psychologist, 53*, 152-156.
- Jemott, J., Jemott, L., & Fong, G. (1992). Reductions in HIV risk-associated sexual behaviors among black male adolescents: Effects of an AIDS prevention intervention. *American Journal of Public Health, 83*(3), 372-377.
- Kirby, D. (1997). *No easy answers: Research findings on programs to reduce teen pregnancy*. Washington, D.C.: The National Campaign to Prevent Teen Pregnancy
- Koo, H., Dunteman, G., George, C., Green, Y., & Vincent, M. (1994). Reducing adolescent pregnancy through a school- and community-based intervention: Denmark, South Carolina, revisited. *Family Planning Perspectives, 26*(5), 206-217.
- MacFarlane, R. (1995). Adolescent pregnancy. In O'Hara, M.W., Reiter, R. C., Johnson, S. R., Milburn, A., & Engeldinger, J. (Eds.). *Aspects of women's reproductive health*. New York: Springer.
- Main, D. S., Iverson, D. C., McGloin, J., Banspach, S., Collins, J., Rugg, D., and Kolbe, L. (1994). Preventing HIV infection among adolescents: Evaluation of a school-based education program. *Preventive Medicine, 23*, 409-417.
- Marsiglio, W. (1986). Teenage fatherhood: High school completion and educational attainment. In A.B. Elster & M.E. Lamb (Eds.), *Adolescent fatherhood*. Hillsdale, NJ: L. Erlbaum Associates.
- Maynard, R. (Ed.) (1996). *Kids having kids: A Robin Hood Foundation special report on the costs of adolescent childbearing*. New York: The Robin Hood Foundation.
- Miller, B. (1998). *Families matter: A research synthesis of family influences on adolescent pregnancy*. Washington, D.C.: The National Campaign to Prevent Teen Pregnancy
- National Research Council. (1987). *Risking the future: Adolescent sexuality, pregnancy, and childbearing, Vol. 1*. National Academy Press.
- Philliber, S., & Allen, J. P. (1992). Life options and community service: Teen Outreach Program. In B.C. Miller, J.J. Gard, R. L. Paikoff, & J.L. Peterson (Eds.). *Preventing adolescent pregnancy: Model programs and evaluations* (pp.139-155). Newbury Park, CA: Sage.
- Postrado, L.T. & Nicholson, H. J. (1992). Effectiveness in delaying the initiation of sexual intercourse of girls aged 12-14: Two components of the Girls Incorporated Preventing Adolescent Pregnancy Program. *Youth & Society, 23*(3), 356-379.
- Robinson, B. E. (1988). Teenage pregnancy from the father's perspective. *American Journal of Orthopsychiatry, 58*, 46-51.
- Schweinhart, L.J. and Weikart, D.P. (1989). The High/Scope/Perry Preschool program. In Price, R.H. et al. (eds.) *14 years of prevention: A casebook for practitioners*. Washington, D.C.: American Psychological Association.
- Sipe, C., Grossman, J., & Milliner, J. (1987). *Summer training and education program (STEP): A report of the 1986 experience*. Philadelphia, PA: Public/Private Ventures.
- Stok, J. L., Bell, M. A., Boyer, D. K., & Connell, F.A. (1997). Adolescent pregnancy and sexual risk-taking among sexually abused girls. *Family Planning Perspectives, 29*(4), 200-203 & 207.
- St. Lawrence, J. S., Brasfield, T.L., Jefferson, K. W., Alleyne, E., Bannon, R. E., & Shirley A. (1995). Cognitive-behavioral intervention to reduce African American adolescents' risk for HIV infection. *Journal of Consulting and Clinical Psychology, 63*(2), 221-237.

- U.S. Department of Health and Human Services (1996). *Preventing teen pregnancy: Promoting promising strategies: A guide for communities*. U.S. DHHS report released at a White House press conference on June 13, 1996.
- U.S. Department of Health and Human Services (1997). *HHS Invests in America's Children: Fact sheet*. Internet address: <http://www.hhs.gov/news/press/1997pres/970917.html>.
- U.S. General Accounting Office. (1998). Teen pregnancy: State and federal efforts to implement prevention programs and measure their effectiveness. GAO Report GAO/HEHS-99-4. Washington, DC.
- Ventura, S. J., Martin, J. A., Curtin, S. C., Mathews, T. J. (1997). Report of final natality statistics, 1995. *Monthly vital statistics report, vol. 45(11) (supp. 2)*. Hyattsville, MD: National Center for Health Statistics.
- Vermont Agency of Human Services (1998). *The social well-being of Vermonters: 1998*. Waterbury, VT: AHS Planning Division.
- Vermont Department of Health (VDH) (1995). *1994 Annual report of vital statistics in Vermont*. Burlington, VT.
- Vermont Department of Health and Vermont Department of Education (1997). *The 1997 Vermont Youth Risk Behavior Survey: Statewide report*. Burlington, VT: Author.
- Zabin, L. S., Hirsch, M.B., Smith, E. A., Streett, R., & Hardy, J. B. (1986). Evaluation of a pregnancy prevention program for urban teenagers. *Family Planning Perspectives, 18*, 119-126.