Wisconsin Family Impact Seminars Briefing Report

Teenage Pregnancy Prevention: Programs That Work



University of Wisconsin-Extension Center for Excellence in Family Studies School of Human Ecology University of Wisconsin-Madison

Teenage Pregnancy Prevention: Programs That Work

Second Edition

Wisconsin Family Impact Seminars Briefing Report

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Purpose, Presenters, and Publications

amily Impact Seminars have been well received in Washington, D.C., by federal policymakers, and Wisconsin is one of the first states to sponsor the seminars for state policymakers. Family Impact Seminars provide state-of-the-art research on current family issues for state legislators and their aides, Governor's Office staff, state agency representatives, educators, and service providers. Based on a growing realization that one of the best ways to help individuals is by strengthening their families, Family Impact Seminars analyze the consequences an issue, policy, or program may have for families.

The seminars provide objective nonpartisan information on current issues and do not lobby for particular policies. Seminar participants discuss policy options and identify common ground where it exists.

Teenage Pregnancy Prevention: Programs That Work is the 7th seminar in a series designed to bring a family focus to policymaking. This seminar featured the following speakers:

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Each seminar is accompanied by an in-depth briefing report that summarizes the latest research on a topic and identifies policy options from across the political spectrum. Copies are available at Extension Publications, 630 W. Mifflin St., Room 170, Madison, WI 53703, (608) 262-3346 (voice & TDD), (608) 265-8052 (fax).

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Executive Summary

n 1994, 6,869 births occurred to Wisconsin women aged 15 to 19. Yet births represent only about three fifths of total estimated pregnancies (11,106) to women in this age group. Teen pregnancy is one of today's more prominent social issues, but it is not a well-documented one. Neither our state nor federal government gathers and publishes data on this issue in a consistent fashion. In this report, UW-Extension demographer Robert Young shares national data developed by a private institute. Using a well-recognized method for estimating pregnancies and state data on births and abortions, pregnancy trends were calculated for Wisconsin.

The national data show that the long-term trend has been significant increases in teen pregnancies, but with a recent downturn. Wisconsin rates are much lower than the national trend, but tend to follow the directions of the national trend. More current data are available at the state than the national level. Wisconsin rates showed a recent decrease similar to that of the nation, a downward trend that has continued from 1991 to 1994 (the latest year data are available). Despite the decline, the 1994 Wisconsin pregnancy rate of 62.7 pregnancies per 1,000 women aged 15 to 19 is disturbingly high.

Why do we have high rates of sexual activity among teens? Since delaying the onset of teen sexual activity is one of the surest ways to prevent unintended teen pregnancy, UW Professor and Extension Specialist Karen Bogenschneider identifies the risk factors for teens beginning to have sex too early. The risk-focused approach used to prevent heart disease has proven one of the most effective prevention models. Similarly, those teens at greatest risk of early sexual activity face many risks such as negative peer pressure and problems at home. More risk factors mean greater danger.

Those teens most likely to begin sex activity have the least support for delay, specifically, little support from family, church, and community, and heavy reliance on peers. Those teens at greatest risk experience the fewest restraints on sexual behavior due to poor parental monitoring, early and frequent dating, and unstable families and neighborhoods. These teens also have the fewest reasons to postpone sexual involvement (that is, limited success and involvement in school; few employment opportunities; limited aspirations; and permissive parent, peer, and societal values regarding teen sex). Finally, other behaviors and experiences place teens at risk, such as a history of physical and sexual abuse, poverty, alcohol or substance use, and involvement in other deviant behaviors.

Those prevention efforts most likely to be successful target multiple risk factors in several parts of the teen's world. Preventing early sexual experimentation requires comprehensive, multidimensional approaches rather than investing all efforts in a single solution. Examples are given of five rigorously evaluated prevention programs that delayed teen sexual involvement, increased contraceptive use, or prevented teen pregnancy.

In the next paper, Professor Marion Howard, Director of the Adolescent Reproductive Health Center in Atlanta, Georgia, describes a group of educational pro-

grams aimed at helping young people manage their sexual behavior, by both refraining from sexual activity and protecting themselves if they do have sexual intercourse. These programs are skill based, helping young people actually develop abilities to deal with social and peer pressures toward sexual involvement and unprotected intercourse. These programs try to change perceptions of peer norms—making it more acceptable to refrain from sexual activity or to use contraception. Such programs are value based—encouraging teens to avoid pregnancy at young ages. Some of the programs also are linked to health care settings that offer birth control services.

Howard's flagship program, Postponing Sexual Involvement, was able to significantly delay sexual involvement in 8th and 9th grades among low-income male and female youth who participated in the program compared to youth who did not. Teen leaders provided information designed to help teens manage physical feelings within relationships. They also taught adolescents skills to resist social and peer pressure to become sexually involved. These teens served as role models of youth who were successful in the teen world without being sexually involved.

In the 8th grade, low-income youth who did not have the program were four to five times more likely to become sexually involved. At the end of the 9th grade, there was still a one-third reduction in sexual involvement among low-income boys and girls who had the program compared to those low-income youth who had not participated. Moreover, at the end of the 9th grade, low-income youth who had the combined program were more likely to use birth control and twice as likely to say they used it because of what they learned in school. Pregnancies also were reduced.

The final paper describes another model teen pregnancy prevention program that demonstrated an actual reduction in teen pregnancies in a poor rural county. This program, the School/Community Sexual Risk Reduction Program for Teens, is described by the program developer, Professor Murray Vincent of the University of South Carolina. This community-wide approach included a sex education curriculum; graduate level training for school personnel; training of peer leaders; a mini-course for clergy, church leaders, and parents; media campaign; employment and job placement; crisis intervention; and referrals to physicians or public health professionals. Numerous activities and programs promoted teen capacity building, family strengths, and community development.

In the 2nd year, the estimated pregnancy rate for girls between 14 and 17 years old dropped from 66.9 per 1,000 to 24.0. In the 3rd year, the estimated pregnancy rate was 25.0 per 1,000; in the 4th year it fell to 22.5. An external evaluation of the program credited this 50% reduction in teen pregnancies to the program's focus on targeting multiple risk factors.

Several policy options for delaying early teen sexual involvement and preventing pregnancies are discussed. State and national resources are identified.

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A Checklist for Assessing the Impact of Policies on Families

The first step in developing family-friendly policies is to ask the right questions:

- What can government and community institutions do to enhance the family's capacity to help itself and others?
- What effect does (or will) this program (or proposed policy) have for families? Will it help or hurt, strengthen or weaken family life?

These questions sound simple, but they can be difficult to answer.

The Family Criteria (Ad Hoc) Task Force¹ developed a checklist to assess the intended and unintended consequences of policies and programs on family stability, family relationships, and family responsibilities. The checklist includes six basic principles about families that serve as the measure of how sensitive to and supportive of families policies and programs are. Each principle is accompanied by a series of family impact questions.

The criteria and questions are not rank ordered (Ooms & Preister, 1988). Sometimes these criteria conflict with each other, requiring trade-offs. Cost effectiveness also must be considered. Some questions are value-neutral. Others incorporate specific values. People may not always agree on these values, so sometimes the questions will require rephrasing. However, this tool reflects a broad, nonpartisan consensus, and it can be useful to people across the political spectrum.

Checklist: A Tool for Analysis

Check all that apply. Record the impact on family well-being.

- 1. Family support and responsibilities. Policies and programs should aim to support and supplement family functioning and provide substitute services only as a last resort.
 - How does the proposal (or existing program) support and supplement parents' and other family members' ability to carry out their responsibilities?
 - Does it provide incentives for other persons to take over family functioning when doing so may not be necessary?
 - What effects does it have on adult children's ties to their elderly parents?

¹Adapted from T. Ooms & S. Preister (Eds.) (1988). In *A strategy for strengthening families: Using family criteria in policymaking and program evaluation*. Washington, DC: Family Impact Seminar.

- In the domain of the policy or program enforce absent parents' obligations to provide financial support for their children?
- Does the policy or program build on informal social support networks (such as community/neighborhood organizations, churches) that are so essential to families' daily lives?
- 2. Family membership and stability. Whenever possible, policies and programs should encourage and reinforce marital, parental, and family commitment and stability, especially when children are involved. Intervention in family membership and living arrangements is usually justified only to protect family members from serious harm or at the request of the family itself.
 - What incentives or disincentives does the policy or program provide to marry, separate, or divorce?
 - What incentives or disincentives are provided to give birth to, foster, or adopt children?
 - What effects does it have on marital commitment or parental obligations?
 - How does the policy or program enhance or diminish parental competence?
 - What criteria are used to justify removal of a child or adult from the family?
 - What resources are allocated to help keep the family together when this is the appropriate goal?
 - I How does the policy or program recognize that major changes in family relations such as divorce or adoption are processes that extend over time and require continuing support and attention?
- **3. Family involvement and interdependence.** Policies and programs must recognize the interdependence of family relationships, the strength and persistence of family ties and obligations, and the wealth of resources that families can mobilize to help their members.
 - In what extent does the policy or program recognize the influence of the family and family members upon individual needs or problems?
 - To what extent does it involve immediate and extended family members in working toward a solution?
 - To what extent does it acknowledge the power and persistence of family ties, especially when they are problematic or destructive?
 - How does it assess and balance the competing needs, rights, and interests of various members of a family? In these situations, what principles guide decisions (i.e., the best interests of the child)?

- 4. Family partnership and empowerment. Policies and programs must encourage individuals and their close family members to collaborate as partners with program professionals in delivery of services to an individual. In addition, parent and family representatives are an essential resource in policy development, program planning, and evaluation.
 - In what specific ways does the proposed or existing program provide full information and a range of choices to families?
 - In what ways do program professionals work in collaboration with the families of their clients, patients, or students?
 - In what ways does the policy or program involve parents and family representatives in policy and program development, implementation, and evaluation?
 - In what ways is the policy or program sensitive to the family's need to coordinate the multiple services they may require?
- 5. Family diversity. Families come in many forms and configurations, and policies and programs must take into account their different effects on different types of families. Policies and programs must acknowledge and value the diversity of family life and not discriminate against or penalize families solely for reasons of structure, roles, cultural values, or life stage.
 - I How does the proposal or program affect various types of families?
 - If the proposed or existing program targets only certain families, for example, only employed parents or single parents, what is the justification? Does it discriminate against or penalize other types of families for insufficient reason?
 - I How does it identify and respect the different values, attitudes, and behavior of families from various racial, ethnic, religious, cultural, and geographic backgrounds that are relevant to program effectiveness?
- **6. Targeting vulnerable families.** Families in greatest economic and social need, as well as those determined to be most vulnerable to breakdown, should have first priority in government policies and programs.
 - Does the proposed or existing program identify and target publicly supported services for families in the most extreme economic or social need?
 - Does it give priority to families who are most vulnerable to breakdown and have the fewest supports?
 - Are efforts and resources targeted on preventing family problems before they become serious crises or chronic situations?

Teen Pregnancy in Wisconsin

Robert Young

his paper is a brief analysis of national and state teen pregnancy data. It begins with an argument for better data provision. The reader is then shown national trend data for both teen pregnancy and births. The trends show that over the long term teen pregnancies have been on the rise, but that the trend has recently reversed direction. Then the reader is taken behind the scenes to receive a brief explanation of how pregnancy estimates are derived. Finally, Wisconsin data are compared with the national trend. More current data are available at the state level, and it appears that Wisconsin experienced the same downturn as the nation in the pregnancy trend, and it has continued downward.

The need for teen pregnancy data

Teen pregnancy is one of today's more prominent social issues, but it is not a well-documented one. There is no U.S. agency that consistently gathers and publishes national data on this issue, although some agencies have sponsored occasional studies and reports. National leadership is needed to coordinate and improve data collection and reporting. Also, states need to allocate dollars for Health Statistics units to develop teen pregnancy data on a regular basis.

Although the federal government has been only minimally involved in studying the teen pregnancy issue, it has provided support for the work of the Alan Guttmacher Institute, a private research foundation. For decades the Institute has been prominent in conducting reproductive health research, including studies about teen pregnancy. Working together with the National Center for Health Statistics, the Institute has devised a procedure to estimate pregnancies based upon other data that are more readily available. We employed this methodology in developing Wisconsin estimates to compare with national data.

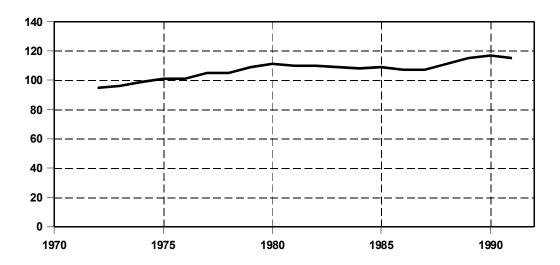
What is the national trend?

Figure 1 shows the national trend for pregnancies for women aged 15–19. Rates gradually increased in the late 1970s, declined slightly in the early 1980s, and climbed again in the late 1980s. The 1970 rate was 95 pregnancies per 1,000 women aged 15–19 (nearly 10%), and in 1990 it had climbed to nearly 12%.

Rates for women under the age of 15 are not shown. If included, the rates would be much lower because the frequency of teen pregnancies declines markedly each successive year below age 15. The majority of teen pregnancies result in births. Figure 2 displays the rate of births for various teen women age groups. Note that the rate of births increases with age. The highest teen birth rates are for women aged 18–19.

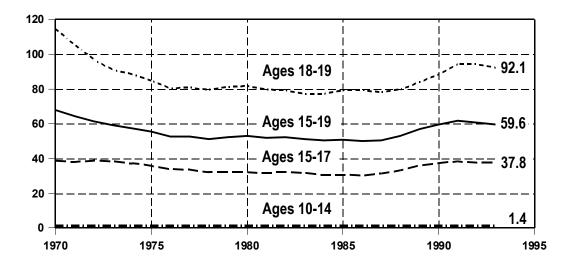
Wisconsin experienced the same downturn as the nation in the pregnancy trend.

Figure 1. Pregnancies per 1,000 women aged 15-19, U.S., 1972-1991



Source: Alan Guttmacher Institute (See Appendix Table 1).

Figure 2. Births per 1,000 women in various maternal age groups, U.S., 1970–1993



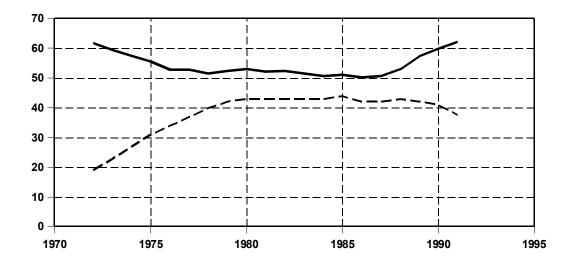
Source: National Center for Health Statistics (See Appendix Table 2).

How are pregnancies counted?

But how are pregnancies counted at all? We could count pregnancies if we could count every birth, induced abortion, and fetal loss (miscarriage). But this is impossible. In most states we *can* account for nearly all births and induced abortions, and we *can* estimate the number of fetal losses. By combining these data we can estimate the number and rate of pregnancies.²

Often birth statistics are used as proxy for teen pregnancy data. But there are obviously many more pregnancies than births. Some argue that inflating the birth statistic by a standard factor would provide a reasonable indicator. This method would probably do well to account for fetal losses, but not for induced abortions. The pregnancy statistic includes an induced abortion measure, and induced abortion rates show only a weak correlation with birth rates.³ Figure 3 shows how strongly they vary.

Figure 3. Induced abortions and births per 1,000 women aged 15–19, U.S., 1970–1993



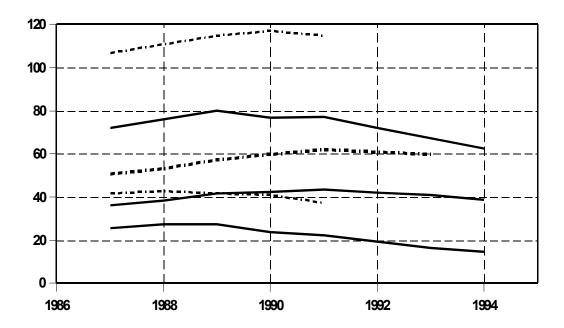
Source: Alan Guttmacher Institute (See Appendix Table 1).

For the 19 years between 1971 and 1990, the trend lines followed the same course during only the middle years (1977 to 1986). During the early 1970s and late 1980s this covariation was not present.

What about Wisconsin trends?

Wisconsin teen pregnancy rates as a rule are significantly lower than those for the nation as a whole. But they tend to follow the same direction as the national trends. Figure 4 compares U.S. and Wisconsin data between the years 1987 and 1991. One can see that Wisconsin teen women have lower birth and induced abortion rates as well.

Figure 4. Rates per 1,000 women aged 15–19, U.S. and Wisconsin, 1987–1994



Source: Appendix Tables 1, 2 and 3.

Wisconsin data prior to 1987 were excluded because that was the first year Wisconsin employed its case-based reporting system for induced abortion data.⁴ The most current year for which U.S. data are available is 1991. Note that in recent years, the Wisconsin trend has declined. This is not surprising given that the teen birth rate dipped after 1991 and that the number of teen abortions has been declining since 1988 (see Appendix Table 3).

Local surveys in Wisconsin suggest that the public perceives teen pregnancies to be increasing. This is probably due to the fact that U.S. trends are publicized more widely than Wisconsin's and the U.S. pregnancy rate was still climbing in the last published report. The unpublished 1991 downturn may be a positive signal that the U.S. trend will show a multi-year decrease as Wisconsin data have.

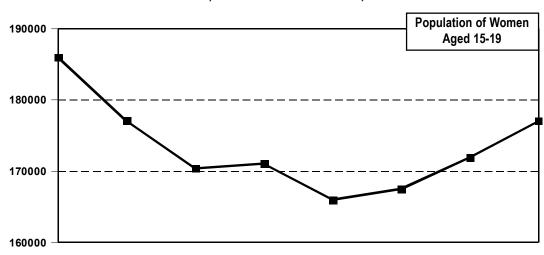
Numbers versus rates

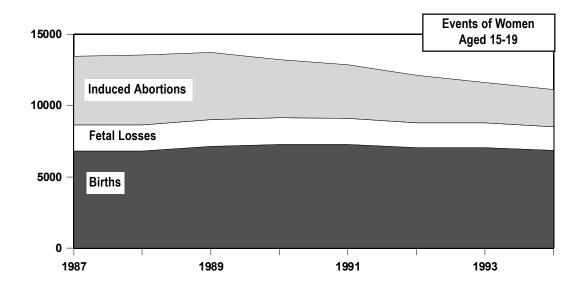
Up to this point, this report has focused on rates. Rates allow for more fair comparisons across the years, but they don't tell the full story. As these rates have been changing from year to year, the population of teen women has showed dramatic change. Figure 5 has two parts. The upper portion shows the trend line for population of Wisconsin women aged 15–19. This age group realized a decrease of about 10% (20,000 less teen women) in the late 1980s. This decrease

mirrors the national phenomenon we call the *Baby Bust Generation* which followed the *Baby Boom*. Since 1991 the numbers have increased again, but not up to the 1987 level.

Now consider the bottom portion of Figure 5. The three events added together are the estimated number of pregnancies. Generally, when the population of women goes down, so does the number of pregnancies. But note that the population decrease was not reflected in the number of births and fetal losses. These stayed relatively constant. The number of induced abortions did decline significantly, but not until after 1989.

Figure 5. Trends in population and numbers of births, fetal losses, and induced abortions, Wisconsin teen women, 1987–1994





Source: Wisconsin Department of Health & Human Services (See Appendix Table 3).

Despite the upswing in population starting in 1991, the number of pregnancies and the pregnancy rate continued to decline.

In other words, were it not for this population decline, the number of pregnancies would have been significantly higher between 1988 and 1992. Perhaps more important is the good news that despite the upswing in population starting in 1991, the number of pregnancies and the pregnancy rate continued to decline.

Finally, we should consider in Figure 5 the decreasing trend in numbers of abortions in the light of the relatively stable trend of births and fetal losses. The decrease in induced abortions largely accounts for the decrease in pregnancies. But because pregnancy always precedes abortion, we must conclude that pregnancies have been decreasing for various reasons, and that once pregnant, an increasing number of teen women are choosing birth over abortion.



1. The very small frequencies of births to very young teens tend to vary considerably from year to year, making the rate of any single year unreliable. Theoretically, this problem can be alleviated by grouping years together (for example, ages 10–14), but when the younger ages are included, the rate (already very low) becomes increasingly close to zero and less statistically meaningful.

Why not report the rates for individual years then? Because demographers find it much more difficult to develop accurate and reliable population estimates for single-year age groups. Without accurate population estimates, the rates are subject to corruption from the population base.

2. Birth statistics are generated from birth records (certificates) completed at the time of birth. Copies of these are filed with state government offices, and are aggregated and tabulated. Induced abortions data are typically estimated from surveys of institutions that perform abortions, or from case-based continuous reporting systems, such as the one implemented in Wisconsin in 1987. Both of these data types are tied to place of residence. Fetal losses are very difficult to track. Based on survey research studies, the Alan Guttmacher Institute developed a formula for estimating them. To estimate the number fetal losses, one first determines the product that is 20% of births, and adds that to the product that is 10% of induced abortions.

Now that fetal losses have been calculated, one merely adds all three elements together to estimate total pregnancies.

Estimating pregnancy rates:

- a. Define the maternal age group.
- b. Estimate the population of the age group for the years in question (P).
- c. Obtain the number or estimate of births for those years (B).
- d. Obtain the number or estimate of induced abortions for those years (IA).
- e. Estimate fetal losses for each year (FL). FL = (B * .20) + (IA * .10)
- f. Sum the three variables to obtain the pregnancy estimate (PR).
- g. Calculate pregnancy rate by dividing the number of pregnancies in the age group by the population of the age group, and then multiplying the product by the rate base (typically 1,000).

Pregnancy rate per 1,000 women of specified age group = (PR/P) * 1,000

- 3. Using U.S. abortion and birth rates from Tables 1 and 2, a Pearson correlation was calculated for these variables across a 20-year span. The coefficient was only .325. Pearson coefficients range between 0 (no association) and 1 (100% association).
- 4. Wisconsin induced abortion data are available for earlier years, but the data were collected by a different method—an abortion-provider survey. To avoid confusion, data for those earlier years were excluded altogether.

Appendix

Table 1. Pregnancy and abortion rates for U.S. teen women, 1972-1991

	Women Aged 15-19					
	Pregnancies per 1,000	Induced Abortions per 1,000				
1972	95	19				
1973	96	23				
1974	99	27				
1975	101	31				
1976	101	34				
1977	105	37				
1978	105	40				
1979	109	42				
1980	111	43				
1981	110	43				
1982	110	43				
1983	109	43				
1984	108	43				
1985	109	44				
1986	107	42				
1987	107	42				
1988	111	43				
1989	115	42				
1990	117	41				
1991	115 37.6					

Source: Alan Guttmacher Institute (1994). Sex and America's Teenagers. New York, NY. Pages 41 and 47. 1991 data are unpublished numbers from A.G.I.

Table 2. Births per 1,000 women in each of 10 maternal age groups, U.S., 1970–1993

	Teen Women			Other Women						
	Aged	A	ged 15-	19	Aged	Aged	Aged	Aged	Aged	Aged
	10-14	Total	15-17	18-19	20-24	25-29	30-34	35-39	40-44	45-49
1970	1.2	68.3	38.8	114.7	167.8	145.1	73.3	31.7	8.1	0.5
1971	1.1	64.5	38.2	105.3	150.1	134.1	67.3	28.7	7.1	0.4
1972	1.2	61.7	39.0	96.9	130.2	117.7	59.8	24.8	6.2	0.4
1973	1.2	59.3	38.5	91.2	119.7	112.2	55.6	22.1	5.4	0.3
1974	1.2	57.5	37.3	88.7	117.7	111.5	53.8	20.2	4.8	0.3
1975	1.3	55.6	36.1	85.0	113.0	108.2	52.3	19.5	4.6	0.3
1976	1.2	52.8	34.1	80.5	110.3	106.2	53.6	19.0	4.3	0.2
1977	1.2	52.8	33.9	80.9	112.9	111.0	56.4	19.0	4.2	0.2
1978	1.2	51.5	32.2	79.8	109.9	108.5	57.8	19.0	3.9	0.2
1979	1.2	52.3	32.3	81.3	112.8	111.4	60.3	19.5	3.9	0.2
1980	1.1	53.0	32.5	82.1	115.1	112.9	61.9	19.8	3.9	0.2
1981	1.1	52.2	32.0	80.0	112.2	111.5	61.4	20.0	3.8	0.2
1982	1.1	52.4	32.3	79.4	111.6	111.0	64.1	21.2	3.9	0.2
1983	1.1	51.4	31.8	77.4	107.8	108.5	64.9	22.0	3.9	0.2
1984	1.2	50.6	31.0	77.4	106.8	108.7	67.0	22.9	3.9	0.2
1985	1.2	51.0	31.0	79.6	108.3	111.0	69.1	24.0	4.0	0.2
1986	1.3	50.2	30.5	79.6	107.4	109.8	70.1	24.4	4.1	0.2
1987	1.3	50.6	31.7	78.5	107.9	111.6	72.1	26.3	4.4	0.2
1988	1.3	53.0	33.6	79.9	110.2	114.4	74.8	28.1	4.8	0.2
1989	1.4	57.3	36.4	84.2	113.8	117.6	77.4	29.9	5.2	0.2
1990	1.4	59.9	37.5	88.6	116.5	120.2	80.8	31.7	5.5	0.2
1991	1.4	62.1	38.7	94.4	115.7	118.2	79.5	32.0	5.5	0.2
1992	1.4	60.7	37.8	94.5	114.6	117.4	80.2	32.5	5.9	0.3
1993	1.4	59.6	37.8	92.1	112.6	115.5	80.8	32.9	6.1	0.3

Source: National Center for Health Statistics. Monthly Vital Statistics Report, Vol. 44, No. 3, Supplement, September 21, 1995.

Table 3. Natality, abortion, fetal loss, and pregnancy information for Wisconsin women aged 15–19, 1987–1994

		Bir	ths	Indu	orted iced tions	Fetal Losses		Estimated Pregnancies	
Year	Popula- tion	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate*
1987	186,000	6,791	36.5	4,787	25.7	1,837	9.9	13,415	72.1
1988	177,100	6,804	38.4	4,869	27.5	1,848	10.4	13,521	76.3
1989	170,400	7,123	41.8	4,689	27.5	1,894	11.1	13,706	80.4
1990	171,107	7,258	42.4	4,073	23.8	1,859	10.9	13,190	77.1
1991	166,000	7,268	43.8	3,722	22.4	1,826	11.0	12,816	77.2
1992	167,500	7,048	42.1	3,306	19.7	1,740	10.4	12,094	72.2
1993	172,000	7,052	41.0	2,854	16.6	1,696	9.9	11,602	67.5
1994	177,080	6,869	38.8	2,603	14.7	1,634	9.2	11,106	62.7
Source Key	1	2		3		4		5	

*Note: All rates are per 1,000 women in age group.

Sources:

- 1. Wisconsin Department of Health and Social Services. Vital Statistics (annual) Table P1.4.
- 2. Wisconsin Department of Health and Social Services. Vital Statistics (annual) Table 1.4.
- 3. Wisconsin Department of Health and Social Services. Reported Induced Abortions in Wisconsin, (annual). In this publication, Induced Abortions (IA) data were not available by age group except as "occurance data." This meant that for approximately 5% of the IAs age could not be deteremined (because these IAs were performed out of state). Therefore "residence data" were imputed from the published tables by inflating the figures by the same percentage that "total occurance IAs" differed from "total residence IAs". That is why these figures are approximately 4% greater than those in the publication.
- 4. Fetal losses are calculated as 20% of births plus 10% of induced abortions for each year.
- 5. Pregnancies are estimated as births plus induced abortions, plus fetal losses.

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Risk-Focused Prevention of Early Teen Sexual Activity: Implications for Policymakers

Karen Bogenschneider

orrying that their daughter will be pressured into sex is one of the two top concerns of Wisconsin parents according to recent studies of 2,129 parents (Bogenschneider & Tsay, in press). Yet parents' worries about too-early sexual activity differ from worries about other risky behaviors. Parents hope their children will never become drug users, but we do want our children to be responsible partners in sexually fulfilling relationships—someday. We want them to experience feelings of attraction to another person—someday. We just want them to wait (Kirby et al., 1994). There are many good reasons for teens to delay.

Most teens think the best age to become sexually active is later than they actually begin. Almost 9 in 10 (86%) of births to unmarried teens are unintended (Moore, 1995). These accidental pregnancies can cause feelings of guilt, exploitation, and regret (Kirby et al., 1994). Too-early pregnancies can also interfere with teens' educational goals, employment opportunities, and marriage prospects. Teenagers have the highest rates of sexually transmitted diseases. Many young adults who are HIV positive contracted the virus during the teenage years.

Most teens think the best age to become sexually active is later than they actually begin.

The costs of early sexual activity can be measured in lost potential and personal suffering of teens and their families. There are costs to society, too. Aid to Families With Dependent Children, food stamps, and Medicaid for families with children born to teenagers cost more than \$25 billion annually (Kirby et al., 1994).

This paper describes a promising risk-focused approach for preventing early sexual activity. In keeping with the objectives of Family Impact Seminars, this report gives special attention to the role of teenager's families, drawing on recent studies of Wisconsin parents in 12 primarily rural and small town communities. The paper identifies five of the country's most successful teen pregnancy prevention programs. The paper concludes with implications for policymakers who want to prevent early teen sexual activity and unintended pregnancies.

Do we know enough to prevent early teen sexual involvement?

One of the most effective prevention models of the last two decades is the risk-focused approach used to prevent heart and lung disease (Bogenschneider, in press). This model showed that heart disease rates can be reduced by informing people about the risks of smoking, inactivity, and high-fat diets and encouraging them to change their habits and lifestyles (Hawkins, Catalano, & Miller, 1992). Teenage sexual activity, like heart disease, is influenced by multiple risk factors such as problems at home and negative peer pressure at school. More risk factors mean greater danger.

A risk factor is any hazard that increases a young person's vulnerability to early, unprotected intercourse. The presence of a risk factor does not guarantee that sexual experimentation will occur, but it does increase the odds. These risks may come from a variety of sources. Some risks stem from the teen himself or herself. Others are the result of the settings in which the teen lives—family, peers, school and work environments, and community (Bronfenbrenner, 1979, 1986).

Delaying the onset of teen sexual activity is one of the surest ways to prevent unintended teen pregnancy. Early sexual experimentation means that younger people are exposed to risk for a longer time; they will have more partners (Miller, 1995), and they are less likely to be mature enough to avoid negative consequences (Higgins, 1988). This paper identifies the risk factors for sexual initiation—the first step toward teenage pregnancy.

Risk factors for early teen sexual activity

Individual risk factors

Physical or sexual abuse. A history of physical and sexual abuse doubles the chances that an adolescent will be sexually active (Moore, Miller, Glei, & Morrison, 1995a). It lowers the age of first sexual intercourse (Moore et al., 1995a). For sexually active girls with only one risk factor, the second most common risk is a history of abuse (Small & Luster, 1994).

Use of alcohol and other drugs. Using drugs elevates the risk that a teen will have sex before age 16 (Moore et al., 1995a; Small & Luster, 1994). Teenage boys who use alcohol or cigarettes are 39% more likely to engage in early sex. The risk is 173% higher for marijuana users and 235% higher for those who use other illicit drugs. For girls, the risk for early sex is 80% higher for those who use alcohol or cigarettes; 245% higher for those who use marijuana; and 400% higher for those who use other illicit drugs. The findings held most strongly for European American and Hispanic girls.

Involvement in other deviant behaviors. Compared with virgins, sexually active 15-to 17-year-olds are several times more likely to be involved in other problem behaviors—theft, violence, or drug use. They are more likely to be expelled or suspended from school. Teens who become involved in deviant activities at a young age are more apt to hang out with friends with more sexually permissive beliefs and behaviors (Dryfoos, 1990; Moore et al., 1995a).

Race. African American teenagers begin having sex earlier than European Americans or Hispanics (Dryfoos, 1990; McLean, 1993; Moore et al., 1995a). African American teenagers are 90% more likely than European American teenagers to have intercourse outside of marriage. After taking into account mothers' education and marital status, and teens' education and religious affiliation, African American teens are still 50% more likely to have nonmarital intercourse. When neighborhood characteristics such as median family income, racial make-up, and proportion of employed women are taken into account, the likelihood that African American teenagers would be sexually active drops to 36% higher than that

A history of physical and sexual abuse doubles the chances that an adolescent will be sexually active.

of European American teens. Early sexuality among African American teenagers is influenced by neighborhood as well as personal and family factors (Moore et al., 1995a).

Earlier puberty. Teenagers become physically mature at younger ages than their parents and grandparents. The age at which young people are capable of reproducing has dropped by 3 months every 10 years during the last century. In 1890, girls began menstruating at the age of 15 or 16. In 1980, the average age of first menstruation was under 13 years. Young people today become fertile several years before they become mentally, socially, and morally mature. Not all adolescents mature at the same time. Some girls begin menstruating at 9 years of age; others begin at 16. Boys may reach physical maturity anytime between 10 and 17 years of age. Adolescents who mature early report sexual activity levels two to three times higher than peers who mature later (Moore et al., 1995a).

Limited religious affiliation. Adolescents who attend religious services rarely or not at all become sexually active at an earlier age than those who attend regularly (Dryfoos, 1990; McLean, 1993; Moore et al., 1995a).

Family risk factors

Single parent or disrupted family. Unmarried daughters of single parents are three times more likely to bear a child than girls living in stable families (Benson & Roehlkepartain, 1993; Dryfoos, 1990; McLanahan & Booth, 1989; McLanahan & Sandefur, 1994). Adolescents aged 11 to 17 who experienced a marital disruption are one and a half times more likely to have started having sex. The absence of a father and the presence of a stepfather are related to earlier physical maturity (Hetherington, 1993). Girls in remarried families menstruated 8 months earlier than those in intact families. Girls in divorced families menstruated 4 months earlier than girls in intact families. These early maturing girls were more apt to be sexually active.

Permissive parental values regarding teen sexual behavior. For both boys and girls, teens whose mothers have more permissive attitudes toward teen sex, those whose parents are least strict, and those who believe their mother had sex before marriage had higher levels of sexual activity (Moore et al., 1995a; Small & Luster, 1994).

In recent studies of more than 1,600 Wisconsin parents, 7 out of 10 parents believed that premarital sex was wrong under any circumstances or okay only if the couple is engaged to be married (see Figure 1). The remaining 30% of parents were more tolerant of teen premarital sex (Bogenschneider & Tsay, in press).

Poor parental monitoring. Teens who are not closely monitored are at greater risk for early sexual activity. The effect of parental monitoring appears to be stronger for younger teens (Small & Bogenschneider, 1991; Small & Luster, 1994; Small & Silverberg, 1991). Our studies of Wisconsin parents raise questions about how well parents monitor the activities of their 8th to 12th graders. More than 8 out of 10 parents (83%) think it is *unlikely* their own child is sexually active (see Figure 2). Fewer than 1 in 10 think it *likely* their child is sexually active (Bogen-

Young people today become fertile several years before they become mentally, socially, and morally mature.

schneider & Tsay, in press). However, in studies of almost 37,000 teens in Wisconsin, about 4 out of 10 report being sexually active (Small, 1995).

About 2 out of 10 of these parents believe their child's close friends are sexually active. Thus, parents are twice as likely to think their child's close friends are sexually active than they are to think the same about their own child. Parents seem to be saying, "Other kids are involved, but not my kid."

Okay if engaged

Okay if care for each other

Other

12%

Okay if don't care but both agree

Figure 1. Wisconsin parents' values about premarital teen sex

Note. Graph displays data from 1995 study of 1,679 parents of 7th to 12th graders in one urban, one suburban, and two rural Wisconsin communities (Bogenschneider & Tsay, in press).

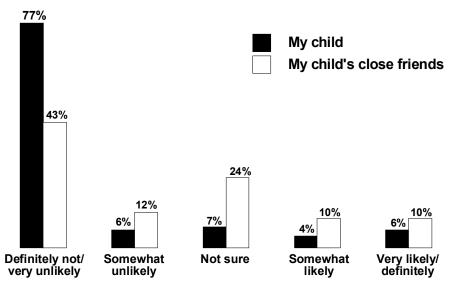


Figure 2. Reports of Wisconsin parents about the likelihood their child or their child's close friends are sexually active

Note. Graph displays data from a 1995 study of 1,292 parents of 8th to 12th graders in a rural, suburban, and urban community in one Wisconsin county (Bogenschneider & Tsay, in press).

Lack of family support and closeness. Teens' attitudes and values about sex are affected by early experiences in the family and by family influences such as religious training, parental values, marital history, and parenting practices. For example, early communication patterns and the daughter's feelings about her relationship with her mother determine whether or not mothers and teenage daughters talk about sex. Without a history of open communication, it is hard for mothers to establish a pattern of frequent communication when daughters are 14 to 16 years old (Fox & Inazu, 1980). Low levels of parental support increased teen depression and alcohol use, two factors related to teen sexual intercourse. Depression has a stronger influence on sexual behavior for females; alcohol use is more important for males (Moore et al., 1995a).

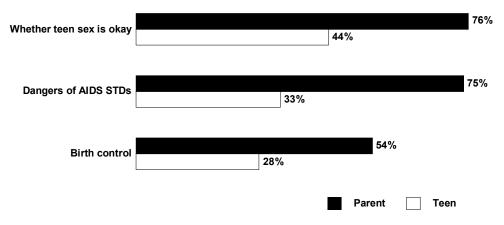
Poor parent/teen communication about sex. Open family communication in general—not just communication about sexuality—may be a powerful predictor of teen sexual behavior (Fisher, 1986). Some studies reported that good communication delays first-time sex and promotes use of contraceptives, especially among daughters (Fox & Inazu, 1980; Holtzman & Rubinson, 1995; Leland & Barth, 1993; Moore, Peterson, & Furstenberg, 1986; Newcomer & Udry, 1985). Other research found the opposite (Fisher, 1986; Furstenberg, Herceg-Baron, Shea, & Webb, 1984). The reason for these mixed results may be inadequate attention to parental values, the quality of the communication, and the parent's "intent" to be either guide or protector (Fox & Inazu, 1980; Moore et al., 1995a). In one study, daughters were less likely to begin having sex when parents communicated with them, but this was true only in families where parents held traditional views about marriage, divorce, division of labor, and maternal employment. Sometimes parent/child communication is a response to the teen's sexual activity—not something that precedes it—with the parent serving more of a "protector" role (Fox & Inazu, 1980). Daughters who reported talking with their mothers about contraception were about three times more likely to have used an effective method at last intercourse than girls who said they hadn't talked about it with their mothers (Newcomer & Udry, 1985). Overall, mothers are more likely to talk with their teens about sexual issues than fathers. In general, parents report talking to teens about sexuality more often than teens say they've had this discussion with their parents (Bogenschneider & Tsay, in press; Furstenberg et al., 1984; Newcomer & Udry, 1985). About three fourths of Wisconsin parents and one half of their children reported that they had talked about teen sex and the dangers of AIDS and other sexually transmitted diseases (see Figure 3). Discussions of birth control were reported less often by only about half of parents and one fourth of teens.

One benefit of school-based sex education about HIV is that it sparks discussions between students and their parents (Holtzman & Rubinson, 1995). As shown in Figure 4, almost all of 3,146 Wisconsin parents believe sexual abstinence and the dangers and risks of getting AIDS should be taught in school. Most parents (84%) think birth control should be taught in the schools. Among those who disagree, only 5% strongly disagree (Bogenschneider & Tsay, in press).

Low parental education. Teenagers with more educated parents tend to delay their first intercourse. If they are sexually active, they are more likely to take steps to reduce the risk of pregnancy (Dryfoos, 1990; McLean, 1993; Moore et al., 1995a). Having a mother who has completed high school cuts by half the chances that her daughter will have a baby before she is married. (An, Haveman, & Wolfe, 1991).

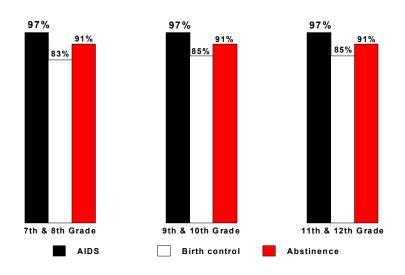
Figure 3. Wisconsin parent/teen discussions about sexual issues

Percent who reported discussions in past year



Note. Graph displays data from a 1995 study of 1,299 parents and 1,225 teens in a rural, suburban, and urban community in one Wisconsin county.

Figure 4. Wisconsin parents' views on sex education being taught in the school



Note. Graph displays data from 3,132 parents in two Wisconsin counties.

Poverty. Teenagers from low-income families are at greater risk for early sexual activity and childbearing (Dryfoos, 1990; Moore et al., 1995a; Small & Bogenschneider, 1991).

Having older siblings. Younger siblings are more likely to be sexually active at any given age than their older siblings at the same age. Having a sister who is perceived to be sexually active or who has had a baby is related to more permissive attitudes and to having a first sexual experience at a younger age. These findings hold for European American but not for African American siblings (Moore et al., 1995a).

Peer risk factors

Perceiving one's friends to be sexually active. Among both boys and girls, perceiving that one's best friends are sexually active is the most potent predictor of the frequency of sexual intercourse. This factor also is related to a permissive attitude and a younger age of first intercourse among girls (Dryfoos, 1990; Moore et al., 1995a). What teens *believe* their peers do is a stronger influence than what peers *actually* do (McLean, 1993; Moore et al., 1995a). Teenagers tend to overestimate the number of their peers who are sexually active (Howard, 1988). Teens appear to turn to peers to compensate for the lack of a close parent/child relationship (Moore et al., 1995a).

Early and frequent dating. Females who start to date early are more apt to have their first sexual experience at a younger age. The more often adolescents date, the more likely they are to have sexual intercourse. Sexual intercourse usually begins in a dating relationship, and most ongoing sexual involvement occurs in a committed relationship (McLean, 1993; Moore et al., 1995a; Small & Bogenschneider, 1991; Small & Luster, 1994). Having a steady boyfriend or girlfriend is a powerful influence on sexual activity even when no other risk factors are present. Even teens who come from strong families, earn good grades in school, and live in a supportive neighborhood are more apt to be sexually active if they have a steady boyfriend or girlfriend. For sexually active teens who report only one risk factor, having a steady boyfriend or girlfriend is the most common risk factor for both males and females (Small & Luster, 1994).

For sexually active teens who report only one risk factor, having a steady boyfriend or girlfriend is the most common risk factor for both males and females.

School risk factors

Low academic achievement. Regardless of race and gender, teens who get low grades or who have been retained in a grade are more likely to be sexually active (Dryfoos, 1990; McLean, 1993; Small & Bogenschneider, 1991; Small & Luster, 1994).

Limited aspirations. Students with high educational aspirations are more likely to postpone sexual intercourse (Dryfoos, 1990; McLean, 1993; Small & Bogenschneider, 1991). Of sexually experienced male and female teenagers with only one risk factor, worry about future vocational prospects was among the most common risk factor (Small & Luster, 1994). High rates of teenage childbearing

among disadvantaged teens may be due to their perception of a bleak future. They have little motivation to delay sex or avoid pregnancy (Moore et al., 1995a).

Negative attitudes toward school. Girls with positive attitudes about school are at less risk (Small & Luster, 1995). These positive attitudes are thought to stem from a range of good experiences—a special relationship with a teacher, opportunities for leadership, or involvement in activities such as sports, music, or art (Small & Bogenschneider, 1991).

Community/neighborhood risk factors

Few employment opportunities. In communities with more job opportunities, boys are less apt to report fathering children (Dryfoos, 1990; Duncan, 1995; Moore et al., 1995a; Small & Luster, 1994). Young mothers who live in areas where there are more jobs are more apt to be married when they have children (Duncan, 1995).

Low-income, disorganized communities. Teens who grow up in communities or neighborhoods with lots of resources are less apt to be sexually active or to bear children out of wedlock. The resources that matter most are not yet clear. However, teens are less likely to have babies if they live in neighborhoods or communities where families have higher socioeconomic status, where there is less residential turnover, and where adults or neighbors monitor the behavior of teens. In general, personal and family risk factors are stronger influences on teen sexual behavior than neighborhood influences (Duncan, 1995; Moore et al., 1995a).

Permissive societal attitudes about sex. Teens are more likely to get involved in behaviors that are acceptable to the community than in behaviors that are strongly sanctioned (Baumrind, 1987). Nonmarital births have nearly doubled at every age in the last two decades (Bumpass, 1995). More than half of all marriages now end in divorce. And half of all Americans under age 40 have lived with a partner without being married. The fact that 85% of unmarried teens have had intercourse before age 20 (Bumpass, 1995) should come as no surprise. Today's youth appear to be maturing successfully into the adult roles they have observed (Bogenschneider, Small, & Riley, 1990).

Since young adults are much more accepting of sex outside marriage than older adults, it is likely that societal disapproval of teenage nonmarital sex will continue to decline. Only one fifth of all people between the ages of 20 and 29 disapprove of sex among unmarried 18 year olds. Four fifths of people over 70 disapprove (Bumpass, 1995).

Comprehensive approaches that target multiple risks

Thus, those teens most likely to initiate sexual intercourse are those who face many risks. Sadly, these circumstances make it difficult for those youth most at risk of becoming teen parents to raise a competent, caring child (Moore et al., 1995a). According to Small and Luster (1994), those teens most likely to become sexually active have

- the least support for delay, specifically, little support from family, church, and community, and heavy reliance on peers
- the fewest restraints on sexual behavior due to poor parental monitoring, early and frequent dating, and unstable families and communities
- the fewest reasons to postpone sexual involvement (that is, limited success and involvement in school; limited aspirations; few employment opportunities; perceptions that one's friends are sexually active; permissive parent, peer, and societal values regarding teen sex)
- other behaviors and experiences that place them at risk, such as a history of physical and sexual abuse, poverty, alcohol or substance use, and involvement in other deviant behaviors

Furthermore, the more risk factors, the greater the danger. Figure 5 shows the cumulative risk that a teen will be sexually active depending upon the number of risk factors (e.g., poor academic achievement, poor parental monitoring, use of alcohol). As the number of risk factors increases, so does the likelihood that a teen will be sexually active. With no risk factors or only one or two, the chances for sexual activity are slim; With nine or more risk factors, the chances are quite high (Small & Bogenschneider, 1991).

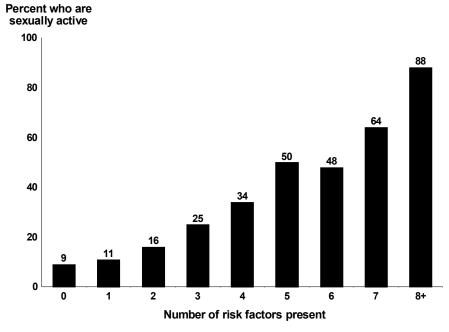


Figure 5. The cumulative risk a teen will be sexually active

Preventing early sexual experimentation requires a comprehensive, multidimensional approach (see Figure 6). Investing all efforts in a single solution is not likely to be effective, but that is what most programs have done. When we offer only sex education or family planning in the school (Brooks-Gunn & Furstenberg, 1989) we give scant attention to providing teens with goals and a

reason to postpone parenthood. Strong families and communities are important to preventing early sexual activity. They could be more involved. Churches and youth organizations could provide sex education. Older youth could teach younger peers refusal skills. Schools could increase student engagement and boost grades. Parent educators could begin when children are young to improve parent/child relationships and communication. Communities could launch campaigns to provide jobs and prevent child abuse.

Increasing student achievement

Providing parent education

Creating job opportunities

Preventing child abuse

Figure 6. Multidimensional program focus

There are no simple solutions. Promoting healthy development and encouraging wise and responsible decisions by our young people requires creating the many conditions that can nurture and support them. Some prevention programs which have done just that are described in the next section.

Successful teenage pregnancy prevention programs

Policymakers want an answer to the question, "Do teenage pregnancy prevention programs work?" (See also Howard and Vincent in this report.) In a recent article in a reputable scientific journal, the authors identify five prevention programs with rigorous evaluations (Frost & Forrest, 1995). Their conclusion: All five programs were successful in delaying sexual involvement, increasing contraceptive use, or preventing teen pregnancy for some teens. The programs and their results are described in Table 1 (for full details on these programs, see Miller, Card, Paikoff, & Peterson, 1992; Frost & Forrest, 1995; Webster & Weeks, 1995).

Overall, four of these programs delayed the onset of sexual activity among teenagers, three increased contraceptive use, and three reduced pregnancies. These five carefully evaluated programs answer some questions frequently raised by policymakers and programmers (Frost & Forest, 1995).

❖ Do we know how to delay initiation, increase contraceptive use, and prevent pregnancy? The simple answer is yes. Using slightly different methods, each of these flagship programs changed the behavior of teens. Unfortu-

Table 1. Five rigorously evaluated teenage pregnancy prevention programs

Program	Program description	Program intensity	Population	Results
Postponing Sexual Involvement, Atlanta, Georgia	Older teenagers (11th and 12th graders) teach younger peers how to recognize and resist pressures to become sexually active. Strong abstinence message. Contraceptive use taught by staff from nearby clinic.	10 classes over 3 months	8th graders, low income, urban, Black	Delayed sexual initiation for males and females with the strongest effects for males; increased contraceptive use; reduced pregnancies
Reducing the Risk, California	Trained high school teachers teach adolescents skills to resist risky behaviors including sex education, refusal skills, and contraceptive education; promotes discussions between parent and child.	15 classes over 3 weeks	9th and 10th graders, mixed income, rural and urban, mixed race and ethnicity	Delayed sexual initiation; increased use of contraceptives; increased discussion with parents.
School/ Community Sexual Risk Reduction Program, South Carolina	A multifaceted approach including a sex education curriculum; graduate level training for school personnel; training of peer leaders; a minicourse for clergy, church leaders, and parents; media campaign; job placement; referrals to physicians and other health professionals.	Varied	14-17 year olds, low income, rural, mixed race	50% reduction in teen pregnancies.
Self Center, Baltimore	School-based sex and reproductive health education and counseling with medical services at a nearby clinic. Social worker/nurse practitioner staffed school's Self Center in morning and made appointments for nearby clinic where they worked in afternoon.	Continuous	Middle and high school students, low income, inner city, mostly Black	Delayed sexual initiation; increased contraceptive use; reduced pregnancies (only girls were studied).
Teen Talk, Texas and California	A 12-15 hour curriculum on sex education taught at community agencies and one school; included abstinence, life skills, and contraceptive education; designed to be implemented by trained staff.	6 sessions (12-15 hours) over 2-3 weeks	13-19 year olds, low income, rural and urban, mixed race and ethnicity	Delayed sexual initiation, only among boys.

nately, not all prevention programs are likely to be as effective as these five. Most programs targeted teens in the school setting, but some addressed risks in families and communities as well. The success of the School/Community Sexual Risk Reduction Program in South Carolina is credited to its targeting of multiple risk factors.

- ❖ Can programs succeed by promoting both abstinence and contraceptive use? Again, the answer is yes. Three of these programs delayed the initiation of sexual activity, while also increasing contraceptive use among those who are sexually active.
- ❖ Do these programs work equally well for all adolescents? No. Programs were more successful in delaying sexual activity with younger teens than older teens. Most of the participants in these successful programs were African Americans living in low-income areas. We don't know if the programs will work as well with teens of other races or incomes.
- What are the features of the programs most effective in preventing teen pregnancy? The two programs most successful in preventing pregnancy were most active in providing access to contraceptive services.
- ❖ Can these programs be improved? Yes. These programs reduced teen sexual initiation by an average of 15% and contraceptive use by an average of 22%. None of these programs persuaded all teens to delay sex, use contraceptives, or avoid pregnancy.

Implications for policymakers

The intent of this briefing report is not to lobby for specific policies, but to encourage debate about the potential consequences of a range of policy strategies. I do not present an exhaustive review of implications for policymakers. Instead, I briefly summarize policy options from sources spanning the political spectrum. These implications may be used as a checklist when considering proposed policies and programs to address the problems of teen sexuality. Some of these options may be more important in some settings or communities than others.

- ❖ Avoid the easy answers. Solutions must target multiple risk factors in several parts of the teen's world (Bogenschneider et al., 1990). There are many causes, and no single strategy will work for every teenager. Policy and programs should consider questions such as these: "What risk factors are addressed?" "Do I address several risk factors in different parts of the teen's world?" Limiting programs to only the school setting will miss the adult males who impregnate many young teenagers. According to Ooms (1995), all teenagers are at risk but disadvantaged teenagers may be at greatest risk. These high-risk teens need the most complex, multifaceted, and expensive solutions.
- ❖ Adapt programs to the values of the family, culture, and community. We cannot be sure that the risk factors identified in this paper apply equally to

Solutions must target multiple risk factors in several parts of the teen's world.

- all youth and families and to communities with different cultures, religions, economic conditions, and histories (Bogenschneider et al., 1990). Can policies recognize and take into account diverse views on teenage pregnancy and allow parents to select a teen sexuality curriculum that is appropriate for their child? Can policies encourage communities to choose a prevention strategy consistent with local values and priorities?
- ❖ Act to strengthen families. (Moore, Sugland, Blumenthal, Glei, & Snyder, 1995b). Most parents, like most adolescents, want to delay pregnancy (Moore et al., 1995b; Wells, 1992). Many parents could benefit from advice on how to accomplish this goal. Programs that begin early hold the greatest promise, since communication patterns are established long before the teenage years. For example, the Perry Pre-School Program, intended to prevent school failure, ended up preventing more than poor report cards. This daily high-quality preschool program for low-income 3-and 4-year-olds included frequent home visits and monthly parent meetings. As teenagers, program participants were less likely to become pregnant than those who did not participate (Moore et al., 1995b).
- ❖ Involve peers. Peers can be powerful role models and sources of support (Moore et al., 1995a). Older students can teach younger kids to recognize pressures to become sexually active and to practice refusal skills. Peer educators who encourage others to delay sex are, themselves, more likely to wait (Moore et al., 1995b). Peer approaches could be even more effective if they were accompanied by programs for parents on their role in prevention and by school and community campaigns to reduce negative peer pressure (Bogenschneider, 1994).
- ❖ Pay more attention to the role of men and boys. (Ooms, 1995). Traditionally, efforts to reduce out-of-wedlock childbearing have focused on changing the behavior of young women. There has been little attention to the role of men (Moore et al., 1995b; Ooms, 1995). Few prevention efforts target the older males who are responsible for two out of three pregnancies in young women under the age of 19. And few acknowledge the role sexual coercion plays in early sexual activity among females (Moore et al., 1995a).
- ❖ Consider marriage as one viable resolution to teenage pregnancy. The main reason for the increase in nonmarital births is not higher rates of teen sexual activity; it is lower rates of marriage. Yet, the discussion of marriage for teenage parents is almost taboo (Ooms, 1995). While marriage is probably not right for all teens, it might be right for some. More research and discussion is needed on teen marriages. These marriages may be more resilient than previously believed (Ooms, 1995). Marriage may also benefit fathers who sometimes cut back on deviant behaviors when they assume responsible work and family roles (Steinberg, 1991).

- Improve education. Improving school achievement of low-income males and females may have the unexpected effect of reducing teen births. Improving academic achievement among teens could reduce nonmarital births, especially in the next generation (An et al., 1991; Ooms, 1995).
- Work to prevent all kinds of risk. Prevention efforts aimed at alcohol and other drugs, violence, and truancy may work indirectly to prevent teen pregnancy. Risky teen behaviors often occur together; efforts to prevent one may prevent others.
- ❖ Set realistic and well-defined goals. (Wells, 1992). Is the intent of the policy or program to prevent early onset of sexual activity? Among sexually active teens, is the goal to promote contraceptive use? Is the goal to prevent HIV infection since some of our most effective contraceptives leave teens at risk of HIV? Will programs be most effective if focused on all teenagers? Would targeting high-risk neighborhoods or communities be more efficient?
- ❖ Intervene early and continuously. (Dryfoos, 1990). Nationwide, 9% of 12 year olds and 16% of 13 year olds have had sexual intercourse (Frost & Forrest, 1995). Even our most successful prevention programs do not work after teens become sexually active (Howard & McCabe, 1990). Furthermore, ongoing efforts help ensure that healthy behaviors are sustained (Dryfoos, 1990).
- ❖ Develop age-appropriate programs and policies. A program that is effective for early adolescents may be ineffective for older teens. For example, teens teaching refusal skills to younger peers is one of the most effective prevention strategies (Howard & McCabe, 1990), especially if implemented between 6th and 9th grade when peer pressure peaks (Steinberg, 1991). Prevention programs are more effective if they are calibrated to advances in adolescents' thinking as they mature. Prevention programs for children younger than 11 or 12 should focus on the immediate, concrete results of being involved in risky behaviors. The argument that your clothes won't fit and that your friends and teachers will look at you differently works with younger teens. They are less impressed by the argument that getting pregnant may interfere with their educational plans. Adolescents older than 13 are more able to see the long-term consequences of their actions and imagine how they would handle them (Steinberg, 1991). Policymakers should consider whether policies on parental consent and notification should be the same for parents of 14 year olds as those for parents of 19 year olds.
- ❖ Make a long-term public commitment led by state and local leaders. (Wells, 1992). Success may depend on whether we attack teen pregnancy with the same enthusiasm and commitment we have invested in welfare reform, property tax relief, or keeping jobs in the state. In the upcoming elections, will teen pregnancy surface in the campaigns of candidates for school boards, the legislature, Congress, and the presidency? Are citizens content to do nothing or to respond half-heartedly? Or will citizens demand that youth and family issues be a high priority?

Summary

Most teens become sexually active at a younger age than they think is best. This paper identified multiple factors that increase the odds of early sexual involvement. This risk-focused approach to prevention holds promise if policies and programs make a real attempt to reduce the number of risks teens face and enhance their ability to resist those risks.

The paper highlights five teen pregnancy programs that have delayed sexual initiation, increased contraceptive use, and reduced pregnancies. Programs like these can be successful in changing teen behaviors. This success will be short-lived, however, without strong family, peer, and community support to ensure that healthy behaviors, once begun, are sustained.



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Preventing Teenage Pregnancy: New Dilemmas and New Solutions

Marion Howard

What is the problem?

hy do we have a continuing unacceptably high rate of births to young people? The basic answer is clear—it is a change in our culture combined with a biological change in beginning fertility. Adult attitudes, values, and behaviors surround young people with inconsistent, often conflicting and, many times, negative messages about responsible sexual behavior. The impact of change on youth from a more conservative and consistent culture to this new one is compounded by the fact that the beginning age of fertility has been lowering 3 months every 10 years for the last 100 years. Whereas a hundred years ago, on the average, girls did not become fertile until around age 17; half of all girls now have the capacity to become pregnant before age 12! Boys' fertility follows roughly a year later.

The result of these two changes is that we now have a generation of youth who are making decisions about sexual actions in an environment that is sexually provocative but contains few sexual rules. They are making these decisions without having completed some of the most important phases of their growth and development, including their cognitive, psychosocial, and moral growth. Indeed, without yet knowing fully who they are, and without yet being able to clearly see the consequences of their actions, young people are deciding to have sexual intercourse, deciding protection is an option rather than a necessity, and deciding to have a baby before they have a chance to complete their education and become financially self-supporting.

What can we do?

We cannot change the biological clock. And it is unlikely we can quickly change our culture. Therefore, as our young people grow to sexual maturity within our current framework, it is important to help them manage their sexual actions as responsibly and as consequence-free as possible. Three approaches—*insulation, minimization,* and *delay of onset*—have been suggested as ways to help youth manage their participation in a variety of negative health behaviors such as smoking, drinking, or other drug use, as well as premature sexual involvement.

Insulation

As applied to interventions in the field of teenage pregnancy prevention, it is clear that insulating young people from the harmful effects of sexual behavior has been the major intervention choice by health professionals over the last two decades. Since pregnancy at a young age is seen as being potentially harmful to both the teenage parents and their offspring, health service providers have sought to pro-

vide birth control services to young people, seeing use of contraceptives as potentially the most successful intervention in pregnancy prevention.

The difficulty in applying this insulating approach has been the ambivalence of society regarding sexual behavior, particularly sexual behavior among young people. Although there generally has been positive acceptance of other health measures designed to protect children from negative health outcomes, there has been no such mandate for contraceptive use. For example, it is acceptable when schools require immunizations before children can attend classes, but schools can become battlegrounds when clinics in schools want to provide methods of protection against pregnancy or sexually transmitted diseases, or even when teachers or counselors want to refer young people to health centers where such services are available. Sometimes, even the notion of providing factual information in school classrooms about the various kinds of birth control methods and how to use them effectively, has met with opposition.

Adults who wonder why adolescents do not use contraception often cannot conceptualize the world as it is experienced by adolescents—a world in which confusing and conflicting messages occur. For example, there is no advertising of contraceptives on television, even for adults. There is no role modeling in the movies or on television of adults using contraceptives as a part of daily lives. There are no sanctioned supportive measures in the teen world, such as using school buses to transport youth to health clinics. Because society is fundamentally ambivalent about sexual behavior among youth, there are no public attitudes that make teenagers feel proud when they use contraception. Most often, it is left to adolescents to overcome their own ignorance and concerns about birth control, to find their own motivation to use birth control, to arrange their own transportation to get to services, to develop their own courage to face adults, some of whom are likely to disapprove of adolescent sexual behavior and, by association, their need for and use of contraception. Hence we live in a society that has never really tried a genuine "contraceptive approach" to preventing teen pregnancy.

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Minimization

Another suggested strategy is to help young people *minimize* their involvement in sexual behavior, thereby reducing the likelihood of harmful outcomes. This might include limiting involvement in sex to short term experimentation or limiting the number of partners an adolescent might have over an extended period. Although pregnancy can occur at any time, satisfying curiosity about sex, particularly if birth control is used, and then not engaging in sexual relations further, could reduce the possibility of pregnancy. Since adolescents who obtain birth control have difficulty in using it consistently, minimization of sexual involvement could reduce the likelihood of pregnancy, even among youth who have sought out contraceptive methods. This approach rarely has been tried with adolescents. Because of societal ambivalence about teenage sexual involvement, interventions aimed at minimizing (not total prevention of) sexual involvement have not been forthcoming. Primarily they have been used with girls who already have given birth to a

baby. This approach to *minimization* makes the young person pay a "one pregnancy penalty" before intensive support is given.

Delay of onset

Yet another approach is to help adolescents delay the onset of behaviors that have potentially harmful consequences. This approach may be a particularly appropriate one for application to sexual behavior because sexual intercourse is the one behavior (as opposed to smoking, drinking, or drug use) that adults expect and want young people to engage in later on in life.

Delaying the onset of sexual behaviors has long been an implicit approach to preventing teenage pregnancy. Most of the older adults in our society grew up in a time when it was generally understood by adults and youth alike that young people were not to have sexual intercourse. However, recently it has been necessary to make messages about remaining abstinent more explicit. This has been needed because of a change in adult sexual values and behaviors that has led to a change in adolescent sexual behavior. As marriage has been pushed to older and older ages, as more than half of all marriages end in divorce while people are still very young, as sexual behavior outside of marriage has become more common and accepted, as sexual actions among unmarried people have been regularly displayed to young people by the media, young people have lost the role models needed to help them believe that abstinence is their best choice. In the 1970s, abstinence among adolescents was the norm. For example, only 4.7% of 15-year-old girls had had sexual intercourse. By the late 1980s, however, over five times as many girls were sexually involved at that age.

The successful programs tend not to be didactic but more experiential for young people, helping them to personalize risks.

The philosophy of *delaying the onset* is to allow young people to postpone behaviors with potentially harmful consequences until they are older and can more clearly see the implications of their behavior on their future. The delay also is intended to help young people postpone such behaviors until they are old enough to take full responsibility for the consequences of their actions.

How can we use these approaches?

Educational interventions that appear to offer promise of reducing teen pregnancy are those that incorporate more than one approach, for example, *insulation* and *delay of onset*. These interventions are aimed at helping young people manage their sexual behavior, by both refraining from sexual activity and protecting themselves if they do have sexual intercourse. These multiple approach interventions have received intensive evaluation and have demonstrated reduction in sexual involvement, increase in birth control use, reduction in teenage pregnancy.

The successful programs tend not to be didactic but more experiential for young people, helping them to personalize risks. Such programs are developmentally appropriate, presenting information and services one way to younger adolescents, another way to older adolescents. They also are skill based, helping young people actually develop abilities to deal with social and peer pressures toward sexual in-

volvement or negotiate systems and interpersonal relationships to obtain and use birth control.

These programs try to change perceptions of peer norms—making it more acceptable to refrain from sexual activity or more acceptable to use contraception. Such programs are value based—often they are designed to support a given value—such as avoidance of sexual intercourse or pregnancy at young ages. Some of the programs also are linked to health care settings that offer birth control services.

One intervention, Postponing Sexual Involvement, was able to significantly delay sexual involvement throughout both the 8th and 9th grades among low-income male and female youth who were given the program as opposed to such youth who did not have the program. In the 8th grade, low-income youth who did not have the program were four to five times more likely to become sexually involved. At the end of the 9th grade, there was still a one-third reduction in sexual involvement among low-income boys and girls who had had the program as opposed to those low-income youth who had not participated. Among those low-income youth who became sexually involved, if they had had the Postponing program, they were more likely to limit involvement in the behavior. Moreover, at the end of the 9th grade, low-income youth who had the combined program were more likely to use birth control and twice as likely to say they used it because of what they learned in school. Pregnancies also were reduced.

As implemented in its home community, Atlanta, Georgia, Postponing Sexual Involvement for Young Teens was added to a Human Sexuality module that provided factual information on anatomy and physiology of the reproductive system, becoming a parent, sexually transmitted infections, birth control, and decision-making. One unique feature of the combined program was that the Grady Memorial Hospital Adolescent Reproductive Health Center trained 11th and 12th grade Teen Leaders to present the five classroom period Postponing Sexual Involvement part of the program in the 8th grade. Under the supervision of the Center's adolescent counselors, the teen leaders provided information designed to help adolescents explore attitudes and feelings about managing physical feelings within relationships. They also taught adolescents skills to resist social and peer pressures to become sexually involved and served as role models of youth who were successful in the teen world without being sexually involved.

The success of the middle school intervention has led the Atlanta Public Schools to adopt a three-tier approach to pregnancy prevention. An age-appropriate adaption of the middle school program is now being put in place in all elementary schools (Postponing Sexual Involvement for Preteens), and an age-appropriate adaptation is also being implemented in the upper grades (Postponing Sexual Involvement in High School). Thus students in the Atlanta Public Schools will receive consistent messages regarding abstinence in elementary, middle, and high

school. Information about protecting themselves from pregnancy and disease and links with community health care services will continue to be an integral part of the comprehensive approach so that the harmful effects for young people who experiment with sex are minimized.

Implications for policymakers

Currently young people's sexual behaviors range all along a continuum. They need appropriate assistance wherever they are. Neglecting any one segment of youth limits our effectiveness in changing societal and peer norms regarding appropriate management of sexual feelings and behaviors, and reducing the incidence of teen pregnancy.

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Combining *delay of onset, minimization,* and *insulation* can provide a positive set of strategies. For example, greater funding for school/health agency cooperation on teen pregnancy prevention could increase the likelihood of helping students receive linked information and services—encouraging health agencies to facilitate innovative programs in schools, including those aimed at delay of onset. It could also help schools facilitate better use of established community health services making them more youth accessible and friendly. Not all funding for interventions that could make a contribution to helping youth better manage their sexual behavior in today's society, needs to be new funds. Allowing existing funds to be used more creatively would help. Family planning programs, for example, are traditionally judged on how many patients they see in their family planning clinics, not on how many teens don't need to come because the programs reached out and helped them delay sexual involvement.

However, as we struggle with how to prevent teenage pregnancy, defining *teenage pregnancy prevention* as the problem may structure thinking about solutions in ways that prevent the very outcomes we are trying to achieve. Indeed, teenage pregnancy itself may be a consequence of other problems that we as a society are facing. In order to be successful at lowering teenage pregnancy to acceptable levels, do we need to address broader issues to overcome fundamental societal deficits along with supporting individual program strategies? For example:

❖ Is the real problem that biological maturity has outstripped psychosocial maturity for our young and our society has not yet made appropriate adjustments? Puberty is now occurring earlier (average age 12 for girls) while cognitive, psychosocial maturation is not completed until much later in adolescence. Is it realistic to expect immature youth to mange sexual feelings and behaviors in ways that avoid risk until society is ready to have them marry and bear children—minimally after they have finished high school, probably gone on for further education and training, and worked for a while? Cross-culturally, young people usually have become sexually involved around the time of puberty unless there have been strong societal restraints. Currently there are few societal constraints; indeed, there are many societal pressures toward unhealthy sexual involvement. The media keep sexual images constantly on the minds of young people and

- show sex in a superficial stereotyped way while adults feel free to avoid sexual restraint.
- ❖ Is the problem that, in our society where unskilled untrained labor is not needed, we have no role for youth until they are out of their teens and educated? Adolescents who have little or no hope of finding jobs that will help them escape from poverty are less likely than others to see the merit of future planning, including family planning. Racial discrimination compounds that problem. Even if one graduates from high school, if the best job one is ever going to have is behind a fast food counter, why postpone parenthood? If the violence in one's neighborhood makes one unsure there will even be a future, why postpone anything? Do young people also think they have to have sex or have a baby to be somebody because they are coming through systems that do not show them we love them, care about them, and have an immediate genuine need for them?
- ❖ Is the problem how we view parenthood or are acting as parents? Today, the majority of children in the United States have lived in a single parent home at one time or another. Children may see one or both parents date and become sexually involved with someone to whom they are not married. Are parents so involved with themselves and meeting their own needs that they do not take time to meet the needs of their children? Do parents need to be given a clearer indication of how their changed attitudes and behaviors affect our country's youth?
- ❖ Is the problem that adults have not resolved problems between the sexes and this legacy is being passed to the young? Battering, rape, and incest affect more women in our country than any other industrialized nation. Who teaches young men and young women to be caring and respectful of each other? Without that as a basis for a relationship, how can issues of abstinence and pregnancy prevention be resolved by youth?

Teenage pregnancy has become an enduring problem in our society. There are no simple solutions. We need to hold up a mirror to ourselves and other adults around us and ask: How do we, how does our society, role model what it means to be a man, what it means to be a woman, what responsible sexual behavior is? What do we need to change? How can we do it? When we can answer that, we will be closer to a solution of preventing teenage pregnancy.

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The School/Community Sexual Risk Reduction Program for Teens

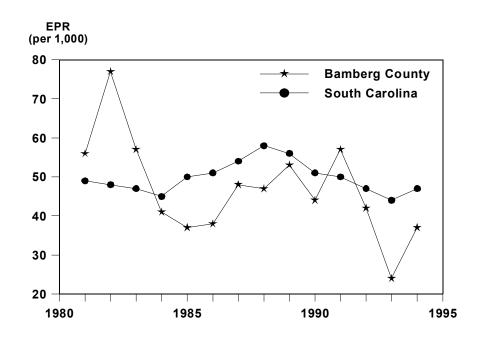
Murray Vincent

his paper describes a teen pregnancy reduction program that, unlike many other such attempts, has demonstrated an actual reduction in teen pregnancies. This program, the School/Community Sexual Risk Reduction Program for Teens, used a community-wide approach and multiple interventions. It was described in detail in an article in the *Journal of the American Medical Association*, published June 26, 1987. That article outlined the following results from the program (see Figure 1):

- ❖ In the 2nd year, the estimated pregnancy rate for girls between 14 and 17 years old dropped from 66.9 per 1,000 to 24.0.
- ❖ In the 3rd year, the estimated pregnancy rate was 25.0 per 1,000; in the 4th year it fell to 22.5.

An external evaluation of the program credited this 50% reduction in teen pregnancies to the program's focus on multiple interventions in the target community.

Figure 1. Estimated pregnancy rates for females, aged 14–17, in Bamberg County and South Carolina, 1981–1994



Source: SC DHEC Office of Vital Records and Public Health Statistics.

Methods

The School/Community Sexual Risk Reduction Program for Teens began in October 1982 in Bamberg County, South Carolina. The county's population is rural, agricultural, poor, and undereducated. According to the 1980 census, 58% of the residents are Black; 42% are White. Before 1982, the county ranked among the top 20% in estimated pregnancy rate for girls between 14 and 17 years old.

This project used a community-based model that recognizes the many factors which contribute to public health problems—whether that problem is high blood pressure, AIDS, infant mortality, or teen pregnancy. Because there are multiple causes, the model predicts that long-term improvements will require community-wide recognition of the problem and a number of "high dosage" interventions directed at the entire community.

Many factors contribute to the problem of teen pregnancy. These factors are complex, interrelated, and not easily remedied. Among these factors are the following:

- Peer pressures and peers' view about sexual activity, prevention, and contraception
- Parental activities and behaviors concerning communication and sexual decisions
- Family relationships
- Single parent families
- Latchkey children
- Cultural and religious beliefs
- Sexual relationship and role models in the media
- ❖ Lack of self-confidence, self-esteem, and responsibility and lack of decision-making, problem-solving, and assertiveness skills
- Perceptions of susceptibility and seriousness of sexual involvement
- Availability of educational and counseling services
- Lack of sexuality education
- Engagement in other risky behaviors such as drug or alcohol use
- Attitudes of medical and clinical personnel
- Socioeconomic status
- Availability of medical and health services

Teenage girls play a primary role in the problem and its solution. However, there are also important roles played by the men or boys who impregnate them and by parents, teachers, religious advisors, medical providers, businesses and industries, and taxpayers. The problem is complex. To believe a "magic pill" or a "plea for more self control" will solve it is naive and simplistic. The community-based intervention model offers promise because it involves many groups, agencies, and stakeholders and is flexible enough to connect the interests, resources, and energies of everyone in the community.

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Objectives and strategies

The project's outcome objective was to reduce unintended pregnancies among never-married teens and preteens. The primary behavioral objective was to support and promote abstinence and postponement of sexual intercourse. The secondary behavioral objective was to promote effective contraception among those teens who are sexually active. To achieve these objectives, multiple educational programs were directed at all members of the community. Educational programs aimed to help people

- ❖ recognize that early sexual intercourse and pregnancy creates problems that do not enhance the quality of life
- understand growth and developmental changes of children, adolescents, and adults
- improve skills in assertiveness, communication, problem-solving, and decision-making to help youth resist peer, societal, and cultural pressures
- improve teens' self-esteem and aspirations
- understand and acquire skills regarding reproduction, contraception, and pregnancy prevention

Target groups for these educational programs included the following:

- ❖ Teachers and community agency professionals. These adults benefit from formal instruction, graduate education, and other intensive educational forums designed to help them educate and guide youth.
- ❖ Parents. Short courses, offered in a structure that ensures participation, can improve parenting skills. Religious organizations may have the greatest opportunity to reach this group.
- Children and adolescents. This group needs planned, organized, and sequential sexuality education, taught by academically prepared teachers, from kindergarten through high school.
- ❖ Teen peer leaders. These teens work within schools and community organizations to influence their peers and younger children through organized outreach programs.
- ❖ Youth at high risk of pregnancy. These teens are targeted with special programs and one-to-one interventions.

Community-based activities are a vital part of the school/community model. While school activities are important, the community, through its homes, churches, and civic organizations plays an equally compelling role. The goals of community-based interventions are to nurture community ownership of the problem; to foster understanding of the universal need for planned activities to solve the problem; to inform family, community, and business people about the available services and resources of the project; and to recruit clients and target audiences for the project's services. These community interventions involve the me-

dia, parents, religious organizations, health and human service organizations, and other community groups and activities.

Religious organizations have been particularly important in reducing sexual risk. Many churches and clergy promote strengthening families and improving adolescent health. Many believe the church has a pivotal role in teaching parents to become the primary sexuality educators of their children. Medical and public health professionals also play an important role in education about family planning and in referral to reproductive health services. Human and social services organizations also provide a variety of related services and are a critical component of a community-based prevention effort.

The School/Community project also stressed public outreach through local newspaper and radio stations and took advantage of opportunities to promote the program's messages by speaking to civic groups and holding public events. The goal was to saturate the community with pregnancy-prevention messages and raise awareness.

Conclusions

In years 2 through 4 after the implementation of the School/Community Program, the estimated pregnancy rate in the target county showed a remarkable sustained decline, a decline not observed in comparison counties. The model targeted the entire community and recruited parents, teachers, clergy, civic and social service organizations, youth, and others.

This model can be used in other places where unintended adolescent pregnancy is a social and public health concern. We recommend that efforts to adapt this program include three ingredients:

- ❖ Adequate funding to recruit professional staff and to allow enough time to implement and fine-tune a program
- ❖ A receptive intervention population made more responsive by appropriate information dissemination strategies
- Involvement of the entire community

Policy options

In my work, I have found the following options to be important ones for communities interested in preventing teen pregnancies to consider:

- Teen pregnancy is a complex sociocultural problem, and communities must recognize and accept responsibility for solving the problem.
- ❖ Local officials, community leaders and, especially, schools must make a public commitment to preventing teen pregnancy.
- Unintended pregnancies are a community public health problem. Effective solutions require multiple interventions directed at children, adolescents, parents, teachers, agency professionals, health care providers, business and industry, community leaders, and others.

The model targeted the entire community and recruited parents, teachers, clergy, civic and social service organizations, youth, and others.

- Sexuality education in schools, from kindergarten through high school, should be sequential, age appropriate, and comprehensive. Graduate coursework and continuing education should be required for all sexuality education teachers.
- Programs and services that enhance life options, employment, job placement, crisis intervention, and case management are directly related to efforts to prevent teen pregnancy.
- Availability and access to educational programs, counseling, and services for contraception, pregnancy testing, adoption, and abortion should be provided by physicians, other health care providers, clergy, and other community organizations.
- Broad-based community interventions require adequate funding (estimated at \$150,000 a year) to employ professional staff to develop collaborative arrangements, orchestrate, and implement program components.
- Solving complex social problems takes time. Measurable changes in knowledge, attitudes, behaviors, and health status will take 3 to 5 years.
- Colleges and universities are valuable resources and partners to community programs. They can provide graduate and continuing education for teachers, technical assistance in community organization and planning, and assistance in designing evaluation methods to assess process, implementation, and health status outcomes.



The School/Community Sexual Risk Reduction Program for Teens was a cooperative effort involving the Bamberg School Districts #1 and #2, Hampton County School Districts #1 and #2, and the Department of Health Promotion and Education, School of Public Health, University of South Carolina. The project was supported by the Office of Adolescent Pregnancy Programs, U.S. Public Health Service, DHHS, and the South Carolina Health and Human Services Finance Commission. This program is now in the 3rd year of a 4-year replication initiative in three Kansas communities, funded by the Kansas Health Foundation.

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National Resources

Adolescent Pregnancy Prevention Clearinghouse 122 C Street, NW Washington, DC 20001 (202) 628-8787 (202) 783-7324 (fax)

Publications from 1985–1990 on various topics dealing with teenage pregnancy and teenage pregnancy prevention. Call for a free catalog and price list.

Data Archive on Adolescent Pregnancy & Pregnancy Prevention 170 State Street, Suite 260 Los Altos, CA 94022-2812 (415) 949-3282

Publications, programs, and raw data on teenage pregnancy and teenage pregnancy prevention. Call for free catalog and price list.

National Directory of Teenage Pregnancy Prevention Programs

370 Lexington Avenue New York, NY 10017 (212) 532-8330

Information describing 600 different teenage pregnancy prevention programs. Publications also available. Call for informational brochure and catalog.

Ordering information for selected publications

The following publications contain up-to-date information on current issues and research findings on teenage pregnancy and teenage pregnancy prevention.

Beginning Too Soon: Adolescent Sexual Behavior, Pregnancy, and Parenthood (\$3.00). This executive summary overviews the two related reports listed below. June 1995.

Adolescent Sex, Contraception, and Childbearing: A Review of Recent Research (\$15.00). This 200-page report details research studies since 1990 on adolescent sexual activity, contraceptive use, teenage pregnancy, and teen births. June 1995.

Adolescent Pregnancy Prevention Programs: Interventions and Evaluations (\$19.00). This publication discusses current prevention programs for reducing teenage pregnancy. The effectiveness and evaluation of these programs is also reported. June 1995.

These three reports can be ordered from

Child Trends, Inc. 4301 Connecticut Avenue, NW Suite 100 Washington, DC 20008 (202) 362-5580

Report to Congress on Out-of-Wedlock Childbearing (\$20.00). GPO Reference # S/N 017-022-01320-7. This report is a comprehensive review of the research dealing with out-of-wedlock births. Nine scholarly papers take a look at the causes and consequences of nonmarital childbearing. Also discussed are the myths surrounding who has out-of-wedlock births and why. This report can be ordered from the

U.S. Government Printing Office Superintendent of Documents P.O. Box 371954 Pittsburgh, PA 15250-7954 (202) 512-1800 (8 a.m.-4 p.m. EST) (202) 512-2250 (fax)

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