

## RISK AND PROTECTIVE FACTORS RESOURCE

The following excerpted pages are from the publication, **Emerging Answers 2007: Research Findings on Programs to Reduce Teen Pregnancy and Sexually Transmitted Diseases**. This chapter summarizes risk and protective factors that affect teens' sexual behavior that have been shown to be the most amenable to direct change on teen behavior through pregnancy and STI prevention programs.

Pregnancy prevention programs should target risk and protective factors that:

- Have a significant causal impact on one or more types of sexual behavior affecting the incidence of teen pregnancy or STI.
- Can be changed markedly by parents or other people or organizations concerned with teen pregnancy and sexual health.

**Citation:** Kirby, D. (2007). **Emerging Answers 2007: Research Findings on Programs to Reduce Teen Pregnancy and Sexually Transmitted Diseases**. Washington, DC: National Campaign to Prevent Teen and Unplanned Pregnancy.



- ☆ More than 500 factors are known to increase or decrease the chances that teens will engage in risky sexual behavior.
- ☆ Both risk and protective factors influence teen sexual behavior.
- ☆ Some factors involve sexuality directly; others affect sexuality indirectly.
- ☆ Risk and protective factors are rooted in:
  - communities (e.g., exposure to violence and substance use),
  - families (e.g., the presence of both biological parents, parents who express and model responsible values about sex and contraception, a close relationship with parents),
  - friends and peers (e.g., poor performance in school, drug use, permissive and unprotected sex),
  - romantic partners (e.g., an older boyfriend),
  - teens themselves (e.g., values, attitudes, perceptions of peer norms, self-efficacy, and intentions about sex or the use of contraception).
- ☆ Of the more than 500 known factors, teens' own sexual beliefs, values, and attitudes are the most strongly related to sexual behavior.
- ☆ Some factors can be more easily modified through programmatic interventions than others.
- ☆ Organizations concerned with preventing teen pregnancy and STD should focus on factors that are most strongly related to sexual behavior and can be changed markedly by the organizations' programs.

## Factors That Affect Teens' Sexual Behavior

Parents and other concerned adults cannot control teens' sexual behavior directly, but they can attempt to affect the factors that influence teens' sexual decisions and behavior. Logic and experience suggest that the more people know about those factors and the more effectively people address them, the more success they'll have in reducing sexually risky behavior.

Understanding the factors that influence teen sexual behavior is necessary not only for changing behavior, but also for identifying teens who are most at risk of having sex and having unprotected sex. First people can use these factors to identify those teens at greater risk; then they can address the important factors affecting teen behavior. This chapter summarizes many of the important factors and explains their implications for people working to help young people avoid sexual risk-taking.

Factors that influence teens' sexual decisions and behavior include both risk factors and protective factors. *Risk factors* encourage behavior that could result in a pregnancy or STD or discourage behavior that could prevent those outcomes. *Protective factors* discourage behavior that could lead to a pregnancy or STD or encourage behavior that can prevent them. Risk and protective factors may be equally important. If the risk factors in a teen's life diminish or the protective factors increase, or both, the teen will be much less likely to have sex, fail to use condoms or other forms of contraception, become pregnant or cause a pregnancy, or contract an STD.

This chapter uses the words "encourage behavior" and "discourage behavior" to describe the effects of risk and protective factors because the terms imply causality. Causality is important because the goal of most programs is to change behavior. If a factor is only correlated with a behavior, and does not actually affect that behavior, then changing the factor will not change the behavior.

Research cannot always demonstrate causality, and readers should always question whether a risk or protective factor actually influences a sexual behavior or is just related to it. Unless specifically noted, all of the factors discussed in this chapter have shown some evidence that they have a causal impact on behavior.

Since parents and other adults cannot change teen behavior directly, the question becomes: Which risk and protective factors should they target? The answer is twofold:

- ☆ Factors that have a significant causal impact on one or more types of sexual behavior affecting the incidence of teen pregnancy or STD, and
- ☆ Factors that can be changed markedly by parents or other people or organizations concerned with teen pregnancy and sexual health.

Logically, if a risk or protective factor satisfies only one of these two criteria, it is not worth targeting, because it will not reduce pregnancy or STD rates. In other words, an unchangeable factor that affects sexual behavior is no more

worth pursuing than a changeable factor that does not affect sexual behavior significantly.

This conclusion raises two very important questions, both of which this chapter attempts to answer:

- ☆ Which factors have the greatest causal impact on adolescent sexual behavior?
- ☆ Which factors are most amenable to change by pregnancy and STD/HIV prevention programs?

## METHODOLOGY

This chapter summarizes the results of about 450 studies of risk and protective factors [1]. To be included, the studies had to meet the following criteria:

- ☆ Be conducted in the United States.
- ☆ Examine the impact of factors on initiation of sex, frequency of sex, number of partners, condom or other contraceptive use, pregnancy, childbearing, or STD.
- ☆ Be based on a sample of teenagers roughly 18 or younger.
- ☆ Have a sample size of at least 100 teens for significant results and at least 200 teens for nonsignificant results.
- ☆ Meet scientific criteria required for publication in professional peer-reviewed research journals or other publications.
- ☆ Be published between 1990 and 2007, inclusive.
- ☆ Include multivariate analyses.

## WHAT FACTORS AFFECT TEEN SEXUAL BEHAVIOR MOST?

The studies revealed that more than 500 factors affect one or more of the eight important measures of teen sexual behavior and its outcomes: age at which sex is initiated, frequency of sex, number of partners, use of condoms, use of other methods of contraception, pregnancy, childbearing, and STD.

Nearly all young people experience pressures of some kind to have sexual intercourse and are therefore at risk of pregnancy and STD. It is simply not the case that only one group of teens, only one ethnic group, only low-income teens, only teens in a particular neighborhood, or only students in “other” schools engage in sex and become pregnant or contract an STD. Sexual activity, pregnancy, and STD cut across all of these groups.

Risk and protective factors increase or decrease the chances that a teen will engage in risky sexual behavior. As noted above, the presence of more risk factors and fewer protective factors in a teen’s life increases the chances that that teen will have unprotected sex and become pregnant (or cause a pregnancy) or contract an STD.

Because so many factors affect teen sexual behavior, focusing on only one of them is unlikely to have much impact unless that factor is an extremely important one (e.g., intention to have sex). Targeting several important factors is a more promising approach. To that end, this chapter focuses on the most important factors and the dominant themes among them. Table 3-1 includes factors that show the strongest and most consistent evidence of significantly affecting teens’ sexual behavior.<sup>1</sup>

---

1. To be included in Table 3-1, four conditions had to be met: 1) the pattern of results across studies indicating that a particular factor significantly affects behavior could not have occurred by chance; 2) at least two-thirds of the studies had to show that a particular risk or protective factor exerted a consistent, significant effect on behavior, rather than being not significant or having significant results in the opposite direction (this “2 to 1” rule excludes many factors, but increases the chances that a factor will be important in every community); 3) at least three multivariate studies had consistently to support the conclusion that a particular factor was a risk (or protective) factor for a particular behavior; and 4) at least one of the studies had to have a large sample size.

Table 3.1: Important Risk and Protective Factors and the Feasibility of Changing Them

Risk (-) and Protective (+) Factors	Feasibility of Changing <sup>1</sup>	Possible Interventions to Change Factors
<b>Environmental Factors</b>		
Community		
<b>PERCENTAGE FOREIGN-BORN</b>		
+ High proportion of foreign-born residents	*	In general, pregnancy and STD prevention programs cannot affect the percentage of foreign-born residents in a community.
<b>COMMUNITY DISORGANIZATION</b>		
- Greater community social disorganization (e.g., violence, hunger, substance use)		In general, pregnancy and STD prevention programs do not have the resources or capability of markedly changing community-wide social disorganization. In some communities, these and other programs can collaborate to address larger social issues.
Family		
<b>FAMILY STRUCTURE</b>		
+ Live with two parents (vs. one parent or step-parents)	*	In general, pregnancy and STD prevention programs cannot affect marital status, divorce risk, or living arrangements of families. If their agencies offer marriage or family counseling, they may be able to help parents stay together.
- Family disruption (divorce, change to single-parent household)	*	
<b>EDUCATIONAL LEVEL</b>		
+ High level of parental education	*	In general, pregnancy and STD prevention programs cannot affect parents' educational level. In some communities, programs with a holistic approach may be able to provide guidance and counseling to parents and encourage and facilitate their obtaining a higher education.
<b>SUBSTANCE ABUSE</b>		
- Household substance abuse (alcohol or drugs)	**	In general, pregnancy and STD prevention programs can have little effect on whether parents or siblings of teens abuse alcohol or drugs. Some programs may be able to provide alcohol and drug abuse prevention programs and thereby reduce parental abuse.

1.

\* = Extremely difficult for most pregnancy and STD prevention programs to change directly themselves, although they can work with other agencies to change policies.

\*\* = Difficult for most pregnancy and STD prevention programs to change unless they have special programs or capabilities.

\*\*\* = Most amenable to change directly by pregnancy and STD prevention programs. These factors are italicized.

Table 3.1: Important Risk and Protective Factors and the Feasibility of Changing Them (Con't.)

Risk (-) and Protective (+) Factors	Feasibility of Changing <sup>1</sup>	Possible Interventions to Change Factors
<b>POSITIVE FAMILY DYNAMICS AND ATTACHMENT</b>		
+ High-quality family interactions, connectedness, satisfaction with relationships	**	In general, pregnancy and STD prevention programs can have little effect on family interactions and connectedness. Some agencies may be able to provide intensive family guidance and counseling and thus affect family interactions.
+ Greater parental supervision and monitoring	**	In general, pregnancy and STD prevention programs can have little effect on parental supervision and monitoring. Some more holistic programs may be able to implement programs for parents that encourage them to supervise and monitor their teen children appropriately.
- Physical abuse and general maltreatment	**	In general, pregnancy and STD prevention programs can have little effect on physical abuse and maltreatment within the family. Some agencies may be able to provide intensive family guidance and counseling and thus affect abusive behavior.
<b>FAMILY ATTITUDES ABOUT AND MODELING OF SEXUAL RISK-TAKING AND EARLY CHILDBEARING</b>		
- Mother's early age at first sex and first birth	*	Programs cannot affect a teen's mother's prior behavior. Programs can prevent teens from becoming mothers and thereby help the next generation.
- Older sibling's early sexual behavior and early age at first birth	**	In general, pregnancy and STD prevention programs cannot affect the previous behavior of older siblings. They can affect the behavior of teens, who may have younger siblings.
+ Parental disapproval of premarital sex or teen sex	**	Pregnancy and STD prevention programs can provide parents with accurate information about teen sexual behavior and its consequences. Some programs, especially faith-based ones, may emphasize conservative religious values about premarital sex and teen sex. Many programs may encourage parents to talk to their teens about abstaining from having sex.
+ Parental acceptance and support of contraceptive use for sexually active teens	**	Pregnancy and STD prevention programs can provide parents with accurate information about teen sexual behavior, its consequences, and the effectiveness of condoms and contraception. Some programs may be willing to talk to parents about encouraging their teens to use contraception if they do have sex.
<b>COMMUNICATION ABOUT SEX AND CONTRACEPTION</b>		
+ Greater parent-child communication about sex and condoms or contraception, especially before teen initiates sex	***	Pregnancy and STD prevention programs can increase parent-child communication about sex, condoms, and other contraception through school homework assignments, special programs for parents, college courses for parents, and other approaches.

Table 3.1: Important Risk and Protective Factors and the Feasibility of Changing Them (Con't.)

Risk (-) and Protective (+) Factors	Feasibility of Changing <sup>1</sup>	Possible Interventions to Change Factors
<b>Peer</b>		
<b>AGE</b>		
- Older age of peer group and close friends	**	In general, pregnancy and STD prevention programs cannot easily affect the age of teens' peers. Some programs may be able to provide activities that encourage teens to interact with people their own age or encourage same-age friends in other ways.
<b>PEER ATTITUDES AND BEHAVIOR</b>		
- Peers' alcohol use, drug use, deviant behavior	**	If friends can be reached, some pregnancy and STD prevention programs with a youth development emphasis may be able to reduce alcohol and drug abuse and other non-normative behavior.
- Peers' pro-childbearing attitudes or behavior	***	If peers can be reached, sex education programs can reduce pro-childbearing attitudes and behavior. If peers cannot be reached, programs can implement activities in small or large group settings that demonstrate peer support for avoiding pregnancy.
- Permissive values about sex	***	If friends can be reached, agencies can implement effective abstinence or sex and STD/HIV education programs that change permissive values and delay the initiation of sex. If peers cannot be reached, programs can implement activities in small or large group settings that demonstrate peer support for delaying sex.
- Sexually active peers	***	If friends can be reached, abstinence or sex and STD/HIV education programs can change permissive values about sex and delay the initiation of sex. If friends cannot be reached, programs can implement activities demonstrating that perceptions of peer sexual activity are typically exaggerated.
+ Positive peer norms or support for condom or contraceptive use	***	If friends can be reached, sex and STD/HIV education programs or clinic protocols can increase both support for condom and contraceptive use and actual use of condoms and contraceptives. If peers cannot be reached, programs can implement activities in small or large group settings that demonstrate peer support for condom and contraceptive use for sexually active teens.
+ Peer use of condoms	***	If peers can be reached, sex and STD/HIV education programs can increase condom use. If peers cannot be reached, programs can implement activities in small or large group settings that demonstrate peer support for condom use.

Table 3.1: Important Risk and Protective Factors and the Feasibility of Changing Them (Con't.)

Risk (-) and Protective (+) Factors	Feasibility of Changing <sup>1</sup>	Possible Interventions to Change Factors
<b>Romantic Partner</b>		
<b>PARTNER CHARACTERISTICS</b>		
- Having a romantic partner who is older	**	Pregnancy and STD prevention programs can encourage teens to date people their own age. Such efforts have not yet been evaluated.
+ Partner support for condom and contraceptive use	**	If partners can be reached, sex and STD/HIV education programs can improve attitudes toward condom and contraceptive use. If partners cannot be reached, programs can implement activities in small or large group settings that demonstrate peer support for condom use.
<b>Individual Factors</b>		
<b>BIOLOGICAL FACTORS</b>		
+/- Being male	*	Within reason, it is not possible to change these factors.
+/- Being older	*	
+/- Being physically more mature	*	
<b>RACE/ETHNICITY</b>		
- Being African-American (vs. white)	*	Pregnancy and STD prevention programs cannot affect race or ethnicity, but sometimes, in collaboration with other programs, they can help reduce minority poverty or minority cultural values that may contribute to sexual risk.
- Being Hispanic (vs. non-Hispanic white)	*	
<b>ATTACHMENT TO AND SUCCESS IN SCHOOL</b>		
+ Greater connectedness to school	**	Some pregnancy and STD prevention programs with a youth development emphasis may be able to implement tutoring, mentoring, job shadowing, arts, sports, service learning, or other initiatives to help keep teens in school, keep them involved, improve their grades, and improve their aspirations.
+ Higher academic performance	**	
- Being behind in school or having problems in school	**	
+ High educational aspirations and plans for the future	**	
<b>ATTACHMENT TO COMMUNITY</b>		
+ Being involved in the community	**	Some pregnancy and STD prevention programs with a youth development emphasis may be able to implement arts, sports, service learning, or other community programs to help teens be involved in their communities.

Table 3.1: Important Risk and Protective Factors and the Feasibility of Changing Them (Con't.)

Risk (-) and Protective (+) Factors	Feasibility of Changing <sup>1</sup>	Possible Interventions to Change Factors
<b>ATTACHMENT TO FAITH COMMUNITIES</b>		
+ Having a religious affiliation	**	Most pregnancy and STD prevention programs cannot strive to increase involvement in religious organizations. However, faith communities can implement youth programs or initiatives that may increase young people's involvement and improve their understanding of their religion's values about sexuality.
<b>PROBLEM OR RISK-TAKING BEHAVIOR</b>		
- Alcohol use	**	Some pregnancy and STD prevention programs with a youth development emphasis may be able to offer initiatives that reduce alcohol or drug use.
- Drug use	**	
- Being part of a gang	**	Some pregnancy and STD prevention programs with a youth development emphasis may be able to implement initiatives that reduce gang membership.
- Physical fighting and carrying weapons	**	Some pregnancy and STD prevention programs with a youth development emphasis may be able to implement initiatives that reduce fighting, violence, and other problem behavior.
- Other problem behavior or delinquency	**	
<b>OTHER BEHAVIOR</b>		
- Working for pay more than 20 hours per week	**	Most pregnancy and STD prevention programs will not wish to discourage teens from working and having the greater autonomy that accompanies work. However, some may be willing to discourage teens from working more than 20 hours per week.
+ Involvement in sports (girls only)	**	Some pregnancy and STD prevention programs with a youth development emphasis may be able to implement sports programs for girls.
<b>COGNITIVE AND PERSONALITY TRAITS</b>		
+ Higher level of cognitive development	**	Most pregnancy and STD prevention programs are not designed to increase cognitive development. Some with a youth development emphasis may be able to implement initiatives that increase cognitive development slightly.
+ Greater internal locus of control	**	A teen's locus of control is difficult to change. Some programs with an intensive youth development focus may be able to improve teens' internal locus of control.
<b>EMOTIONAL WELL-BEING AND DISTRESS</b>		
- Depression and thoughts of suicide	**	Most pregnancy and STD prevention programs are not equipped to address depression or thoughts of suicide. Some programs may be able to refer teens to agencies that provide needed help or may provide such services themselves.

Table 3.1: Important Risk and Protective Factors and the Feasibility of Changing Them (Con't.)

Risk (-) and Protective (+) Factors	Feasibility of Changing <sup>1</sup>	Possible Interventions to Change Factors
<b>SEXUAL BELIEFS, ATTITUDES, AND SKILLS</b>		
- More permissive attitudes toward premarital sex	***	Pregnancy and STD prevention programs can implement abstinence education, sex and STD/HIV education, and clinic protocols that target these factors. Such initiatives have been demonstrated to delay the initiation of sex, reduce the frequency of sex and the number of partners, and increase condom or contraceptive use.
+ Taking a virginity pledge	***	
+ Greater perceived male responsibility for pregnancy prevention	***	
+ Stronger beliefs that condoms do not reduce sexual pleasure	***	
+ Greater value of partner appreciation of condom use	***	
+ More positive attitudes toward condoms and other forms of contraception	***	
+ More perceived benefits and/or fewer costs and barriers to using condoms	***	
+ Greater confidence in ability to demand condom use	***	
+ Greater confidence in using condoms or other forms of contraception	***	
+ Greater motivation to use condoms or other forms of contraception	***	
+ Greater intention to use condoms	***	
+ Greater perceived negative consequences of pregnancy	***	
+ Greater motivation to avoid pregnancy and STD	***	

Table 3.1: Important Risk and Protective Factors and the Feasibility of Changing Them (Con't.)

Risk (-) and Protective (+) Factors	Feasibility of Changing <sup>1</sup>	Possible Interventions To Change Factors
<b>RELATIONSHIPS WITH ROMANTIC PARTNERS AND PREVIOUS SEXUAL BEHAVIOR</b>		
- Dating more frequently	**	Pregnancy and STD prevention programs can encourage parents to appropriately monitor and supervise teen dating and going steady. Programs can also encourage young people to delay dating and going steady and to participate in group activities rather than one-on-one dates. Such efforts have not been evaluated.
- Going steady, having a close relationship	**	Pregnancy and STD prevention programs can encourage young people to delay dating and going steady and to participate in group activities rather than one-on-one dates. Such efforts have not been evaluated.
- Ever kissed or necked	**	Such efforts have not been evaluated.
+ Older age at first voluntary sex	***	Pregnancy and STD prevention programs can implement abstinence education and sex and STD/HIV education that have been demonstrated to delay the initiation of sex.
- Greater frequency of sex	***	Some sex and STD/HIV education programs and clinic protocols can reduce the frequency of sex and the number of sexual partners (and hence the number of new sexual relationships). Others can encourage young people in new sexual relationships to begin using contraception earlier in their relationship.
- Having a new sexual relationship	***	Some sex and STD/HIV education programs and clinic protocols can reduce the frequency of sex and the number of sexual partners (and hence the number of new sexual relationships). Others can encourage young people in new sexual relationships to begin using contraception earlier in their relationship.
- Greater number of sexual partners	***	Some sex and STD/HIV education programs and clinic protocols can reduce the frequency of sex and the number of sexual partners (and hence the number of new sexual relationships). Others can encourage young people in new sexual relationships to begin using contraception earlier in their relationship.
+ Discussing sexual risks with partner	***	Pregnancy and STD prevention programs can implement sex and STD/HIV education and clinic protocols that increase communication about sexual risks and prevention of pregnancy and STDs.
+ Discussing pregnancy and STD prevention with partner	***	Pregnancy and STD prevention programs can implement sex and STD/HIV education and clinic protocols that increase communication about sexual risks and prevention of pregnancy and STDs.
+ Previous effective use of condoms or contraception	***	Pregnancy and STD prevention programs can implement sex and STD/HIV education programs and clinic protocols that increase condom and contraceptive use, thereby reducing the risk of pregnancy and STDs.
- Previous pregnancy or impregnation	***	Pregnancy and STD prevention programs can implement sex and STD/HIV education programs and clinic protocols that increase condom and contraceptive use, thereby reducing the risk of pregnancy and STDs.
- History of prior sexual coercion or abuse	*	Pregnancy and STD prevention programs typically are not equipped to address the consequences of past sexual abuse or to prevent subsequent abuse. They can refer sexually abused young people to intensive, specialized counseling services, if they exist, and some programs may be equipped to implement support groups for victims.
- Same-sex attraction or sexual behavior	**	Pregnancy and STD prevention programs cannot affect sexual orientation, but some programs designed for gay, lesbian, and questioning youth may be able to reduce their sexual risk-taking.
- Being married	**	Most programs do not include delaying marriage in their mission. Some programs, especially those with counseling components, may encourage young people to think seriously about the implications of early marriage.

The factors identified in Table 3-1 support a wide variety of theories about risky adolescent sexual behavior—theories involving social disorganization in the community, theories involving parenting practices and parent values about adolescent sexuality, biological theories, theories suggesting that sexual risk-taking is part of a larger syndrome of risk-taking or deviant behavior, and social psychological theories of rational behavior. No single theoretical perspective is sufficient to explain teens' sexual behavior: the overall picture is much more complex.

### Environmental Factors

Four groups of factors found to be most influential on teens' sexual behavior are environmental. Those factors characterize the community in which a teen lives, his or her family, peers and best friends, and the teen's romantic partners.

#### *Community*

The community a teen lives in influences his or her sexual behavior. In particular, teens who live in disorganized communities—those with higher rates of substance abuse, violence, and hunger—are more likely to begin having sex early and to have a child. Teens who live in communities with a higher proportion of foreign-born residents are more likely to delay having sex. According to at least one study, this finding may reflect the less permissive sexual values of foreign-born parents.

#### *Family*

Family characteristics are very important in determining risk. Teens who live with both parents and enjoy close relationships with them are less likely to have unprotected sex and become pregnant. Specifically, if teens live with both biological parents (instead of only one parent or step-parents), they are less likely to have sex, but if they do, they are likely to have sex less frequently. A majority of studies find that teens living with both parents are less likely to become pregnant (or cause a pregnancy) or to give birth (or father a child). If biological parents divorce or separate, their children are more likely to initi-

ate sex at an early age than if the parents do not divorce or separate.

Teens whose parents are more educated are less likely to become pregnant than teens whose parents have less education. Family income is also a factor: the majority of studies found that teens in families with higher incomes were less likely to become pregnant or to bear children. These findings regarding parents' education and income may reflect the emphasis that many such parents place on obtaining an education, pursuing a career, and avoiding early childbearing, as well as, to some extent, the greater resources available to support teens in these pursuits.

If teens experience considerable parental support and feel connected to their parents, they are less likely to initiate sex at an early age, and they have sex less frequently. If parents monitor and supervise their teens appropriately, the teens are likely to have fewer sexual partners than if parents do not monitor them (or, according to at least one study, if parents monitor them excessively). At the extreme, if teens have been maltreated and physically abused by their families, then they are much more likely to have sex at an early age and to become pregnant.

Family abuse of alcohol or drugs increases the chances that teens will have sex more frequently and with more partners. There are two possible reasons for this effect: family substance abuse may encourage young people to drink and use drugs themselves, which can lead to more frequent sex with more partners, or family substance abuse may simply be a marker for more general family dysfunction, which can lead to sexual risk-taking by teens.

If family members, especially parents, express values or model behavior consistent with sexual risk-taking or early childbearing, teens are more likely to have unprotected sex and become pregnant (or cause their partners to become pregnant). Parents may do this in a variety of ways, including conveying permissive attitudes about premarital sex or teen sex, voicing negative attitudes about contraception, or having been

teen parents themselves. Similarly, teens whose older siblings model early sex or childbearing are more likely to have early sex themselves. In contrast, parental disapproval of teen sex reduces the chances that teens will have sex, and parental support of contraceptive use increases the chances that teens will use contraception if they do have sex.

When parents have conversations with their children about sex and contraception well before the children become sexually active, the initiation of sex may be delayed and the use of condoms or other contraceptives increased. This effect is most likely to occur when the teen is a daughter, when the parent is the mother, when the teens and their parents feel connected to one another, when the parents disapprove of teens having sex or support contraceptive use, and when parents can discuss sexuality in an open and comfortable manner.

#### *Peers and best friends*

Sexual behavior is one of the many areas in which teens are influenced by their best friends and peers. Teens are more likely to have sex if their best friends and peers are older, use alcohol or drugs, or engage in other negative behavior. Similarly, they are more likely to have sex if they believe their friends have more positive attitudes toward childbearing, have permissive values about sex, or are actually having sex. If teens believe their friends support condom use or actually use condoms, chances are greater that they will use condoms themselves.

#### *Romantic partners*

While simply having a romantic partner increases the chances of sexual activity, having an older romantic partner increases them even further. Having an older partner also lowers the chances that contraception will be used and increases the chances of pregnancy and contracting an STD. If teens' partners support condom or contraceptive use, then teens are more likely to use them if they have sex.

#### Individual Factors

Fifteen groups of factors found to be particularly influential on teens' sexual behavior are classed as individual. They include biological factors, race and ethnicity, connection to family, connection to school and to doing well in school, connection to religion, connection to other organizations or adults in the community, involvement in gangs, alcohol and drug use, aggressiveness, involvement in problem or sensation-seeking behavior, paid work, involvement in sports, cognitive and personality traits, sexual beliefs, attitudes, skills, motivations, and intentions, and relationships with romantic partners and previous sexual behavior.

#### *Biological factors*

Studies have found that age, physical development, and gender have a dramatic effect on teens' sexual behavior. As they become older, teens are much more likely to have sex. Moreover, if they mature physically at an early age, begin menarche early, and appear older than their age, they are also more likely to initiate sex early.

Some effects of getting older are strictly physical, including increased sexual maturity and higher testosterone levels, which may lead to a greater desire for intimacy and sex, greater sexual attractiveness, or both. Other effects are social, such as increased pressure from peers to have sex, changes in perceived norms about sexual and contraceptive behavior, and increased opportunities to have sex, which come with greater freedom and independence.

In addition, teens are likely to have sex more frequently and with more partners as they get older. When teens first have sex, they most often use condoms, in part because they have sex sporadically; older teens are more likely to use long-lasting methods of contraception, such as oral contraceptives or Depo Provera. At the same time, teens are increasingly likely to become pregnant (or to impregnate someone) and to parent a child as they grow older. In other words, because more teens have sex more often as they grow older,

they are increasingly likely to become pregnant, even though they may also be more likely to use contraception.

A teen's gender is another very important biological factor. Overall, boys claim that they have more sexual partners and use condoms more often, although these findings may reflect response biases. Girls are more likely to contract an STD.

Age and gender interact with other factors. For instance, having an older romantic partner increases the likelihood of sexual intercourse for all teens; however, the likelihood is greater for younger teens, especially those in middle school, than for older teens. This factor is also more important for girls than for boys.

Some of these biological factors simply cannot be changed. However, organizations can use them to identify young people who may be more susceptible to sexual risk-taking. Furthermore, organizations can change some attitudes associated with biological factors, such as perceptions of gender roles or expectations of sexual activity for different age groups.

### *Race and ethnicity*

Compared to non-Hispanic white teens, African-American teens are more likely to have sex at an earlier age, to have more sexual partners, to become pregnant, to give birth, and to contract an STD. Findings are mixed regarding condom use, with a few studies indicating that African-American teens are more likely to use condoms than non-Hispanic white teens.

Hispanic teens are more likely to become pregnant than non-Hispanic white teens. Most studies indicate they are not more likely to have sex at an early age, but some studies indicate they are less likely to use contraception.

Some of the effects of race and ethnicity diminish when studies take into account family or community education, employment, and income. That is, it is not simply minority status per se that affects teen sexual behavior, pregnancy, and

STD risk, but rather the poverty and lack of opportunity often associated with being in a minority group that affects those outcomes. Yet studies have found that controlling for socioeconomic status does not erase the effects of minority status on teen sexual behavior or pregnancy. This finding suggests that cultural values—such as greater emphasis on the family, greater acceptance of early childbearing, or expectations of submissiveness to men—may also contribute to the effects of race and ethnicity. Still other factors, such as experiencing discrimination or racism, may also play a role.

### *Connection to family*

Connection to family is both an individual characteristic and a family characteristic. It is discussed above under family characteristics.

### *Connection to school and success in school*

When teens stay in school, feel connected to their schools, earn good grades, do not fall behind in school, have plans for higher education beyond high school, avoid problems in school, or do all of these, they initiate sex later and are less likely to have children.

Several studies have found that involvement in school organizations is related to less sexual risk-taking. A methodologically strong study found that simply belonging to school organizations had no impact on teen childbearing; however, the study did find that substantial involvement in school organizations, particularly in school-based religious organizations among non-Hispanic white teens and in school clubs among African-American teens, was related to lower rates of teen childbearing.

### *Connection to religion*

Teens who have a strong religious affiliation are less likely to initiate sex, and some studies indicate that teens who attend religious services frequently are less likely to have sex. The direction of causality is not entirely clear, however. Just as attachment to faith communities may affect

sexual behavior, sexual behavior may also affect attachment to faith communities. For example, teens who have had sex may feel less comfortable in places of worship and may be less likely to attend services.

#### *Connection to other community organizations or adults*

When teens are more involved in their communities and have mentors, they are less likely to engage in sexual behavior.

#### *Involvement in gangs*

Several studies suggest that teens who belong to gangs are more likely to have sex, to have more sexual partners, and to become pregnant. It is not clear whether gang membership per se produces this elevated risk or simply the fact that teens in gangs have other risk factors as well.

#### *Alcohol and drug use*

Numerous studies have found relationships between teens' use of alcohol and illegal drugs and an increased likelihood of having sex, having sex more often, having sex with more partners, and pregnancy.

It is plausible that drinking alcohol and using drugs may lower inhibitions, diminish the ability to assess risks, or increase sexual aggression, thus accounting for the measured relationship between alcohol and drugs and teen sexual activity. However, it is also possible that part or all of the effect is caused by other factors, such as poor performance in school, general risk-taking or sensation-seeking, lack of parental monitoring, and so on.

One study that controlled for some of these factors found that use of alcohol and other drugs was not related to sexual activity for either gender, nor was it related to use of female methods of contraception. However, drinking alcohol was negatively related to boys' use of condoms. Another study found that, while both alcohol and drug use in the past were negatively related

to condom use, drug and alcohol use during the most recent sex was not negatively related to use of condoms. This finding suggests that something other than lowered inhibitions at the time of sex may explain the relationship. Still other studies have found either no relationship between substance use and sexual risk-taking or no significant relationship once other factors were controlled. Although alcohol and other drug use are included in Table 3-1, their causality is questionable.

#### *Aggression*

Physical fighting and carrying weapons are also related to having sex, more sexual partners, and pregnancy, but the relationship may not be causal.

#### *Involvement in problem or sensation-seeking behavior*

Engaging in problem or sensation-seeking behavior is related to poorer use of contraception, pregnancy, and childbearing. Problem or sensation-seeking behavior may expose teens to norms that favor sexual risk-taking or to more opportunity or desire to have unprotected sex. Alternatively, the relationship between problem behavior and sexual risk-taking may simply reflect family or community characteristics such as poverty, single-parent homes, lack of supervision, or a general propensity to take risks. Again, causality is not clear.

#### *Paid work*

Several studies have indicated that teens with paying jobs, especially those who work more than 20 hours per week, are more likely to have sex, to have sex more often, and to have more sexual partners. Paid work may increase teens' sense of independence, their mobility, and their opportunities to have sex.

#### *Involvement in sports*

A few studies have found that, for teen girls but not teen boys, participation in sports is related to delayed initiation of sex, less frequent sex, greater

use of contraception, and lower pregnancy rates. These studies suggest that girls' participation in sports motivates them to avoid pregnancy, which, in turn, delays initiation of sex. However, the relationship between participation in sports and lower rates of pregnancy is less clear. Perhaps it is because girls who are athletes are more likely than non-athletes to be young, better educated, and non-Hispanic white, characteristics that reduce their risk of becoming pregnant.

#### *Cognitive and personality traits*

Teens with higher cognitive development are less likely to have sex and more likely to use contraception if they do have sex. Teens with a greater internal locus of control—that is, who believe that they rather than external events control their lives—have sex less frequently, use condoms more frequently, and are less likely to become pregnant. Both of these factors may be causal.

Although high self-esteem and positive self-concept are commonly believed to be protective factors for sexual risk-taking, the picture is actually quite mixed. A few studies, including some with large samples that are representative of teens across the United States, have found that self-esteem and positive self-concept are protective factors against initiation of sex, use of contraception, and pregnancy. However, the large majority of studies has found that self-esteem and self-concept are not significantly related to sexual behavior. A few studies have found self-esteem to be protective only for girls or only for middle school (as opposed to high school) students. At least one study actually found that having sex can increase self-esteem. Thus, the relationships between these factors and sexual behavior are unclear and probably quite complex.

Teens who suffer from depression, thoughts of suicide, or fear of untimely death are more likely to have sex. Such emotional distress may affect their motivation to avoid pregnancy or STDs, diminish their ability to assess risk, or lead them to want to escape through sexual involvement. Alternatively, emotional distress may result from

a negative environment, and that environment may actually cause the sexual risk-taking.

#### *Sexual beliefs, attitudes, skills, motivations, and intentions*

The strongest risk and protective factors are teens' own sexual beliefs, values, attitudes, skills, and intentions. Teens are more likely to have sex, to have sex more frequently and to have more partners, if they have permissive attitudes toward premarital sex. They are less likely to have sex if they have taken a virginity pledge.

Sexually active teens are more likely to use condoms or other forms of contraception if they believe that teen boys share responsibility for pregnancy prevention, that condoms do not reduce sexual pleasure, and that their partner will appreciate their using a condom. They are also more likely to use condoms or other forms of contraception if they have positive attitudes toward condoms and other forms of contraception, perceive more benefits and fewer costs and barriers to using condoms, have greater confidence in their ability to demand and use condoms or other forms of contraception, have greater motivation to use condoms or other forms of contraception to avoid pregnancy and STD/HIV, intend to use condoms, and actually carry condoms.

All of these beliefs, attitudes, skills, motivations, and intentions can be considered “sexual” factors and also “proximal” factors because they are closely linked conceptually and logically to a related sexual behavior and they influence that behavior directly. For example, values regarding sex are more closely related conceptually to actually having sex than is the proportion of the community that is foreign-born. The latter is considered “distal” and “nonsexual” because it influences sexual behavior indirectly.

While both common sense and research indicate that these proximal sexual factors have an impact on sexual behavior, it is also true that sexual behavior may very well affect these factors. For example, having sex and using condoms may affect attitudes about having sex, perceptions

of peer norms about sex, and perceived ability to use condoms. Thus, causality may operate in both directions.

Sexual risk and protective factors are particularly important for several reasons. First, they are well supported by a variety of social psychological theories, for example, social cognitive theory [2], theory of planned behavior [3], the information-motivation-behavioral skills model [4], and the health belief model [5]. Second, they are more closely related conceptually to a particular sexual and contraceptive behavior than are other factors. Third, they are more strongly related statistically to some types of sexual and contraceptive behavior than are most of the other factors. Finally, some of these factors form the theoretical basis for many sex and STD/HIV education programs that have reduced sexual risk-taking [6].

#### *Relationships with romantic partners and previous sexual behavior*

Not surprisingly, when teens begin dating frequently, go steady, and kiss and neck, they are more likely to have sex. These early romantic relationships may increase the desire, opportunity, and pressure to have sex. Furthermore, sex within a romantic relationship may be more consistent with teens' values and perceived norms than sex in casual relationships.

When the romantic partner of a teen is three or more years older, the teen is especially likely to have sex. The impact of this age gap is quite large, especially among middle school girls.

Teens who begin having sex at an earlier age are less likely to use contraception and more likely to become pregnant and/or to become a parent. They are also likely to accumulate a greater number of lifetime sexual partners and are less likely to use condoms. These behavioral factors contribute to a higher rate of STD. In addition, young girls are not fully physically mature and are more susceptible to STD.

The relationship between number of sexual partners and STD is especially well established. Many

studies have demonstrated that having a large number of sexual partners greatly increases the chances of contracting an STD.

Several studies have shown that teens often use condoms initially in sexual relationships, but as their relationships continue and they have sex more frequently, they use long-term hormonal contraceptives such as oral contraceptives or Depo Provera instead.

Teens who discuss HIV and other STDs, methods of preventing infection, and their past sexual histories or risk are more likely to use condoms. Similarly, teens who discuss methods of preventing pregnancy are more likely to use contraception.

Not surprisingly, teens who previously used condoms or other contraceptives are more likely to use them on subsequent occasions. However, this finding may reflect other factors and may not be causal in itself.

Being married reduces the number of sexual partners and increases the chances of pregnancy. Because pregnancy can also lead to marriage, the direction of causality is not entirely clear.

Having been pregnant (or having gotten someone pregnant) increases both the risk that a young person will not use condoms during sex and, according to a few studies, the risk of another pregnancy. Causality regarding these factors is unclear, however, because a history of pregnancy undoubtedly entails some of the risk and protective factors discussed above, and these factors continue to increase the risk of pregnancy.

Prior sexual abuse is highly related to early initiation of sex, greater number of sexual partners, poor condom use, poor contraceptive use, pregnancy, and STD. However, there is some question about whether sexual abuse causes teens to then engage voluntarily in risky sexual behavior. Young people who have been sexually abused have undoubtedly also been exposed to a variety of other risk factors. In addition, the sexual abuse may distort their understanding of appropriate sexual and contraceptive behavior and may diminish

their ability to reject sex or to use contraception. Thus, it is not entirely clear whether it is exposure to other risk factors or sexual abuse itself that leads to greater voluntary sexual risk.

Sexual activity with persons of the same sex is another risk factor. Young people who engage in same-sex activity are more likely to have heterosexual sex and to have more sexual partners.

### Generalizability Across Different Subgroups of Teens

When developing programs for teens, communities and organizations are faced with the question of whether the risk and protective factors in Table 3-1 will apply to the group they are targeting. The best way of assessing the impact of these factors on any particular group of teens is to design and conduct research specifically for those teens. Typically, however, organizations do not have sufficient time or resources to undertake such research.

Fortunately, the factors presented in Table 3-1 are widely applicable. Virtually all of them were found to be statistically significant in at least two-thirds of the studies that measured their impact. (Statistical significance is a measure of how confident one can be in the results of a study.) The studies often sampled varied groups of young people, thereby increasing the chances that the factors will be significant in a range of communities. In addition, the studies demonstrated that most of the factors do have an impact on various subgroups of teens, especially teens in the three largest ethnic groups, and they often have an effect on teens of both sexes.

On the other hand, this is not always the case. For example, the following factors appear to be effective only for certain subgroups. Participating in sports appears to be a protective factor only for girls, having an older romantic partner is a stronger risk factor for girls than for boys, and communicating with parents about sex is a greater protective factor for girls than for boys. This short list does not imply that all other factors affect different racial/ethnic groups or

genders equally. It simply means that multiple studies show that these three factors consistently have differential effects.

### Dominant Themes

The risk and protective factors that exert the strongest influence on teen sexual behavior operate in four general areas, some of which can be targeted by organizations that want to reduce teen pregnancy and the spread of STD/HIV:

- ☆ Individual biological factors (e.g., age, physical maturity, and gender)
- ☆ Disadvantage, disorganization, and dysfunction in the lives of the teens themselves and their environments (e.g., rates of substance abuse, violence, and divorce; also level of education).
- ☆ Sexual values, attitudes, norms, and modeled behavior (e.g., teens' own values about sexual behavior as well as those expressed by parents, peers, and romantic partners).
- ☆ Connection to adults and organizations that discourage sex, unprotected sex, or early childbearing (e.g., attachment to parents and other adults in their schools and places of worship).

### WHICH FACTORS CAN BE CHANGED?

The answer to this question depends to some degree on the organizations involved. Organizations concerned with preventing teen pregnancy, STD/HIV, or both encompass a wide range of activities, from STD/HIV education to family planning to youth development to parental education. Table 3-1 lists the risk and protective factors that show the strongest evidence of an impact on teen sexual behavior and specifies which factors can be most easily changed by different types of programs. Organizations can use the information in this table to guide them in choosing what factors they should focus on, given their goals, capabilities, and resources.

Table 3-1 rates the factors' amenability to change as follows: those that are impossible or extremely

difficult for most teen pregnancy and STD/HIV prevention organizations to change, although they may be able to do so by working with other agencies; those that are difficult for most organization to change unless they have special initiatives or capabilities (e.g., youth development activities or mental health services); and those that are most directly related to sexuality and reproductive health and thus most amenable to change by organizations targeting teen pregnancy and STD/HIV.

The only factors that, cannot be changed are biological. In addition, factors stemming from community disorganization cannot easily be changed by organizations that focus primarily on reproductive health, although sometimes collaboration with community or state agencies may bring about improvements. Other intractable factors relate to family structure, past events in the teen's life, and parents' sexual behavior. (Other agencies may be able to ameliorate some of the consequences of these factors, however.)

Some factors that cannot be easily changed by most pregnancy and STD/HIV prevention organizations can be changed with intensive youth development programs or other special services, including the following:

- ☆ Educational and counseling programs for parents that help them monitor their teens more appropriately, teach them to discourage their teens from having romantic involvements with much older partners, or urge them to emphasize to their teens the importance of doing well in school.
- ☆ Intensive counseling programs for families to improve the quality of family interactions, to increase communication, and to enhance connectedness generally.
- ☆ Intensive counseling programs for emotionally distressed teens that reduce stress, depression, or risk of suicide.
- ☆ Effective alcohol and drug abuse prevention programs for teens, parents, or both.

- ☆ Programs for parents about teen sexuality that help them communicate their values about sexual behavior and decision-making.
- ☆ Career education programs for teens that help them set—and pursue—educational and career goals.
- ☆ Tutoring programs that increase teens' attachment to school, improve their performance in school, and encourage them to pursue higher education.
- ☆ Intensive entrepreneurship programs that improve performance in school.
- ☆ Intensive arts and creative expression programs that increase performance in school and connectedness to school.
- ☆ Intensive service learning programs that bolster connectedness to school, improve school performance, and have other positive effects.
- ☆ Mentoring programs that increase attachment to parents, other adults and school, and decrease alcohol and drug use.
- ☆ Sports programs for girls that increase their participation in athletics.
- ☆ Other school-sponsored programs that encourage teens to become actively involved in school activities.
- ☆ Faith-based programs that encourage teens to be more involved in their faith communities and to learn the values of those communities, especially about sexuality.
- ☆ Comprehensive community-based programs that address multiple risk and protective factors.

Research has shown that most of these programs can affect risk and protective factors, but unless a program has certain important characteristics, it may not be effective [7]. In some of the examples above, particular program activities may be less important than involving young people actively and intensively in activities over a long period of time or forming close connections with adults.

The risk and protective factors that can be most easily changed by teen pregnancy and STD/HIV prevention programs are the sexual ones—that is, the sexual knowledge, values, perception of peer norms, motivation, and self-efficacy (confidence in their skills) of teens themselves, their partners, or their peers. Chapters 6 and 8 demonstrate that some sex and STD/HIV education programs, as well as other kinds of programs, can change these factors, thereby delaying the initiation of sex, reducing the frequency of sex, reducing the number of sexual partners, increasing condom or contraceptive use, or some combination of these outcomes. Logically, then, some of the programs also reduce rates of pregnancy and STD. Positive behavioral effects have been observed in a variety of program settings, including schools during regular school hours and on the weekends, community health centers, community detention centers, shelters for runaway youth, and residential drug treatment programs.

### IMPLICATIONS OF THESE FACTORS FOR PREGNANCY PREVENTION PROGRAMS

The following conclusions regarding risk and protective factors should be considered when designing and targeting pregnancy and STD/HIV prevention programs:

- ☆ On the one hand, most youth are at risk of unprotected sex and pregnancy. Given that about four-fifths of young people in the United States have sex while still in their teens, and given that many of them do not always use condoms and other forms of contraception consistently or effectively, pregnancy and STD are real risks in the lives of most teens. Thus, *all* teens need appropriate education about the value and benefits of delaying sex as well as accurate information about condoms and other forms of contraception. And all teens who become sexually active need access to reproductive health services.
- ☆ On the other hand, *some* teens are at much greater risk than others, and understanding the factors outlined here can help programs

target high-risk teens with more intensive—and effective—interventions.

- ☆ Risk and protective factors should provide the basis for developing programs to prevent teen pregnancy and STD/HIV. Programs should focus on factors that are strongly and causally related to sexual risk-taking *and* that are amenable to change by the program. Table 3-1 lists factors meeting those conditions.
- ☆ Risk and protective factors should also provide the basis for identifying teens at greatest risk of unprotected sex. Some of the most important factors are readily measurable (gender, age, ethnicity, family income, school performance, and engagement in other risk-taking behavior) and can be used to identify teens most in need of help.
- ☆ The factors that influence teens' sexual behavior and decision-making are rooted in communities, families, schools, faith communities, friends and peers, romantic partners, as well as in teens themselves. Some of the factors also involve teens' relationships with these important individuals or organizations in their environment. Factors that increase the likelihood of teen pregnancy and STD/HIV are risk factors, whereas those that lower the likelihood are protective factors. Some factors influence sexual behavior directly, while others affect it indirectly.
- ☆ The majority of factors fall into one of four themes: biological factors such as age, physical maturity, and sex; disadvantage, disorganization, and dysfunction in the lives of teens and their families, peers, and communities; sexual values and norms expressed or modeled by teens themselves or by their families, romantic partners, peers, faith communities, schools, and communities; and teens' connection to groups or institutions that discourage risky sexual behavior, encourage responsible behavior, or both.
- ☆ Because so many factors affect teen sexual behavior, few individual factors have a large impact. Consequently, there is no simple, easy-to-implement prevention program—no

magic bullet—that will substantially change adolescent sexual behavior and lower pregnancy and STD/HIV rates. Few programs, after all, can modify more than a few risk or protective factors at a time.

- ☆ Because teens' sexual beliefs, attitudes, perceived norms, confidence in their abilities, intentions, and actual skills are more strongly related to their sexual and contraceptive behavior than most other, nonsexual factors, and because these sexual factors can be modified, prevention efforts should include sex and STD/HIV education programs as well as other interventions that address these factors. Given that teens' sexual beliefs, attitudes, and behavior are affected by their parents, siblings, and peers, prevention efforts should also encourage these groups to model appropriate sexual behavior, as well as encourage the media to present more responsible models of sexual behavior.
- ☆ Some nonsexual risk and protective factors are modestly related to pregnancy and STD, and some of them can also be modified. Interventions should address such factors.
- ☆ Because of the substantial variety among important risk and protective factors, organizations with diverse missions can help reduce the rates of teen pregnancy and STD. Organizations that traditionally focus on teen sex and reproductive health can most effectively address sexual factors, while those with broader missions can emphasize nonsexual factors.
- ☆ To reduce pregnancy and STD markedly, communities may have to address many risk and protective factors among different groups (e.g., teens, their families, schools, and communities), and they may have to address both sexual and nonsexual factors. In practice, this may mean that a patchwork of programs can be effective at the community level, if each addresses a specific set of factors that in the aggregate improve most of the important risk and protective factors.



## References

1. Kirby, D., Lepore, G., & Ryan, J. (2005). *Sexual risk and protective factors: Factors affecting teen sexual behavior, pregnancy, childbearing and sexually transmitted disease: Which are important? Which can you change?* Washington, DC: National Campaign to Prevent Teen Pregnancy.
2. Bandura, A. (1986). *Social foundations of thought and action*. Englewood Cliffs, NJ: Prentice Hall.
3. Ajzen, I. (1985). From intention to actions: A theory of planned behavior. In J. Kuhl & J. Beckman (Eds.), *Action control from cognition to behavior* (pp. 11-29). New York: Springer-Verlag.
4. Fisher, J. D., & Fisher, W. A. (1992). Changing AIDS-risk behavior. *Psychological Bulletin*, 111(3), 455-474.
5. Becker, M. H. (1974). The health belief model and personal health behavior. *Health Education Monographs*, 2(4), 324-508.
6. Kirby, D. B., Laris, B. A., & Rolleri, L. A. (2007). Sex and HIV education programs: Their impact on sexual behaviors of young people throughout the world. *Journal of Adolescent Health*, 40(3), 206-217.
7. Kirby, D., Lezin, N., Afriye, R. A., & Gallucci, G. (2003). *Preventing teen pregnancy: Youth development and after-school programs*. Scotts Valley, CA: ETR Associates.

### Table 3.1 References

1. Abma, J., Driscoll, A., & Moore, K. (1998). Young women's degree of control over first intercourse: An exploratory analysis. *Family Planning Perspectives, 30*(1), 12-18.
2. Abma, J. C., & Sonenstein, F. L. (2001). *Sexual activity and contraceptive practices among teenagers in the United States, 1988 and 1995*. Hyattsville, Maryland: National Center for Health Statistics.
3. Adler, N. E., Kegeles, S. M., Irwin, C. E., & Wibbelsman, C. (1990). Adolescent contraceptive behavior: An assessment of decision processes. *Journal of Pediatrics, 116*(3), 463-471.
4. Adolph, C., Ramos, D. E., Linton, K. L., & Grimes, D. A. (1995). Pregnancy among Hispanic teenagers: Is good parental communication a deterrent? *Contraception, 51*(5), 303-306.
5. Afrentiou, D., & Hawley, C. B. (1997). Explaining female teenagers' sexual behavior and outcomes: A bivariate probit analysis with selectivity correction. *Journal of Family and Economic Issues, 18*(1), 91-106.
6. Alan Guttmacher Institute. (1994). *Sex and America's teenagers*. New York: Alan Guttmacher Institute.
7. Alderman, E. M., Shapiro, A., Spigland, I., Coupey, S. M., Bashir, M., & Fox, A. S. (1998). Are there risk factors for hepatitis B infection in inner-city adolescents that justify prevaccination screening? *Journal of Adolescent Health, 22*(5), 389-393.
8. Altman-Palm, N., & Tremblay, C. H. (1998). The effects of parental involvement laws and the AIDS epidemic on the pregnancy and abortion rate of minors. *Social Science Quarterly, 79*(4), 846-862.
9. Anda, R. F., Felitti, V. J., Chapman, D. P., Croft, J. B., Williamson, D. F., Santelli, J., et al. (2001). Abused boys, battered mothers, and male involvement in teen pregnancy. *Pediatrics, 107*(2), e19.
10. Anderson, J. E., Cheney, R., Clatts, M., Faruque, S., Kipke, M., Long, A., et al. (1996). HIV risk behavior, street outreach, and condom use in eight high-risk populations. *AIDS Education and Prevention, 8*(3), 191-203.
11. Anderson, J. E., Freese, T. E., & Pennbridge, J. N. (1994). Sexual risk behavior and condom use among street youth in Hollywood. *Family Planning Perspectives, 26*(1), 22-25.
12. Anderson, J. E., Kann, L., Holtzman, D., Arday, S., Truman, B., & Kolbe, L. (1990). HIV/AIDS knowledge and sexual behavior among high school students. *Family Planning Perspectives, 22*(6), 252-255.
13. Arnett, J. (1990). Contraceptive use, sensation seeking, and adolescent egocentrism. *Journal of Youth and Adolescence, 19*(2), 171-180.
14. Astone, N. M., & Washington, M. L. (1994). The association between grandparental coresidence and adolescent childbearing. *Journal of Family Issues, 15*(4), 574-589.
15. Atav, S., & Spencer, G. A. (2002). Health risk behaviors among adolescents attending rural, suburban, and urban schools: A comparative study. *Family and Community Health, 25*(2), 53-64.
16. Bailey, S. L., Camlin, C. S., & Ennett, S. T. (1998). Substance use and risky sexual behavior among homeless and runaway youth. *Journal of Adolescent Health, 23*(6), 378-388.
17. Bailey, S. L., Pollock, N. K., Martin, C. S., & Lynch, K. G. (1999). Risky sexual behaviors among adolescents with alcohol use disorders. *Journal of Adolescent Health, 25*(3), 179-181.
18. Baker, J. G., Rosenthal, S. L., Leonhardt, D., Kollar, L. M., Succop, P. A., Burklow, K. A., et al. (1999). Relationship between perceived parental monitoring and young adolescent girls' sexual and substance use behaviors. *Journal of Pediatric and Adolescent Gynecology, 12*(1), 17-22.
19. Barnett, J. K., Papini, D. R., & Gbur, E. (1991). Familial correlates of sexually active pregnant and nonpregnant adolescents. *Adolescence, 26*(102), 457-472.
20. Barthlow, D. J., Horan, P. F., DiClemente, R. J., & Lanier, M. M. (1995). Correlates of condom use among incarcerated adolescents in a rural state. *Criminal Justice & Behavior, 22*(3), 295-306.
21. Basen-Engquist, K., & Parcel, G. S. (1992). Attitudes, norms, and self-efficacy: A model of adolescents' HIV-related sexual risk behavior. *Health Education Quarterly, 19*(2), 263-277.
22. Baumer, E. P., & South, S. J. (2001). Community effects on youth sexual activity. *Journal of Marriage and the Family, 63*(2), 540-554.
23. Bearman, P., & Bruckner, H. (1999). Peer effects on adolescent girls' sexual debut and pregnancy risk. *Pfjy Network, 2*(3), 3-4.
24. Bearman, P., & Bruckner, H. (1999). *Power in numbers: Peer effects on adolescent girls' sexual debut and pregnancy*. Washington, DC: National Campaign to Prevent Teen Pregnancy.
25. Bearman, P. S., & Bruckner, H. (2001). Promising the future: Virginity pledges and first intercourse. *American Journal of Sociology, 106*(4), 859-912.
26. Beech, B. M., Myers, L., & Beech, D. J. (2002). Hepatitis B and C infections among homeless adolescents. *Family and Community Health, 25*(2), 28-36.
27. Begley, E., Crosby, R. A., DiClemente, R. J., Wingood, G. M., & Rose, E. (2003). Older partners and STD prevalence among pregnant African American teens. *Sexually Transmitted Diseases, 30*(3), 211-213.
28. Beier, S. R., Rosenfeld, W. D., Spitalny, K. C., Zansky, S. M., & Bontempo, A. N. (2000). The potential role of an adult mentor in influencing high-risk behaviors in adolescents. *Archives of Pediatrics & Adolescent Medicine, 154*(4), 327-331.
29. Belzer, M., Rogers, A. S., Camarca, M., Fuchs, D., Peralta, L., Tucker, D., et al. (2001). Contraceptive choices in HIV infected and HIV at-risk adolescent females. *Journal of Adolescent Health, 29*(3 Suppl), 93-100.
30. Benda, B. B., & DiBlasio, F. A. (1994). An integration of theory: Adolescent sexual contacts. *Journal of Youth and Adolescence, 23*(3), 403-420.
31. Benson, M. D., & Torpy, E. J. (1995). Sexual behavior in junior high school students. *Obstetrics & Gynecology, 85*(2), 279-284.
32. Berenson, A. B., Wiemann, C. M., & McCombs, S. (2001). Exposure to violence and associated health-risk behaviors among adolescent girls. *Archives of Pediatrics & Adolescent Medicine, 155*(11), 1238-1242.
33. Berry, E. H., Shillington, A. M., Peak, T., & Hohman, M. M. (2000). Multi-ethnic comparison of risk and protective factors for adolescent pregnancy. *Child and Adolescent Social Work Journal, 17*(2), 79-96.
34. Bettinger, J. A., Adler, N. E., Curriero, F. C., & Ellen, J. M. (2004). Risk perceptions, condom use, and sexually transmitted diseases among adolescent females according to social network position. *Sexually Transmitted Diseases, 31*(9), 575-579.
35. Bickel, R., Weaver, S., Williams, T., & Lange, L. (1997). Opportunity, community, and teen pregnancy in an Appalachian state. *Journal of Educational Research, 90*(3), 175-181.
36. Billy, J. O. G., Brewster, K. L., & Grady, W. R. (1994). Contextual effects on the sexual behavior of adolescent women. *Journal of Marriage and the Family, 56*(2), 387-404.
37. Bingham, C. R., Miller, B. L., & Adams, G. R. (1990). Correlates of age of first intercourse in a national sample of young women. *Journal of Adolescent Research, 5*(1), 18-33.
38. Bishai, D. M., Mercer, D., & Tapales, A. (2005). Can government policies help adolescents avoid risky behavior? *Preventive Medicine, 40*(2), 197-202.
39. Black, M. M., Ricardo, I. B., & Stanton, B. (1997). Social and psychological factors associated with AIDS risk behaviors among low-income, urban, African American adolescents. *Journal of Research on Adolescence, 7*(2), 173-195.
40. Blake, S. M., Ledsky, R., Goodenow, C., Sawyer, R., Lohrmann, D., & Windsor, R. (2003). Condom availability programs in Massachusetts high schools: Relationships with condom use and sexual behavior. *American Journal of Public Health, 93*(6), 955-962.
41. Blake, S. M., Ledsky, R., Lehman, T., Goodenow, C., Sawyer, R., & Hack, T. (2001). Preventing sexual risk behaviors among gay, lesbian, and bisexual adolescents: The benefits of gay-sensitive HIV instruction in schools. *American Journal of Public Health, 91*(6), 940-946.
42. Blinn-Pike, L., Berger, T. J., Hewett, J., & Oleson, J. (2004). Sexually abstinent adolescents: An 18-month follow-up. *Journal of Adolescent Research, 19*(5), 495-511.
43. Blum, R. W. (2002). *Mothers' influence on teen sex: Connections that promote postponing sexual intercourse*. Minneapolis, MN: Center for Adolescent Health and Development, University of Minnesota.
44. Blum, R. W., Beuhring, T., & Rinehart, P. M. (2000). *Protecting teens: Beyond race, income and family structure*. Minneapolis, MN: Center for Adolescent Health, University of Minnesota.
45. Blum, R. W., Beuhring, T., Shew, M. L., Bearinger, L. H., Sieving, R. E., & Resnick, M. D. (2000). The effects of race/ethnicity, income, and family structure on adolescent risk behaviors. *American Journal of Public Health, 90*(12), 1879-1884.
46. Blum, R. W., & Rinehart, P. M. (1997). *Reducing the risk: Connections that make a difference in the lives of youth*. Rockville, MD: National Institute on Alcohol Abuse and Alcoholism.

47. Booth, R. E., & Zhang, Y. (1997). Conduct disorder and HIV risk behaviors among runaway and homeless adolescents. *Drug and Alcohol Dependence, 48*(2), 69-76.
48. Borawski, E., Ievers-Landis, C., Lovegreen, L., & Trapi, E. (2003). Parental monitoring, negotiated unsupervised time, and parental trust: The role of perceived parenting practices in adolescent health risk behaviors. *Journal of Adolescent Health, 33*(2), 60-70.
49. Boyer, C. B., Shafer, M. A., Teitle, E., Wibbelsman, C. J., Seeberg, D., & Schachter, J. (1999). Sexually transmitted diseases in a health maintenance organization teen clinic: Associations of race, partner's age, and marijuana use. *Archives of Pediatrics & Adolescent Medicine, 153*(8), 838-844.
50. Boyer, C. B., Shafer, M.-A., Wibbelsman, C. J., Seeberg, D., Teitle, E., & Lovell, N. (2000). Associations of sociodemographic, psychosocial, and behavioral factors with sexual risk and sexually transmitted diseases in teen clinic patients. *Journal of Adolescent Health, 27*(2), 102-111.
51. Boyer, C. B., Tschann, J. M., & Shafer, M. A. (1999). Predictors of risk for sexually transmitted diseases in ninth grade urban high school students. *Journal of Adolescent Research, 14*(4), 448-465.
52. Boyer, D., & Fine, D. (1992). Sexual abuse as a factor in adolescent pregnancy and child maltreatment. *Family Planning Perspectives, 24*(1), 4-11, 19.
53. Brewster, K. L. (1994). Race differences in sexual activity among adolescent women: The role of neighborhood characteristics. *American Sociological Review, 59*(3), 408-424.
54. Brewster, K. L., Billy, J. O., & Grady, W. R. (1993). Social context and adolescent behavior: The impact of community on the transition to sexual activity. *Social Forces, 71*(3), 713-740.
55. Brewster, K. L., Cooksey, E. C., Guilkey, D. K., & Rindfuss, R. R. (1998). The changing impact of religion on the sexual and contraceptive behavior of adolescent women in the United States. *Journal of Marriage and the Family, 60*(2), 493-504.
56. Brindis, C., Boggess, J., Katsuramis, F., Mantell, M., McCarter, V., & Wolfe, A. (1998). A profile of the adolescent male family planning client. *Family Planning Perspectives, 30*(2), 63-66, 88.
57. Brindis, C., Starbuck-Morales, S., Wolfe, A. L., & McCarter, V. (1994). Characteristics associated with contraceptive use among adolescent females in school-based family planning programs. *Family Planning Perspectives, 26*(4), 160-164.
58. Brooks-Gunn, J., Duncan, G. J., Klebanov, P. K., & Sealand, N. (1993). Do neighborhoods influence child and adolescent development? *American Journal of Sociology, 99*(2), 353-395.
59. Brown, J., Cohen, P., Chen, H., Smailes, E., & Johnson, J. G. (2004). Sexual trajectories of abused and neglected youths. *Journal of Developmental & Behavioral Pediatrics, 25*(2), 77-82.
60. Brown, J. D., & Newcomer, S. F. (1991). Television viewing and adolescents' sexual behavior. *Journal of Homosexuality, 21*(1-2), 77-91.
61. Brown, L. K., DiClemente, R. J., & Park, T. (1992). Predictors of condom use in sexually active adolescents. *Journal of Adolescent Health, 13*(8), 651-657.
62. Browning, C. R., Leventhal, T., & Brooks-Gunn, J. (2004). Neighborhood context and racial differences in early adolescent sexual activity. *Demography, 41*(4), 697-720.
63. Bruckner, H., Martin, A., & Bearman, P. S. (2004). Ambivalence and pregnancy: Adolescents' attitudes, contraceptive use and pregnancy. *Perspectives on Sexual and Reproductive Health, 36*(6), 248-257.
64. Bunnell, R. E., Dahlberg, L., Rofls, R., Ransom, R., Gershman, K., Farshy, C., et al. (1999). High prevalence and incidence of sexually transmitted diseases in urban adolescent females despite moderate risk behaviors. *Journal of Infectious Diseases, 180*(5), 1624-1631.
65. Buzi, R. S., Tortolero, S. R., Roberts, R. E., Ross, M. W., Markham, C. M., & Fleschler, M. (2003). Gender differences in the consequences of a coercive sexual experience among adolescents attending alternative schools. *Journal of School Health, 73*(5), 191-196.
66. Capaldi, D. M., Crosby, L., & Stoolmiller, M. (1996). Predicting the timing of first sexual intercourse for at-risk adolescent males. *Child Development, 67*(2), 344-359.
67. Capaldi, D. M., Stoolmiller, M., Clark, S., & Owen, L. D. (2002). Heterosexual risk behaviors in at-risk young men from early adolescence to young adulthood: Prevalence, prediction, and association with STD contraction. *Developmental Psychology, 38*(3), 394-406.
68. Carvajal, S. C., Parcel, G. S., Basen-Engquist, K., Banspach, S. W., Coyle, K. K., Kirby, D., et al. (1999). Psychosocial predictors of delay of first sexual intercourse by adolescents. *Health Psychology, 18*(5), 443-452.
69. Casper, L. M. (1990). Does family interaction prevent adolescent pregnancy? *Family Planning Perspectives, 22*(3), 109-114.
70. Catania, J., Coates, T., Kegeles, S. M., Peterson, J., Marin, B., & Fullilove, M. (1989). *Predicting risk behavior in a random household probability sample: The "Amen" study*. San Francisco: University of California, Center for AIDS Prevention Studies.
71. Cavanagh, S. E. (2004). The sexual debut of girls in early adolescence: The intersection of race, pubertal timing, and friendship group characteristics. *Journal of Research on Adolescence, 14*(3), 285-312.
72. Champion, H. L. O., Foley, K. L., DuRant, R. H., Hensberry, R., Altman, D., & Wolfson, M. (2004). Adolescent sexual victimization, use of alcohol and other substances, and other health risk behaviors. *Journal of Adolescent Health, 35*(4), 321-328.
73. Chand, J. M., Blum, R. W., & Resnick, M. D. (1996). History of sexual abuse and parental alcohol misuse: Risk, outcomes and protective factors in adolescents. *Child and Adolescent Social Work Journal, 13*(5), 411-432.
74. Chand, J. M., Harris, L., Blum, R. W., & Resnick, M. D. (1994). Female adolescents of alcohol misusers: Sexual behaviors. *Journal of Youth and Adolescence, 23*(6), 695-709.
75. Cheng, M. M., & Udry, J. R. (2002). Sexual behaviors of physically disabled adolescents in the United States. *Journal of Adolescent Health, 31*(1), 48-58.
76. Chewning, B., Douglas, J., Kokotailo, P. K., LaCourt, J., Clair, D. S., & Wilson, D. (2001). Protective factors associated with American Indian adolescents' safer sexual patterns. *Maternal and Child Health Journal, 5*(4), 273-280.
77. Chewning, B., & Van Koningsveld, R. (1998). Predicting adolescents' initiation of intercourse and contraceptive use. *Journal of Applied Social Psychology, 28*(14), 1245-1285.
78. Clawson, C. L., & Reese-Weber, M. (2003). The amount and timing of parent-adolescent sexual communication as predictors of late adolescent sexual risk-taking behaviors. *The Journal of Sex Research, 40*(3), 256-265.
79. Cleveland, H. H., & Gilson, M. (2004). The effects of neighborhood proportion of single-parent families and mother-adolescent relationships on adolescents' number of sexual partners. *Journal of Youth and Adolescence, 33*(4), 319-329.
80. Cochran, B. N., Stewart, A. J., Ginzler, J. A., & Cauce, A. M. (2002). Challenges faced by homeless sexual minorities: Comparison of gay, lesbian, bisexual, and transgender homeless adolescents with their heterosexual counterparts. *American Journal of Public Health, 92*(5), 773-777.
81. Cohen, D. A., Farley, T. A., Taylor, S. N., Martin, D. H., & Schuster, M. A. (2002). When and where do youths have sex? The potential role of adult supervision. *Pediatrics, 110*(6), e66.
82. Coker, A. L., Richter, D. L., Valois, R. F., McKeown, R. E., Garrison, C. Z., & Vincent, M. L. (1994). Correlates and consequences of early initiation of sexual intercourse. *Journal of School Health, 64*(9), 372-377.
83. Collins, R. L., Elliott, M. N., Berry, S. H., Kanouse, D. E., Kunkel, D., Hunter, S. B., et al. (2004). Watching sex on television predicts adolescent initiation of sexual behavior. *Pediatrics, 114*(3), e280-289.
84. Cook, R. L., Pollock, N. K., Rao, A. K., & Clark, D. B. (2002). Increased prevalence of herpes simplex virus type 2 among adolescent women with alcohol use disorders. *Journal of Adolescent Health, 30*(3), 169-174.
85. Cooksey, E. C., Mott, F. L., & Neubauer, S. A. (2002). Friendships and early relationships: links to sexual initiation among American adolescents born to young mothers. *Perspectives on Sexual and Reproductive Health, 34*(3), 118-126.
86. Cooper, M. L., Shaver, P. R., & Collins, N. L. (1998). Attachment styles, emotion regulation, and adjustment in adolescence. *Journal of Personality and Social Psychology, 74*(5), 1380-1397.
87. Costa, F. M., & et al. (1995). Early initiation of sexual intercourse: The influence of psychosocial unconventionality. *Journal of Research on Adolescence, 5*(1), 93-121.
88. Costa, F. M., Jessor, R., Fortenberry, J. D., & Donovan, J. E. (1996). Psychosocial conventionality, health orientation, and contraceptive use in adolescence. *Journal of Adolescent Health, 18*(6), 404-416.
89. Crane, J. (1991). Effects of neighborhoods on dropping out of school and teenage childbearing. In C. Jencks & P. E. Peterson (Eds.), *The Urban Underclass* (pp. 299-320). Washington, DC: The Brookings Institution.
90. Crosby, R., DiClemente, R. J., Wingood, G. M., Harrington, K., Davies, S. L., Hook, E. W., III, et al. (2002). Predictors of infection with *Trichomonas vaginalis*: A prospective study of low income African-American adolescent females. *Sexually Transmitted Infections, 78*(5), 360-364.

91. Crosby, R., Leichter, J. S., & Brackbill, R. (2000). Longitudinal prediction of sexually transmitted diseases among adolescents: Results from a national survey. *American Journal of Preventive Medicine, 18*(4), 312-317.
92. Crosby, R., Salazar, L. F., & DiClemente, R. J. (2004). Lack of recent condom use among detained adolescent males: A multilevel investigation. *Sexually Transmitted Infections, 80*(6), 425-429.
93. Crosby, R., Salazar, L. F., DiClemente, R. J., & Yarber, W. (2004). Correlates of having unprotected vaginal sex among detained adolescent females: An exploratory study of sexual factors. *Sexual Health, 1*, 151-155.
94. Crosby, R. A., DiClemente, R. J., Wingood, G. M., Harrington, K., Davies, S., Hook, E. W., III, et al. (2002). Psychosocial predictors of pregnancy among low-income African-American adolescent females: A prospective analysis. *Journal of Pediatric and Adolescent Gynecology, 15*(5), 293-299.
95. Crosby, R. A., DiClemente, R. J., Wingood, G. M., Harrington, K., Davies, S., & Oh, M. K. (2002). Activity of African-American female teenagers in black organisations is associated with STD/HIV protective behaviours: A prospective analysis. *Journal of Epidemiology and Community Health, 56*(7), 549-550.
96. Crosby, R. A., DiClemente, R. J., Wingood, G. M., Lang, D. L., & Harrington, K. (2003). Infrequent parental monitoring predicts sexually transmitted infections among low-income African American female adolescents. *Archives of Pediatrics & Adolescent Medicine, 157*(2), 169-173.
97. Crosby, R. A., DiClemente, R. J., Wingood, G. M., Salazar, L. F., Harrington, K., Davies, S. L., et al. (2003). Identification of strategies for promoting condom use: A prospective analysis of high-risk African American female teens. *Prevention Science, 4*(4), 263-270.
98. Crosby, R. A., Holtgrave, D. R., DiClemente, R. J., Wingood, G. M., & Gayle, J. A. (2003). Social capital as a predictor of adolescents' sexual risk behavior: A state-level exploratory study. *AIDS and Behavior, 7*(3), 245-252.
99. Crosby, R. A., Wingood, G. M., DiClemente, R. J., & Rose, E. S. (2002). Family-related correlates of sexually transmitted disease and barriers to care: A pilot study of pregnant African American adolescents. *Family and Community Health, 25*(2), 16-27.
100. Crowder, K., & Teachman, J. (2004). Do residential conditions explain the relationship between living arrangements and adolescent behavior? *Journal of Marriage and the Family, 66*(3), 721-738.
101. Darroch, J. E., Landry, D. J., & Oslak, S. (1999). Age differences between sexual partners in the United States. *Family Planning Perspectives, 31*(4), 160-167.
102. Davies, S. L., DiClemente, R. J., Wingood, G. M., Person, S. D., Crosby, R. A., Harrington, K. F., et al. (2004). Relationship characteristics and sexual practices of African American adolescent girls who desire pregnancy. *Health Education & Behavior, 31*(4 Suppl), 85S-96S.
103. Davis, E. C., & Friel, L. V. (2001). Adolescent sexuality: Disentangling the effects of family structure and family content. *Journal of Marriage and the Family, 63*(3), 669-681.
104. Day, R. D. (1992). The transition to first intercourse among racially and culturally diverse youth. *Journal of Marriage and the Family, 54*, 749-762.
105. Denner, J., Kirby, D., Coyle, K., & Brindis, C. (2001). The protective role of social capital and cultural norms in Latino communities: A study of adolescent births. *Hispanic Journal of Behavioral Sciences, 23*(1), 3-21.
106. Devine, D., Long, P., & Forehand, R. (1993). A prospective study of adolescent sexual activity: Description, correlates, and predictors. *Advances in Behaviour Research and Therapy, 15*(3), 185-209.
107. DiBlasio, F. A., & Benda, B. B. (1990). Adolescent sexual behavior: Multivariate analysis of a social learning model. *Journal of Adolescent Research, 5*(4), 449-466.
108. DiClemente, R. J. (1991). Predictors of HIV-preventive sexual behavior in a high-risk adolescent population: The influence of perceived peer norms and sexual communication on incarcerated adolescents' consistent use of condoms. *Journal of Adolescent Health, 12*(5), 385-390.
109. DiClemente, R. J., Durbin, M., Siegel, D., Krasnovsky, F., Lazarus, N., & Comacho, T. (1992). Determinants of condom use among junior high school students in a minority, inner-city school district. *Pediatrics, 89*(2), 197-202.
110. DiClemente, R. J., Lodico, M., Grinstead, O. A., Harper, G., Rickman, R. L., Evans, P. E., et al. (1996). African-American adolescents residing in high-risk urban environments do use condoms: Correlates and predictors of condom use among adolescents in public housing developments. *Pediatrics, 98*(2 Pt 1), 269-278.
111. DiClemente, R. J., Wingood, G. M., Crosby, R., Cobb, B. K., Harrington, K., & Davies, S. L. (2001). Parent-adolescent communication and sexual risk behaviors among African American adolescent females. *Journal of Pediatrics, 139*(3), 407-412.
112. DiClemente, R. J., Wingood, G. M., Crosby, R., Sionean, C., & Cobb, B. K. (2001). Condom carrying is not associated with condom use and lower prevalence of sexually transmitted diseases among minority adolescent females. *Sexually Transmitted Diseases, 28*(8), 444-447.
113. DiClemente, R. J., Wingood, G. M., Crosby, R., Sionean, C., Cobb, B. K., Harrington, K., et al. (2001). Parental monitoring: Association with adolescents' risk behaviors. *Pediatrics, 107*(6), 1363-1368.
114. DiClemente, R. J., Wingood, G. M., Crosby, R. A., Sionean, C., Cobb, B. K., Harrington, K., et al. (2002). Sexual risk behaviors associated with having older sex partners: A study of black adolescent females. *Sexually Transmitted Diseases, 29*(1), 20-24.
115. DiClemente, R. J., Wingood, G. M., Sionean, C., Crosby, R., Harrington, K., Davies, S., et al. (2002). Association of adolescents' history of sexually transmitted disease (STD) and their current high-risk behavior and STD status: A case for intensifying clinic-based prevention efforts. *Sexually Transmitted Diseases, 29*(9), 503-509.
116. Dilorio, C., Dudley, W. N., Kelly, M., Soet, J. E., Mbwaru, J., & Sharpe Potter, J. (2001). Social cognitive correlates of sexual experience and condom use among 13- through 15-year-old adolescents. *Journal of Adolescent Health, 29*(3), 208-216.
117. Dittus, P., Jaccard, J., & Gordon, V. (1999). Direct and indirect communication of maternal beliefs to adolescents: Adolescent motivations for premarital sexual activity. *Journal of Applied Social Psychology, 29*(9), 1927-1963.
118. Dittus, P. J., & Jaccard, J. (2000). Adolescents' perceptions of maternal disapproval of sex: Relationship to sexual outcomes. *Journal of Adolescent Health, 26*(4), 268-278.
119. Dodge, T., & Jaccard, J. (2002). Participation in athletics and female sexual risk behavior: The evaluation of four causal structures. *Journal of Adolescent Research, 17*(1), 42-67.
120. Doljanac, R. F., & Zimmerman, M. A. (1998). Psychosocial factors and high-risk sexual behavior: Race differences among urban adolescents. *Journal of Behavioral Medicine, 21*(5), 451-467.
121. Donenberg, G. R., Wilson, H. W., Emerson, E., & Bryant, F. B. (2002). Holding the line with a watchful eye: The impact of perceived parental monitoring on risky sexual behavior among adolescents in psychiatric care. *AIDS Education & Prevention, 14*(2), 138-157.
122. Dudley, M. G., Rostosky, S. S., Korfhage, B. A., & Zimmerman, R. S. (2004). Correlates of high-risk sexual behavior among young men who have sex with men. *AIDS Education & Prevention, 16*(4), 328-340.
123. Durbin, M., DiClemente, R. J., Siegel, D., Krasnovsky, F., Lazarus, N., & Camacho, T. (1993). Factors associated with multiple sex partners among junior high school students. *Journal of Adolescent Health, 14*(3), 202-207.
124. East, P. L. (1996). The younger sisters of childbearing adolescents: Their attitudes, expectations, and behaviors. *Child Development, 67*(2), 267-282.
125. East, P. L., Felice, M. L., & Morgan, M. C. (1993). Sisters' and girlfriends' sexual and childbearing behavior: Effects on early adolescent girls' sexual outcomes. *Journal of Marriage and the Family, 55*(4), 953-963.
126. East, P. L., & Felice, M. E. (1992). Pregnancy risk among the younger sisters of pregnant and childbearing adolescents. *Journal of Developmental and Behavioral Pediatrics, 13*(2), 128-136.
127. East, P. L., & Kiernan, E. A. (2001). Risks among youths who have multiple sisters who were adolescent parents. *Family Planning Perspectives, 33*(2), 75-80.
128. Ellen, J. M., Adler, N., Gurvey, J. E., Millstein, S. G., & Tschanz, J. (2002). Adolescent condom use and perceptions of risk for sexually transmitted diseases: A prospective study. *Sexually Transmitted Diseases, 29*(12), 756-762.
129. Ellen, J. M., Kohn, R. P., Bolan, G. A., Shibuski, S., & Krieger, N. (1995). Socioeconomic differences in sexually transmitted disease rates among black and white adolescents, San Francisco, 1990 to 1992. *American Journal of Public Health, 85*(11), 1546-1548.
130. Ellis, B. J., Bates, J. E., Dodge, K. A., Fergusson, D. M., Horwood, L. J., Pettit, G. S., et al. (2003). Does father absence place daughters at special risk for early sexual activity and teenage pregnancy? *Child Development, 74*(3), 801-821.
131. Ethier, K. A., Kershaw, T., Niccolai, L., Lewis, J. B., & Ickovics, J. R. (2003). Adolescent women underestimate their susceptibility to sexually transmitted infections. *Sexually Transmitted Infections, 79*(5), 408-411.
132. Felton, G. M. (1996). Female adolescent contraceptive use or nonuse at first and most recent coitus. *Public Health Nursing, 13*(3), 223-230.

133. Felton, G. M., & Bartoces, M. (2002). Predictors of initiation of early sex in black and white adolescent females. *Public Health Nursing, 19*(1), 59-67.
134. Fiscella, K., Kitzman, H. J., Cole, R. E., Sidora, K., & Olds, D. (1998). Delayed first pregnancy among African-American adolescent smokers. *Journal of Adolescent Health, 23*(4), 232-237.
135. Fiscella, K., Kitzman, H. J., Cole, R. E., Sidora, K. J., & Olds, D. (1998). Does child abuse predict adolescent pregnancy? *Pediatrics, 101*(4), 620-624.
136. Flannery, D. J., Rowe, D. C., & Gulley, B. L. (1993). Impact of pubertal status, timing, and age on adolescent sexual experience and delinquency. *Journal of Adolescent Research, 8*(1), 21-40.
137. Ford, K., Sohn, W., & Lepkowski, J. (2002). American adolescents: Sexual mixing patterns, bridge partners, and concurrency. *Sexually Transmitted Diseases, 29*(1), 13-19.
138. Ford, K., & Lepkowski, J. M. (2004). Characteristics of sexual partners and STD infection among American adolescents. *International Journal of STD & AIDS, 15*(4), 260-265.
139. Ford, K., & Norris, A. E. (1993). Urban Hispanic adolescents and young adults: Relationship of acculturation to sexual behavior. *Journal of Sex Research, 93*(4), 316-323.
140. Ford, K., Sohn, W., & Lepkowski, J. (2001). Characteristics of adolescents' sexual partners and their association with use of condoms and other contraceptive methods. *Family Planning Perspectives, 33*(3), 100-105, 132.
141. Forste, R., & Haas, D. W. (2002). The transition of adolescent males to first sexual intercourse: Anticipated or delayed? *Perspectives on Sexual and Reproductive Health, 34*(4), 184-190.
142. Fortenberry, J. D., Brizendine, E. J., Katz, B. P., & Orr, D. P. (2002). Post-treatment sexual and prevention behaviours of adolescents with sexually transmitted infections. *Sexually Transmitted Infections, 78*(5), 365-368.
143. Fortenberry, J. D., Brizendine, E. J., Katz, B. P., Wools, K. K., Blythe, M. J., & Orr, D. P. (1999). Subsequent sexually transmitted infections among adolescent women with genital infection due to Chlamydia trachomatis, Neisseria gonorrhoeae, or Trichomonas vaginalis. *Sexually Transmitted Diseases, 26*(1), 26-32.
144. Fortenberry, J. D., Costa, F. M., Jessor, R., & Donovan, J. E. (1997). Contraceptive behavior and adolescent lifestyles: A structural modeling approach. *Journal of Research on Adolescence, 7*(3), 307-329.
145. Fortenberry, J. D., Tu, W., Harezlak, J., Katz, B. P., & Orr, D. P. (2002). Condom use as a function of time in new and established adolescent sexual relationships. *American Journal of Public Health, 92*(2), 211-213.
146. Foshee, V. A., & Bauman, K. E. (1992). Gender stereotyping and adolescent sexual behavior: A test of temporal order. *Journal of Applied Social Psychology, 22*(20), 1561-1579.
147. Friede, A., Hogue, C. J., Doyle, L., Hammerslough, C. R., Sniezek, J., & Arrighi, H. (1986). Do the sisters of childbearing teenagers have increased rates of childbearing? *American Journal of Public Health, 76*(10), 1221-1224.
148. Gillmore, M. R., Lewis, S. M., Lohr, M. J., Spencer, M. S., & White, R. D. (1997). Repeat pregnancies among adolescent mothers. *Journal of Marriage and the Family, 59*(3), 536-550.
149. Gold, M. A., Wolford, J. E., Smith, K. A., & Parker, A. M. (2004). The effects of advance provision of emergency contraception on adolescent women's sexual and contraceptive behaviors. *Journal of Pediatric and Adolescent Gynecology, 17*(2), 87-96.
150. Goodenow, C., Netherland, J., & Szalacha, L. (2002). AIDS-related risk among adolescent males who have sex with males, females, or both: Evidence from a statewide survey. *American Journal of Public Health, 92*(2), 203-210.
151. Greene, J. M., & Ringwalt, C. L. (1998). Pregnancy among three national samples of runaway and homeless youth. *Journal of Adolescent Health, 23*(6), 370-377.
152. Guagliardo, M. F., Huang, Z., & D'Angelo, L. J. (1999). Fathering pregnancies: Marking health-risk behaviors in urban adolescents. *Journal of Adolescent Health, 24*(1), 10-15.
153. Gutierrez, L., Oh, H. J., & Gillmore, M. R. (2000). Toward an understanding of (Em)Power(Ment) for HIV/AIDS prevention with adolescent women. *Sex Roles, 42*(7-8), 581-611.
154. Guzman, B. L., Schlehofer-Sutton, M. M., Villanueva, C. M., Dello Stritto, M. E., Casad, B. J., & Feria, A. (2003). Let's talk about sex: How comfortable discussions about sex impact teen sexual behavior. *Journal of Health Communication, 8*(6), 583-598.
155. Halpern, C. T., Joyner, K., Udry, J. R., & Suchindran, C. (2000). Smart teens don't have sex (or kiss much either). *Journal of Adolescent Health, 26*(3), 213-225.
156. Halpern, C. T., Udry, J. R., & Suchindran, C. (1997). Testosterone predicts initiation of coitus in adolescent females. *Psychosomatic Medicine, 59*(2), 161-171.
157. Hanson, S. L., Myers, D. E., & Ginsberg, A. (1987). The role of responsibility and knowledge in reducing teenage out-of-wedlock childbearing. *Journal of Marriage and the Family, 49*(2), 241-256.
158. Hardy, S. A., & Raffaelli, M. (2003). Adolescent religiosity and sexuality: An investigation of reciprocal influences. *Journal of Adolescence, 26*(6), 731-739.
159. Harper, C., Callegari, L., Raine, T., Blum, M., & Darney, P. (2004). Adolescent clinic visits for contraception: Support from mothers, male partners and friends. *Perspectives on Sexual and Reproductive Health, 36*(1), 20-26.
160. Harrison, P. A., & Kassler, W. J. (2000). Alcohol policy and sexually transmitted disease rates: United States, 1981-1995. *Morbidity and Mortality Weekly Report, 49*(16), 346-349.
161. Harrison, P. A., & Narayan, G. (2003). Differences in behavior, psychological factors, and environmental factors associated with participation in school sports and other activities in adolescence. *Journal of School Health, 73*(3), 113-120.
162. Harvey, S. M., & Spigner, C. (1995). Factors associated with sexual behavior among adolescents: A multivariate analysis. *Adolescence, 30*(118), 253-264.
163. Haurin, R. J., & Mott, F. L. (1990). Adolescent sexual activity in the family context: The impact of older siblings. *Demography, 27*(4), 537-557.
164. Hayward, M. D., Grady, W. R., & Billy, J. O. (1992). The influence of socioeconomic status on adolescent pregnancy. *Social Science Quarterly, 73*(4), 750-772.
165. Hein, K., Dell, R., Futterman, D., Rotheram, B. M., & Shaffer, N. (1995). Comparison of HIV+ and HIV- adolescents: Risk factors and psychosocial determinants. *Pediatrics, 95*(1), 96-104.
166. Hillis, S. D., Anda, R. F., Felitti, V. J., & Marchbanks, P. A. (2001). Adverse childhood experiences and sexual risk behaviors in women: A retrospective cohort study. *Family Planning Perspectives, 33*(5), 206-211.
167. Hingson, R. W., Strunin, L., Berlin, B. M., & Heeren, T. (1990). Beliefs about AIDS, use of alcohol and drugs, and unprotected sex among Massachusetts adolescents. *American Journal of Public Health, 80*(3), 295-299.
168. Hogan, D. P., Sun, R., & Comwell, G. T. (2000). Sexual and fertility behaviors of American females aged 15-19 years: 1985, 1990, and 1995. *American Journal of Public Health, 90*(9), 1421-1425.
169. Holden, G. W., Nelson, P. B., Velasquez, J., & Ritchie, K. L. (1993). Cognitive, psychosocial, and reported sexual behavior differences between pregnant and nonpregnant adolescents. *Adolescence, 28*(111), 557-572.
170. Holder, D. W., Durant, R. H., Harris, T. L., Daniel, J. H., Obeidallah, D., & Goodman, E. (2000). The association between adolescent spirituality and voluntary sexual activity. *Journal of Adolescent Health, 26*(4), 295-302.
171. Holmbeck, G. N., Crossman, R. E., Wandrei, M. L., & Gasiewski, E. (1994). Cognitive development, egocentrism, self-esteem, and adolescent contraceptive knowledge, attitudes, and behavior. *Journal of Youth and Adolescence, 23*(2), 169-193.
172. Holtzman, D., & Rubinson, R. (1995). Parent and peer communication effects on AIDS-related behavior among U.S. high school students. *Family Planning Perspectives, 27*(6), 235-240, 268.
173. Hou, S. I., & Basen-Engquist, K. (1997). Human immunodeficiency virus risk behavior among White and Asian/Pacific Islander high school students in the United States: Does culture make a difference? *Journal of Adolescent Health, 20*(1), 68-74.
174. Howard, D. E., & Wang, M. Q. (2004). Multiple sexual-partner behavior among sexually active US adolescent girls. *American Journal of Health Behavior, 28*(1), 3-12.
175. Hutchinson, M. K. (2002). The influence of sexual risk communication between parents and daughters on sexual risk behaviors. *Family Relations, 51*, 238-247.
176. Hutchinson, M. K., Jemmott, J. B., III, Jemmott, L. S., Braverman, P., & Fong, G. T. (2003). The role of mother-daughter sexual risk communication in reducing sexual risk behaviors among urban adolescent females: A prospective study. *Journal of Adolescent Health, 33*(2), 98-107.
177. Jaccard, J., & Dittus, P. J. (2000). Adolescent perceptions of maternal approval of birth control and sexual risk behavior. *American Journal of Public Health, 90*(9), 1426-1430.
178. Jaccard, J., Dittus, P. J., & Gordon, V. V. (1996). Maternal correlates of adolescent sexual and contraceptive behavior. *Family Planning Perspectives, 28*(4), 159-165, 185.
179. Jaccard, J., Dodge, T., & Dittus, P. (2003). Do adolescents want to avoid pregnancy? Attitudes toward pregnancy as predictors of pregnancy. *Journal of Adolescent Health, 33*(2), 79-83.

180. Jemmott, L. S., & Jemmott, J. B., III. (1990). Sexual knowledge, attitudes, and risky sexual behavior among inner-city Black male adolescents. *Journal of Adolescent Research*, 5(3), 346-369.
181. Jemmott, L. S., & Jemmott, J. B., III. (1992). Family structure, parental strictness, and sexual behavior among inner-city black male adolescents. *Journal of Adolescent Research*, 7(2), 192-207.
182. Jennings, J., Glass, B., Parham, P., Adler, N., & Ellen, J. M. (2004). Sex partner concurrency, geographic context, and adolescent sexually transmitted infections. *Sexually Transmitted Diseases*, 31(12), 733-739.
183. Jimenez, J., Potts, M. K., & Jimenez, D. R. (2002). Reproductive attitudes and behavior among Latina adolescents. *Journal of Ethnic & Cultural Diversity in Social Work*, 11(3-4), 221-249.
184. Kaestle, C. E., Morisky, D. E., & Wiley, D. J. (2002). Sexual intercourse and the age difference between adolescent females and their romantic partners. *Perspectives on Sexual and Reproductive Health*, 34(6), 304-309.
185. Kahn, J. R., & Anderson, K. E. (1992). Intergenerational patterns of teenage fertility. *Demography*, 29(1), 39-57.
186. Kalagian, W., Delmore, T., Loewen, I., & Busca, C. (1998). Adolescent oral contraceptive use: Factors predicting compliance at 3 and 12 months. *Canadian Journal of Human Sexuality*, 7(1), 1-8.
187. Kalichman, S. C., Stein, J. A., Malow, R., Averhart, C., Dèveux, J. G., Jennings, T., et al. (2002). Predicting protected sexual behavior using the Information-Motivation-Behavior Skills (IMB) model among adolescent substance abusers in court-ordered treatment. *Psychology, Health & Medicine*, 7(3), 327-338.
188. Kaplan, C. P., Erickson, P. I., & Juarez-Reyes, M. (2002). Acculturation, gender role orientation, and reproductive risk-taking behavior among Latina adolescent family planning clients. *Journal of Adolescent Research*, 17(2), 103-121.
189. Karofsky, P. S., Zeng, L., & Kosorok, M. R. (2001). Relationship between adolescent-parental communication and initiation of first intercourse by adolescents. *Journal of Adolescent Health*, 28(1), 41-45.
190. Kasen, S., Cohen, P., & Brook, J. S. (1998). Adolescent school experiences and dropout, adolescent pregnancy, and young adult deviant behavior. *Journal of Adolescent Research*, 13(1), 49-72.
191. Kasen, S., Vaughan, R. D., & Walter, H. J. (1992). Self-efficacy for AIDS preventive behaviors among tenth grade students. *Health Education Quarterly*, 19(2), 187-202.
192. Kelley, S. S., Borawski, E. A., Flocke, S. A., & Keen, K. J. (2003). The role of sequential and concurrent sexual relationships in the risk of sexually transmitted diseases among adolescents. *Journal of Adolescent Health*, 32(4), 296-305.
193. Kellogg, N. D., Hoffman, T. J., & Taylor, E. R. (1999). Early sexual experiences among pregnant and parenting adolescents. *Adolescence*, 34(134), 293-303.
194. Kelly, P. J., Bair, R. M., Baillargeon, J., & German, V. (2000). Risk behaviors and the prevalence of Chlamydia in a juvenile detention facility. *Clinical Pediatrics*, 39(9), 521-527.
195. Ketterlinus, R. D., Lamb, M. E., Nitz, K., & Elster, A. B. (1992). Adolescent nonsexual and sex-related problem behaviors. *Journal of Adolescent Research*, 7(4), 431-456.
196. Kingree, J. B., & Betz, H. (2003). Risky sexual behavior in relation to marijuana and alcohol use among African-American, male adolescent detainees and their female partners. *Drug and Alcohol Dependence*, 72(2), 197-203.
197. Kingree, J. B., Braithwaite, R., & Woodring, T. (2000). Unprotected sex as a function of alcohol and marijuana use among adolescent detainees. *Journal of Adolescent Health*, 27(3), 179-185.
198. Kinsman, S. B., Romer, D., Furstenberg, F. F., & Schwarz, D. F. (1998). Early sexual initiation: The role of peer norms. *Pediatrics*, 102(5), 1185-1192.
199. Kirby, D., Coyle, K., & Gould, J. B. (2001). Manifestations of poverty and birthrates among young teenagers in California zip code areas. *Family Planning Perspectives*, 33(2), 63-69.
200. Kissinger, P., Clayton, J. L., O'Brien, M. E., Kent, C., & Whittington, W. L. (2002). Older partners not associated with recurrence among female teenagers infected with Chlamydia trachomatis. *Sexually Transmitted Diseases*, 29(3), 144-149.
201. Kowaleski-Jones, L., & Mott, F. L. (1998). Sex, contraception and childbearing among high-risk youth: Do different factors influence males and females? *Family Planning Perspectives*, 30(4), 163-169.
202. Krantz, S. R., Lynch, D. A., & Russell, J. M. (2002). Gender-specific profiles of self-reported adolescent HIV risk behaviors. *Journal of the Association of Nurses in AIDS Care*, 13(6), 25-33.
203. Ku, L., Sonenstein, F. L., Lindberg, L. D., Bradner, C. H., Boggess, S., & Pleck, J. H. (1998). Understanding changes in sexual activity among young metropolitan men: 1979-1995. *Family Planning Perspectives*, 30(6), 256-262.
204. Ku, L., Sonenstein, F. L., & Pleck, J. H. (1993). Neighborhood, family, and work: Influences on the premarital behaviors of adolescent males. *Social Forces*, 72(2), 479-503.
205. Ku, L., Sonenstein, F. L., & Pleck, J. H. (1993). Factors influencing first intercourse for teenage men. *Public Health Reports*, 108(6), 680-694.
206. Ku, L., Sonenstein, F. L., & Pleck, J. H. (1994). The dynamics of young men's condom use during and across relationships. *Family Planning Perspectives*, 26(6), 246-251.
207. Ku, L. C., Sonenstein, F. L., & Pleck, J. H. (1992). The association of AIDS education and sex education with sexual behavior and condom use among teenage men. *Family Planning Perspectives*, 24(3), 100-106.
208. Kulig, K., Brener, N. D., & McManus, T. (2003). Sexual activity and substance use among adolescents by category of physical activity plus team sports participation. *Archives of Pediatrics & Adolescent Medicine*, 157(9), 905-912.
209. Lackey, J. F., & Moberg, D. P. (1998). Understanding the onset of intercourse among urban American adolescents: A cultural process framework using qualitative and quantitative data. *Human Organization*, 57(4), 491-501.
210. Lammers, C., Ireland, M., Resnick, M., & Blum, R. (2000). Influences on adolescents' decision to postpone onset of sexual intercourse: A survival analysis of virginity among youths aged 13 to 18 years. *Journal of Adolescent Health*, 26(1), 42-48.
211. Lanctot, N., & Smith, C. A. (2001). Sexual activity, pregnancy, and deviance in a representative urban sample of African American girls. *Journal of Youth and Adolescence*, 30(3), 349-373.
212. Laraque, D., McLean, D. E., Brown-Peterside, P., Ashton, D., & Diamond, B. (1997). Predictors of reported condom use in central Harlem youth as conceptualized by the Health Belief Model. *Journal of Adolescent Health*, 21(5), 318-327.
213. Lauritsen, J. L. (1994). Explaining race and gender differences in adolescent sexual behavior. *Social Forces*, 72(3), 859-883.
214. Lauritsen, J. L., & Swicegood, C. G. (1997). The consistency of self-reported initiation of sexual activity. *Family Planning Perspectives*, 29(5), 215-221.
215. Lavan, H., & Johnson, J. G. (2002). The association between Axis I and II psychiatric symptoms and high-risk sexual behavior during adolescence. *Journal of Personality Disorders*, 16(1), 73-94.
216. Leitenberg, H., & Saltzman, H. (2000). A statewide survey of age at first intercourse for adolescent females and age of their male partners: Relation to other risk behaviors and statutory rape implications. *Archives of Sexual Behavior*, 29(3), 203-215.
217. Levin, M., Xu, X., & Bartkowski, J. P. (2002). Seasonality of sexual debut. *Journal of Marriage and the Family*, 64(Nov), 871-884.
218. Levin, M. L., & Robertson, A. A. (2002). Being prepared: Attitudes and practices related to condom carrying among minority adolescents. *Journal of HIV/AIDS Prevention & Education for Adolescents & Children*, 5(1-2), 103-121.
219. Levy, S. R., Handler, A. S., Weeks, K., Lampman, C., Perhats, C., Miller, T. Q., et al. (1995). Correlates of HIV risk among young adolescents in a large metropolitan midwestern epicenter. *Journal of School Health*, 65(1), 28-32.
220. Ley, C., Bauer, H. M., Reingold, A., Schiffman, M. H., Chambers, J. C., Tashiro, C. J., et al. (1991). Determinants of genital human papillomavirus infection in young women. *Journal of the National Cancer Institute*, 83(14), 997-1003.
221. Liao, H. H., Wang, H., & Laymon, P. (1999). Predicting teen live birth rates using selected census-derived indicators, Lancaster County, South Carolina, 1990. *Journal of Public Health Management Practice*, 5(2), 21-22.
222. Liao, A., DiClemente, R. J., Wingood, G. M., Crosby, R. A., Williams, K. M., Harrington, K., et al. (2002). Associations between biologically confirmed marijuana use and laboratory-confirmed sexually transmitted diseases among African-American adolescent females. *Sexually Transmitted Diseases*, 29(7), 387-390.
223. Liebowitz, S. W., Castellano, D. C., & Cuellar, I. (1999). Factors that predict sexual behaviors among young Mexican American adolescents: An exploratory study. *Hispanic Journal of Behavioral Sciences*, 21(4), 470-479.
224. Lindberg, L. D., Ku, L., & Sonenstein, F. L. (1998). Adolescent males' combined use of condoms with partners' use of female contraceptive methods. *Maternal and Child Health Journal*, 2(4), 201-209.
225. Little, B. B., Gonzalez, J., Snell, L., & Molitor, C. (1999). Risk behaviors for sexually transmitted diseases among gangs in Dallas, Texas. *Journal of Gang Research*, 6(3), 33-47.
226. Little, C. B., & Rankin, A. (2001). Why do they start it? Explaining reported early-teen sexual activity. *Sociological Forum*, 16(4), 703-729.

227. Lock, S. E., & Vincent, M. L. (1995). Sexual decision-making among rural adolescent females. *Health Values: The Journal of Health Behavior, Education & Promotion*, 19(1), 47-58.
228. Loewenstein, G., & Furstenberg, F. F. (1991). Is teenage sexual behavior rational? *Journal of Applied Social Psychology*, 21(12), 957-986.
229. Longmore, M. A., Manning, W. D., Giordano, P. C., & Rudolph, J. L. (2003). Contraceptive self-efficacy: Does it influence adolescents' contraceptive use? *Journal of Health & Social Behavior*, 44(1), 45-60.
230. Longmore, M. A., Manning, W. D., Giordano, P. C., & Rudolph, J. L. (2004). Self-esteem, depressive symptoms, and adolescents' sexual onset. *Social Psychology Quarterly*, 67(3), 279-295.
231. Lowry, R., Holtzman, D., Truman, B. I., Kann, L., Collins, J. L., & Kolbe, L. J. (1994). Substance use and HIV-related sexual behaviors among US high school students: Are they related? *American Journal of Public Health*, 84(7), 1116-1120.
232. Lucenko, B. A., Malow, R., Sanchez-Martinez, M., Jennings, T., & Dévieux, J. (2003). Negative affect and HIV risk in alcohol and other drug (AOD) abusing adolescent offenders. *Journal of Child and Adolescent Substance Abuse*, 13(1), 1-17.
233. Lundberg, S., & Plotnick, R. D. (1990). Effects of state welfare, abortion and family planning policies on premarital childbearing among white adolescents. *Family Planning Perspectives*, 22(6), 246-251, 275.
234. Lundberg, S., & Plotnick, R. D. (1995). Adolescent premarital childbearing: Do economic incentives matter? *Journal of Labor Economics*, 13(2), 177-200.
235. Magura, S., Shapiro, J. L., & Kang, S. Y. (1994). Condom use among criminally-involved adolescents. *AIDS Care*, 6(5), 595-603.
236. Malo, J., & Tremblay, R. E. (1997). The impact of paternal alcoholism and maternal social position on boys' school adjustment, pubertal maturation and sexual behavior: A test of two competing hypotheses. *Journal of Child Psychology and Psychiatry*, 38(2), 187-197.
237. Mandara, J., Murray, C. B., & Bangi, A. K. (2003). Predictors of African American adolescent sexual activity: An ecological framework. *Journal of Black Psychology*, 29(3), 337-356.
238. Manlove, J. (1998). The influence of high school dropout and school disengagement on the risk of school-age pregnancy. *Journal of Research on Adolescence*, 8(2), 187-220.
239. Manlove, J., Ryan, S., & Franzetta, K. (2003). Patterns of contraceptive use within teenagers' first sexual relationships. *Perspectives on Sexual and Reproductive Health*, 35(6), 246-255.
240. Manlove, J., Ryan, S., & Franzetta, K. (2004). Contraceptive use and consistency in U.S. teenagers' most recent sexual relationships. *Perspectives on Sexual and Reproductive Health*, 36(6), 265-275.
241. Manlove, J., Terry, E., Gitelson, L., Papillo, A. R., & Russell, S. (2000). Explaining demographic trends in teenage fertility, 1980-1995. *Family Planning Perspectives*, 32(4), 166-175.
242. Manning, W. D., Longmore, M. A., & Giordano, P. C. (2000). The relationship context of contraceptive use at first intercourse. *Family Planning Perspectives*, 32(3), 104-110.
243. Marin, B., Coyle, K. K., Gomez, C. A., Carvajal, S. C., & Kirby, D. B. (2000). Older boyfriends and girlfriends increase risk of sexual initiation in young adolescents. *Journal of Adolescent Health*, 27(6), 409-418.
244. Markham, C., Tortolero, S., Escobar-Chaves, S. L., Parcel, G., Harrist, R., & Addy, R. C. (2003). Family connectedness and sexual risk-taking among youth attending alternative high schools. *Perspectives on Sexual and Reproductive Health*, 35(4), 174-179.
245. Marsiglio, W. (1993). Adolescent males' orientation toward paternity and contraception. *Family Planning Perspectives*, 25(1), 22-31.
246. Mauldon, J., & Luker, K. (1996). The effects of contraceptive education on method use at first intercourse. *Family Planning Perspectives*, 28(1), 19-24.
247. McBride, C. K. (2000). Individual, familial and contextual factors predicting situations of sexual possibility in Latina adolescents. *DAI: Section B: The Sciences & Engineering*. Feb 2000: 60(7-8):3572.
248. McBride, C. K., Paikoff, R. L., & Holmbeck, G. N. (2003). Individual and familial influences on the onset of sexual intercourse among urban African American adolescents. *Journal of Consulting and Clinical Psychology*, 71(1), 159-167.
249. McBride, C. M., Curry, S. J., Cheadle, A., Anderman, C., Wagner, E. H., Diehr, P., et al. (1995). School-level application of a social bonding model to adolescent risk-taking behavior. *Journal of School Health*, 65(2), 63-68.
250. McCree, D. H., Wingood, G. M., DiClemente, R. J., Davies, S., & Harrington, K. (2003). Religiosity and risky sexual behavior in African-American adolescent females. *Journal of Adolescent Health*, 33, 2-8.
251. McNeely, C., & Falci, C. (2004). School connectedness and the transition into and out of health-risk behavior among adolescents: A comparison of social belonging and teacher support. *Journal of School Health*, 74(7), 284-292.
252. McNeely, C., Shew, M., Beuhring, T., Sieving, R., Miller, B., & Blum, R. (2002). Mothers' influence on the timing of first sex among 14- and 15-year-olds. *Journal of Adolescent Health*, 31(3), 256.
253. Meier, A. M. (2003). Adolescents' transition to first intercourse, religiosity, and attitudes about sex. *Social Forces*, 81(3), 1031-1052.
254. Meschke, L. L., Zweig, J. M., Barber, B. L., & Eccles, J. S. (2000). Demographic, biological, psychological, and social predictors of the timing of first intercourse. *Journal of Research on Adolescence*, 10(3), 315-338.
255. Milhausen, R. R., Crosby, R., Yarber, W., DiClemente, R. J., Wingood, G. M., & Ding, K. (2003). Rural and nonrural African American high school students and STD/HIV sexual risk behaviors. *American Journal of Health Behavior*, 27(4), 373-379.
256. Miller, A. (2003). Adolescents' transition to first intercourse, religiosity, and attitudes about sex. *Social Forces*, 81(3), 1031-1052.
257. Miller, B., & Bingham, C. R. (1989). Family configuration in relation to the sexual behavior of female adolescents. *Journal of Marriage and the Family*, 51(2), 499-506.
258. Miller, B., Christensen, R. B., & Olson, T. (1987). Adolescent self-esteem in relation to sexual attitudes and behavior. *Youth & Society*, 19(1), 93-111.
259. Miller, B., & Sneesby, K. (1988). Educational correlates of adolescents' sexual attitudes and behavior. *Journal of Youth and Adolescence*, 17(6), 521-530.
260. Miller, B. C., Monson, B. H., & Norton, M. C. (1995). The effects of forced sexual intercourse on white female adolescents. *Child Abuse and Neglect*, 19(10), 1289-1301.
261. Miller, B. C., Norton, M. C., Curtis, T., Hill, E. J., Schvaneveldt, P., & Young, M. H. (1997). The Timing of Sexual Intercourse among Adolescents: Family, Peer, and Other Antecedents. *Youth & Society*, 29(1), 55-83.
262. Miller, K. E., Sabo, D. F., Farrell, M. P., Barnes, G. M., & Melnick, M. J. (1998). Athletic participation and sexual behavior in adolescents: The different worlds of boys and girls. *Journal of Health and Social Behavior*, 39(2), 108-123.
263. Miller, K. S., Forehand, R., & Kotchick, B. A. (1999). Adolescent sexual behavior in two ethnic minority samples: The role of family variables. *Journal of Marriage and the Family*, 61(1), 85-98.
264. Miller, K. S., Forehand, R., & Kotchick, B. A. (2000). Adolescent sexual behavior in two ethnic minority groups: A multisystem perspective. *Adolescence*, 35(138), 313-333.
265. Miller, K. S., Levin, M. L., Whitaker, D. J., & Xu, X. (1998). Patterns of condom use among adolescents: The impact of mother-adolescent communication. *American Journal of Public Health*, 88(10), 1542-1544.
266. Miller, L. (2002). Religiousness and sexual responsibility in adolescent girls. *Journal of Adolescent Health*, 31, 401-406.
267. Miller-Johnson, S., Winn, D.-M., Coie, J., Maumary-Gremaud, A., Hyman, C., Terry, R., et al. (1999). Motherhood during the teen years: A developmental perspective on risk factors for childbearing. *Development and Psychopathology*, 11(1), 85-100.
268. Miller-Johnson, S., Winn, D.-M., Coie, J. D., Malone, P. S., & Lochman, J. (2004). Risk factors for adolescent pregnancy reports among African American males. *Journal of Research on Adolescence*, 14(4), 471-495.
269. Moon, M. W., McFarland, W., Kellogg, T., Baxter, M., Katz, M. H., MacKellar, D., et al. (2000). HIV risk behavior of runaway youth in San Francisco: Age of onset and relation to sexual orientation. *Youth & Society*, 32(2), 184-201.
270. Moore, K., Blumenthal, C., Sugland, B., Hyatt, B., Snyder, N., & Morrison, D. (1994). *State variations in adolescent pregnancy and childbearing*. Washington, DC: Child Trends, Inc.
271. Moore, K. A., Manlove, J., Gleit, D. A., & Morrison, D. R. (1998). Nonmarital school-age motherhood: Family, individual, and school characteristics. *Journal of Adolescent Research*, 13(4), 433-457.
272. Moore, K. A., Morrison, D. R., & Gleit, D. A. (1995). Welfare and adolescent sex: The effects of family history, benefit levels, and community context. *Journal of Family & Economic Issues*, 16(2-3), 207-237.
273. Moore, M. R., & Chase-Lansdale, P. L. (2001). Sexual intercourse and pregnancy among African American girls in high-poverty neighborhoods: The role of family and perceived community environment. *Journal of Marriage and the Family*, 63(4), 146-157.
274. Morrison, D., Gilmore, M. R., Hoppe, M., Gaylord, J. E., Leigh, B., & Rainey, D. Y. (2003). Adolescent drinking and sex: Findings from a daily diary study. *Perspectives on Sexual and Reproductive Health*, 35(4), 162-168.

275. Morrison-Beedy, D., Carey, M. P., & Aronowitz, T. (2003). Psychosocial correlates of HIV risk behavior in adolescent girls. *Journal of Obstetrics and Gynecology Neonatal Nursing*, 32(1), 94-101.
276. Mosure, D. J., Berman, S., Fine, D., DeLisle, S., Cates, W., Jr., & Boring, J. R. (1997). Genital chlamydia infections in sexually active female adolescents: Do we really need to screen everyone? *Journal of Adolescent Health*, 20(1), 6-13.
277. Mott, F. L., Fondell, M. M., Hu, P. N., Kowaleski-Jones, L., & Menaghan, E. G. (1996). The determinants of first sex by age 14 in a high-risk adolescent population. *Family Planning Perspectives*, 28(1), 13-18.
278. Murphy, J. J., & Boggess, S. (1998). Increased condom use among teenage males, 1988-1995: The role of attitudes. *Family Planning Perspectives*, 30(6), 276-280, 303.
279. Nagy, S., Watts, G. F. D., & Nagy, M. C. (2002). Coital status and perceptions about sexual abstinence refusal skills. *Journal of Adolescent Health*, 31(1), 79-83.
280. Nathanson, C. A., & Becker, M. H. (1985). The influence of client-provider relationships on teenage women's subsequent use of contraception. *American Journal of Public Health*, 75(1), 33-38.
281. National Center on Addiction and Substance Abuse. (1999). *Dangerous liaisons: Substance abuse and sex*. New York: The Carnegie Corporation of New York.
282. Neumark-Sztainer, D., Story, M., & French, S. A. (1996). Covariations of unhealthy weight loss behaviors and other high-risk behaviors among adolescents. *Archives of Pediatrics & Adolescent Medicine*, 150(3), 304-308.
283. Newcomb, M., Locke, T., & Goodyear, R. K. (2003). Childhood experiences and psychosocial influences on HIV risk among adolescent Latinas in Southern California. *Cultural Diversity & Ethnic Minority Psychology*, 9(3), 219-235.
284. Noell, J., Rohde, P., Seeley, J., & Ochs, L. (2001). Childhood sexual abuse, adolescent sexual coercion and sexually transmitted infection acquisition among homeless female adolescents. *Child Abuse and Neglect*, 25(1), 137-148.
285. Nonnemaker, J. M., McNeely, C. A., & Blum, R. W. (2003). Public and private domains of religiosity and adolescent health risk behaviors: Evidence from the National Longitudinal Study of Adolescent Health. *Social Science & Medicine*, 57(11), 2049-2054.
286. Oettinger, G. (1999). The effects of sex education on teen sexual activity and teen pregnancy. *Journal of Political Economy*, 107(3), 606-644.
287. Oh, M. K., Cloud, G. A., Wallace, L. S., Reynolds, J., Sturdevant, M., & Feinstein, R. A. (1994). Sexual behavior and sexually transmitted diseases among male adolescents in detention. *Sexually Transmitted Diseases*, 21(3), 127-132.
288. Ohannessian, C. M., & Crockett, L. J. (1993). A longitudinal investigation of the relationship between educational investment and adolescent sexual activity. *Journal of Adolescent Research*, 8(2), 167-182.
289. Orcutt, H. K., & Cooper, M. L. (1997). The effects of pregnancy experience on contraceptive practice. *Journal of Youth and Adolescence*, 26(6), 763-778.
290. Orr, D. P., Langeheld, C. D., Katz, B. P., Caine, V. A., Dias, P., Blythe, M., et al. (1992). Factors associated with condom use among sexually active female adolescents. *Journal of Pediatrics*, 120(2), 311-317.
291. Pendergrast, R. A., Jr., DuRant, R. H., & Gaillard, G. L. (1992). Attitudinal and behavioral correlates of condom use in urban adolescent males. *Journal of Adolescent Health*, 13(2), 133-139.
292. Pierre, N., Shrier, L. A., Emans, S. J., & DuRant, R. H. (1998). Adolescent males involved in pregnancy: Associations of forced sexual contact and risk behaviors. *Journal of Adolescent Health*, 23(6), 364-369.
293. Pleck, J. H., Sonenstein, F. L., & Ku, L. (1993). Changes in adolescent males' use of and attitudes toward condoms, 1988-1991. *Family Planning Perspectives*, 25(3), 106-110, 117.
294. Pleck, J. H., Sonenstein, F. L., & Ku, L. C. (1991). Adolescent males' condom use: Relationships between perceived cost-benefits and consistency. *Journal of Marriage and the Family*, 53(3), 733-745.
295. Pleck, J. H., Sonenstein, F. L., & Ku, L. C. (1993). Masculinity ideology: Its impact on adolescent males' heterosexual relationships. *Journal of Social Issues*, 49(3), 11-29.
296. Pleck, J. H., Sonenstein, F. L., & Swain, S. O. (1988). Adolescent males' sexual behavior and contraceptive use: Implications for male responsibility. *Journal of Adolescent Research*, 3(3-4), 275-284.
297. Plichta, S. B., Weisman, C. S., Nathanson, C. A., Ensminger, M. E., & Robinson, J. (1992). Partner-specific condom use among adolescent women clients of a family planning clinic. *Journal of Adolescent Health*, 13(6), 506-511.
298. Plotnick, R. D. (1992). The effect of attitudes on teenage premarital pregnancy and its resolution. *American Sociological Review*, 57(6), 800-811.
299. Plotnick, R. D., & Butler, S. S. (1991). Attitudes and adolescent nonmarital childbearing: Evidence from the National Longitudinal Survey of Youth. *Journal of Adolescent Research*, 6(4), 470-492.
300. Polit, D. F., White, C. M., & Morton, T. D. (1990). Child sexual abuse and premarital intercourse among high-risk adolescents. *Journal of Adolescent Health Care*, 11(3), 231-234.
301. Polit-O'Hara, D., & Kahn, J. (1985). Communication and contraceptive practices in adolescent couples. *Adolescence*, 20(77), 33-43.
302. Poulin, C., & Graham, L. (2001). The association between substance use, unplanned sexual intercourse and other sexual behaviours among adolescent students. *Addiction*, 96(4), 607-621.
303. Pugh, M. D., DeMaris, A., Giordano, P. C., & Groat, H. T. (1990). Delinquency as a risk factor in teenage pregnancy. *Sociological Focus*, 23(2), 89-100.
304. Rai, A. A., Stanton, B., Wu, Y., Li, X., Galbraith, J., Cottrell, L., et al. (2003). Relative influences of perceived parental monitoring and perceived peer involvement on adolescent risk behaviors: An analysis of six cross-sectional data sets. *Journal of Adolescent Health*, 33(2), 108-118.
305. Raine, T., Harper, C., Leon, K., & Darney, P. (2000). Emergency contraception: Advance provision in a young, high-risk clinic population. *Obstetrics & Gynecology*, 96(1), 1-7.
306. Raine, T., Harper, C., Pauku, M., & Darney, P. (2002). Race, adolescent contraceptive choice, and pregnancy at presentation to a family planning clinic. *Obstetrics & Gynecology*, 99(2), 241-247.
307. Raine, T. R., Jenkins, R., Aarons, S. J., Woodward, K., Fairfax, J. L., El-Khorazaty, M. N., et al. (1999). Sociodemographic correlates of virginity in seventh-grade black and Latino students. *Journal of Adolescent Health*, 24(5), 304-312.
308. Raj, A., Silverman, J. G., & Amaro, H. (2000). The relationship between sexual abuse and sexual risk among high school students: Findings from the 1997 Massachusetts Youth Risk Behavior Survey. *Maternal and Child Health Journal*, 4(2), 125-134.
309. Ramisetty-Mikler, S., Caetano, R., Goebert, D., & Nishimura, S. (2004). Ethnic variation in drinking, drug use, and sexual behavior among adolescents in Hawaii. *Journal of School Health*, 74(1), 16-22.
310. Reitman, D., St. Lawrence, J. S., Jefferson, K. W., Alleyne, E., Brasfield, T., & Shifley, A. (1996). Predictors of African American adolescents' condom use and HIV risk behavior. *AIDS Education & Prevention*, 8(6), 499-515.
311. Reschovsky, J., & Gerner, J. (1991). Contraceptive choice among teenagers: A multivariate analysis. *Journal of Family and Economic Issues*, 12(2), 171-194.
312. Resnick, M. D., Bearman, P. S., Blum, R. W., Bauman, K. E., Harris, K. M., Jones, J., et al. (1998). Protecting adolescents from harm: Findings from the National Longitudinal Study of Adolescent Health. In R. E. Muuss & H. D. Porton (Eds.), *Adolescent behavior and society: A book of readings* (5th ed.) (pp. 376-395). New York: McGraw-Hill.
313. Resnick, M. D., Chambliss, S. A., & Blum, R. W. (1993). Health and risk behaviors of urban adolescent males involved in pregnancy. *Families in Society*, 74(6), 366-374.
314. Rich, L. M., & Kim, S. B. (2002). Employment and the sexual and reproductive behavior of female adolescents. *Perspectives on Sexual and Reproductive Health*, 34(3), 127-134.
315. Richter, D. L., Valois, R. F., McKeown, R. E., & Vincent, M. L. (1993). Correlates of condom use and number of sexual partners among high school adolescents. *Journal of School Health*, 63(2), 91-96.
316. Rickman, R. L., Lodico, M., DiClemente, R. J., Morris, R., Baker, C., & Huscroft, S. (1994). Sexual communication is associated with condom use by sexually active incarcerated adolescents. *Journal of Adolescent Health*, 15(5), 383-388.
317. Robinson, K. L., Price, J. H., Thompson, C. L., & Schmalzried, H. D. (1998). Rural junior high school students' risk factors for and perceptions of teen-age parenthood. *Journal of School Health*, 68(8), 334-338.
318. Robinson, K. L., Telljohann, S. K., & Price, J. H. (1999). Predictors of sixth graders engaging in sexual intercourse. *Journal of School Health*, 69(9), 369-375.
319. Rodgers, J. L., & Rowe, D. C. (1990). Adolescent sexual activity and mildly deviant behavior: Sibling and friendship effects. *Journal of Family Issues*, 11(3), 274-293.
320. Rohde, P., Noell, J., Ochs, L., & Seeley, J. R. (2001). Depression, suicidal ideation and STD-related risk in homeless older adolescents. *Journal of Adolescence*, 24(4), 447-460.

321. Romer, D., Black, M., Ricardo, I., Feigelman, S., Kaljee, L., Galbraith, J., et al. (1994). Social influences on the sexual behavior of youth at risk for HIV exposure. *American Journal of Public Health, 84*(6), 977-985.
322. Romer, D., Stanton, B., Galbraith, J., Feigelman, S., Black, M. M., & Li, X. (1999). Parental influence on adolescent sexual behavior in high-poverty settings. *Archives of Pediatrics & Adolescent Medicine, 153*(10), 1055-1062.
323. Roosa, M. W., Tein, J.-Y., Reinholdt, C., & Angelini, P. J. (1997). The relationship of childhood sexual abuse to teenage pregnancy. *Journal of Marriage and the Family, 59*(1), 119-130.
324. Rosenbaum, E., & Kandel, D. B. (1990). Early onset of adolescent sexual behavior and drug involvement. *Journal of Marriage and the Family, 52*(3), 783-798.
325. Rosenthal, S. L., Biro, F. M., Succop, P. A., Baker, J. G., & Stanberry, L. R. (1994). Reasons for condom utilization among high-risk adolescent girls. *Clinical Pediatrics, 33*(12), 706-711.
326. Rosenthal, S. L., Biro, F. M., Succop, P. A., Bernstein, D. I., & Stanberry, L. R. (1997). Impact of demographics, sexual history, and psychological functioning on the acquisition of STDs in adolescents. *Adolescence, 32*(128), 757-769.
327. Rosenthal, S. L., Von Ranson, K. M., Cotton, S., Biro, F. M., Mills, L., & Succop, P. A. (2001). Sexual initiation: Predictors and developmental trends. *Sexually Transmitted Diseases, 28*(9), 527-532.
328. Royce, C. F. (1998). Condom use by Hispanic and African-American adolescent girls who use hormonal contraception. *Journal of Adolescent Health, 23*(4), 205-211.
329. Sabo, D. F., Miller, K. E., Farrell, M. P., Barnes, G. M., & Melnick, M. J. (1998). *The Women's Sports Foundation report: Sports and teen pregnancy*. East Meadow, NY: Women's Sports Foundation.
330. Sabo, D. F., Miller, K. E., Farrell, M. P., Melnick, M. J., & Barnes, G. M. (1999). High school athletic participation, sexual behavior and adolescent pregnancy: A regional study. *Journal of Adolescent Health, 25*(3), 207-216.
331. Saewyc, E. M., Magee, L. L., & Pettingell, S. E. (2004). Teenage pregnancy and associated risk behaviors among sexually abused adolescents. *Perspectives on Sexual and Reproductive Health, 36*(3), 98-105.
332. Santelli, J. S., Brener, N. D., Lowry, R., Bhatt, A., & Zabin, L. S. (1998). Multiple sexual partners among U.S. adolescents and young adults. *Family Planning Perspectives, 30*(6), 271-275.
333. Santelli, J. S., Kaiser, J., Hirsch, L., Radosh, A., Simkin, L., & Middlestadt, S. (2004). Initiation of sexual intercourse among middle school adolescents: The influence of psychosocial factors. *Journal of Adolescent Health, 34*(3), 200-208.
334. Santelli, J. S., Lowry, R., Brener, N. D., & Robin, L. (2000). The association of sexual behaviors with socioeconomic status, family structure, and race/ethnicity among US adolescents. *American Journal of Public Health, 90*(10), 1582-1588.
335. Santelli, J. S., Robin, L., Brener, N. D., & Lowry, R. (2001). Timing of alcohol and other drug use and sexual risk behaviors among unmarried adolescents and young adults. *Family Planning Perspectives, 33*(5), 200-205.
336. Scaramella, L. V., Conger, R. D., Simons, R. L., & Whitbeck, L. B. (1998). Predicting risk for pregnancy by late adolescence: A social contextual perspective. *Developmental Psychology, 34*(6), 1233-1245.
337. Scott-Jones, D., & White, A. B. (1990). Correlates of sexual activity in early adolescence. *Journal of Early Adolescence, 10*(2), 221-238.
338. Serbin, L. A., Peters, P. L., McAffer, V. J., & Schwartzman, A. E. (1991). Childhood aggression and withdrawal as predictors of adolescent pregnancy, early parenthood, and environmental risk for the next generation. *Canadian Journal of Behavioral Science, 23*(3), 318-331.
339. Shafer, M. A., & Boyer, C. B. (1991). Psychosocial and behavioral factors associated with risk of sexually transmitted diseases, including human immunodeficiency virus infection, among urban high school students. *Journal of Pediatrics, 119*(5), 826-833.
340. Shafer, M. A., Hilton, J. F., Ekstrand, M., Keogh, J., Gee, L., DiGiorgio, H. L., et al. (1993). Relationship between drug use and sexual behaviors and the occurrence of sexually transmitted diseases among high-risk male youth. *Sexually Transmitted Diseases, 20*(6), 307-313.
341. Shafiq, T., Stovel, K., Davis, R., & Holmes, K. (2004). Is condom use habit forming?: Condom use at sexual debut and subsequent condom use. *Sexually Transmitted Diseases, 31*(6), 366-372.
342. Shearer, D., Mulvihill, B. A., Klerman, L. V., Wallander, J. L., Hovinga, M. E., & Redden, D. T. (2002). Association of early childbearing and low cognitive ability. *Perspectives on Sexual and Reproductive Health, 34*(5), 236-243.
343. Shrier, L. A., & Crosby, R. (2003). Correlates of sexual experience among a nationally representative sample of alternative high school students. *Journal of School Health, 73*(5), 197-200.
344. Shrier, L. A., Emans, S. J., Woods, E. R., & DuRant, R. H. (1997). The association of sexual risk behaviors and problem drug behaviors in high school students. *Journal of Adolescent Health, 20*(5), 377-383.
345. Shrier, L. A., Harris, S. K., Sternberg, M., & Beardslee, W. R. (2001). Associations of depression, self-esteem, and substance use with sexual risk among adolescents. *Preventive Medicine, 33*(3), 179-189.
346. Shrier, L. A., Pierce, J. D., Emans, S. J., & DuRant, R. H. (1998). Gender differences in risk behaviors associated with forced or pressured sex. *Archives of Pediatrics & Adolescent Medicine, 152*(1), 57-63.
347. Silverman, J. G., Raj, A., & Clements, K. (2004). Dating violence and associated sexual risk and pregnancy among adolescent girls in the United States. *Pediatrics, 114*(2), e220-225.
348. Silverman, J. G., Raj, A., Mucci, L. A., & Hathaway, J. E. (2001). Dating violence against adolescent girls and associated substance use, unhealthy weight control, sexual risk behavior, pregnancy, and suicidality. *Journal of the American Medical Association, 286*(5), 572-579.
349. Sionean, C., DiClemente, R. J., Wingood, G. M., Crosby, R., Cobb, B. K., Harrington, K., et al. (2001). Socioeconomic status and self-reported gonorrhea among African American female adolescents. *Sexually Transmitted Diseases, 28*(4), 236-239.
350. Small, S. A., & Luster, T. (1994). Adolescent sexual activity: An ecological, risk-factor approach. *Journal of Marriage and the Family, 56*(1), 181-192.
351. Smith, C. (1996). The link between childhood maltreatment and teenage pregnancy. *Social Work Research, 20*(3), 131-141.
352. Smith, C. A. (1997). Factors associated with early sexual activity among urban adolescents. *Social Work, 42*(4), 334-346.
353. Sonenstein, F. L., Pleck, J. H., & Ku, L. (1992). *Cost and opportunity associated with pregnancy risk among adolescent males*. Paper presented at the annual meeting of the Population Association of America.
354. Spencer, J. M., Zimet, G. D., Aalsma, M. C., & Orr, D. P. (2002). Self-esteem as a predictor of initiation of coitus in early adolescents. *Pediatrics, 109*(4), 581-584.
355. Spingarn, R. W., & DuRant, R. H. (1996). Male adolescents involved in pregnancy: associated health risk and problem behaviors. *Pediatrics, 98*(2), 262-268.
356. St. Lawrence, J. S. (1993). African-American adolescents' knowledge, health-related attitudes, sexual behavior, and contraceptive decisions: Implications for the prevention of adolescent HIV infection. *Journal of Consulting and Clinical Psychology, 61*(1), 104-112.
357. Stack, S. (1994). The effect of geographic mobility on premarital sex. *Journal of Marriage and the Family, 56*(1), 204-208.
358. Stanton, B., Li, X., Black, M., Ricardo, I., Galbraith, J., Kaljee, L., et al. (1994). Sexual practices and intentions among preadolescent and early adolescent low-income urban African-Americans. *Pediatrics, 93*(6), 966-973.
359. Stanton, B., Li, X., Pack, R., Cottrell, L., Harris, C., & Burns, J. M. (2002). Longitudinal influence of perceptions of peer and parental factors on African American adolescent risk involvement. *Journal of Urban Health, 79*(4), 536-548.
360. Steinman, K. J., & Zimmerman, M. A. (2004). Religious activity and risk behavior among African American adolescents: Concurrent and developmental effects. *American Journal of Community Psychology, 33*(3-4), 151-161.
361. Stewart, J. (2003). The mommy track: The consequences of gender ideology and aspirations on age at first motherhood. *Journal of Sociology & Social Welfare, 30*(2), 3-30.
362. Stock, J. L., Bell, M. A., Boyer, D. K., & Connell, F. A. (1997). Adolescent pregnancy and sexual risk-taking among sexually abused girls. *Family Planning Perspectives, 29*(5), 200-203, 227.
363. Stoiber, K. C., & Good, B. (1998). Risk and resilience factors linked to problem behavior among urban, culturally diverse adolescents. *School Psychology Review, 27*(3), 380-397.
364. Stouthamer-Loeber, M., & Wei, E. H. (1998). The precursors of young fatherhood and its effect on delinquency of teenage males. *Journal of Adolescent Health, 22*(1), 56-65.
365. Sturdevant, M. S., Belzer, M., Weissman, G., Friedman, L. B., Sarr, M., & Muenz, L. R. (2001). The relationship of unsafe sexual behavior and the characteristics of sexual partners of HIV infected and HIV uninfected adolescent females. *Journal of Adolescent Health, 29*(3 Suppl), 64-71.
366. Sucato, G., Celum, C., Dithmer, D., Ashley, R., & Wald, A. (2001). Demographic rather than behavioral risk factors predict herpes simplex virus 2 infection in sexually active adolescents. *Pediatric Infectious Disease Journal, 20*(4), 422-426.

367. Tapert, S. F., Aarons, G. A., Sedlar, G. R., & Brown, S. A. (2001). Adolescent substance use and sexual risk-taking behavior. *Journal of Adolescent Health, 28*(3), 181-189.
368. Teitler, J. O., & Weiss, C. C. (2000). Effects of neighborhood and school environments on transitions to first sexual intercourse. *Sociology of Education, 73*(2), 112-132.
369. Thornberry, T. P., Smith, C. A., & Howard, G. J. (1997). Risk factors for teenage fatherhood. *Journal of Marriage and the Family, 59*(3), 505-522.
370. Tomal, A. (1999). Parental involvement laws and minor and non-minor teen abortion and birth rates. *Journal of Family & Economic Issues, 20*(2), 149-162.
371. Tschann, J., Adler, N. E., Millstein, S. G., Curvey, J. E., & Ellen, J. M. (2002). Relative power between sexual partners and condom use among adolescents. *Journal of Adolescent Health, 31*, 17-25.
372. Tschann, J. M., & Adler, N. E. (1997). Sexual self-acceptance, communication with partner, and contraceptive use among adolescent females: A longitudinal study. *Journal of Research on Adolescence, 7*(4), 413-430.
373. Unger, J. B., Molina, G. B., & Teran, L. (2000). Perceived consequences of teenage childbearing among adolescent girls in an urban sample. *Journal of Adolescent Health, 26*(3), 205-212.
374. Upchurch, D. M., Aneshensel, C. S., Mudgal, J., & McNeely, C. S. (2001). Sociocultural contexts of time to first sex among Hispanic adolescents. *Journal of Marriage and the Family, 63*(4), 1158-1169.
375. Upchurch, D. M., & Kusunoki, Y. (2004). Associations between forced sex, sexual and protective practices, and sexually transmitted diseases among a national sample of adolescent girls. *Women's Health Issues, 14*(3), 75-84.
376. Upchurch, D. M., Levy-Storms, L., Sucoff, C. A., & Aneshensel, C. S. (1998). Gender and ethnic differences in the timing of first sexual intercourse. *Family Planning Perspectives, 30*(3), 121-127.
377. Upchurch, D. M., Mason, W. M., Kusunoki, Y., & Kriechbaum, M. J. (2004). Social and behavioral determinants of self-reported STD among adolescents. *Perspectives on Sexual and Reproductive Health, 36*(6), 276-287.
378. Valois, R. F., Kammermann, S. K., & Drane, J. W. (1997). Number of sexual intercourse partners and associated risk behaviors among public high school adolescents. *Journal of Sex Education & Therapy, 22*(2), 13-22.
379. Valois, R. F., Oeltmann, J. E., Waller, J., & Hussey, J. R. (1999). Relationship between number of sexual intercourse partners and selected health risk behaviors among public high school adolescents. *Journal of Adolescent Health, 25*(5), 328-335.
380. Ventura, S. J., Mathews, T. J., & Curtin, S. C. (1998). Declines in teenage birth rates, 1991-97: National and state patterns. *National Vital Statistics Report, 47*(12), 1-17.
381. Vermund, S. H., Alexander Rodriguez, T., Macleod, S., & Kelley, K. F. (1990). History of sexual abuse in incarcerated adolescents with gonorrhea or syphilis. *Journal of Adolescent Health Care, 11*(5), 449-452.
382. Vesely, S. K., Wyatt, V. H., Oman, R. F., Aspy, C. B., Kegler, M. C., Rodine, S., et al. (2004). The potential protective effects of youth assets from adolescent sexual risk behaviors. *Journal of Adolescent Health, 34*(5), 356-365.
383. Voisin, D. R., Salazar, L. F., Crosby, R., DiClemente, R. J., Yarber, W. L., & Staples-Horne, M. (2004). The association between gang involvement and sexual behaviours among detained adolescent males. *Sexually Transmitted Infections, 80*(6), 440-442.
384. Wagstaff, D. A., Delamater, J. D., & Havens, K. K. (1999). Subsequent infection among adolescent African-American males attending a sexually transmitted disease clinic. *Journal of Adolescent Health, 25*(3), 217-226.
385. Waller, E. M., & DuBois, D. L. (2004). Investigation of stressful experiences, self-evaluations, and self-standards as predictors of sexual activity during early adolescence. *Journal of Early Adolescence, 24*(4), 431-459.
386. Weber, F. T., Gearing, J., Davis, A., & Conlon, M. (1992). Prepubertal initiation of sexual experiences and older first partner predict promiscuous sexual behavior of delinquent adolescent males—unrecognized child abuse? *Journal of Adolescent Health, 13*(7), 600-605.
387. Weinbender, M. L., & Rossignol, A. M. (1996). Lifestyle and risk of premature sexual activity in a high school population of Seventh-Day Adventists: Valuegenesis 1989. *Adolescence, 31*(122), 265-281.
388. Weisman, C. S., Plichta, S., Nathanson, C. A., & Chase, G. A. (1991). Adolescent women's contraceptive decision making. *Journal of Health & Social Behavior, 32*(2), 130-144.
389. Weisman, C. S., Plichta, S., Nathanson, C. A., Ensminger, M., & Robinson, J. C. (1991). Consistency of condom use for disease prevention among adolescent users of oral contraceptives. *Family Planning Perspectives, 23*(2), 71-74.
390. Whitaker, D. J., & Miller, K. S. (2000). Parent-adolescent discussions about sex and condoms: Impact on peer influences of sexual risk behavior. *Journal of Adolescent Research, 15*(2), 251-273.
391. Whitaker, D. J., Miller, K. S., May, D. C., & Levin, M. L. (1999). Teenage partners' communication about sexual risk and condom use: The importance of parent-teenager discussions. *Family Planning Perspectives, 31*(3), 117-121.
392. Whitbeck, L. B., Hoyt, D. R., Miller, M., & Kao, M.-Y. (1992). Parental support, depressed affect, and sexual experience among adolescents. *Youth & Society, 24*(2), 166-177.
393. Whitbeck, L. B., Simons, R. L., & Kao, M.-Y. (1994). The effects of divorced mothers' dating behaviors and sexual attitudes on the sexual attitudes and behaviors of their adolescent children. *Journal of Marriage and the Family, 56*(3), 615-621.
394. Widmer, E. D. (1997). Influence of older siblings on initiation of sexual intercourse. *Journal of Marriage and the Family, 59*(4), 928-938.
395. Wilder, E. J., & Watt, T. T. (2002). Risky parental behavior and adolescent sexual activity at first coitus. *Milbank Quarterly, 80*(3), 481-524, iii-iv.
396. Williams, K. M., Wingood, G. M., DiClemente, R. J., Crosby, R. A., Hubbard McCree, D., Liao, A., et al. (2002). Prevalence and correlates of Chlamydia trachomatis among sexually active African-American adolescent females. *Preventive Medicine, 35*(6), 593-600.
397. Wilson, M. D., Kastrinakis, M., D'Angelo, L. J., & Getson, P. (1994). Attitudes, knowledge, and behavior regarding condom use in urban black adolescent males. *Adolescence, 29*(113), 13-26.
398. Wingood, G. M., DiClemente, R. J., Harrington, K., Davies, S., Hook, E. W., III, & Oh, M. K. (2001). Exposure to X-rated movies and adolescents' sexual and contraceptive-related attitudes and behaviors. *Pediatrics, 107*(5), 1116-1119.
399. Wingood, G. M., DiClemente, R. J., Harrington, K., & Davies, S. L. (2002). Body image and African-American females' sexual health. *Journal of Women's Health and Gender-Based Medicine, 11*(5), 433-439.
400. Wingood, G. M., DiClemente, R. J., McCree, D. H., Harrington, K., & Davies, S. L. (2001). Dating violence and the sexual health of black adolescent females. *Pediatrics, 107*(5), e72.
401. Wolfe, B., Wilson, K., & Haveman, R. (2001). The role of economic incentives in teenage nonmarital childbearing choices. *Journal of Public Economics, 81*(3), 473-511.
402. Wu, L. L. (1994). Effects of family structure and income on the risk of a premarital birth. *American Sociological Review, 61*(3), 386-406.
403. Wu, L. L., & Thomson, E. C. A. (2001). Race differences in family experience and early sexual initiation: Dynamic models of family structure and family change. *Journal of Marriage and the Family, 63*(3), 682-696.
404. Yarber, W., & Milhausen, R. R. (2002). Selected risk and protective factors associated with two or more lifetime sexual intercourse partners and non-condom use during last coitus among U.S. rural high school students. *American Journal of Health Education, 33*(4), 206-213.
405. Young, T., Turner, J., Denny, G., & Young, M. (2004). Examining external and internal poverty as antecedents of teen pregnancy. *American Journal of Health Behavior, 28*(4), 361-373.
406. Zabin, L. S. (1994). Subsequent risk of childbearing among adolescents with a negative pregnancy test. *Family Planning Perspectives, 26*(5), 212-217.
407. Zabin, L. S., Astone, N. M., & Emerson, M. R. (1993). Do adolescents want babies? The relationship between attitudes and behavior. *Journal of Research on Adolescence, 3*(1), 67-86.
408. Zavodny, M. (2001). The effect of partners' characteristics on teenage pregnancy and its resolution. *Family Planning Perspectives, 33*(5), 192-199, 205.
409. Zill, N., Nord, C. W., & Loomis, L. S. (1995). *Adolescent time use, risky behavior, and outcomes: An analysis of national data*. Rockville, MD: Westat, Inc.
410. Zimmer-Gembeck, M. J., Siebenbruner, J., & Collins, W. A. (2004). A prospective study of intraindividual and peer influences on adolescents' heterosexual romantic and sexual behavior. *Archives of Sexual Behavior, 33*(4), 381-394.