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SUMMARY

Sexual Risk & Protective Factors

Factors Affecting Teen Sexual
Behavior, Pregnancy, Childbearing
and Sexually Transmitted Disease:
Which Are Important?
Which Can You Change?



In order to reduce the high rates of teen pregnancy and sexually transmitted disease (STD) in the United States, it is important to address two primary questions:

- 1) What factors influence adolescents' decisions about sex?
- 2) Which of these factors can be altered?

By identifying and targeting those factors that both affect adolescents' decisions about sex and can be changed by interventions, organizations can greatly increase their chances of reducing sexual risk-taking.

The full report summarizes findings from more than 400 research studies in an effort to answer these two questions.

Which Factors Influence Adolescents' Decisions about Sex?

Relevant factors include both *risk factors* and *protective factors*, which may be equally important in terms of their relevance. **Risk factors** are those that encourage behavior that could result in a pregnancy or sexually transmitted disease (STD) or, conversely, that discourage behavior that could prevent them. **Protective factors** are those that discourage behavior that could lead to a pregnancy or STD or that encourage behavior that can help prevent them. Put another way, as the number of risk factors in a teen's life increases and/or the number of protective factors decreases, the likelihood that he/she will have sex, become pregnant/cause a pregnancy, or contract an STD increases.

More than 500 factors are identified that affect one or more sexual behaviors (the initiation of sex, frequency of sex, number of sexual partners, use of condoms, and use of other contraceptives) or consequences of those behaviors (pregnancy, childbearing or STD).

Important risk and protective factors include characteristics of the teens' states, communities, families, friends and peers, romantic partners, and the teens themselves (See Table 1.) Factors also involve teens' relationships with these important individuals or organizations in their environment. Some factors directly involve sexuality, while others do not.

These risk and protective factors may be grouped into four key themes:

- 1) Individual biological factors (e.g. age, physical maturity and gender)
- 2) Disadvantage, disorganization and dysfunction in the lives of the teens themselves and their environments (e.g. rates of substance abuse, violence, and divorce; also levels of education)
- 3) Sexual values, attitudes, and modeled behavior (e.g. teens' own values about sexual behavior as well as those expressed by parents, peers, and romantic partners)
- 4) 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 Influential Factors Can Be Altered?

The full report then considers the extent to which these important factors can be influenced. That is, it indicates the extent to which they can be changed such that risk factors are minimized and/or protective factors are maximized. To that end, the factors are “scored” based on how feasible it would be for a youth-focused organization to change them (Table 1).

Group I: Factors that are impossible or extremely difficult for most organizations to change themselves, though organizations may be able to do so by working with other community agencies.

These include biological factors, which, for all practical purposes cannot be changed. Also included are factors describing community disorganization and percent foreign born (a protective factor). Other factors that are difficult to address are related to family structure, such as single parent households and parents’ education level. These kinds of factors are particularly hard for an organization to address that is primarily focused on reproductive health. But if such organizations collaborate with other community or state agencies, progress may be possible.

Group II: Factors that are difficult for most organizations to change unless they have special programs or capabilities such as youth development activities or mental health services.

This category includes those factors related to teens’ attachment – or lack thereof – to various people or institutions in their lives. These include parents, school, places of worship, and other adults. And, it includes not dating frequently at early ages and not having older romantic partners. This category also comprises risky behaviors – such as alcohol and other drug use and being in a gang – and protective ones, such as girls’ involvement in sports. Finally, it includes having good mental health. Research suggests that these factors can sometimes be changed if specialized services are available. These would include, for example, counseling programs for parents, youth and families; alcohol and drug abuse prevention programs; tutoring services; community-based mentoring programs and sports for girls.

Group III: Factors that most directly involve sexuality and reproductive health and are therefore most amenable to change by organizations accustomed to addressing reproductive health. The majority of these factors involve sexual beliefs, values and attitudes, skills and behaviors of teens regarding having sex, using condoms and other methods of contraception, and avoiding pregnancy and HIV/STD. For example, efforts aimed at bolstering teens’ motivation to avoid pregnancy and STD can reduce the chances that teens will take part in risky behaviors. Research demonstrates that some sex and STD/HIV education programs can improve these sexuality-related beliefs and attitudes and can thereby delay first sex, reduce the frequency of sex, lower the number of sexual partners and/or increase condom and other contraceptive use. Consequently, some of them reduce the incidence of teen pregnancy and STD.

The full review makes it clear that myriad dynamics are at play when it comes to teens’ decisions about sex. This breadth of factors is both good news and bad news: good in the

sense that there are multiple avenues that organizations can pursue to reduce the incidence of teen pregnancy and STD; bad in that the sheer number of factors involved can seem overwhelming, and no single entity can address them all.

Given this complexity, it makes sense for each organization to focus on those factors that have a significant impact on teen sexual behavior and that it can change given its mission and resources. While some organizations may address sexuality-related factors and thereby reduce sexual risk-taking, other organizations may most effectively address multiple and varied factors and thereby reduce teens' risky sexual behavior and its consequences.

Table 1
Important Risk and Protective Factors and
the Feasibility of Changing Them

Risk (-) and Protective (+) Factors	Feasibility of Changing ¹	Possible Interventions To Change Factors
Environmental Factors		
Community		
Percentage foreign-born		
+ High proportion of foreign-born residents	*	In general, pregnancy and STD prevention programs cannot affect the percentage of foreign-born residents in a community.
Community disorganization		
- 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		
Family structure		
+ 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)	*	
Educational level		
+ 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.

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.

Risk (-) and Protective (+) Factors	Feasibility of Changing¹	Possible Interventions To Change Factors
Substance abuse		
- 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.
Positive family dynamics and attachment		
+ 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.

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Risk (-) and Protective (+) Factors	Feasibility of Changing¹	Possible Interventions To Change Factors
Family attitudes about and modeling of sexual risk-taking and early childbearing		
- 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 encourage their teens to abstain 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 encourage parents to encourage their teens to use contraception if they do have sex.
Communication about sex and contraception		
+ <i>Greater parent-child communication about sex and condoms or contraception, especially before teen initiates sex</i>	***	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.

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Risk (-) and Protective (+) Factors	Feasibility of Changing	Possible Interventions To Change Factors
Peer		
Age		
- 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.
Peer attitudes and behavior		
- 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.
- <i>Peers' pro-childbearing attitudes or behavior</i>	***	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.
- <i>Permissive values about sex</i>	***	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.
- <i>Sexually active peers</i>	***	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.
+ <i>Positive peer norms or support for condom or contraceptive use</i>	***	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.
+ <i>Peer use of condoms</i>	***	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.

Risk (-) and Protective (+) Factors	Feasibility of Changing	Possible Interventions To Change Factors
Romantic Partner		
Partner characteristics		
- 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.
Individual Factors		
Biological factors		
+/- Being male	*	Within reason, it is not possible to change these factors.
+/- Being older	*	
+ Being physically more mature	*	
Race/Ethnicity		
- 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)	*	
Attachment to and success in school		
+ 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	**	
Attachment to community		
+ 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.

Risk (-) and Protective (+) Factors	Feasibility of Changing	Possible Interventions To Change Factors
Attachment to faith communities		
+ 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.
Problem or risk-taking behavior		
- 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	**	
Other behavior		
- 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.
Cognitive and personality traits		
+ 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.

Risk (-) and Protective (+) Factors	Feasibility of Changing	Possible Interventions To Change Factors
Emotional well-being and distress		
- 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.
SEXUAL BELIEFS, ATTITUDES, AND SKILLS		
- <i>More permissive attitudes toward premarital sex</i>	***	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.
+ <i>Taking a virginity pledge</i>	***	
+ <i>Greater perceived male responsibility for pregnancy prevention</i>	***	
+ <i>Stronger beliefs that condoms do not reduce sexual pleasure</i>	***	
+ <i>Greater value of partner appreciation of condom use</i>	***	
+ <i>More positive attitudes toward condoms and other forms of contraception</i>	***	
+ <i>More perceived benefits and/or fewer costs and barriers to using condoms</i>	***	
+ <i>Greater confidence in ability to demand condom use</i>	***	
+ <i>Greater confidence in using condoms or other forms of contraception</i>	***	
+ <i>Greater motivation to use condoms or other forms of contraception</i>	***	
+ <i>Greater intention to use condoms</i>	***	
+ <i>Greater perceived negative consequences of pregnancy</i>	***	
+ <i>Greater motivation to avoid pregnancy and STD</i>	***	

Risk (-) and Protective (+) Factors	Feasibility of Changing	Possible Interventions To Change Factors
Relationships with romantic partners and previous sexual behavior		
- 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	**	
- Ever kissed or necked	**	
+ <i>Older age at first voluntary sex</i>	***	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.
- <i>Greater frequency of sex</i>	***	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.
- <i>Having a new sexual relationship</i>	***	
- <i>Greater number of sexual partners</i>	***	
+ <i>Discussing sexual risks with partner</i>	***	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.
+ <i>Discussing pregnancy and STD prevention with partner</i>	***	
+ <i>Previous effective use of condoms or contraception</i>	***	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.
- <i>Previous pregnancy or impregnation</i>	***	
- 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.