It’s a Guy Thing:

Boys, Young Men, and Teen Pregnancy Prevention

February 2006
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Table of Contents

Summary ................................................................................................................................. 1

Chapter One .......................................................................................................................... 9
Young Men and Teen Pregnancy: A Review of Sex, Contraception, and Fertility-Related Issues
By William Marsiglio, Ph.D.

Chapter Two ....................................................................................................................... 101
What Works for Boys? A Re-examination of Coeducational School Curricula
By Amy Vastine Ries, MHS and Freya L. Sonenstein, Ph.D.

Chapter Three .................................................................................................................... 139
A Closer Look: A Qualitative Assessment of Involving Boys and Young Men in Preventing Teen Pregnancy
By Karen Troccoli and Molly Whitehead
Although girls have traditionally been the major focus of efforts to prevent teen pregnancy, the importance of targeting teen boys and young men is increasingly apparent to researchers, practitioners, parents, and others who work with youth. One of the many reasons for this new focus is that the substantial reductions in teen pregnancy and birth rates in recent years can be attributed, in part, to dramatic shifts in the sexual behavior of boys. For instance:

- Fewer teen boys are having sexual intercourse. Slightly less than half of 9th-12th grade boys (48%) reported having had sexual intercourse in 2003—a 16% decrease since 1991 when 57% of boys in 9th-12th grade were sexually active. By contrast, the decline for girls in grades 9-12 during the same time period was 11%—from 51% of girls in 1991 to 45% in 2003. (Grunbaum et al., 2004).

- Condom use is up. Among boys in 9th-12th grade who have had sexual intercourse, 69% used a condom the last time they had sex. In 1991 only 55% reported using condoms (Grunbaum et al., 2004).

- Fewer teen boys report having had multiple sexual partners. Of high school-aged boys, 18% reported having four or more sexual partners in their lifetime, down from 23% in 1991 (Grunbaum et al., 2004).

However, our collective understanding of how boys' attitudes and behavior have contributed to these trends is not as clear as it is regarding girls. Our hope is that this volume will redress this imbalance. The full report on which this summary is based includes three papers that address, from different perspectives, how boys and young men factor into teen pregnancy trends. This summary provides an overview of each paper's key points as well as some crosscutting conclusions and implications for the field.

Chapter One

Chapter one, authored by William Marsiglio, Ph.D., is an extensive review of research on the attitudes and behavior of boys and young men regarding sex, contraception, pregnancy, and related issues. In addition to documenting such trends as condom use and rates of sexual activity, this chapter explores the more nuanced factors that con-
tribute to such behavior. These qualitative topics include boys’ perspectives on romantic relationships, concerns about pregnancy and sexually transmitted diseases (STDs), and the role of religiosity, and family dynamics. These topics are examined within three major categories: sexual activity, contraceptive use, and fertility issues. Some of the most notable conclusions include the following:

**Sexual activity:**

- The proportion of teen boys who have had sexual intercourse is decreasing. This trend was documented both through surveys of 9th-12th grade male students (in 2003) and in household surveys of teen boys (in 2002), some of whom were not in school. Both surveys found that fewer than half of those surveyed reported having had sexual intercourse, which represents a significant decrease over the last decade.

- The median age of first intercourse for male 9th-12th graders is approximately 16.4 years of age.

- Boys are more likely to have casual sex (defined as sex with people outside an ongoing relationship or with persons they don’t know well) than girls; however, the gap has narrowed in recent years.

- Fewer teen boys now report having multiple sexual partners than in past years.

- Boys are more troubled about being virgins than are girls.

- Both teen girls and boys say the primary reason why they have not had sexual intercourse is because it is “against religion or morals.” One interesting study found that virgin boys who wanted to have sex tended to blame their virgin status on lack of opportunity, whereas those who did not expect to have sex cited wanting to postpone sex until marriage as the reason for delay.

- Sexual activity other than intercourse is commonplace among boys. Various studies have looked at rates of such intimate behavior as oral sex and mutual masturbation and found that between one quarter and one half of teenage boys have had such experiences.

- Having first intercourse at a younger age is associated with many factors, ranging from family characteristics (e.g. mother’s educational level and the number of siblings) to engaging in other risky behavior (such as substance use).

- Teenaged boys who are more religious are more likely to delay having sex.

- Boys and young adult men with more “traditional” views of what it means to be masculine are more likely to be sexually active, according to some studies.

- Parents are far more likely to discuss sex with their daughters than with their sons.

**Contraception:**

- Rates of condom use have increased. Teen boys are using condoms more consistently and are more likely than in past years to have used condoms the last time they had sex. More than two thirds of teen boys report using a condom the last time they had sex.

- Boys cite pregnancy prevention as the primary motivation for using condoms.

- Other factors associated with increased condom use among teen boys include feeling responsible for contraception, fear of HIV/AIDS, talking with a partner about contraception, and being in the early stages of a relationship. African-American teens are more likely than other racial/ethnic groups to use condoms.

- About one quarter of teenaged boys have used a condom in tandem with a female hormonal method of contraception.
Fertility:

- Data on the number of teen fathers is limited. Surveys suggest that approximately 13% of sexually experienced boys aged 15-19 caused a pregnancy, and about 4% were fathers. These estimates are believed to be low since many men are not informed about partners' miscarriages or abortions.

- Teen fathers tend to come from disadvantaged backgrounds. They often perform poorly in school, have low or moderate income levels, engage in problem behavior such as gang involvement, and are more likely to have a mother who also was a teen parent.

- Young adult men who have sex with significantly younger women (more than 6 years younger) are far less likely to use contraception and far more likely to get their partner pregnant.

- Qualitative research has helped clarify how young men's readiness to become fathers evolves over time and is linked to life experiences.

In conclusion, Dr. Marsiglio notes that cultural, societal, familial, interpersonal, and personal factors affect teen boys and young men's involvement in teen pregnancy in complex ways. The breadth of factors means there are many opportunities for intervention by programs, parents, and others who work with boys. Continuing to collect high quality data on the experiences of boys and young men with relationships, sex, contraception, pregnancy, and parenting can help researchers, program directors, policymakers and parents better understand how to influence teen boys' behavior and further reduce teen pregnancy rates.

Chapter Two

Chapter two, by Amy Vastine Ries and Freya Sonenstein, Ph.D., reviews evaluation research on the effectiveness of school-based, coed programs in reducing risky sexual behavior among adolescent boys. In order to continue the nation's progress in reducing rates of teen pregnancy and births, the authors note the importance of stepping up prevention efforts that specifically target males. They also note, however, that boys-only programs are relatively new to prevention efforts and very few have been rigorously evaluated and/or shown to change behavior. Therefore, the authors focus their analysis on co-educational school-based programs and identify those that have produced positive changes in the sexual and contraceptive behavior of teen boys.

The chapter is based on a systematic and extensive literature review that identified studies reporting results by gender, including whether the program was effective for boys, girls, or both. Programs were reviewed only if their evaluation met strict inclusion criteria designated by the authors. Those that did were grouped into four categories based on components of the program:

I. Sexuality education component only
   - Postponing Sexual Involvement (1990)
   - Postponing Sexual Involvement (2000)
   - Teen Talk
   - [Untitled] Program by Walter & Vaughn
   - Protection Express Program

II. Service learning component
   - Reach for Health Service Learning Program
   - Teen Outreach Program

III. Sexuality education and a parent component
   - Reducing the Risk
   - Taking Charge
   - Rochester AIDS Prevention Project
   - Sex Can Wait

IV. Sexuality education and other components
   - Self Center
   - School/Community Risk Reduction Replication Initiative
   - Children's Aid Society Carrera Program
   - Seattle Social Development Project
   - Safer Choices
   - Draw the Line/Respect the Line
   - Aban Aya Youth Project
For each of the four program categories, the authors discuss the findings, the strength of the evidence, and the implications for those considering putting a program into place for boys. Below is an overview of the findings for programs with strong evidence of success for boys, girls, or both.

Both service learning programs showed strong evidence of effectiveness for boys (and girls). Compared to teens who were not in these programs, teens enrolled in Reach for Health were more likely to delay first sex and less likely to have had sex recently. Teen Outreach Program participants were less likely to get pregnant or cause a pregnancy. The authors conclude that service learning programs offer a promising strategy for influencing sexual behavior and teen pregnancy among boys and girls.

Five of the seven sexuality education programs with multiple additional components showed strong evidence of success. Of those five, two were effective for boys only, two were effective for boys and girls, and one was effective for girls only.

- Both programs with an added “cultural” component, meaning they included elements related directly to the values or customs of a particular culture, showed strong evidence of effectiveness among boys. Aban Aya Youth Project targeted African American youth, and Draw the Line/Respect the Line served primarily Latino teens. The former reduced the likelihood that program participants had sex in the past three months and also increased condom use, while the latter was successful in delaying first sex and the frequency of sex in the last 12 months among boys who participated in the program. While the authors note that it is unclear whether it was the cultural component that made the programs effective for boys but not girls, they point out that both programs shared that common characteristic and demonstrated similar results.

- Two programs that combined sexuality education with a school, community or parent component showed strong evidence of effectiveness with boys and girls—the Seattle Social Development Program and Safer Choices. The evaluation of the Seattle Program found it decreased incidence of first sex, increased condom use at last intercourse, and reduced the number of lifetime sexual partners for boys and girls. Girls in the program also had lower pregnancy and birth rates than girls in a comparison group. Safer Choices participants had less unprotected sex. Boys in the program used contraception more frequently than boys in a comparison group. The authors point out that these programs were unique in that they extended their influence beyond the classroom in an effort to affect other aspects of the students’ lives. One program in this category showed strong evidence of success among girls only. The CAS-Carrera program reduced sexual activity and pregnancy rates and increased condom use among girls but not boys.

The authors offer several conclusions about the types of programs that appear to be effective with boys— that is, delaying first sex, increasing contraceptive use and/or reducing teen pregnancy rates. First, many of the programs address teen sexual behavior by going beyond the classroom. This is exemplified by the two service learning programs mentioned above. Second, it appears that including a cultural component contributes to program effectiveness. Although the authors are not certain that this addition was responsible for the two programs’ effectiveness, Ries and Sonenstein do note that those with the cultural component were the only two evaluated programs that showed strong evidence of success among boys. Finally, programs that extend across school years—at least two years—seem to be more effective than those that are shorter in duration. All told, it appears that programs that reach beyond the classroom have been most effective with young males.

Chapter Three

The third and final part of this report by Molly Whitehead and Karen Troccoli offers a more qualitative look at the challenges in engaging teen boys and young men in teen pregnancy prevention and
some strategies for overcoming them. In contrast to the first two chapters of this publication, which are based on rigorous research and analysis, this chapter is intended to provide a more descriptive and qualitative perspective. The chapter is based in large part on discussions with practitioners who work with boys and young men as well as programmatic materials and other background information. The information gleaned from these sources is grouped into five categories of challenges and corresponding strategies for overcoming them:

- Many programs are not inviting to teenaged boys and young men.
  - Make programs/initiatives boy-friendly
- Most boys are not in programs
  - Go to where the boys are
- Parents often struggle to communicate with their sons about pregnancy and related issues
  - Help tongue-tied parents
- Boys are not all the same
  - Tailor approaches
- Punitive measures after the fact may not be preventive.
  - Emphasize prevention to reduce the need for punitive measures

For each of the five strategies, a continuum of activities is described ranging from school-based programs to media campaigns. Although not all of these interventions have been formally evaluated, they are offered as examples of innovative and promising ways to connect with teen boys and young men. The key points under each strategy include the following:

**Make programs male-friendly**

Making programs male-friendly demands more than transforming a pink pamphlet into a blue one. Practitioners suggest creating male-friendly environments by adjusting program elements ranging from the staff to program messages and content. This requires starting at the core of the program and ensuring that the stated goals include language specifically about serving boys and young adult men. Achieving those goals often requires altering a program's infrastructure so it appeals to boys directly. Examples include creating waiting rooms that have boy-friendly magazines and posters; hiring some male staff members; and ensuring messages and other program information include topics that are of particular interest to boys, such as puberty, sexually transmitted diseases, peer pressure, and fatherhood. It also can be useful to ask the boys in the program what can be done to make them and their peers feel particularly welcome, since they are the customers.

**Go to Where the boys are**

Even the most male-friendly programs cannot be effective unless boys participate in them. Most teen boys and young men are not actively seeking or enrolled in programs that focus on preventing teen pregnancy. Therefore, creative outreach strategies are often needed. These can range from using trained outreach workers to connect with boys at community centers, sporting events, and other popular gathering places to partnering with juvenile justice, job training, fatherhood, and other programs/agencies.

**Help tongue-tied parents**

Despite research showing that close parent/child relationships help young people successfully navigate adolescence and steer clear of risky behavior, many parents mistakenly believe they have little or no influence over their children's decisions about sex. Parents freely admit that they want to talk with their children about these issues but are unsure of what to say and how to say it. Moreover, teens report that what parents tell their sons is often quite different from what they say to their daughters. Practitioners suggest making parental involvement part of prevention initiatives, emphasizing the influence parents can have on their children, and giving parents guidance and background information to start conversations with their sons.

**Tailor approaches**

Although some messages about the importance of avoiding unintended pregnancy are universal, tailoring an intervention to boys' age, socio-economic status, and cultural identification can make it more effective. Messages should be age

**It's a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention**
appropriate, since developmental levels vary greatly from early to late adolescence. Messages also should be grounded in cultural and/or religious tenants that will resonate with the target audience. Finally, because research has found an association between teens' socioeconomic status and their attitudes about sex and pregnancy—particularly a relationship between poverty and increased incidence of teen pregnancy—those working with low-income youth should consider including services that can help prevent school dropout and joblessness.

**Emphasize prevention**

A primary way that young men have been linked to teen pregnancy is through laws that seek to make them accountable for children they have fathered. While such measures are necessary for the well-being of the mothers and children involved, many practitioners believe that attention should also be focused on encouraging young men to be accountable as fathers for their own sake. Teaching young fathers and young men who have not yet had children that being a good father entails more than financial obligations capitalizes on an opportunity to build stronger families and to break the cycle of too-early parenthood. Several fatherhood programs seek to do just that— they communicate positive messages to young fathers about the importance of their involvement in their children's lives and about not having more children until they are financially and emotionally ready to do so. Other programs have targeted middle school-aged boys in order to reach them before they become fathers.

This chapter concludes with eight overarching themes and related tips for engaging boys around teen pregnancy:

1. **Make sure initiatives are welcoming and engaging to boys and young men.**
2. **Trust is key between programs and their clientele.**
3. **Include male staff and volunteers.**
4. **Try to be positive rather than punitive.**
5. **One size does not fit all—tailor programs to target populations.**
6. **Make connections between teen pregnancy and other issues in program participants' lives.**
7. **Be creative with outreach efforts.**
8. **Involve parents in programs, outreach, and other activities.**

**Overall Implications**

Collectively these three chapters offer several key insights regarding boys' contributions to recent declines in teen pregnancy and birth rates. Several of these crosscutting headlines are highlighted below, along with pertinent implications for those working with teen boys and young adult men.

**Boys are delaying first sex and using more contraception when they do have sex.**

Teen boys and young men are contributing significantly to the decreasing rates of teen pregnancy and births in the United States. More boys are delaying sex until they are older, and those who are having sex are using contraception more consistently. The shifts in the sexual behavior of boys and young men should underscore for parents, program leaders, community leaders, school officials and others who work with boys the importance of including boys and young men in prevention efforts.

**Teen pregnancy prevention programs can be effective with boys.**

Although the pool of literature is small on what works to alter the sexual behavior of boys, the existing research on coed programs does offer some guidance. Programs that reach beyond the classroom—that is, those that include community service and other out-of-school activities— have had consistently positive outcomes among boys. Programs with a cultural component also seemed to be very effective with boys. Future evaluations of coed programs should separately examine outcomes for boys and girls to further clarify what works for each group. Moreover, additional programs for males-only should be evaluated to fur-
ther increase our understanding about what is—and is not—working.

**Much can be learned from those on the front lines.**
When it comes to working with boys and young men, practitioners, community leaders, and others in communities across the country have amassed a valuable collection of insights and promising approaches. Although not all initiatives have been rigorously evaluated, anecdotal evidence from practitioners who have years of experience working with boys can benefit those who are just beginning such efforts. Creating new opportunities for information sharing—through conferences, teleconferences, websites, and publications—is important for encouraging more work with boys and young men.

**We still have much to learn.**
The three chapters in this volume also highlight how much we still do not know about the sexual attitudes and behavior of teen boys and young men. Although common sense tells us that boys play an important role in the decisions couples make about sex and relationships, we still lack in-depth information about what influences those decisions and their outcomes. For instance, we have trend data on the percentage of high school-aged boys who have had sex, but we do not fully understand what has led to recent declines in these percentages. There are several reasons for these gaps in information. Until recently, most efforts to prevent teen pregnancy, including relevant data collection, were focused on girls. With growing awareness of the importance of focusing on boys as well, additional attention is being devoted to this topic. But more is needed still. The same is true regarding program evaluation—only a few prevention efforts target boys specifically, and information is limited about what works for boys and why, even within the evaluation research on coed programs.

These information gaps are problematic for two reasons. First, they limit our ability to paint a complete picture of the dynamics between boys and girls that result in continued high rates of teen pregnancy and parenting in the United States. Second, they hinder efforts to create programs for boys that could help reduce these rates. The more we know about boys, the more we can tailor interventions to address how boys view and understand sex, love, and relationships.
Chapter 1

Young Men and Teen Pregnancy: A Review of Sex, Contraception, and Fertility-Related Issues

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Introduction

In order to further reduce the high rates of teen pregnancy and childbearing in the United States, it is important to understand the complex issues associated with teens' attitudes and behaviors regarding sex, pregnancy, and parenting. Until recently, most attention has focused on females because they are the ones who can become pregnant. However, males represent half of the teen pregnancy equation, which means understanding how they think about and experience sex, contraception, pregnancy, and fertility is critical as well. Fortunately, the past two decades have seen leaders in teen pregnancy prevention – ranging from academicians and social service providers to policymakers—focus more of their programmatic, policy, and research efforts on boys and young men. For example:

- National data have been collected on teenage and young adult males from surveys that target males (e.g., National Survey of Adolescent Males—NSAM, 1988-1995, National Survey of Family Growth (Male)—NSFG 2002), as well as those targeting both genders (e.g., Youth Risk Behavior Survey – YRBS; National Longitudinal Study of Adolescent Health – Add Health; National Longitudinal Survey of Youth – NLSY).


- Pregnancy prevention programs that serve young men have been evaluated (Smith, Weinman, Buzi, & Benton, 2004; Sonenstein, Stewart, Lindberg, Pernas, and Williams, 1997).

- National conferences, reports, and journals have increasingly included information about young men's sexual and reproductive health.

It's a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention
issues (Adams & Pittman, 1988; Alan Guttmacher Institute, 2002, 2003; Children Defense Fund, 1988; Edwards, 1994; Moore, Driscoll, & Ooms, 1997; Sonenstein, 2000a, b).

- Programs that counsel teenage boys who are confronting pregnancy and fatherhood have been reviewed (Kiselica, 1995).

- Scholarly works have been published about young men's sexual, contraceptive, pregnancy, and fathering experiences (Marsiglio & Hutchinson, 2002, and additional references cited in this report).

One of the most important developments in understanding boys and sex has been researchers' success in collecting and analyzing new data on sexual behavior, contraceptive use, and fertility patterns. This has produced timely insights on such topics as:

- how the behavior of individual males has changed over time;
- how the behavior of different cohorts of teenage and young men has changed;
- how individual attributes, background characteristics, and social and other contextual factors are associated with males' experiences; and
- how young men and women compare with respect to reproductive health issues.

This chapter reviews existing research and describes young males' sexual activity, contraceptive use, and fertility patterns. Some important related topics—such as teen fatherhood—are not addressed. Although evidence indicates that young males have strong and varied feelings about the prospect of adolescent parenthood, such an analysis is beyond the scope of this review (Lerman & Ooms, 1993). Suffice it to say, young fathers often face challenges that they are ill-prepared to handle (Kiselica, 1995; Marsiglio, 1995; Marsiglio & Cohan, 1997). Another topic not fully addressed here is the small percentage of instances in which a young teen male is responsible for a pregnancy with an older female partner. Finally, although trends in condom use are discussed in the context of pregnancy prevention, research focusing on condom use primarily as a means to prevent sexually transmitted diseases (STDs), including HIV/AIDS, is not systematically reviewed.

Below are highlights of the key findings from this chapter. Appendix A includes a discussion of pertinent methodological issues and recommendations for future research, while Appendix B has a selective summary of key studies.

**Sexual Behavior and Attitudes**

- **Fewer teen boys are having sexual intercourse.** According to the 2003 Youth Risk Behavior Survey, approximately 48 percent of males in grades 9-12 report having had sexual intercourse (Grunbaum et al., 2004). This marks roughly a 16 percent decrease since 1991, when the rate was 57.4 percent (Brener, et al. 2002). National household surveys of never-married males aged 15-19 also document a decline in the rate of sexual intercourse from 60 percent to 46 percent between 1988 and 2002 (Abma, Martinez, Mosher, & Dawson, 2004).

- **Boys are more likely to have casual sex than are girls.** Though the gap has narrowed in recent years, teenage and young adult males are more likely than their female counterparts to report having sexual intercourse with someone they do not know well (Cooper, Peirce, & Huselid, 1994; Manlove, Ryan, & Franzetta, 2003) or with a non-romantic partner (Manning, Longmore, & Giordano, 2002).

- **Feelings about virginity often differ for boys and girls.** Teenage and young adult male virgins give different reasons for being virgins and are more troubled by it than their female counterparts (Blinn-Pike, 1999; Sprecher & Regan, 1996; Sugland & Driscoll, 1997). However, a national survey of 15-19 year-olds in 2002 indicates that males and females chose the same main reason why they had not yet had
sexual intercourse, both citing that it was “against religion or morals” (31.4 percent and 37.8 percent respectively) (Abma, et al. 2004).

■ Many boys have experience with sexual intimacy other than intercourse. According to the 2002 NSFG, 25 percent of virgin males aged 15-19 reported that they had been masturbated by a partner, 21 percent said that they had received oral sex, and 13 percent reported they had given oral sex (National Campaign to Prevent Teen Pregnancy, 2005). Eleven percent of all males in this age group, one percent of virgins, and 21 percent of those who had also had sexual intercourse reported that they had had anal sex with a female.

■ Several factors appear associated with early sexual intercourse among males. For example, African-Americans are more likely than teens of other racial/ethnic backgrounds to have sex at an early age (Alan Guttmacher Institute, 2002; Grunbaum et al., 2004; Mott, Fondell, Hu, Kowaleski-Jones & Menaghan, 1996; Upchurch, Levy-Storms, Sucoff, & Aneshensel, 1998; Warren et al., 1998). Other factors associated with early sexual intercourse among males include engaging in other “problem” behavior such as substance use (Costa, Jessor, Donovan, & Fortenberry, 1995; Kowaleski-Jones & Mott, 1998; Lammers, Ireland, Resnick, Blum, 2000; Luster & Small, 1994; Resnick, Chambliss, & Blum, 1993; Rosenbaum & Kandel, 1990; Santelli, Robin, Brener, & Lowry, 2001; Valois, Kammermann, & Drane, 1997; Whitbeck, Conger, Simons, & Kao, 1994); family structure (Lammers, et al. 2000; Longmore, Manning, & Giordano, 2001; Longmore, Manning, Giordano, & Rudolph, 2004; Upchurch, et al. 1998), maternal characteristics (Ku, Sonenstein, & Pleck, 1993a; Longmore, et al. 2001; Longmore, et al. 2004; Mott, et al. 1996; Whitaker, Miller, & Clark, 2000; Wilder & Watt, 2002), and having older siblings (Haurin & Mott, 1990; Rodgers, Row, & Harris, 1992). One factor that appears to be associated with delaying sexual intercourse among males is religiosity (Ku, et al. 1993a; Wilder & Watt, 2002; Lammers, et al. 2000; Rostosky, Regnerus, & Wright, 2003).

■ Fewer boys are having multiple sexual partners. In 2003, approximately 18 percent of high school-aged boys reported having had four or more sexual partners during their lifetime (Grunbaum et al., 2004), compared to 23 percent in 1991 (Brener, et al. 2002). This marks a 25 percent decrease.

Contraception

■ Condom use is up. According to the 2003 YRBS, approximately seven in ten (69 percent) males in grades 9-12 used a condom the last time they had intercourse (Grunbaum et al., 2004), nearly a 26 percent increase since 1991 when 55 percent reported using condoms (Brener, et al., 2002). Household surveys also have documented a steady increase in condom use at last intercourse for never-married males aged 15-19 who have had sex in the past three months. The proportion who used condoms increased from 53 percent in 1988 to 64 percent in 1995, and again to 71 percent in 2002 (Abma, et al. 2004). These surveys also showed that teen males were more likely to use condoms consistently in 1995 than comparably aged males in 1988 (Sonenstein, Ku, Lindberg, Turner, & Pleck, 1998).

■ Various factors influence condom use among teen boys. Teen males are more likely to use condoms when having sex with a casual or secondary partner (in the early phases of a romantic relationship) and when they are younger (Marín, Gómez, & Hearst, 1993; Ott, Adler, Millstein, Tschann, & Ellen, 2002). Attitudes supporting male contraceptive responsibility, concerns about HIV/AIDS, being African American, living in the northern United States, talking with a partner about contraception, and being in an earlier stage of a relationship all increased the likelihood of boys aged 15-19 using condoms the last time they had sex (Pleck, Sonenstein, & Ku, 1991). In contrast, a number of factors are associated with a
decreased likelihood of using a condom at last sexual intercourse including having a partner who uses birth control pills, the perception that sex is less pleasurable using a condom, living in the midwest United States, having more sexual partners in the last year, and drug use (Barthlow, Horan, DiClemente, & Lanier, 1995; Pleck, et al. 1991; Santelli, et al. 2001).

- **Condoms are used mostly for pregnancy prevention.** Most males aged 17-22 report that the primary reason they use a condom is to prevent pregnancy (Ku, Sonenstein, & Pleck, 1994).

- **Dual use is fairly common.** Approximately one in four (24 percent) of never-married males aged 15-19 in 2002 who had sexual intercourse in the past three months reported using a condom along with a female hormonal method of contraception the last time they had sex (Abma, et al. 2004). Dual use tends to be higher among males who are black, younger, have received HIV instruction in school, and who have participated in fewer risky behaviors (Ford, Sohn, & Lepkowski, 2001; Lindberg, Ku, & Sonenstein, 1998; Santelli, et al. 1997).

**Fertility**

- **Data on the number of teen fathers is limited.** Based on male reports in 2002, 13 percent of sexually experienced teenage males aged 15-19 have made a partner pregnant, and about four percent were fathers (Suelentrop, Flanigan, & Bowen, 2005). These figures are similar to those reported by a 1995 cohort of 15-19 year-old males 14 percent of who had made a partner pregnant and six percent who reported being fathers. These are lower bound estimates because an unknown number of young men are unaware of their partners’ abortions, miscarriages, and births (Grunbaum et al., 2004).

- **Teen fathers often have disadvantaged backgrounds.** Teen fathers are more likely to perform poorly in school and be high school dropouts, have low or moderate incomes, be black or Hispanic, live in urban areas, have a mother who was a teen parent or received welfare, have sex at an early age, belong to a gang, exhibit high aggression, and be involved in problem behaviors (Alan Guttmacher Institute, 2002; Fagot, Pears, Capaldi, Crosby, & Leve, 1998; Furstenberg, 1993; Hanson, Morrison, & Ginsburg, 1989; Hardy, Astone, Brooks-Gunn, Shapiro, & Miller, 1998; Ketterlinus, Lamb, Nitz, & Elster, 1992; Lerman, 1993; Pears, Pierce, Kim, Capaldi, & Owen, 2005; Thornberry, Smith, & Howard, 1997; Xie, Cairns, & Cairns, 2001).

- **Age-discrepant relationships sometimes yield troubling outcomes.** Although the proportion of teen births fathered by men aged 20 or older has declined (Elo, King, & Furstenberg, 1999), teen females who have sex with significantly older men are less likely to use contraception. In addition, the larger the age difference, the more likely it is that first intercourse was coerced. Females aged 15-17 with partners three or more years older are 3.7 times more likely to become pregnant than their similarly aged peers with partners no more than two years older (Darroch, Landry, & Oslak, 1999).

- **Abortion is less acceptable.** In 1995, 15-19 year old males were less likely to indicate that it was “alright” for a woman to have an abortion for any reason (24 percent) than similarly aged respondents in 1988 (37 percent) (Boggess & Bradner, 2000).

- **Young males’ procreative identities are an evolving process.** Young mens’ decisions about sex and contraception may be connected to their awareness of their ability to create offspring and the cognitive and emotional aspects of that awareness. This “procreative consciousness” evolves over time as young men are exposed to diverse situations and move in and out of romantic relationships that cause them to acquire knowledge, change identities, and alter their perceptions (Marsiglio, 2003; Marsiglio & Hutchinson, 2002).
Framing the Review

Population Studied

This chapter focuses on adolescent and young adult men who may have sexual relationships with teenage females. Most of the studies reviewed focus on males in their teens and early twenties. The label “young men” is used to capture the entire population of interest, while “teenage boys” and “adolescent males” refer to the younger subset of males under consideration.

In the past, researchers typically have used age 19 as the upper age for studies about young women who experience “off-time” (Elder, 1985) pregnancy and childbearing – that is, pregnancies that occur prior to completing an education, securing a stable job, or getting married (or more recently, establishing a committed cohabiting relationship). Using age 19 is partly an artifact of our English language (19 ends the “teen” years) and the social construction of teen pregnancy in American culture in recent decades (Luker, 1996). Yet because there are no clear developmental, socioemotional, life course, or legal differences between 19-year-olds and 20-year-olds, the “teen” years demarcation does not adequately capture critical distinctions in how young people experience their life course. Moreover, using age 19 as a cut-off poses problems for the field of teen pregnancy prevention because it is culturally acceptable for males to be a few years older than their female partners. For these reasons, this report includes data on adolescent and young adult males.

A related issue is the age of the partners of these young men. Many researchers do not collect or analyze data on the age of males who have had vaginal intercourse with, impregnated, or fathered a child with a teenage female. Although many men in their twenties no longer have sexual relations with teenage girls, some do. Thus, some research that examines male college students’ sexual, contraceptive, and pregnancy experiences may offer insights about their involvement with teen pregnancy, especially in the case of older adolescent females.

Materials Reviewed

Most of the materials reviewed in this chapter were published or prepared (e.g., unpublished reports) in 1990 or later. This date was chosen for two reasons. First, most of the published materials based on the first wave of the 1988 NSAM began to appear in 1990 (a few NSAM articles published in 1989 are also included). Second, the late 1980s and early 90s represent the beginning of the post-AIDS awareness era, which prompted many people to change their sexual and condom use behavior. Some important writings published prior to the 1990s also are referenced because they offer useful insights or provide meaningful points of comparison. Finally, some published reports and unpublished findings based on the NSFG 2002 are incorporated in various sections. In the near future, additional analyses based on these data will provide valuable information about the most recent national cohort of adolescent and young adult males.

Sexual Activity

For this chapter, young men having vaginal intercourse with teenage females are of primary interest. In addition, information on male virgins and young men who are not currently sexually active is considered, as is information about noncoital experiences. Understanding the latter is important because males may engage in these activities as a way to reduce pregnancy risk, either at their discretion or in response to their partner’s suggestion. Unfortunately, research typically does not assess such motivations. This limits the available information about why teens choose noncoital sex over intercourse and about the typical progression – if any exists – of sexual intimacy for young males and their partners.

The chapter summarizes the research on young men in the United States in three main areas: sexual activity and attitudes, contraception, and fertility. Most of the research in these areas can be interpreted through either a social demographic or social psychological lens. Considerable attention is
given to the timing of young men’s first sexual intercourse because there are many studies on this topic. This chapter builds upon earlier reviews summarizing research on the sexual behavior of male and female adolescents (Miller & Moore, 1990; Moore, Miller, Glei, & Morrison, 1995). It also explores how gender shapes the social, psychological, emotional, and physical development of adolescents and their romantic relationship. (See Appendix A for further research on these topics.)

This chapter also examines how adolescent boys and young men perceive and attempt to resolve pregnancies. Data are included on the attitudes of young males towards abortion, adoption, parenting, and marriage, all of which can influence their decisions about dating, sex, contraception, pregnancy, and childbearing. In addition, the chapter summarizes qualitative studies that examine how individual attributes, social background, and contextual factors influence the sexual attitudes and experiences of young men (for ethnographic analyses, see Anderson, 1993; Sullivan, 1989, 1995).

In addition to reviewing and synthesizing the major findings, this chapter raises key methodological issues about the survey and qualitative research on young males’ sexual experience, contraceptive use, and fertility. Appendix A outlines specific recommendations for future research, including methodological suggestions for improving it. Appendix B includes brief synopses for selective research articles that address sex, contraception, and fertility issues. These articles include the most rigorous and/or unique analyses or conceptual articles. Although each entry is listed only once, some include research covering several topic areas. Research focusing on both males and females is summarized primarily in terms of the findings for males.

Sexual Attitudes and Behaviors

When evaluating research on the sexual attitudes and behaviors of adolescent and young men, it is important to keep in mind that researchers and social policymakers tend to use a social problem or risk taking perspective in their work (Risman & Schwartz, 2002). The key research questions often assume that males’ (and females’) early sexual experiences result in undesirable individual and social consequences such as sexually transmitted disease (STD) transmission and unplanned pregnancies. Consequently, relatively little is known about the unproblematic aspects of young men’s sexuality, especially those behaviors that do not carry health risks such as mutual fondling and masturbation. Thus, most of what is known focuses on coital behaviors, with increasing though limited attention being given to experiences other than vaginal intercourse. Because young men’s attitudes and behaviors regarding sexual intercourse are most relevant to teen pregnancy prevention, they are reviewed most thoroughly in this report. The 2002 Alan Guttmacher Institute report, In Their Own Right: Addressing the Sexual and Reproductive Health Needs of American Men, provides a brief but useful summary of the broader dimensions of adolescent male sexuality.

In order to provide some context for understanding males’ attitudes and behaviors regarding sex and pregnancy, comparisons between boys and girls are included on some key topics. For instance, the biennial cross-sectional Youth Risk Behavior Surveys (YRBS, 1991, 1993, 1995, 1997, 1999, 2001, 2003) from the Center for Disease Control and Prevention (CDC) provide a convenient national source to compare high school (grades 9-12) males and females (Brener, et al. 2002; for 2003 data see, Grunbaum et al., 2004). The 2003 YRBS notes that:

- In 2003, almost half of males (48 percent) and 45 percent of females reported having had sexual intercourse, compared to 57 percent for males and 51 percent for females in 1991. Largely similar patterns are found when comparing male and female rates in household surveys in 1988, 1995, and 2002 (Abma, et al. 2004).
- The percentage of high school males reporting having had four or more lifetime sexual partners decreased from 23 percent in 1991 to 18 percent in 2003. For females, the decrease was from 14 percent in 1991 to 11 percent in 2003.
Condom use during last intercourse among male students has increased from 55 percent in 1991 to 69 percent in 2003. These figures are higher than those reported by females for comparable years (38 percent in 1991 and 57 percent in 2003).

Boys and girls reported similar rates of sexual intercourse within the previous three months (34 and 35 percent, respectively) in 2003.

The following sections explore the sexual attitudes and behaviors of adolescent boys and young men with respect to virginity, noncoital sex, and sexual intercourse.

**Changes in Teen (15-19) Sexual Behavior**

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
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<tr>
<td>Sexually experienced</td>
<td>57%</td>
<td>51%</td>
</tr>
<tr>
<td>Sexual activity in last 3 months</td>
<td>37%</td>
<td>38%</td>
</tr>
<tr>
<td>4 or more lifetime partners</td>
<td>34%</td>
<td>35%</td>
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<tr>
<td>Condom use at last sex</td>
<td>23%</td>
<td>14%</td>
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<tr>
<td>4 or more lifetime partners</td>
<td>18%</td>
<td>11%</td>
</tr>
<tr>
<td>Condom use at last sex</td>
<td>55%</td>
<td>38%</td>
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**Virginity**

Among 9th to 12th grade boys, 52 percent have not had sexual intercourse (Grunbaum et al., 2004). In addition, national estimates based on a household sample suggest that, among a cohort of young males aged 15-19 in 2002, about 54 percent have not had sexual intercourse. The figure was 68 percent among 15-17 year-olds and 35 percent for those aged 18-19 (Abma, et al. 2004). The percent of 18-19 year-old males who have not had sexual intercourse has increased from similar cohorts in 1995 when 25 percent were virgins (Alan Guttmacher Institute, 2002). It is interesting to note that more research has focused on young males who have become sexually active than on the significant percentage who have abstained from sexual intercourse. An important question is: Why do some young men remain virgins throughout their
teen years and others, who are technically not virgins because they have had sexual intercourse, decide to avoid intercourse (and sometimes other forms of sexual activity) until marriage? The latter are sometimes referred to as "secondary virgins."

Virginity can mean different things in different contexts. For instance, claiming virginity status usually does not require individuals to abstain from all forms of sexual activity (e.g., mutual masturbation, oral sex, anal intercourse). For many, virginity refers only to vaginal intercourse. In fact, some individuals may be quite experienced sexually without having vaginal intercourse. Forste & Haas (2002) distinguish between virgins who are "delayers" and "anticipators." The former appear more committed to not having sexual intercourse, whereas the latter expect to have intercourse within the next year.

Young males are more likely than young females to view virginity unfavorably. In a study of 289 self-identified, long-term virgins (mean age, 19.2), Sprecher and Regan (1996) explored males’ and females’ feelings about and reasons for not having vaginal intercourse. They found that males were more often troubled by their sexual status. Unlike young women who emphasized reasons related to love or their relationship status, young men's explanations reflected insecurities, inadequacies, or the unavailability of a partner. Even so, some did view their virginity status in a positive light. Young men who said that their virginity status was due to the limited length of their relationships or because they had not found the right partner were inclined to see their virginity positively. To some extent, men's orientation toward their virginity status was correlated with their future expectations about sex. When men felt inadequate, insecure, guilty, or anxious about being a virgin, they were more likely to predict that they would have sexual intercourse in the near future.

Another reason for delaying sex is fear of STDs and pregnancy. A study of predominantly young white teenagers (mean age, 14), including 282 male virgins, reported that fear of STDs and fear of pregnancy were the primary reasons for remaining abstinent (Blinn-Pike, 1999), with males showing lower levels of fear than females. Sugland and Driscoll (1999) studied an older and more racially diverse group of youth (mean age, 16.7) with a subsample of 205 teenagers who had not had sexual intercourse with their first romantic partner. Males were most likely to report that they refrained from having sex because they feared STDs or pregnancy and were less likely than females to cite as reasons for their abstinence that their feelings for their partner had not been strong enough, or that premarital intercourse was wrong.

A related area of research has focused on the effectiveness of "virginity pledges." During the past decade, the Southern Baptist Church and other organizations across the country have implemented programs encouraging adolescents to pledge to remain virgins. Bearman and Brückner's (2001) detailed analysis of a subsample of adolescents who made such pledges found, using longitudinal data controlling for religiosity and other factors, that making a pledge decreased the probability of sexual initiation for more than a third (34 percent) of the male and female teens. This "pledge effect" was most pronounced for younger adolescents and for those for whom taking the pledge was "nonnormative." As the authors explain, "the pledge identity is relatively fragile and meaningful only in contexts where it is at least partially nonnormative. If most adolescents were to pledge, there would be no pledge effect on the transition to intercourse (p. 901)."

Finally, one longitudinal study of students in 20 Missouri schools who were virgins in 1997, then reinterviewed 18 months later, found that male students were significantly more likely than females to remain virgins. In addition, those males who remained abstinent (seven percent) were significantly less likely to drink alcohol than their male peers who had intercourse (52 percent) (Blinn-Pike, Berger, Hewitt, & Oleson, 2004). In summary, research suggests that a sizeable percentage of young males remain virgins throughout high school, but that many have a negative view of this status and some are simply waiting for an acceptable and willing partner. Those who are virgins cite
fear of STDs and pregnancy as greater influences on their decisions to abstain from sexual intercourse than the quality of their relationships with their partners or views on premarital intercourse. Research on virginity pledges suggests that these pacts may only be effective for a select subset of those who make them.

Noncoital Sex

In recent years, interest has increased in knowing exactly what teens are doing sexually other than sexual intercourse. Much of this interest comes from concern that many of these behaviors—such as oral and anal sex—can lead to STD transmission and HIV/AIDS. There also is a desire to better understand the role that noncoital sex plays in regard to sexual intercourse, such as whether the former is a “gateway” behavior and the extent to which it is considered a substitute for the latter. Indeed, several recent publications underscore the importance of studying noncoital forms of sexuality among virgins and non-virgins (e.g., Alan Guttmacher Institute, 2002; Gates & Sonenstein, 2000; Remez, 2000; Schuster, Bell, & Kanouse, 1996; Schwartz, 1999). Although much remains to be learned about these topics, available data shed some light on current trends in noncoital sexual activity among males.

Mirroring data for sexual intercourse, rates of noncoital sexual activity increase with age. According to the 1995 NSAM, slightly more than half of 15-19 year old boys reported that a female had masturbated them or that they had had oral sex (Gates & Sonenstein, 2000), and the 2002 NSFG yielded similar results (Flanigan, Suellentrop, Albert, Smith & Whitehead, 2005; National Campaign to Prevent Teen Pregnancy, 2005). These rates were twice as high for the 18-19 year-olds compared to 15-17 year olds and did not differ by race/ethnicity.

Among young men 15-19 years of age in 1995 who had never had sexual intercourse, 67 percent said they had touched a woman’s breasts, 22 percent had been stimulated to the point of orgasm, 18 percent had received oral sex, and 14 percent had given oral sex (Alan Guttmacher Institute, 2002). According to the 2002 NSFG, most of these percentages increased slightly, with 25 percent of virgin males aged 15-19 reporting that they had been masturbated by a partner, 21 percent reporting that they had received oral sex, and 13 percent saying

![Percent of Virgin Teen Boys Engaging in Other Types of Sexual Intimacy, 1995 and 2002](image-url)

they had given oral sex (National Campaign to Prevent Teen Pregnancy, 2005). Additional analyses of the 2002 NSFG showed that 11 percent of all males in this age group, one percent of virgins, and 21 percent of those who had also had sexual intercourse reported that they had had anal sex with a female (National Campaign to Prevent Teen Pregnancy, 2005). A study of Los Angeles 9th-12th graders found that, among male virgins, 30 percent had masturbated their partner, 31 percent had been masturbated by their partner, 11 percent had received oral sex with ejaculation, nine percent had given oral sex, and one percent had had anal sex (Schuster, Bell, & Kanouse, 1996). A retrospective 1995-96 survey of nonvirgin college students in a single subject class also found that 70 percent of the males had performed oral sex and 58 percent had received it at least once before having their first intercourse experience (Schwartz, 1999).

Unfortunately, none of these studies explored whether concerns about pregnancy prompted the males to participate in noncoital sexual activities. Preliminary analyses of the NSFG 2002 are suggestive in this regard. Among male virgins aged 15-19, oral sex (given or received) was reported most by those who said they had not had intercourse (39 percent), even though they had met the right partner (although it was not yet the right time to have sex). This group was followed closely by a group that may be using oral sex as a way to avoid pregnancy – those who said that the main reason they had not had intercourse was to avoid getting a partner pregnant (38 percent). Male virgins were least likely to report having had oral sex if they said they were avoiding sexual intercourse for moral or religious reasons (18 percent) or for some other reason (18 percent). In the middle between were those who said they have not yet had intercourse in order to avoid sexually transmitted diseases or that they just have not met the right partner yet (28 percent and 26 percent reporting oral sex, respectively) (Flanigan, Suellenpont, et al. 2005).

Interest in the incidence of oral sex among teenagers in recent years has led to largely anecdotal media stories suggesting such practices are rampant. However, a comparison of 1988 and 1995 NSAM data for separate cohorts of never-married 15-19 year olds found that the percent of males who had ever received oral sex had not changed significantly (44 to 50 percent) (Gates & Sonenstein, 2000). This study did find, however, that the percentage increased significantly among never-married blacks (25 to 57 percent) between 1988 and 1995 (Gates & Sonenstein, 2000). Although the pattern was not statistically significant, the researchers also found that virgin young men in 1995 were more likely to report that they had received oral sex than men in 1988 (17 percent vs. 10 percent). Analyses of the 2002 NSFG found that there was no significant difference between all males 15-19 years old in the 1995 NSAM and the 2002 NSFG that reported ever having received oral sex (50 vs 52 percent) (Flanigan, Suellenpont, et al. 2005; National Campaign to Prevent Teen Pregnancy, 2005).

Although limited data exist on adolescent males’ attitudes and behaviors regarding noncoital sexual activities, it is evident that the majority of 15-19 year old boys have experience in this area. Anecdotal and qualitative data also suggest that many adolescents, particularly females, view sexual intercourse differently from other forms of sex. More needs to be learned about the views of young males (and females) who substitute noncoital sex for vaginal intercourse and how their perspectives affect their definitions of abstinence and sexual experiences (Remez, 2000; Sanders & Reinisch, 1999). Finally, it is important to acknowledge that adolescent health professionals, parents, and other adults may have different views about the appropriateness of any sexual activity among teens.

### Sexual Intercourse

To better understand males’ attitudes and behaviors regarding sexual intercourse, it is important to consider age at first intercourse; the implications of having sex at a relatively young age; the proportion of adolescent boys who have had sexual intercourse; and the factors—individual, attitudinal, and others—that seem to influence their decisions about sex. These are described below.
Age at First Intercourse and Early First Sex

One of the most frequently studied aspects of young men’s sexual experience is the age of first sexual intercourse—typically defined as vaginal intercourse. This variable is important because of its connection to teen pregnancy and STD/HIV transmission. In addition, early first sex often is used as a marker for other types of risky behaviors that tend to occur in the teen or young adult years, such as drug/alcohol use and criminal activity.

Research on this issue generally focuses on:

- the average/median age at which young men lose their virginity and/or the proportion of an age cohort that has done so,
- the extent to which this average age or proportion differs between various cohorts, and
- the predictors of young men having first sex.

Several national data sets have been used to generate estimates of young men’s age at first intercourse, most notably: NSFG (males), NSAM, Add Health, YRBS, and the young adult supplement to the National Longitudinal Survey of Youth—NLSY. The latter survey is based on a unique sample because the teenagers studied, on average, represent a somewhat disadvantaged group, all born to young mothers. From a methodological perspective, it is difficult to determine a precise average or median age for first sexual intercourse for all youth in the United States in any given year. Household-based surveys do not capture youth who are either in prison, homeless, unwilling to participate or unable to secure parental permission, or otherwise inaccessible. Similarly, school-based surveys do not capture youth who are either in prison, homeless, unwilling to participate or unable to secure parental permission, or otherwise inaccessible. Research comparing incarcerated and non-incarcerated adolescents (boys and girls) indicates that those in correctional institutions tend to report having more active sexual histories, less consistent condom use, and more pregnancies (Council on Scientific Affairs, 1990; DiClemente, Lanier, Horan, & Lodico, 1991; Mangos, et al. 1990; Unruh, Bullis, & Yovanoff, 2004).

Reports about virginity status are also often inconsistent. Using two waves of Add Health data from the mid 1990s, Upchurch and colleagues (2002) assessed adolescents’ inconsistency in reporting virginity status (reclaiming virginity status at second interview) and the timing of first intercourse (giving different dates). Compared to white females, Asian American males were five times more likely and white, Hispanic, and black males two times more likely to provide inconsistent reports of virginity status at the second interview. Among males, the largest discrepancy was observed from memory error or from respondents intentionally providing false information. Lauritsen and Swicegood (1997) concluded that the reporting errors were more likely due to concerns about respondents’ presentation of self rather than memory failings. Generally speaking, younger boys are least likely to provide honest reports (Siegel, Aten, & Roghmann, 1998). In any case, estimates about the age at first intercourse should be viewed with caution.

The accuracy of self-reported age at first intercourse and other measures of sexual activity has been examined by several researchers (Alexander, Somerfield, Ensminger, Johnson, & Kim, 1993; Capaldi, 1996; Lauritsen & Swicegood, 1997; McFarlane & Lawrence, 1999; Siegel, et al. 1998; Upchurch, Lillard, Aneshensel, & Li, 2002). For instance, one national longitudinal study found that 28-32 percent of adolescents (male and female combined) had a reporting inconsistency. Forty-one percent of white males reported a retrospective age at first intercourse that did not match what they had reported during the annual interviews, or reported no sexual activity, whereas 73 percent of black males provided a similarly inconsistent report. Black men and women were more likely than white men and women to report an age for first sexual intercourse during their annual interviews that was younger than the age they recalled as adults. Whereas 25 percent of black men had this type of reporting inconsistency, 16 percent of white men did (Lauritsen & Swicegood, 1977).

It's a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention
for African Americans and Asian Americans, respectively. Although the authors concluded that substantive conclusions about the correlates of age at first sex are not "substantially" affected by reporting problems, these factors do affect estimates of the prevalence of sexual experience.

Despite these inconsistencies, estimates have been generated about the age males first have sex. Data from a national survey of high school students in grades 9-12 in 1995 indicate that the median age at first intercourse for males was 16.4. For blacks the figure was 13.6, Hispanics 15.9, and whites 16.7 (Warren et al., 1998). These figures did not significantly change for any of the racial/ethnic categories over the span of the four survey years (1990, 1991, 1993, and 1995). A Los Angeles-based study with a racially diverse sample provided a rare opportunity to get estimates for Asian American males (Upchurch, et al. 1998). This study showed that Asian American males had the highest median age of first sexual intercourse of 18.1 compared to 15.0 for blacks. Whites, Hispanics, and members of other ethnic groups had median ages ranging from 16.5-16.8. According to the 2002 NSFG, the median age at first sex was 17.3 for all young men, 16.7 for Hispanics, 17.8 for non-Hispanic whites, and 16.0 for non-Hispanic blacks (Flanigan, Whitehead, et al. 2005).

Factors Related to Making the Transition to "Sexually Experienced"

Researchers have used cross-sectional and longitudinal data to study young men's transition from virginity to nonvirginity status. A few studies have specifically examined young men's decisions to have sexual intercourse with a particular partner— even though they were not necessarily a virgin prior to that relationship. Among the broad range of variables researchers have used to predict such events are individuals' biological maturity, sociodemographic and family background, attachment to social institutions, influence of peers and siblings, community and school characteristics, experience with problem behaviors, and the media (see Miller & Moore, 1990; Moore et al., 1995). Although these factors may be considered separately, they are clearly interrelated, and pinpointing each one's precise effect is difficult at best. Several of them are discussed below, but first is a summary of some informative studies with strong research designs.

One of the most compelling survey research designs in this area identified a sample of young
men who were virgins at one interview date and then re-interviewed them later when many had become sexually experienced. Forste and Haas (2002) used this approach to study a subsample of 452 15-19 year-old men in the 1988 NSAM who had never had vaginal or oral sex prior to their first interview. Thirty-six percent indicated they expected to have sex within the next year (“anticipators”). Those who did not expect to have sex were labeled “delayers.” The most common reason “anticipators” gave for being sexually inexperienced was their perception that they lacked the opportunity (35 percent), whereas wanting to postpone sex until marriage was the most common reason cited by delayers (32 percent). Based on data from the 1990-91 follow-up interview, 53 percent of anticipators had sexual intercourse within the year, whereas only 13 percent of delayers had done so. In multivariate analyses, a number of factors were statistically related to the odds of young men having their first sexual experience within a year of the initial interview. Involvement in risky behaviors (school suspension, cigarette or alcohol consumption in past 12 months, and ever arrested) and pre-coital sexual experiences increased the likelihood that young men would have first sex. For “anticipators,” having a mother with at least some college education decreased the odds of having first sex.

Another approach to studying males’ decisions to have sexual intercourse has been to link national survey data for mothers and subsequent interviews with their children who were aged 14 or older (Mott et al., 1996). This study identified a group of youth who had had sex before the age of 14. The entire sample included youth who were born to women who had all given birth by age 22. Fifteen percent of the males reported having had sexual intercourse before age 13 and 25 percent before age 14. Using multivariate analysis, this study found that males’ chances of having sexual intercourse for the first time before age 14 were higher if their mother had had sex at an early age and if she worked more hours during the 1979-1992 time frame. Controlling for numerous factors, black males were eight times more likely than non-Hispanic white males to report having sex prior to age 14. Early use of controlled substances (particularly alcohol) also increased the odds that young males would have sex at an early age.

Biology

Relatively little research has been done on the biological foundation for teen sex or how physiological factors interact with psychological attributes.

It’s a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention
or sociological processes. However, a small group of researchers has explored the potential relationship between biologically oriented measures—especially hormones—and adolescents’ sexuality. Some analyses also have used parental, interviewer, or self-reported measures for physical maturation (see Capaldi, Crosby, & Stoolmiller, 1996; M eschke, Zweig, Barber, & Eccles, 2000). Udry (1988) and colleagues (Udry, Billy, & Morris, 1985) launched this line of research in the 1980s using cross-sectional data and one-time serum testosterone measures. They found a strong association between testosterone (T) hormone levels and adolescent males’ sexual interest and behavior. This finding supported the hypothesis that hormonal levels directly affected young males’ sexual development, independent of the social processes linked to pubertal development. Subsequent studies have had mixed results, as discussed below, leaving the role of hormones and biology in male sexual behavior in need of further exploration.

One study followed males for a three-year period as they developed from having prepubertal to adult testosterone levels. It used semiannual measures and failed to replicate the cross-sectional results of the earlier study based on a one-time serum testosterone measure (Halpern, Udry, Campbell, & Suchindran, 1993). More recently, another longitudinal study followed 100 12–13 year-old boys for three years, and a subset who provided two years of data, and used more frequently collected measures of both testosterone (using salivary samples) and behavior (Halpern, Udry, & Suchindran, 1998). Consistent with the earliest studies on this topic, this research found that higher salivary testosterone levels were significantly related to greater likelihood of having first sexual intercourse specifically and more frequent sexual activity generally. The researchers conclude that “a male adolescent with T [testosterone] levels in the low adult range is at least twice as likely to initiate coital behavior as an adolescent with prepubertal T levels.” (p. 463).

Halpern and colleagues concluded that, consistent with the biosocial model of sexuality, hormonal changes appear to have both direct and indirect effects on young males’ sexual timing and activity. When the level of pubertal development is controlled, the relationship between testosterone and sexual activity remains. The indirect effects of testosterone are expressed through the role that the hormone plays in bringing about pubertal development and the visible cues of sexual maturation. More physically mature males are likely to be seen by their peers and others as attractive and suitable sexual partners.

Although these authors did not discuss the possibility that some males may unknowingly play an active role in elevating their testosterone levels, the possibility exists. For example, young males who participate “successfully” in sports or other competitive activities by winning appear to generate naturally higher testosterone levels by dominating others (Kemper, 1990). The elevated testosterone levels might in turn affect their probability of having sex.

Another unique study considered the role of biology in adolescents’ age at first intercourse by examining genetic, shared environment, and selected non-shared environmental influences (Rodgers, Rowe, & Buster, 1999). This study used a novel kinship linking system to identify an analytic data set including 2,338 kinship pairs (cousin, half-sibling, ambiguous half-sibling/full-sibling, full-sibling, and same-sex twins) drawn from a national sample of individuals who were adolescents during the 1970s and early 1980s. Its main conclusion was that “consistent and meaningful heritabilities were found, particularly among whites and in the overall distribution, and also for male–male pairs and for opposite-sex pairs” (p. 38). Although the precise mechanism is unclear, shared genetic factors tend to predict age at first intercourse among whites and related pairs involving males. In contrast, female pairs seemed to be influenced more by environmental factors. Another study using a different methodology with a white sample examined dopamine receptors and age at first intercourse among adult respondents. It too found a stronger genetic basis for males than females for predicting age at first intercourse (Miller, Pasta, MacMurray, Chiu, Wu, & Comings, 1999).
In sum, when it comes to the relationship between biology and sexual behavior among males, definitive conclusions are difficult to draw because limited research has been done in this complex area. It appears that higher testosterone levels may be related to young men’s sexual activity, but a clear and nuanced account of this relationship has not yet emerged. Scientific advances that ease the collection of data, as well as the growing receptivity of funding agencies to support projects that include biological measures, make it likely that researchers will continue to make slow but steady progress on these issues.

**Emotional and Psychological States**

Although some researchers have explored whether young males’ self-reported emotional and psychological conditions affect the timing of the first time they have sex, not much is known about how emotional and psychological processes influence young males’ sexual decision-making.

One set of studies has examined whether an association exists between depression and sexual activity among young males. Using Add Health data and focusing on young boys aged 13-15, Harris, Duncan, and Boisjoly (2002) found that individual-level depressive symptoms were related to an increased likelihood of boys initiating sexual intercourse. The authors concluded that “a climate of poor student emotional health and individual depressive symptoms are likely to diminish youths’ aspirations and hopes for their futures, reducing perceived risks associated with unhealthy or dangerous behavior” (p. 1033). In another study, Kowaleski-Jones and Mott’s (1998) analyses of the NLSY did not find support for a link between depressive symptoms and sexual onset. The relationship between depressive symptoms and sexual onset did not differ by respondents’ age, race/ethnicity, or income status.

In general, national studies typically conclude that measures of self-esteem are not significant predictors for young males’ first sexual intercourse (Day, 1992; Kowaleski-Jones & Mott, 1998; Longmore, et al. 2004). However, self-esteem is sometimes found to be a significant predictor when analyses focus on older teenage males. For example, in separate analyses of boys aged 13, 15, and 17, Longmore and her colleagues found that self-esteem was a significant predictor only for 17-year-olds. Older boys with higher self-esteem were more likely to report having had intercourse for the first time between the first and second interviews than those with lower self-esteem. As with depressive symptoms, the results for self-esteem did not differ by race/ethnicity or income status.

At this point, overall understanding of how emotional and psychological processes influence young males’ sexual decision-making is sketchy at best. The studies suggest that emotional and psychological characteristics of young males help shape their decisions regarding sexual intercourse. However, whereas symptoms of depression seem to influence males throughout their teen years, self-esteem appears only to matter in boys’ middle and later teen years when sexual activity becomes a more normative part of their lives.

**Gender Attributes and Views**

In addition to studying how males’ and females’ reports of basic sexual activity (e.g., age at first sex, virgin/nonvirgin status, number of partners) vary, some researchers have considered how gender may influence perceptions of and approaches to sex. For instance, Marsiglio (1988) discussed how traditional features of adolescent masculinity (e.g., competitiveness, aggressiveness, independence, emotional coolness, dominance, and assertiveness) help shape young men’s perceptions...
of their relationships and sexuality while they attempt to negotiate interpersonal sexual scripts. This model highlights the value of understanding how young men's commitment to presenting a masculine self in varied nonsexual settings influences their sexual behavior. It also stresses the importance of examining how males negotiate the interpersonal aspects of relationships and sex. This interpersonal context is particularly important when considering the implicit and explicit discussions about sex and contraception teenage women may have with their male partners, many of whom are older. Young men's orientation toward their first sexual experience can be considered within this framework. For example, to the extent young males perceive sex as a commodity to be acquired—something they have the right to have—males are more likely to search for an opportunity to have sex at an earlier age, and have it sooner in a relationship.

A related line of empirical research has used the Male Role Attitude Scale to explore young males' beliefs regarding sex and contraception (Pleck & O'Donnell, 2001; Pleck, Sonenstein, & Ku, 1993a, 1993b, 1994). This scale measures normative beliefs about what males are like and what they should do as a group. The beliefs are thought to be important because males internalize these socially constructed ideas about "masculinity" to varying degrees and behave in ways consistent with them. Representative examples include: "A guy will lose respect if he talks about his problems" and "A young man should be physically tough even if he is not big." This research found that males with more "traditional" views were more likely to be sexually experienced (Pleck, et al. 1993b). Males with these views also had more female partners within the last year, had less intimate relationships with current and recent romantic partners, and were more likely to acknowledge that male-female relationships were inherently adversarial (Pleck, et al. 1993a). These latter findings held while controlling for various background and personality characteristics and were similar among black, white, and Hispanic males.

Udry & Chantala (2004) studied how the characteristics of a male and female in a relationship affect sexual behavior. Using unique data from the Add Health survey, they constructed a multiple-item measure to characterize the "masculinity-femininity" (MF) of the partners in each pair of respondents. These pairs were singled out because the individuals had identified each other in separate interviews as being one of their opposite gender romantic partners within their school during the previous 18 month period. After dividing MF scores into three levels for each member of the pair, the authors concluded that "adolescent couples consisting of a very feminine woman and a very masculine man are more likely to have sex and proceed to sex earlier in their relationships (p. 54)."

In short, most of the research focusing on gender and age of first intercourse compares males and females; little research explores differences among males and how their experiences with masculinity influence their perceptions and behaviors regarding sex. The research done to date suggests that males with more traditional views about masculinity are more likely to be sexually active. (An alternative way to study young males' early sexual experiences using a gender perspective is described in Appendix A.)

Race/ethnicity

Race/ethnicity is a frequently studied factor researchers use when examining the age at which young men (and women) first have sexual intercourse. Survey data from various sources have consistently found that black males report having sex at a younger age than other males, even after controlling for a range of socio-demographic factors (Alan Guttmacher Institute, 2002; Grunbaum et al., 2004; Mott et al., 1996; Upchurch, et al. 1998; Warren et al., 1998). The control variables lessen the strength of the statistical relationship, but a significant relationship persists.

Several substantive and methodological explanations have been offered to account for this pattern, although considerable uncertainty remains as to why this pattern exists. Almost two-decades ago, Furstenberg, Morgan, Moore, & Peterson (1987) reviewed several possible explanations for differences between black and white teens that incorpo-
rated economic and sociocultural influences. One explanation posits that because blacks are more likely to be financially disadvantaged, they experience lower "opportunity costs" if they have sex at an early age and a pregnancy results. In other words, if they get a partner pregnant, black males would be less likely to forfeit the opportunity to achieve certain financial goals since they would have anticipated few in the first place. A related view holds that certain social conditions (e.g., single parenthood, lower parental education) more prevalent in disadvantaged populations account for black males' early ages at first intercourse. A final explanation is that the community culture in which blacks are raised differs from that of whites in terms of sexual values, norms, and attitudes. As a result, black youth are more likely to become sexually active at an earlier age. Using data that are now a couple decades old, Furstenberg et al.'s findings are most consistent with this latter explanation.

Efforts to untangle the reasons why black males consistently report earlier ages of first sexual intercourse must consider more closely the social processes associated with how young black men talk about and express themselves, perceive relationships, and negotiate sexual interaction. Several qualitative studies explore how black males (and females) perceive and negotiate the social context of sexual behavior and the meaning of sexual intimacy (Eyre, Hoffman, & Millstein, 1998; Gilmore, Delamater, & Wagstaff, 1996; MEE, 2004; Sugland, Wilder, & Chandra, 1997). One example is a study by Eyre et al. (1998). The authors used data from 21 male and 19 female black teenagers to show how teens use school as a context for learning and applying rules about sex and relationships. These teens participated in a social process the authors label "gamesmanship," which included four interrelated games: courtship, duplicity, disclosure, and prestige. These interpersonal games underscore an important theme revealed in other qualitative research (MEE, 2004; Sugland et al., 1997): young males and females distrust one another quite a bit. This study described how some black teenagers attempt to trick partners into having sex and then spread gossip about their own, and others', sexual behavior as a way of acquiring social prestige among peers. Although the limited qualitative research on this issue has focused on blacks, similar processes may occur among adolescents from other racial/ethnic backgrounds.

Two other explanations offered to explain why black males report first having sex at an early age include self-reporting issues and pubertal development. As suggested by Lauritsen and Swicegood's (1997) study on reporting inconsistencies mentioned earlier, part of the race difference may be due to black males' less accurate reporting. Their dual experience of being male and black may uniquely shape their orientation toward the interview setting and make them more susceptible to feeling added pressure to lie about their sexual experience and virginity status. Unfortunately, rigorously testing this hypothesis would be difficult. Regarding pubertal development, recent studies have documented racial/ethnic differences in the age of onset of puberty. Two recent studies document that black girls and boys in the United States mature more quickly physiologically than youth from other racial/ethnic backgrounds (Herman-Giddens, Slora, and Wasserman, 1997; Herman-Giddens, Wang, & Koch, 2001). The first study focused on girls and found that, compared to white females, black girls began puberty 1 to 1.5 years earlier and had menses about 8.5 months earlier.

The second study used cross-sectional data from the National Health and Nutrition Examination Survey III collected between 1988-1994. Boys aged 8-19 were examined by physicians and scored on sexual maturity ratings as defined by the five separate stages of pubic hair and genital development described by Marshall and Tanner (1970). The results revealed that the median ages for achieving the second stage (characterized by changes in the scrotum and testes but no enlargement of the penis) were 9.5, 10.1, and 10.4 for blacks, whites, and Mexican Americans, respectively. In addition, the fifth and final stage (in which the "genitalia are of adult size and shape") was achieved at a significantly earlier median age for blacks (14.9 years old) than for either whites or Mexican Americans (15.9 and 15.7 years old.)

It's a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention
respectively). The racial/ethnic pattern remained when height and weight were controlled.

The authors were unable to explain the racial/ethnic differences and indicated that while some studies have found higher levels of testosterone among black boys, others have not. They speculated that “there may be racial differences in the interactions between insulin, glucose, and androgens and hyperinsulinemia that influence pubertal characteristics in ways that are not clearly understood. In addition, we speculate that differences in diet, lifestyle, and exposure to environmental factors and contaminants could play a role (p. 1026).”

Building on the previous discussion of how biology may affect first sexual intercourse, it is worth considering how earlier pubertal development may lead to black males having first sex earlier. There may be both direct (biological) and indirect (biosocial) routes. From a purely biological perspective, if black boys tend to mature more quickly on average than other youth, they may be prepared at an earlier age for sex. This pattern could be reinforced to the extent that young black boys become involved with early maturing black girls. In addition, changes in secondary sex characteristics can indirectly influence behavior by altering boys’ self-perceptions of their sexual maturity and others’ perceptions of them. In other words, young black males who experience physical changes that make them more “manly” may be more inclined to express their masculinity in a sexual way. Likewise, if others see and treat them as men because of their physical attributes, boys’ self-perceptions are likely to evolve accordingly.

Unfortunately, survey researchers’ ability to document racial/ethnic differences in males’ age at first intercourse exceeds their ability to explain with certainty why this pattern exists. This task is complicated for several reasons: some challenge the validity of the concept of race/ethnicity and how it is measured (Graves, 2001), some worry that data sets may not adequately represent blacks with varied socioeconomic backgrounds or control for social class indicators (Sonenstein, 2004); some fear the controversy associated with suggesting race may be related to patterns of physiological sexual maturation; and finally, all data sets are limited in the number and type of variables that can be used to explore the issue in a multivariate context. Not surprisingly, efforts to explore the significance of black males’ relatively early age at first intercourse are often politicized, making it difficult to engage in a sober analysis of racial/ethnic differences and their relation to sexual behaviors. That said, informed discussions of black male sexuality still need to assess critically the historical and cultural context that continues to shape public perceptions and personal expressions of it (hooks, 2004). Thus, those committed to improving young black men and women’s lives must grapple with the behavioral consequences associated with the proliferation of popular culture images of a “hypermuscular black male sexuality.”

Religion/religiosity

A number of researchers have explored how religion affects teens’ attitudes about sex and their likelihood of having sexual intercourse, particularly for the first time (for reviews see Rostosky, Wilcox, Wright, & Randall, 2004; Wilcox, Rostosky, Randall, & Wright, 2001). In general, research suggests that those with a stronger religious orientation have more conservative attitudes and beliefs about sex. Though less definitive, research also indicates that more religious young men (and women) are more likely to postpone first sexual intercourse compared to their less religious peers (Ku, et al. 1993a; Wilder & Watt, 2002; Lammers, et al. 2000).

One measure that has been used in this research is adolescents’ frequency of church attendance. Although some researchers have found that church attendance is not a significant predictor of the timing of first sex (Miller, et al. 1997), others have. For example, Day (1992) found a significant relationship between religious attendance and age at first intercourse for younger and older white males and non-Chicano Latinos aged 17 and younger. A small scale panel study of 100 12-13 year-old males found that higher frequency of church attendance, but not the participants’ ratings
of the importance of religion to them, was related to a lower probability of initiating first sexual intercourse (Halpern, Udry, Campbell, Suchindran, & Mason, 1994).

Recent national longitudinal studies using Add Health data and strong methodological designs have explored the extent to which young males’ (and females’) religiosity, by itself and in combination with sexual attitudes, influences males’ likelihood of having sexual intercourse for the first time (Meier, 2003; Rostosky, et al. 2003). Rostosky et al. found that virgin males who expressed a stronger religious orientation were less likely to have first sex between their first and second interviews (roughly one year). Higher scores on the religiosity measure directly and indirectly reduced the likelihood of first sex when controlling for background factors such as age, race, parent education, and availability of partners. The researchers note that, "each unit increase in religiosity reduced the odds of coital debut by 12 percent" (p. 363). Indirectly, religiosity also affected young males’ likelihood of having sexual intercourse because it was related to their sexual ideology, or more specifically, their views about the possible negative consequences of having sexual intercourse. This study—in contrast to Bearman and Brückner’s (2001) conclusion— noted that taking a virginity pledge did not influence males’ propensity to have intercourse after controlling for religiosity and other factors. Meier (2003) also used the Add Health survey but used different criteria to identify the analysis sample. She concluded that religiosity was not a significant predictor of young males’ likelihood of becoming sexually active between interviews, but it was for females. That is, religious females were less likely to begin having sex during the time studied.

Understanding the exact mechanism by which religiosity influences males’ sexual behavior requires analyses that treat religiosity as more than a personality attribute (Rostosky, Wilcox, Wright, and Randall, 2004). For example, Mott, et al. (1996) found that adolescents, males and females alike, were less likely to have intercourse for the first time by age 14 if they attended church frequently and their friends attended church as well (though it may have been a different church).

Although there is some disagreement about whether young males’ level of religious involvement influences their inclination to have sexual intercourse, it appears that it matters to some extent. Research suggests that teen boys who are more religious are likely to postpone first sex. Still, more needs to be learned about how friends, peers, and family moderate the impact of religiosity.

Problem behaviors

Researchers and the public generally view having sex at an early age as risk-taking behavior akin to others, such as alcohol and drug use. The co-occurrence of “problem behaviors” is often referred to as a “problem behavior syndrome” (Donovan, Jessor, & Costa, 1988; Jessor & Jessor, 1977) or deviance trait (Rowe, Rodgers, & Meseck-Bushey, 1989). Since the 1970s, researchers have examined how adolescents’ early sexual experiences are related to a wide range of risky behavior from deviance/crime and substance use to school misconduct (see Moore et al. 1995 for review).

Some evidence suggests that the typical progression of events begins with delinquency, followed by drug use, and finally sexual intercourse (Elliot & Morse, 1989). Various studies have documented that risk-taking or “problem” behaviors are associated with early sexual activity or sexual risk-taking (e.g., multiple partners) among males (Capaldi, et al. 1996; Coker, et al. 1994; Costa, et al. 1995; Kowaleski-Jones & Mott, 1998; Lammers, et al. 2000; Luster & Small, 1994; Resnick, et al. 1993; Rosenbaum & Kandel, 1990; Santelli, et al. 2001; Stanton et al., 1999; Valois, et al. 1997; Whitbeck, Conger, et al. 1994; Yarber, Milhausen, Crosby, & DiClemente, 2002). Given these patterns, it is useful to consider the possibility that other factors may be associated with both the nonssexual problem behaviors and sexual risk-taking experiences such as a general tolerance for deviance, a predisposition to sensation seeking, mental health problems, and developmental factors (Halpern-Felsher, Millstein, & Ellen, 1996).
A gender analysis of young men’s experiences with multiple risky or problem behavior highlights risk-taking as a significant dimension to the “boy code” (Pollack, 1998)—traditional ideals of how young males should express their masculinity. Although participating in other problem behavior may help predict which males will first have sex at an early age, such predictors may actually be stronger for females’ early transition to first intercourse because risk-taking norms are a more fundamental part of boys’ lives and peer networks.

One national study, based on retrospective accounts of sex and drug use, found that when compared to young men who had no drug use history, “the risk for early sex (by age 16) is 39 percent higher for males using alcohol and/or cigarettes, 2.73 times higher for marijuana users, and 3.35 times higher for those who have also used other illicit drugs” (Rosenbaum & Kandel, 1990, p. 793). In addition, those first using drugs at a young age were more likely to have had sex by age 16. There were some differences by race/ethnicity. Whereas prior use of all these substances was found to be significant for white and Hispanic males, only marijuana use was a significant predictor for black males. The authors speculate that because early sexual activity is more common for whites and Hispanic males, only marijuana use was a significant predictor for black males. The authors speculate that because early sexual activity is more common for whites and Hispanic males, only marijuana use was a significant predictor for black males. The authors speculate that because early sexual activity is more common for whites and Hispanic males, only marijuana use was a significant predictor for black males. The authors speculate that because early sexual activity is more common for whites and Hispanic males, only marijuana use was a significant predictor for black males.

A related issue is whether adolescents who have sexual intercourse tend to use drugs or alcohol during specific sexual episodes. This is important because such substances can impair judgment, lower inhibitions, and lead to behavior that can increase the risk of pregnancy or STDs. In 1991, about 26 percent of a national high school sample of males indicated that they had used alcohol or drugs prior to having sexual intercourse. This figure peaked in 1995 at 33 percent and was 31 percent in 2001 (Brener, et al. 2002). Sprecher, et al. (1995) found in a Midwestern college sample of 638 males (with a mean age of 16.5 at first coitus) that 34 percent recalled using alcohol, 18 percent were drunk, and 5 percent had used drugs when they first had sexual intercourse. Another study of a random sample of 1,259 13-19 year olds living in Buffalo, New York explored the relationship between substance use and risky sexual behavior at first intercourse and first intercourse with their most recent partner (Cooper, et al. 1994). Among young men, about 12 percent reported using alcohol and less than 3 percent recalled using drugs the first time they had intercourse. These percentages rose to 17 and 6 percent respectively for first sex with the most recent partner.

Although having sex at an early age is not perceived to be as deviant as it once was, it continues to be characterized as a meaningful risk-taking experience that can symbolically mark a transition to manhood or adulthood. All told, research indicates that young males, particularly whites, who use drugs, alcohol, and commit crimes are more likely to have intercourse at a younger age than their peers who do not engage in such behaviors. This has useful analytic and programmatic implications for working with males who exhibit multiple risk-taking behaviors. An effort should be made to distinguish between young males who engage in both risk-taking behaviors and have sexual intercourse at a young age from young men who have their judg-
ment impaired about having intercourse for the first (or subsequent) time because they are using drugs and/or alcohol.

School and education

For several decades scholars have been interested in how teens' academic performance and orientation toward education was associated with sex and pregnancy. The basic "life-options" argument posits that individuals who are serious about their schoolwork and interested in furthering their education perceive postponing sex and pregnancy (or birth) as being in their own best interest. Although few researchers have systematically explored this relationship specifically for males, several recent studies address this theory.

Many have included in their multivariate models of early sexual intercourse measures of academic performance/ability such as educational expectations, status of being behind the appropriate grade for one's age, enrollment in particular types of class, or comfort with the school environment. These analyses have produced largely consistent results. A lower score on the Armed Forces Qualification Test (AFQT) was a significant predictor of males having sex by age 16 (Rosenbaum & Kandel, 1990) and higher GPA scores was related to a delay of first intercourse (Ramirez-Valles, Zimmerman, & Juarez, 2002). An analysis of black and Hispanic 7th graders in Washington D.C. found that those who reported earning mostly A/B's were significantly less likely than males reporting lower grades to have had sexual intercourse (Raine, et al. 1999). Another study using national data found that achieving higher grades reduced the probability of having first sex within one year of the previous survey, but so did repeating a grade in school (Forste & Haas, 2002). Harris, et al.'s (2002) analysis of 13-15 year-old boys from the Add Health study found that those with lower expectations for graduating from college were more likely to have sexual intercourse at a young age. Being enrolled in higher level math classes in the ninth grade was related to a delayed age at first intercourse for a predominately white sample of Michigan teenage males (Meschke, et al. 2000).

Meanwhile, a measure of feelings about school was not a significant predictor of the probability that males had their first sexual intercourse by age 14 (Mott, et al. 1996).

Other studies have yielded similar findings. Lammers and colleagues' (2000) analyses of a statewide sample of Minnesota students in grades 7-12 found that young males with above average school performance were significantly less likely to be sexually experienced. After categorizing the males into three age groups – 13 to 14, 15 to 16, and 17 to 18 – those who were doing "above average" in school were less likely to have had sexual intercourse compared to those who were average or below in school performance (37 to 55 percent for those aged 13 to 14; 51 to 67 percent for those aged 15 to 16; and 22 to 36 percent for those aged 17 to 18). This relationship was confirmed in a multivariate model controlling for background factors, religiosity, substance use, and other attitudinal variables. Schuster, et al.'s (1996) analysis of responses from male high school students in Los Angeles enrolled in grades 9-12 revealed that in a bivariate context those with higher educational expectations were more likely to be virgins. Whereas 25 percent of the young men who did not expect to graduate from college were virgins, 42 percent of those who expected to graduate from college and 58 percent who expected to attend/graduate from graduate/professional school had never had sexual intercourse. In the researchers' multivariate model that included both males and females, educational expectations were still significant predictors of sexual intercourse experience.

Another way to look at how the educational system might affect the first time young males have sex is by examining the social context of schools, such as the level of racial integration/segregation or average measures for mothers' educational level, family welfare receipt, student mental health, and student college expectations. Unfortunately, few researchers have attempted to build on Furstenberg et al.'s (1987) study that explored the possible relationship between the racial composition of high schools and the probability that students (males and females) had had sexual intercourse.
Weiss, 2000). Based on interviews with the subset of 15-16 year-olds in the National Survey of Children conducted in 1981, these researchers found, using the combined sample of 468 girls and boys, that “blacks in predominately black classrooms are much more likely to report ever having intercourse” (p. 511). More specifically, “blacks in isolated classrooms (over 80 percent black) are over 3.7 times more likely to have had intercourse than blacks in racially mixed classrooms” (p. 516-517). Although the sample sizes are relatively small, this pattern appears to hold for males as well as females. Day’s (1992) findings based on the 1979-1988 waves of the National Longitudinal Survey of Labor Market Experience of Youth were consistent with Furstenberg’s et al.’s results. Black and white respondents (but not Hispanics) who had attended schools with a higher percentage of black students were more likely to have initiated sexual intercourse.

Furstenberg and colleagues suggest that this pattern is due in part to differences in the normative culture that pervades racially homogenous school settings. For example, blacks are more likely than whites to report that they have several sexually active friends and that they expect to become a parent before or at the same time they get married. These differences are most pronounced among blacks in predominately black schools. Patterns such as these can be accentuated to the extent black males experience considerable peer pressure to have sex at a young age.

Compared to 13-15 year old boys in two-parent families, boys attending schools with a high proportion of single mothers on welfare or schools with a high proportion of single mothers not on welfare were more likely to have sexual intercourse at an early age even when controlling for both school and individual/family variables (Harris et al. 2002). This finding was not affected by their attending schools that had a particular aggregate level of mother’s education, student mental health, expectations for living to age 35, or expectations for graduating from college. However, those who had personal expectations for graduating from college were less likely to have had sexual intercourse at an early age.

Because youth spend much of their formative years in schools, it should not be surprising that school experiences would influence young males’ (and females’) behaviors regarding sexual intercourse. Research on this topic suggests that when males are committed to and successful in school, and not exposed to a cultural climate in the school that views early sex as normative, they are less likely to have intercourse at a young age.

**Family**

Researchers have examined the association between adolescents’ sexual behavior and their family structure, family activities, parental attributes, and parenting strategies (Miller, 2002; Miller, Benson, & Galbraith, 2001). Those factors receiving the most attention include parental family structure and residency status, mother’s age at first sex and childbearing, mother’s work status, maternal/paternal level of education, nature and quality of parent-child relationship, parenting styles/strategies, and sibling influences. Although many researchers have found statistically significant relationships between these variables and young persons’ age at first intercourse, the processes that account for these empirical relationships are less clear.

Explanations for why family structure plays a role in adolescents’ decisions about sex include speculation about parental control, modeling parental dating behaviors, and marital disruptions (Meschke & Silbereisen, 1997; Moore et al., 1995). Most studies find a significant relationship between living in a single parent home and early sexual initiation (Harris, et al. 2002; Lammers, et al. 2000; Longmore, et al. 2001; Longmore, et al. 2004; Upchurch, et al. 1998), and some research has looked more closely at characteristics of such households. However, using interviews with a national sample of males aged 11-18 and their mothers, Davis and Friel (2001) found that family structure was not related to the age at first intercourse. Their models, based on cross-sectional data, included measures of mother-child relationship quality, mother-child level of interaction, and mothers’ attitudes toward and discussion of adoles-
cent sexuality. These variables were all positively related to a later age at first intercourse. In addition, a small study of Iowa families found that living in a single mother household did not influence young males' sexual attitudes, although it was related to their sexual behavior (Whitbeck, Simons, & Kao, 1994). Other studies have found that males are more likely to have sexual intercourse at a young age if their primary residence as an adolescent (sometimes measured at age 14) is in a home with no mother present (Ku, et al. 1993a; Santelli, Lowry, Brener, & Robin, 2000) or if they are living in a stepfamily (Harris, et al. 2002; Longmore, et al. 2004; Wilder & Watt, 2002). In one study, living with the biological father (not controlling for the mother’s presence) netted mixed results for young men's odds for having sex (Day, 1992). It increased the odds for first sexual intercourse for older white and black males, but lowered the chances for younger white adolescents and was not related to Hispanics' timing of first sex.

A slightly different approach examines the number of transitions adolescents experience in their family structure. For example, Miller et. al. (1997) found that the number of changes parents had in their marital status while their sons were in grade school was a significant predictor of the sons’ likelihood of initiating sex at a younger age (see Capaldi, et al. 1996). They concluded that, “a parent’s marital disruption in the current year increases the odds of adolescent males having their first sexual intercourse by a factor of 2.12” (p. 72). Surprisingly, none of the family process variables measuring maternal control or support were significant predictors of males’ sexual experience, and paternal parenting variables were not included in the analysis. Other longitudinal research using more refined measures of family process have been better able to predict onset of first sexual intercourse among males studied in the sixth and tenth grades (Feldman & Brown, 1993).

Research on how parent-adolescent communication, parent-adolescent closeness, and parenting styles are related to adolescent sexual behavior is fraught with methodological limitations because few studies control for whether the “independent” measures of communication, closeness, and parenting styles existed before the adolescents had sex or resulted from it. Overall, however, it does seem that sons receive less instruction from their mother than daughters do about sex and pregnancy, and communication with fathers does not compensate for this discrepancy. A study of 666 matched mother-teen pairs and 510 matched father-teen pairs from a Midwestern county found that about 31 percent of the sons, compared to 52 percent of daughters, reported having had at least one “good talk” with their mother about whether teen sex is okay (Raffaelli, Bogenschneider, & Flood, 1998). This gender difference was also observed for discussions about contraception (14 to 38 percent respectively). Approximately 24 percent (sons) to 20 percent (daughters) reported a “good talk” about sex with fathers, while 13 percent (sons) to eight percent (daughters) reported having a “good talk” about birth control with fathers. In addition, data from the 2002 NSFG indicate that compared to daughters, teenage sons are less likely to talk to their parents about several topics: how to say no to sex, methods of birth control, and where to get birth control (Abma, et al., 2004). Whereas 45, 33, and 23 percent of sons talked with their parents about these respective topics, 58, 51, and 38 percent of daughters do. Meanwhile, 34 percent of sons and 29 percent of daughters talked to their parents about how to use a condom.

Some researchers propose that, when it comes to sex, what parents do in terms of rule setting may matter more than what they say to their children (Roche, et al. 2005). These researchers found that parental communication about sex was not a significant predictor of early sexual initiation for boys and girls aged 12-16 after controlling for family demographics and parenting practices. A cross-sectional study of 751 black inner city adolescents (male and female) in Philadelphia found that as their self-reported level of satisfaction with their relationship with their mother increased and their perception of the mother’s emphasis on abstinence increased, adolescents’ (males and females) likelihood of having had intercourse decreased (Jaccard, Dittus, & Gordon, 1996). Additional analyses with the subsample of sexually active adolescents found
that adolescents’ perceptions of their mother’s emphasis on abstinence were related to their frequency of sexual activity. However, another study of 976 urban youth (male and female) attending alternative high schools in Houston concluded that higher levels of self-reported family connectedness was not significantly related to males’ probability of being sexually experienced, having had sex before age 13, or being currently sexually active (Markham, et al. 2003).

In a noteworthy study of family process, Longmore, et al. (2001) used two waves of panel data from the National Survey of Families and Households to examine the relationship between three styles of parenting strategies (supportive, coercive control, and monitoring) and the timing of adolescents’ first dating and sexual intercourse. The parenting strategies were measured when the adolescents were preadolescents. Results indicated that on a bivariate level parenting strategies differed somewhat based on family structure and the child’s gender. However, in a full model that contained controls for family structure, poverty status, race/ethnicity, and mother’s education and an interaction term for gender and parenting strategy, only monitoring during the preadolescent years was significantly related to the timing of first intercourse. More extensive monitoring during the preadolescent years was related four years later to the delayed timing of sexual intercourse and monitoring affected males and females similarly. For the subsample of adolescents who reported that they had dated, the finding held for the timing of sexual intercourse after the first date. A cross-sectional study of 9th and 10th graders found that males who reported higher levels of negotiated (with parents) unsupervised time with peers, while controlling for parental monitoring and parental trust, were more likely to have had sexual intercourse (Borawski, Ievers-Landis, Lovegreen, & Trapl, 2003). Also using cross-sectional data, Wilder and Watt (2002) found that a high level of paternal supervision (but not maternal supervision) was related to a lower chance of males having sexual intercourse at a young age.

Another avenue of research has looked at parental characteristics and whether they are associated with teens’ sexual behavior. For instance, Wilder and Watt considered the extent to which risky parental behavior (e.g., smoking, drinking heavily in the past month, no/irregular seat belt use) were related to youths’ sexual and contraceptive risk-taking. Controlling for young males’ own smoking, drinking, delinquency, and substance use, males were more likely to have sex at an early age if their parent (who was interviewed separately and was the mother in 95 percent of the cases) reported that he/she smoked or was lax about using a seat belt. Other studies have looked specifically at the characteristics of the mother. Being born to a mother who was a teenager (Ku, et al. 1993a) or who had sex at an early age (Mott, et al. 1996) are risk factors for early sexual experience for sons and daughters. This intergenerational pattern continues to exist when controlling for various background factors.

Researchers have reported mixed results regarding mothers’ work status and males’ early sexual experiences. Ku, et al. (1993a, p. 689) found that maternal work during the respondents’ formative years (ages 5-15) had a “relatively potent and consistent effect in increasing the risk of early intercourse” though others have not found a significant relationship (Haurin & Mott, 1990).

Educational status is a maternal attribute that has received considerable research attention. One study found that whereas 60 percent of young men aged 15-19 whose mothers did not complete high school have ever had sexual intercourse, 44 percent of those whose mothers have a college degree were sexually experienced (Whitaker, Miller, & Clark, 2000). Among a national cohort of never-married males aged 15-19 in 2002, those whose mother had only a high school diploma or GED were more likely to have had sexual intercourse compared to those with a mother who had some college education (51 versus 42 percent, respectively) (Abma, et al. 2004). Similarly, in a multivariate model, Ku, et al. (1993a) found that males whose mothers were high school graduates were significantly more likely to have had sexual intercourse at an earlier age than
males with college educated mothers (see also Longmore, et al. 2001; Longmore, et al. 2004). However, the educational pattern in this study did not hold for those whose mothers were high school dropouts. Using a measure of parental education that assigned a value based on the parent with the highest level, Wilder and Watt (2002) found that, compared to adolescent males with college educated parents, those whose parents were either high school dropouts or high school graduates were more likely to have had sexual intercourse (see also Santelli, et al. 2000). Overall, maternal education does appear to be related to the timing of first sex for adolescent males, although some researchers have found that mothers’ education was not a significant predictor of early sex (Upchurch, et al. 1998).

Some researchers also have considered whether having siblings, particularly older ones, influences young males’ sexual behaviors. Two national studies found some evidence that having an older sibling is related to having first sex earlier. Rodgers, et al. (1992) found that among blacks and whites, but not Hispanics, younger siblings reported an earlier age at first intercourse than their older siblings. They suggest that parents may engage in differential parenting as they age and have additional children, and/or younger siblings may view their older brothers and sisters as role models. Haurin and Mott (1990, p. 543) reported that the “mean age at intercourse for the younger sibling is higher the later the older sibling has first intercourse” with the pattern varying by the gender-race combination. Among whites, this finding held for same gender and opposite gender sibling pairs.

Clearly, researchers have been able to document associations between family-related variables and young males’ timing of first sexual intercourse more easily than they have been able to identify what processes account for these patterns. The primary conclusions seem to be that young males living in households without two-biological parents are more likely than males in other household living arrangements to first have intercourse at an earlier age. It also appears that, compared to daughters, sons have fewer “sex talks” with their parents; and monitoring of their preadolescent sons (and daughters) may be the most effective parenting strategy for postponing first sex. Finally, as discussed below, parenting styles may interface with neighborhood characteristics in a way that affects their influence on teens.

Peers

Like the family-related issues discussed above, understanding the relationship between adolescents’ sexual behavior and peer relationships is challenging. Common sense would suggest that peers exert some social influence on young males’ tendency to engage in risky behavior, including sex. However, using rigorous methods to document such a pattern is quite difficult. Most research showing a correlation between perceptions of peers’ attitudes and behavior and adolescents’ (usually females’) sexual activity status rely on cross-sectional data (for a review see Moore et al.’s, 1995). These data do not allow researchers to sort out whether peers influence sexual behavior or sexually active teens seek out peers who are sexually experienced. One cross-sectional study using a mixed gender sample of 904 14-16 year-old blacks and Hispanics found perceptions of peer norms to be a stronger predictor of the occurrence and timing of adolescents’ first sexual experience for respondents who had not communicated with their parent about first sex, a pattern that was more pronounced for males (Whitaker & Miller, 2000).

Longitudinal data, though better suited to account for some methodological problems, is still limited. Some researchers warn that what might be perceived as peer influence in statistical models of youth who engage in multiple risky behaviors may in fact represent statistical artifacts of youth experiencing parallel events simultaneously (Jaccard, Blanton, & Dodge, in press). Among the possibilities Jaccard and his colleagues note are adolescents undergoing simultaneous changes in school performance, physical development, romantic relationship status, and perceptions of maternal disapproval of sex. Their analyses with longitudinal data from Add Health focused on a combined sample of male and female students enrolled in grades 7-11.
Controlling for measurement artifacts, selection effects, and parallel events, they found a modest relationship between best same-gender close friends' tendencies to initiate sex for the first time within a roughly one-year time frame. They also demonstrated that this relationship appeared to be much stronger prior to introducing their methodological controls.

Using Add Health data, Bearman & Brückner (1999) showed that longitudinal data offer intriguing opportunities to explore levels of peer influences among high school females. In particular, they focused on how five levels (single best friend, network of close friends, peer group or clique, leading crowd, and the school as a whole) are related to timing of first sex and pregnancy. Their research indicates that males' peers can affect when young females first have sexual intercourse. Those females who report having "low-risk" male close friends are less likely to initiate sexual intercourse, and those with "low-risk" male best friends are at low risk of pregnancy. Risk status is based on orientation to and performance in school as well as experience with non-normative social behavior (e.g., drinking, getting drunk, skipping school without an excuse, getting into fights, having trouble with teachers, having trouble with other students, and doing dangerous things because of a dare). Jaccard et al.'s (in press) findings noted above suggest that male close friends might be able to have the same type of influence on their male friends. Unfortunately, rigorous research is not yet available to clarify how males' friendships and peer networks influence their decisions about having sex for the first time. Presumably, future researchers will take advantage of the unique features of the Add Health data to explore these issues.

**Community/Neighborhood**

Communities are the larger context in which youth learn and make decisions about sex. Various scholars have focused on whether and how neighborhood attributes (e.g., poverty, proportion of single-parent households, unemployment and crime rates, level of racial/ethnic segregation) act directly or indirectly as risk or protective factors regarding youth's behavior (see for example, Baumer & South, 2001; Upchurch, et al. 1999). Some of this research tries to explain how community factors are associated with having sex at an early age (for a review focusing on young women see Moore, Miller, Glei, & Morrison, 1995), but conclusions are difficult to draw because of the complex relationships between larger neighborhood characteristics and more intimate family, peer, and individual level factors.

Theoretical efforts to understand how multi-layered social contexts affect adolescents have been guided by Wilson's (1987, 1991) proposition that concentrated urban poverty results in negative consequences for family formation and a wide range of risky behavior (see also, Jencks and Mayer (1990)). Baumer & South (2001: p. 542) summarize how researchers have thought about the mechanisms by which neighborhood disadvantage influences youth's decisions about sex and contraception.

Epidemic (or contagion) models emphasize the role of peer attitudes and behaviors, collective socialization models emphasize the impact of parents as role models who are integral in shaping the attitudes of youth and as agents of social control who monitor their behavior, and theories that focus on the local opportunity structure suggest that limited access to legitimate avenues of achievement gives rise to low education aspirations and attachment.

These theories are reflected to some extent in Anderson's (1990; 1993) ethnographic work on inner-city, disadvantaged youth. He argues that many young men living in these areas adopt "sex-codes" that include peer support for displaying "sexual prowess." Such efforts to achieve manhood and enhance self-esteem may lead some to initiate sex at an earlier age.

Using various methodological approaches, some research has considered whether neighborhood characteristics affect timing of first intercourse (and sexual risk-taking more generally)
among teens, independent of family-related processes or in combination with them (Roche, et al., 2005; Upchurch, et al. 1999). Upchurch and colleagues found that teenage males aged 12-17 living in Los Angeles were more likely to have sexual intercourse at a young age if they lived in lower income neighborhoods with higher concentrations of black and Hispanic residents. However, this structural neighborhood effect was reduced when males' perceptions of their communities in terms of "personal threat," "physical deterioration," and "social disorder and breakdown of social relations" were taken into account. In addition, the neighborhood structural effects were no longer significant once measures of family structure and young males' relationships with their partners were included in the model. However, young males who have more negative perceptions about the hazards of living in their community were significantly more likely to report an early age at first intercourse. Other studies have failed to find a significant relationship between indicators of neighborhood economic disadvantage and early first sex for an urban sample of minority male (and female) students (Smith, 1997), and a national sample that combined male and female adolescents (Baumer & South, 2000). Meanwhile, Baumer and South did find substantial evidence that the socioeconomic status of communities, independent of family characteristics, is related to other measures of adolescents' sexual behavior (frequency of sexual intercourse, number of sex partners, probability of unprotected intercourse). Another study based on NSAM data also offers evidence that economic opportunities and resources are negatively associated with the number of sexual partners young males have and their frequency of sex within the past 12 months (Ku, Sonenstein, & Pleck, 1993b). The researchers concluded that this association is "not limited to black males in ghettos; it is a broader phenomenon among black and white youth" (p. 498). Interestingly, they added "it is not these individual's (sic) own lack of income or lack of employment that seems to be associated with greater sexual activity. Indeed, teenagers from wealthier families and teenagers who work more have more partners and more intercourse, perhaps because they have the financial resources to pay for dates, clothes, and other amenities" (p. 498). In other words, those who perceive that they have limited career opportunities may choose to pursue a low-skill, low-wage job rather than their education. By doing so, they avail themselves to discretionary income that they can use for dating and other intimacy opportunities.

Another set of studies has looked at whether neighborhood socioeconomic status moderates the relationship between parenting practices and first sexual intercourse for youth. Using Add Health data, Roche et al. (2005) did such an analyses focusing on 12-16 year old girls and boys. They found that more parental rule setting (both inside and outside the home) was related to the teens' likelihood of initiating sexual intercourse in various ways, depending upon the neighborhood in which they lived. Greater parental control led to lower levels of early first sex for youth living in the most socioeconomically disadvantaged neighborhoods and higher levels of early first sex for those living in the most advantaged neighborhoods. The authors speculate that these youth may assign different meanings to more stringent forms of parental control. Those living in more dangerous areas where opportunities are perceived to be limited may be more understanding of parents' efforts to exert control, compared to those living in safer, more advantaged neighborhoods because they may believe their parents are being overly protective. This interpretation is supported by Upchurch and colleagues' cross-sectional analysis. Because Roche and her colleagues found that gender was not a significant control variable in their models, and the interactions between parental practices and neighborhood status did not differ significantly by gender, the general pattern they describe appears to hold for both boys and girls.

In their unique study, Teitler and Weiss (2000, p. 113) also attempt to address the role of neighborhoods and pose this question: "How much does it matter which neighborhood a youth lives in and which school he or she attends for the timing of sexual initiation?" Based on cross-sectional data from male and female students aged 14-18 living in Philadelphia, they conclude that "given the schools..."
youths attend, where they live seems to determine little about when they initiate sex. But the reverse is not true: Schools account for a significant amount of variation in sexual behavior over and above [census] tracts" (p. 119). While emphasizing the importance of schools, the researchers stress that it is important to consider how residential segregation influences youth by exposing them to school normative environments. Unfortunately, this study did not examine these issues separately for males, but it does suggest the potential importance of considering a school's racial composition when examining males' timing of sexual intercourse.

The question of how neighborhood conditions influence young males' propensity to first have sex at an early age is complex, and there is reason to explore further whether neighborhood disadvantage independently and substantially alters the age of first sex. Available research suggests that the cultural and family-related conditions resulting from neighborhood disadvantage appear to shape young males' sexual activities once they become sexually experienced.

**Sex Education**

The precise impact of sex education on young men's decisions about sex is not known. However, sound evidence exists that comprehensive sex education does not encourage young males (or females) to initiate early sexual activity (Kirby, 2001; Ku, Sonenstein, & Pleck, 1992). In trying to understand males' attitudes and behavior regarding sex, it is important to consider what is known about the extent to which they receive formal sex education and what types seem most effective (see Kirby, 2001, 2002 and Rector, 2002 for reviews of abstinence-based programs in particular).

The most recent data on youth's exposure to formal sex education comes from the 2002 NSFG. According to this survey, almost 34 percent of males aged 15-19 had not received formal instruction on contraceptive methods (Abma, et al. 2004). Forty percent of 15-year-olds and 30 percent of 19-year-olds had not received this type of instruction. In addition, about 17 percent of those aged 15-19 had not received instruction on how to say no to sex.

Lindberg, Ku, & Sonenstein's (2000) analysis of the 1988 and 1995 waves of NSAM also documents young men's experience with formal sex education. Respondents were asked if they had ever received formal instruction in school or in an organized program in topics covering AIDS, other sexually transmitted diseases, birth control, how to say no to sex, and (in 1995) how to put on a condom. Ninety-eight percent of young men received some formal sex education in 1995 compared to 93 percent in 1988. Compared to 1988, males in 1995 first received instruction about a year younger, at age 13. The percent receiving instruction on AIDS increased from 73 to 97 percent while the percent taught how to say no to sex increased from 58 to 75 percent.

Although these changes are noteworthy, young males 15-17 were still significantly less likely in 1995 than similarly aged females interviewed for the NSFG to report receiving instruction about birth control, STDs, and how to say no to sex. In addition, 30 percent of males first received sex education after having had sexual intercourse for the first time. Some categories of men had even less access to sex education prior to first intercourse. For example, whereas 76 percent of white teenage males had received formal sex education instruction prior to ever having sexual intercourse, only 68 percent of Hispanic males and 54 percent of black males did.

Earlier studies using the 1988 NSAM examined how exposure to formal AIDS and sex education were related to teenage men's sexual behavior and condom use (Ku, et al. 1992, 1993a). In Ku et al.'s (1993a) study, numerous combinations of topic areas covered in the classroom were incorporated into analyses examining whether prior instruction in selected topics was related to age at first intercourse. Describing their potentially controversial results as “complex,” the researchers observed that:

Instruction about AIDS and resistance skills was associated with delays in first intercourse, although instruction about
resistance skills was not significant for black males. Instruction about biological aspects of sexuality and birth control was associated with earlier first intercourse, although these effects were mitigated by the addition of the other two topics. In more detailed analyses we examined exposure to 16 different combinations of the four topics and found that two (being instructed only about biological topics and about birth control) were significantly associated with earlier first intercourse and one (being instructed about biological topics, AIDS, and resistance skills) was associated with significant delays in first intercourse (p. 693).

They suggested that providing an integrated curriculum, while covering a broader range of topics (e.g., abstinence, contraception, and AIDS), is the most effective way to reduce the risk of young males having sexual intercourse at a young age.

Separate analyses with these data showed that males receiving AIDS education and other forms of instruction (e.g., birth control and skills to resist sexual intercourse) had fewer sexual partners in the past year, less intercourse, and greater condom use (Ku, et al. 1992). Exposure to resistance skills had the strongest independent relationship with lower sexual activity levels. The researchers concluded that, “although there was some linkage between education and knowledge, attitudes, and behaviors, changes in knowledge and attitudes were not the major pathway for the effect that instruction (on AIDS and on resistance skills) had on behavior (p. 104).”

Although it is reasonable to assume that exposure to sex education would be related to young males’ likelihood of having sexual intercourse, research in this area is limited, with the most sophisticated analysis based on data from 1988. Given the diversity of program topics and the varied ways in which instruction is delivered around the country, it is difficult to develop a precise understanding of how sex education is related to age at first intercourse. Interestingly, learning about resistance skills may be particularly important for limiting males having sex at an early age. Although most teen males are receiving some form of sex education, far too few receive explicit instruction about saying no to sex in specific situations and far too many receive this instruction after they have already started to have intercourse - particularly black teenage males, roughly half of whom already had sex prior to formal sex education.

Media

Over the past few decades, there has been increased interest in how youth are affected by the content and pervasiveness of sexually explicit media. At the core of this interest is the belief that the kinds of sexual messages that television and other media regularly present “may lead to stereotypical or casual attitudes toward sexual relationships, distorted expectations, and irresponsible sexual decision-making” (Ward, 2002, p. 2). Content analyses of television and movies during this time period have documented an increase in sexual portrayals and the amount of talk about sex, as well as a greater explicitness (Huston, Wartella, & Donnerstein, 1998). Research has documented adolescents’ extensive exposure to media messages about love and sex found in contemporary popular music, music videos, TV shows and commercials, and movies (Brown, Greenburg, & Buerkel-Rothfuss, 1993; Brown, Steel, & Walsh-Childers, 2002; Greenberg, Siemicki, & Dorfman, 1993; Strasburger, 1995). Moreover, sexual messages seldom include references to potential risks (e.g., pregnancy, STDs) associated with sexual activities.

Despite significant methodological challenges, researchers have explored how exposure to sexually explicit media may be related to sexual attitudes and behaviors among youth, with some focusing on gender differences (Aubrey, Harrison, Kramer, & Yellin, 2003; Brown & Newcomer, 1991; Collins et al., 2004; Huston, et al. 1998; Strasburger, 1995; Strouse, Buerkel-Rothfuss, & Long, 1995; Ward, 1995, 2002; Ward & Rivadeneyra, 1999). Research indicates that a disproportionate amount of sexually explicit media depicts or implies sexual activity between unmarried persons, emphasizes female
nudity, shows males in dominating roles, and tends to downplay the potential risk and negative consequences associated with intercourse. However, little rigorous empirical evidence exists showing how teens' sexual attitudes and behaviors are affected by the consumption of such media (Moore, Miller, Glei, & Morrison, 1995).

A reasonable basic hypothesis is that the more young males are exposed to sexually explicit materials, the more they will want to have sex and then do so at an earlier age. The major methodological difficulty is determining chronology: are individuals affected by exposure to explicit media or do individuals with particular beliefs and behavior patterns seek out sexually explicit media (e.g., music videos, soap operas, erotica)? Most theories depict the relationship as bi-directional, suggesting that youths are not simply passive recipients of messages, rather, they choose content and interpret it from their own perspectives (Hutson, Wartella, & Donnerstein, 1998).

Collins et al.'s (2004) recent national longitudinal study of adolescents aged 12-17 may be the most rigorous test of the hypothesis that exposure to sexually explicit television influences the probability of initiating intercourse. This longitudinal study used several measures of sexual content and separate measures for intercourse and other forms of sex. The study's design took into account adolescents' level of sexual activity at the first interview while controlling for a wide range of background factors. Using a model that combined males and females, these researchers concluded that, after controlling for other factors, those who viewed higher levels of sexually explicit material were “more likely to initiate intercourse and progress to more advanced noncoital sexual activities during the subsequent year” (p. 280). Collins and her colleagues were also able to show that this pattern existed whether the media content involved people talking about sex or having sex. Because their model's results were not significantly affected by the respondent's gender, the reported patterns apply to male as well as female adolescents. The authors stress that the magnitude of the association is substantial: “Youths who viewed 1 SD [standard deviation] more sexual content than average behaved sexually like youths who were 9 to 17 months older but watched average amounts of sex on TV” (p. 287).

These findings are consistent with Brown and Newcomer's (1991) correlational results with a mixed gender sample of 13-18 year olds (relationship held for males), but challenges Strouise, Beuerke-Rothfuss, and Long's (1995) finding that teenage males' virginity status was unrelated to exposure to R- and X-rated films, popular music, or music videos. Peterson, Moore, and Durkenberg's (1991) also found mixed results, using correlational data from a national sample of children aged 11-16 in 1981. Males who were the heaviest viewers tended to be the most likely to have had sexual intercourse. However, those least likely to have had sexual intercourse were those with “average” exposure to media, not those who watched the least. Findings for this study were also influenced by whether the adolescent males tended to view the television shows with or without their parents present. Among those who viewed TV apart from their parents, the correlation between viewing time and sexual experience was positive and statistically significant. When the subsample was restricted to those who viewed TV with their parents, the correlation was negative and significant.

In their study of 18-20 year old undergraduates at the University of Michigan and University of California, Ward and Rivadeneyra (1999) found that TV viewing of sexually explicit shows was generally not associated with males' sexual attitudes and expectations. However, males who spent more time viewing soap operas were less likely to endorse recreational sexual attitudes.

Finally, researchers have considered the extent to which males and females may process media differently based on divergent views of sex and social life. One study of 202 college students—94 percent of whom were between the ages of 18-22—found that exposure to sexually oriented television was related to males' and females' sexual expectations in different ways (Aubrey, et al. 2003). Greater exposure was not related to males' expectation of having sex earlier in a relationship, though it was for

THE NATIONAL CAMPAIGN TO PREVENT TEEN PREGNANCY

38
females. However, more exposure was associated with an expectation for a wider variety of sexual activities among males, but not females.

Some have proposed that researchers move beyond standard measures of media exposure and pay more attention to aspects of the viewer’s orientation toward media (Ward, 2002; Ward and Rivadeneyra, 1999). How active and involved are the viewers? To what extent do they identify with the portrayals and perceive the images as realistic? Do the viewers consume media with specific motives in mind?

Despite the limited and inconclusive data, some reviewers of the research addressing sexually explicit media and adolescents' sexuality have offered a strong warning about the media’s power to influence youth.

The growing accumulation of experimental, survey and ethnographic studies suggests that teenagers are learning a whole array of sexual beliefs... from the mass media (p. 519). ...it is little wonder that adolescents find the sexual world a difficult and often confusing place and that they engage in early and unprotected sexual intercourse with multiple partners. We believe that all potential sex educators, including the media, must take responsibility for showing children that sex can be an important and pleasurable part of human life and relationships and that sexual behavior includes potential risks and consequences (Brown et al., 1993, p. 523).

Indeed, few should be surprised if Collin's (2004) conclusion—that young teens' exposure to sexually explicit media quickens the onset of first intercourse— is replicated in future research using comparably sophisticated research designs. Still, Peterson et al.'s (1991, p. 115) observation that “it might be more reasonable to expect a link between amount of viewing and frequency of sexual intercourse than a link between viewing and the crossing of the boundary between virginity and sexual experience by age 15 or 16” seems important as well.

**Frequency, Relationship Context, and Number of Sexual Intercourse Partners**

Other aspects of young male's sexual attitudes and behaviors that have been of interest to researchers include the frequency with which they have sex, the context in which they are having sex, and the number of partners they have. Each has important implications and is discussed below.

Young males who have sex more frequently increase their chances of an unplanned pregnancy or STD. According to recent estimates of sexually-experienced male teenagers from the 2002 NSFG, about 26 percent reported having had sexual intercourse four or more times within the past four weeks, roughly 15 percent said they had sex once in the past four weeks, and about 45 percent indicated they did not have sexual intercourse in the past four weeks, and (Abma, et al. 2004).

Frequency of sex may be much higher among certain subgroups of male teens. A trend analysis of never-married 17-19 year-old urban men (based on the 1995 NSAM and the 1979 National Survey of Young Men) found that 39 percent of young men in 1995 reported having had sexual intercourse within the past four weeks in comparison to 40 percent in the 1979 survey (Ku, et al. 1998). These young men reported having sexual intercourse 21 times on average in the past year in 1995, a figure significantly higher than the 14 time reported by young men in 1979.

Regarding the relationship context for young men who have had sexual intercourse, indicators have included the first partner (e.g., stranger, casual friend, regular but non-committed dating partner, committed relationship), the sexual histories of the partners who enter a relationship, the number of sexual partners men have during a specified time frame, and the extent of having concurrent sexual relationships. Although these issues are relevant for various reasons, they frequently are incorporated into a broader risk-taking framework assessing young men's tendency to place themselves and others at risk, and how they manage the risk of an unplanned pregnancy and/or STD/HIV.
Empirical evidence indicates that many young men first have intercourse with someone they have been dating for awhile (Guggino & Ponzetti, 1997; Sprecher, et al. 1995). Recent national data confirm the stereotype that adolescent males want to have sexual intercourse earlier in relationships than their female partners (Cleveland, 2003), and a meta-analysis of 177 studies confirmed that, compared to females, males had more permissive views about casual premarital sex (Oliver & Hyde, 1993). Males are still more likely than females to have their first sexual experience with someone whom they do not know very well. Sprecher et al. (1995) found in their college sample that 40 percent of the men reported they had known their first sexual partner for one month or less, but only 19 percent of the women had known their partner for this limited amount of time. In addition, 36 percent of the men compared to 60 percent of the women reported being in a serious dating relationship when they first had sexual intercourse.

Relationship context can also be viewed in terms of the dyadic or paired quality of romantic relationships. For example, comparisons can be made between each partner's virginity status upon entering the relationship. Cleveland's (2003) unique analysis using Add Health data incorporated the male and female partners' characteristics into models predicting the occurrence of intercourse within particular couples. This study concluded that both male and female characteristics are significant predictors of intercourse for couples and challenged the "female influence hypothesis" that holds that female characteristics are more important predictors of whether a relationship will include sexual intercourse. Entering a relationship as a virgin and wanting sex early in a relationship were demonstrated to be key predictors for males and females alike.

Another issue to consider is young men's history of sexual partnerships. National estimates based on 1995 data indicate that a sizeable proportion of sexually experienced males attending high school (aged 15-17) report having had four or more sexual partners during their lifetime: YRBS (38 percent) and NSAM (47 percent) (Santelli, Lindberg, et al., 2000). Analyses of the 1995 YRBS data found that black males (66 percent) were significantly more likely than either whites (29 percent) or Hispanics (39 percent) to report having had at least several sexual partners. The difference between blacks and Hispanics was less pronounced in the 1995 NSAM data because of the much higher percentage for Hispanics in this sample (68 percent of blacks and 58 percent of Hispanics reported having had four or more partners). The figure for whites (32 percent) was similar in both surveys. Data for the entire sample of males in the 2003 YRBS (Grunbaum et al., 2004) indicate that about 18 percent of all high school males, including the sexually experienced and virgins, reported having had four or more sexual partners during their lifetime—a figure that is lower than the 23 percent reported in 1991 (Brener, et al. 2002). This finding suggests that adolescent males have become more cautious in recent years about having sexual intercourse with potential partners.

Young single males have more sexual partners as they get older. Among sexually experienced never-married 15-17 year-old males in 2002, 58 percent have had more than one partner, compared to 71 percent of 18-19 year olds (Tabulated based on data in Abma, Martinez, et al., 2004). The recent estimates for both age groups are lower than those reported in the 1995 NSAM, 68 percent and 78 percent respectively (Alan Guttmacher Institute, 2002). In addition, according to the 2002 NSFG, about 13 percent of never-married, sexually-experienced 15-17 year-old males and 18 percent of never-married sexually experienced 18-19 year old males have had seven or more partners (Tabulated based on data in Abma, Martinez, et al., 2004). These figures are slightly lower than the 20 and 30 percent of comparably aged males in the 1995 NSAM who reported at least six partners. A representative survey of youth in four rural Midwestern counties found that among sexually active respondents, 17 percent of females and 28 percent of males had had five or more sexual partners (Luster & Small, 1994). Ku, et al.'s (1998) study of 17-19 year old never married men living in metropolitan areas, including the sexually experienced and virgins, documented that the average number of lifetime female partners...
decreased for nonblack males from 3.8 in 1979 to 2.9 in 1995, while the number increased for black males from 5.1 to 6.9 during this time period. Finally, an analysis of 1999 YRBS data found that among teenage male students living in rural areas (mean age 15.5), about 72 percent reported having at least two lifetime sexual intercourse partners (Yarber, et al. 2002).

Some qualitative research has looked at trends in concurrent sexual relationships. A summary of data from 40 focus groups of urban youth from around the country revealed that some males simultaneously keep a partner who is essentially a casual sex partner (“shortey”) while maintaining a more long-term “committed” relationship with someone else (“wifey”) (MEE, 2004). In their survey of 1,435 low-income black and Hispanic youth (male and female) aged 15-24 in Detroit, Ford and Norris (2000) also found a high percentage of males reporting concurrent sexual relationships. Among those males who were either married or living with partners, 48 percent of blacks and 20 percent of Hispanics indicated they had other partners. For those who were involved with partners that they “knew well,” 45 of black males and 35 percent of Hispanic males reported having other partners.

Several studies have looked at associations between having multiple sexual partners and other problem behaviors. A national study found that men who use alcohol or drugs are more likely to report having multiple sexual partners within the previous three months (Santelli, et al. 2001). Among those reporting alcohol or drug use the last time they had sex, about 61 percent reported hav-

![Percent of Male Students Who Have Had Sexual Intercourse With 4 or More Partners by Race/Ethnicity, 1991-2003](http://apps.nccd.cdc.gov/yrbss/Atlanta, GA: Centers for Disease Control and Prevention)

In the 1994 YRBS of South Carolina public high school students, researchers found a significant relationship between having multiple sexual partners in the past three months and several “problem” activities including aggressive (fighting and carrying weapons) and physically reckless behaviors (drinking while driving or riding in car, not using a seatbelt or motorcycle helmet, swimming without a lifeguard); alcohol use; and cigarette smoking (Valois, et al. 1997). Almost six percent of white males and 12 percent of black

**It's a Guy Thing:** Boys, Young Men, and Teen Pregnancy Prevention
males reported having four or more sexual partners within the past three months. For whites, the likelihood of having one or more partners during the three-month time frame was associated with all three sets of problem behaviors. For blacks, having two or more partners was associated with the aggressive and physically reckless behaviors, while the likelihood of having four or more partners was associated with alcohol use.

A novel study examined how the number of lifetime sexual partners was associated with the proportion of single-parent families in a neighborhood and the quality of young males’ relationships with their mother (Cleveland & Gilson, 2004). Based on analyses of Add Health data, these researchers concluded that “both neighborhood-wide and family-centered risks independently contribute to sexual behaviors” (p. 327). In particular, they found young males’ number of sexual partners was influenced by an interactive relationship between their neighborhood context and their self-reported quality of relationship with their mother. The authors categorized the mother-son relationship into “good, medium, and poor” and neighborhoods into “low, medium, and high risk” based on the proportion of single-parent households in the census track or block group (geographic unit approximating neighborhood). The researchers created a 3 x 3 matrix of mother-son relationship by neighborhood risk group. Males who reported having the poorest relationship with their mother and who lived in the highest risk neighborhood (at least 35 percent of households were single-parent) had the highest mean number of sexual partners (5.2). Those with good mother-son relationships who lived in the high-risk area had a mean number of sexual partners (1.8) that was 188 percent lower. After controlling for the mother-son relationship and neighborhood context, the researchers found that being a black male was still associated with having a higher number of partners. They also noted that these models worked differently for female adolescents, with family-centered processes making more of a difference.

Other factors that may influence the number of sexual partners among adolescent males are the awareness that they would need to pay child support if their partner gave birth to their child and knowledge of a family member who has paid child support. Using NSAM data from 1995, Huang and Wen-Jui (2004) found that among white adolescents, being aware of requirements to pay child support slightly increased their likelihood of being involved with only one female partner during the past 12 months as opposed to having multiple partners. Black adolescents who knew a family member paying child support tended to have fewer partners while awareness of potential child support obligations was related to lower numbers of partners for Hispanic males.

In sum, about 54 percent of sexually experienced males aged 15-19 report having had intercourse at least once within the past month, but only 46 percent indicate that they have had intercourse 10 or more times within the year. The evidence suggests that, compared to females, males are more willing to have— and do have— sexual intercourse in casual relationships. Two national data sources also confirm that having four or more sexual partners during the teen years is fairly common for young males, particularly black males. Although many young males may have sexual partners sequentially, qualitative and survey data from two urban studies suggests that a relatively high number of young males juggle multiple sexual relationships simultaneously. Finally, having multiple sexual partners in one’s lifetime is more common for those young males who are also involved in other risk-taking or problem behaviors.

Conversations about Sex and Relationships

For the most part, this review has focused on what is known about young males’ sexual attitudes and behaviors from national and regional survey data. Though valuable, this material does not fully capture the psychological and social processes that shape the sexual lives of young males. Qualitative research can provide insights about how young males learn about their bodies, develop feelings about sex, pursue relationships, and become sexu-
ally active (Cohan, 2002; Martin, 1996). Cohan’s innovative study, based on in-depth interviews with a diverse sample of 17 heterosexual boys aged 14-19, brings gender and social psychological issues more clearly into focus. By giving adolescent males the opportunity to talk freely about their sexual decisions and behavior, Cohan focused on the interplay between several types of discourse (e.g., conquest, relationship, and piety) and narrative strategies (e.g., storytelling, presenting selves, and creating rhetorical contrasts). A discourse provides a language for defining issues and assigning meaning to experience. Thus, it affects how people perceive themselves and act. In Cohan’s (p. 8) words, a discourse is a “more or less unified way of thinking about, talking about, and understanding a phenomenon that, at least at some point in history, has had a group of proponents and users.” This study also explored the challenges faced by young males with respect to three basic identity concerns: masculinity, independence, and belonging.

Cohan reported that study participants tended to be most aware of the discourse of conquest, related to getting females to submit to their will. Young males used imagery depicting sex with females as a type of contest and opportunity to demonstrate control. The most important identity concern they had involved their masculine self-image. That is, the adolescent males tended to acknowledge the dominant, traditional form of masculinity when they talked about themselves, even if they merely used it as a reference point. Those committed to remaining virgins for the time being struggled the most with conveying a masculine self-image when confronting the conquest-based ideal. But even the boys who perceived the conquest standard as ideal sometimes struggled to make sense of their sexual lives because they realized the problems with the ideal.

This qualitative study highlights the value of allowing young males the chance to describe their sexual lives in a way that places their identities within a larger interpersonal and gendered context. The decisions young males make about their sexual lives are woven into their masculine displays during their day-to-day activities, including their romantic/sexual relationships and interactions with peers. Qualitative studies such as this one are essential for understanding the dynamic, negotiated aspects of young men’s romantic and sexual experiences.

**Contraception**

The two primary methods of contraception available for young males are condoms and withdrawal (young men seldom have vasectomies). Young men also can have a role in contraceptive choice and use by communicating – or not – with their sexual partners. Most of the literature on contraceptive use among young men focuses on condom use. Unfortunately, far less is known about young men’s perceptions and use of withdrawal as a method of contraception. Among a national sample of high school students, 16 percent of males in 1991 and 11 percent in 1997 reported using withdrawal at last sex (Everett, et al. 2000; see also, Rogow & Horowitz, 1995). Moreover, 10 percent of males aged 15-19 in 2002 reported using withdrawal the first time they had intercourse (Abma, et al. 2004).

Below is a summary of what is known about condom use among young males.

**Condom Use**

Interest in condom use rose sharply in the late 1980s in response to heightened concerns about the HIV/AIDS epidemic. Some national data were available for the late 1970s, which provided baseline information about condom use. The initial wave of NSAM in 1988 provided extensive descriptive information about the use of condoms among young men. Survey questions were designed to provide information about specific relationships, events, and time frames (e.g., first intercourse partner, most recent intercourse partner, sexual activity within the last month, sexual activity within the last 12 months, etc.). Additional waves of this survey have provided data on changes in contraceptive practices, especially condom use, over time for similarly aged cohorts. The 2002 NSFG has the most recent nationally-representative data on contraceptive practices among similarly aged cohorts of young men. Several studies, based on these data
sets, have documented trends in condom use among young males during the past few decades (Abma, et al. 2004; Everett, et al. 2000; Murphy & Boggess, 1998; Sonenstein, Pleck, & Ku, 1989; Pleck, Sonenstein, & Ku; 1993c; Sonenstein, et al. 1998).

One key finding is that adolescent males have increased their condom use since the late 1970s, most likely in response to concern about HIV/AIDS. The first trend analysis found that, while the proportion of teenage males who were sexually experienced increased between 1979 and 1988, condom use more than doubled (Sonenstein, et al. 1989). A more recent analysis of NSAM data (Sonenstein, et al. 1998), using the 1988 and 1995 waves of sexually experienced, never-married 15-19 year old respondents, found that compared to 1988 reports, a significantly higher proportion of young men reported using a condom at last intercourse in 1995—alone or combined with the use of their partner’s contraceptive method (67 percent in 1995 compared to 57 percent in 1995). This pattern of greater condom use was statistically significant for blacks and whites, and was consistent with increased condom sales. At the same time, the sizeable proportion of young men who reported that they did not use either a condom or female contraceptive remained about the same (23 percent in 1988, 20 percent in 1995) for the total sample and for major racial/ethnic categories. NSAM data are consistent with trend data from the 1991-2003 YRBS. In 1991, 55 percent of high school males reported using a condom the last time they had sex compared to 69 percent in 2003. (Brener, et al. 2002; Grunbaum et al., 2004).

A comparison of three nationally representative cohorts of never-married males aged 15-19 who had had sex within the past three months also showed a shift toward more frequent condom use at last intercourse (Abma, et al. 2004). In 1988 and 1995, 53 and 64 percent of males reported using a condom at last intercourse, whereas 71 percent gave this response in 2002.

Another analysis focused on young men’s experiences with condom breakage (Lindberg, Sonenstein, Ku, & Levine, 1997; see also Crosby, Graham, Yarber, & Sanders, 2004). Lindberg et al.’s analysis of 17-22 year-old young men interviewed in 1991 found that, among those using condoms within the previous 12 months, 23 percent had experienced at least one condom break. The multivariate analysis—controlling for frequency of condom use, appropriate grade level, recent sex/AIDS education, race/ethnicity, and other factors—revealed that those with household incomes less than $60,000 were two-to-three times as likely as those living in more affluent households to have experienced condom breakage. Although the

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**Percent of Sexually Active High School Boys Who Used a Condom at Last Sex**

![Graph showing the percentage of sexually active high school boys who used a condom at last sex from 1991 to 2003]

authors did not interpret this finding, the social class finding is noteworthy. In addition, those who used greater numbers of condoms were less likely to experience condom breakage, suggesting that males may acquire skills in selecting and using condoms. Young men who experienced condom breakage in the previous year were significantly less likely to view condoms as very effective in preventing pregnancy, AIDS, or other STDs.

A related issue, knowledge about how to use condoms, was examined with a national sample of students in grades 7-12 (Crosby & Yarber, 2001). Overall, males were more likely than females to have misconceptions about using condoms. Nonvirgins, those with the most life-time sex partners, and those who had experience using condoms were less likely to believe the misconceptions.

Rock, Ireland, Resnick, & McNeely (2005) provided a novel analysis of how objective and perceived knowledge of condoms among 404 young males aged 15-17 is related to condom use at first intercourse. The longitudinal study focused on boys who had had sexual intercourse for the first time between their first and second interviews—roughly one year apart. While virgins, the respondents answered five factual questions about condoms and noted their level of confidence that each of their individual answers was correct. Those males who were categorized as having low objective knowledge and high perceived knowledge were significantly less likely to use a condom at first intercourse (18 percent) than those with low objective and low perceived knowledge (37 percent). Males in the former group were also significantly less likely to use condoms than those in either the high objective/low perceived or high objective/high perceived groups (45 and 42 percent).

In general, researchers have studied three types of condom-related issues: patterns of use at particular points in time for specific cohorts, usage trends based on separate cohorts of similarly aged men at different time points, and patterns of individual males' use over time as they age and move in and out of relationships. Studies have considered how a variety of measures—including socio-demographic, relationship context, and personal attitudes and attributes—are related to different measures of condom use (e.g., ever used, used at first intercourse, used at first intercourse with most recent partner, used at last intercourse with most recent partner, used in last four weeks, dual use with...
female method, and consistency of use). Although the following review is organized around these three types of analyses, some individual studies provide insights about more than one area.

**Cohort Questions**

As discussed above, rates of condom use have increased since the late 1980s. Numerous researchers have used cross-sectional data to analyze young men’s attitudes and experiences using condoms and to describe the types of young men who use them. One such study focused on men’s attitudes about nine possible consequences of having sex and using a condom. Eight outcomes were negative and one was positive (being appreciated by partner) (Pleck, Sonenstein, & Ku, 1990). Sexually experienced and inexperienced males were both more likely to indicate they intended to use a condom the next time they had intercourse if they believed: 1) males were responsible for contraception, 2) using condoms did not significantly reduce physical pleasure, and 3) using a condom would be appreciated by their partner. General attitudes about males’ contraceptive responsibility were particularly important, especially among the sexually inexperienced.

Researchers have tried to identify the predictors of condom use by studying trends in use at last intercourse. Pleck, et al. (1991) found that attitudes supporting male contraceptive responsibility, concerns about AIDS, being black, and living in the north were significantly related to young males’ using a condom the last time they had sex. Being involved with someone who is using the pill, perceptions of sex being less pleasurable while using a condom, living in the Midwest, and having three to four partners in the last year—rather than just one partner—were related to a lower likelihood of using a condom. Separate models predicting young males’ consistency of condom use with their last and recent partners were somewhat similar to condom use at last intercourse. However, two notable differences were that young men were more consistent users if they were less embarrassed about condoms and felt their partner appreciated their using a condom.

Whitaker and Miller’s (2000) analysis focused on condom use at first intercourse, last intercourse, and lifetime condom use consistency. Using correlational data for blacks and Hispanics (males and females combined), they found that perceptions about peer norms were most strongly associated with condom use when respondents had not discussed condoms with a parent. The relationship appears to hold for boys as well as girls. Another study of black males attending an adolescent health clinic in Washington, D.C. (using a broad definition of condom use as ever having used a condom with a female) found that four factors predicted use: greater knowledge about condoms, communication with one’s partner about contraception, multiple sexual partners in the past six months, and higher socioeconomic status (Wilson & Kastrinakis, 1994).

In their study of a racially and ethnically diverse sample of high school students (nine percent white), including 144 males, Halpern-Felsher and colleagues (2004) focused on how perceived efficacy in communicating with peers and parents about sex was related to condom use. Commenting on males, they concluded that those who reported being able to communicate with their peers about sex had more positive attitudes toward condoms than did their counterparts. These attitudes in turn were positively associated with their commitment to use condoms, which was then related to their condom use “... [those] who reported being able to talk to their parents about sex were more committed to using condoms than were adolescent males with less positive beliefs in their ability to communicate with their parents about sex” (p. 450).

A 1992 national study of 14-22 year old males examined the relationship between substance use and condom use (Santelli, et al. 2001). After controlling for age and race/ethnicity, the number of substances (alcohol, cigarettes, marijuana, cocaine and other illicit drugs) ever used was negatively related to the likelihood of using a condom at last intercourse. However, neither a recent-use scale (past 30 days) that also took into account binge drinking and driving after drinking, nor a measure of substance use at last intercourse, were related to condom use at last sex. Another study of 335 incar-
cerated sexually active adolescents in a southern rural state found that those who reported no marijuana or beer use tended to use condoms more frequently (Barthlow, et al. 1995).

Young males' tendency to use condoms in tandem with other effective female contraceptive methods is an important issue. Efforts to understand what causes men to adopt a "dual use" strategy have increased in the past two decades due to concerns about STDs, particularly HIV/AIDS. An analysis of the 1990-91 wave of NSAM found that 83 percent of young men who had used a condom within the past two years indicated that the primary reason they did so was to prevent pregnancy (Ku, et al. 1994). Results based on the 1995 NSAM showed that 17 percent of males aged 15-19 reported using condoms along with a female contraceptive method the last time they had sex, and 49 percent reported using a condom alone. (Lindberg, Ku, et al. 1998). The use of a condom, separately or in combination with a female method, was positively related to talking with a partner about birth control, believing that males have responsibility for using contraception, and being in an earlier stage of a relationship. The only factor differentiating men who used the condom alone from those who combined it with a female method was men's heightened worries about STDs. The most recent descriptive data from the 2002 NSFG shows that 26 percent of males aged 15-19 used both a condom and a female hormonal method the last time they had intercourse, whereas 73 percent used a condom alone (National Campaign to Prevent Teen Pregnancy, 2005). In addition, roughly 10 percent of young males reported using a condom with a hormonal female method the first time they had sexual intercourse (Abma, et al. 2004).

Another earlier study based on a slightly wider age range of males (14-22) in the 1992 National Health Interview Study found that 25 percent of young men whose partner was using the pill at last intercourse also used a condom (Santelli, et al. 1997). Fifty-two percent indicated the condom was the primary method used to prevent pregnancy. Those who used the condom along with the pill were more likely to be younger, black, have received HIV instruction in school, and participated in fewer nonsexual risk behaviors. Twenty-one percent of the women in this survey also reported dual contraceptive use. Similarly, analyses based on 1994/95 Add Health data using sexual relationships as the unit of analysis found that dual use was reported in about 23 percent of males' relationships and roughly 27 percent of females' relationships (Ford, et al. 2001).

Identifying the key predictors of young males' condom use, either as a single method or as part of dual use, could help inform programs that are working to increase condom use among teens. It seems that, although the predictors tend to be similar for using condoms at last intercourse and using condoms consistently, there are two important variables associated with the latter. Being embarrassed and feeling that a partner appreciates his efforts to use a condom highlight the important interpersonal component to condom use. That is, when young males anticipate using or do use condoms, they often consider how their partner may perceive them.

**Trends and Relationship Context**

In addition to documenting trends in overall condom use among adolescent males and young men, researchers have noted that consistent use of condoms has improved in recent years. Sonenstein et al. (1998) considered the average percentage of time males had used condoms in the last 12 months. Between 1988 and 1995, consistent condom use by males aged 15-19 increased from 56 to 69 percent. This increase occurred with all ages of teens. As with reports based on condom use at last intercourse, the trends in greater consistency of use were statistically significant for blacks and whites, but not Hispanics. A second way of classifying males' condom use consistency was: "always," "never," or "intermittent." Using this classification scheme, the percentage of those who always used condoms increased from 33 percent in 1988 to 45 percent in 1995, while those never using condoms decreased from 18 to 10 percent during this time period. Blacks and whites tended to follow this pattern, whereas Hispanics were more likely to use...
condoms inconsistently. Abma, Martinez, Mosher, & Dawson (2004) also reported, using NSFG data from 2002, that about 68 percent of never-married males aged 15-19 who had sexual intercourse in the past four weeks used condoms 100 percent of the time.

Two issues involving men's condom use that can be studied most effectively with longitudinal panel data are related to Ku, et al.'s (1994) description of the "sawtooth hypothesis"—that is, condoms are more likely to be used in the early phases of a romantic relationship and declines as men age.

For sexually active males aged 17-22 in 1991-92, the percentage of men who reported using a condom the first time they had sex with their most recent sexual partner was 53 percent, compared to the 44 percent who used one the last time they had sex. This pattern reflects, in part, a couple's transition to using more effective female methods as the relationship progresses—marked by their increased trust in the relationship's exclusivity and concomitant decline in concern about STDs/HIV. In addition, as young men age they are less likely to use condoms the first time they have intercourse with a new partner, presumably because the older female partner is more likely to be using an effective medical form of birth control (Pleck, et al. 1993c).

Some research indicates that males are more likely to use a condom when they are having sex with a casual or secondary partner than with a more serious/main partner (Marín, et al. 1993; Ott, et al. 2002). In Ott et al.'s clinic sample interviewed in 1997/98, 141 young men (mean age roughly 17) reported their partner-specific contraceptive behavior during the previous six months. Almost 60 percent said they used a condom with their last main partner the last time they had sex; about 81 percent did so with their last casual partner. This study highlighted an important interaction between concerns about pregnancy and STDs, and condom use. The authors summarized their observations for men's contraceptive experiences with their last main partner.

Among young men who reacted less negatively to the idea of their partners becoming pregnant, 46 percent of those who perceived their risk of acquiring an STD to be low used condoms, compared with 68 percent of those who perceived their risk to be high, suggesting that STD risk drives condom use for those whose pregnancy concerns are relatively low. By contrast, among men who reacted more negatively to the possibility of a pregnancy, the proportions who used condoms did not differ significantly according to perceived risk of STDs—65 percent who perceived themselves to be at low risk of STDs and 70 percent of those who perceived themselves to be at high risk used condoms. (Ott et al., 2002, p. 11)

In other words, young males who were less concerned about a pregnancy appeared to have tied their use of condoms to whether they perceived themselves to be at high or low risk for acquiring an STD. They were more likely to use a condom when they perceived their risk as high. The subset of males who had more negative concerns about a partner becoming pregnant appears not to have altered their condom use based on their perceived risk of acquiring a STD. This finding hints at the complex web of considerations—many unspoken—that shapes individuals' contraceptive decisions in different types of relationships.

Surprisingly, one national study found that males were actually less likely to use a condom with a woman they thought was at high risk for HIV/AIDS, but more likely to use a condom with a partner whom they suspected had never had intercourse (Ku, et al. 1994). Males may be more likely to use a condom in the latter case because their virgin partner is less likely to be using birth control.

Unfortunately, little is known about male involvement in discussions about contraceptive decision-making (including condom use) or their use of non-verbal communication strategies (Barthlow, et al. 1995; Coleman & Ingham, 1999; Hillier, Harrison, & Warr, 1998). In 2002, 13 per-
percent of males aged 15-19 indicated that there would be a “pretty good chance” or “almost certain chance” that it would be embarrassing for them to discuss using a condom with a new partner (Abma, et al. 2004), but almost half of the sample, 49 percent, said there was “no chance” of feeling embarrassed. Reports from 339 teen females attending clinics in San Francisco in 1994/95 indicate that more than three-quarters of their male partners knew that the women were attending the clinic and more than 90 percent were supportive (Harper, Callegari, Raine, Blum, & Darney, 2004). The type of romantic relationship these women had with their male partner was not specified. Data from the 2002 NSFG also show that 15 percent of sexually experienced male respondents aged 15-19 reported accompanying a female partner to a family planning clinic (Suellentrop, Huffman, & Flanigan, 2005).

Presumably, the type of relationship men have with their partners will influence the likelihood and nature of discussions about contraception. An analysis of the 1988 wave of NSAM found that among sexually active males, those who were in a more serious relationship with their last partner had more responsible contraceptive attitudes, placed greater importance on religion, and identified themselves as black or Hispanic (compared to white) were more likely to report having discussed contraception with their last partner (Marsiglio, 1993). Surprisingly, men’s awareness of having been responsible for a pregnancy was not a significant predictor of their likelihood of having a contraceptive discussion once several attitudinal variables were included in the model.

One study explored whether young men’s relative level of emotional intimacy and decision-making power with their main sexual partner influenced their likelihood of getting their way about condom use at last intercourse (Tschann, Adler, Millstein, Gurvey, & Ellen, 2002). This study of heterosexually active males and females aged 14-19 attending an STD clinic in San Francisco found that, compared to females, males reported being less emotionally invested in their relationships than were their partners and they had more general decision-making power. However, contrary to expectations, males were not more likely than females to get their way in decisions about condom use.

Finally, young men’s approach to contraceptive decision-making may be connected to their awareness of their ability to create offspring and the cognitive and emotional aspects of that awareness. This is referred to as “procreative consciousness.” This is shaped by various factors including males’ orientation toward their romantic partner. Accordingly, men’s perceptions of whether a situation is one in which a condom should or should not be used may depend, in part, on their interactions with their partner, their perception of her reputation, and their feelings for her. When men define relationships or situations in particular ways, they may feel more or less confident that their partner is free of contagious diseases and perhaps be willing to assume paternal responsibilities if a pregnancy and birth should result (Marsiglio, 1998, p. 71, see also Marsiglio & Hutchinson, 2002).

Overall, research on general trends in condom use and the role of relationship contexts has bolstered understanding about young males’ decisions about—and use of—contraception. Evidence indicates that a higher percentage of young males are using condoms than in past years, though a significant proportion either avoid them or use them inconsistently. The results are less clear regarding the way in which the type of relationship they have with their partner affects condom-use decisions. Some research suggests that males are more likely to use condoms in serious relationships, whereas other data suggest that condom use is more likely in casual ones.

### Fertility-Related Issues

Much of the research on teen pregnancy and childbearing has focused on teen girls. Studies have examined the prevalence of these occurrences, trends by age of the mother, and women’s feelings...
about becoming mothers as teenagers. Although less attention has focused on fertility-related issues from the males’ perspective, some informative data are available. The discussion that follows describes some pertinent issues including age-discrepant relationships, information about men who are involved in teen pregnancies, young men’s views on pregnancy outcome options, and a framework that captures how young men develop a consciousness of their ability to create human life, which in turn shapes their behavior and attitudes.

For the most part, the tendency has been to obtain fertility data from women. However, some authors argue that young males’ reports of fertility are reasonably accurate as well (Lindberg, Sonenstein, Martinez, & Marcotte, 1998). Estimates based on the 2003 YRBS sample of high school students in grades 9-12 indicated that four percent of males reported having impregnated someone (Grunbaum et al., 2004). Pregnancy varied by race/ethnicity — black high school students (eight percent) were more likely than Hispanics (five percent) and whites (two percent) to report a pregnancy. In addition, data from the 2002 NSFG (which, unlike the YRBS, included those teens not in high school and slightly older participants) indicate that 13 percent of sexually experienced teenage males aged 15-19 had gotten a partner pregnant, and about six percent of sexually experienced males in the cohort had become fathers (Sonenstein et al., 1997). Between 1992 and 1994, 28 percent of males became fathers before age 25 (Alan Guttmacher Institute, 2002). Among young men aged 20-24 surveyed in the 2002 NSFG, seven percent reported becoming a father before age 20 (National Campaign to Prevent Teen Pregnancy, 2005). Finally, studies based on samples of incarcerated youth report much higher rates of fatherhood. For example, 28 percent of male participants in a study targeting youth correctional facilities in Oregon between the years 1994-1998 reported becoming fathers before age 20 (Unruh, et al. 2004).

Earlier estimates based on data from the 1995 NSAM, (which, again, included those teens not in high school and slightly older participants), indicated that about 14 percent of sexually experienced teenage males aged 15-19 had gotten a partner pregnant. About four percent of sexually experienced males in this cohort report that they have fathered a biological child (Suellentrop, Flanigan, & Bowen, 2005).

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Percent of Sexually Experienced Boys Who Have Been Involved in a Pregnancy Or are Fathers by Race/Ethnicity

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<tr>
<td>Hispanic</td>
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<td>10%</td>
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<tr>
<td>Non-Hispanic Black</td>
<td>7%</td>
<td>12%</td>
<td>19%</td>
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Involved in a pregnancy

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<td>Hispanic</td>
<td>2%</td>
<td>8%</td>
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<tr>
<td>Non-Hispanic White</td>
<td>2%</td>
<td>5%</td>
<td>3%</td>
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<tr>
<td>Non-Hispanic Black</td>
<td>5%</td>
<td>8%</td>
<td>6%</td>
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Fathers
Age Discrepant Relationships

Teen births from relationships with age discrepancies, especially those with a significant age difference between the teen mother and her male partner, have received considerable attention within social policy circles. In fact, public concerns about older men coercing teenagers to have sex have prompted some states to modify and strengthen the enforcement of statutory rape laws.

Landry and Forrest (1995) used data from the 1988 National Maternal and Infant Health Survey to document that 65 percent of births to mothers aged 15-19 involved a male partner at least 20 years of age (among mothers aged 15-17, 50 percent had a partner aged 20 or older; among mothers aged 18-19, 74 percent had a partner aged 20 or older). Using the same data, Lindberg and her colleagues (1997) showed that about eight percent of all births to women 15-19 years of age in 1988 involved unmarried women aged 15-17 who were partnered with men who were at least five years older. (They did not present separate estimates for 18-19 year olds).

Using 1993 California birth records, in which fathers' ages were reported in 86 percent of the cases (married and unmarried combined), one study examined age differences between fathers of infants born to mothers 18 or younger (Males & Chew, 1996). After including fathers' ages using an estimation technique that assumed that missing fathers' ages occurred randomly, 71 percent of infants born to 17-year-old mothers were shown to have been fathered by men at least 19 years of age. Meanwhile, 52 percent of infants born to 15-year-old mothers had fathers who were aged 19 or older.

A more recent study—using data from the 1995 NSFG, the 1994-95 Alan Guttmacher Institute Abortion Patient survey, and other supplemental information—documented 1994 pregnancy rates based on the age difference between the female respondent and her partner (Darroch, et al. 1999). Among sexually active women aged 15-17, 29 percent had a partner three to five years their senior. The report also noted that whereas 36 percent of sexually active 15-17 year-old girls had male partners at least three years older, 56 percent of births produced by 15-17 year-olds were due to partners three or more years older. The apparent discrepancy is because teenagers with older partners are more likely than their peers who are involved with similarly aged partners to get pregnant and ultimately to have a child. Compared to women aged 15-17 whose partners were no more than two years older, similarly aged women with partners three or more years their senior were 3.7 times as likely to become pregnant. These researchers also found that the odds of an adolescent woman having a partner who was at least six years older were increased significantly if the woman was Hispanic or a high school dropout.

Lindberg, Sonenstein, Ku, and Martinez (1997) argue that care should be taken not to treat age discrepant relationships among adolescent mothers and older men as a homogenous group. The researchers list several reasons why concern over the role of adult men in teen childbearing, though important, has been overstated. First, the problem is significantly reduced when framed to focus only on youth who have not reached the age at which they legally can consent to sex. Second, the total number of individuals involved is significantly reduced if “problem” relationships are defined as those where a substantial (e.g., five-year) age gap exists. Finally, they note that 23 percent of childbearing minors are married by the time the child is born. Although the adult men in these relationships tend to have less “human capital” (e.g., education, income) than their peers who father children with adult women, they generally have more resources than teen fathers. In addition, minor females appear to have closer and longer lasting relationships with older men compared to their relationships with their similarly aged male peers. Unfortunately, it is unclear to what extent sexual exploitation and coercion factor into these age discrepant relationships, but it presumably plays a role for some, especially the youngest mothers (see Moore, Miller, Glei, & Morrison, 1995 for a research review focusing on adolescent females/mothers and sexual coercion; Marín, Coyle, Gómez, Carvajal, & Kirby, 2000).
In terms of trends, an analysis covering several decades found that the proportion of teen births fathered by men 20 years of age or older has declined, whereas the proportion born to teen fathers has increased (Elo, et al. 1999). This finding’s reliability is strengthened because the analysis used multiple data sets to take into account whether the father’s age was reported on birth certificates. Although this finding can be interpreted as supporting Lindberg, Sonenstein, Ku, and Martinez’s (1997) concern about overstating the incidence of age-discrepant relationships, Elo and her colleagues caution that these estimates may underestimate the extent to which adolescent females have sex with older men. Their study found that for a sample of females aged 20-24 in 1995 who had first sexual intercourse prior to age 20, 45 percent of those who had sex prior to age 15 did so with a man who was at least four years older. Eighteen percent of those aged 15-17 at first sex had partners four or more years older. Among sexually experienced females aged 15-19 in 2002, reports of their first sexual intercourse partner being significantly older were fairly common (Abma, et al. 2004). For example, 24 percent of females who had their first sexual experience at age 15 were involved with a partner who was at least 4 years older. Moreover, Darroch, et al. (1999) argued that the relatively small proportion of adolescents with significantly older sexual partners should “not negate concern about those with much older partners.” They found that adolescent women who have an older partner are less likely to use contraception even though they are not trying to become pregnant (see also Ford, et al. 2001). In addition, among teenagers, the larger the age difference between partners, the lower the probability that the first sexual intercourse experience was voluntary (Elo, et al. 1999).

The information available on relationships involving an older man and younger women. However, adolescent males sometimes encounter difficulties when becoming romantically involved with significantly older women and researchers should focus on these relationships as well.

**Correlates of Procreation**

Most research on young men and pregnancy/fertility issues is designed to paint a socio-demographic or risk profile of individuals who report that they have gotten someone pregnant or have become a father (Alan Guttmacher Institute, 2002; Furstenberg, 1993; Goodyear, Newcomb, & Allison, 2000; Guagliardo, Huang, & D’Angelo, 1999; Hanson, et al. 1989; Jemmott L. & Jemmott J., 1992; Ketterlinus, et al. 1992; Lerman, 1993; Pears et al., 2005; Resnick, et al. 1993; Spingarn & DuRant, 1996; Stouthamer-Loeber & Weis, 1998; Thornberry, et al. 1997; Unruh, et al. 2004; Xie, et al. 2001). The evidence indicates that men who become fathers as teenagers are more likely to perform poorly in school and be high school dropouts, have low or moderate incomes, be black or Hispanic, live in urban areas, have a mother who was a teen parent or received welfare, not live with two parents as a teenager, and be involved in problem behavior such as delinquency, substance use, and disruptive school behavior.

More specifically, results from a study of predominantly black males aged 12-18 attending an adolescent outpatient clinic in Washington, D.C. showed that participants with a pregnancy history were “approximately 13.8 times more likely to report three or more lifetime sexual partners, 5.4 times more likely to report an STD history, 3.1 times more likely to test positive for drugs, and 2.7 times more likely to be inconsistent condom users” (Guagliardo, Huang, & D’Angelo, 1999, p. 12.). In one national study, the employment rate was a consistent predictor of pregnancy and fatherhood, although this pattern was not confined to black adolescent males (Ku, et al. 1993b). Also, living in a neighborhood defined as a ghetto did not increase males’ chances of impregnating someone.
or becoming a father when controlling for other background factors.

One novel study based on the Rochester Youth Development Study used a longitudinal panel of 615 urban youths to explore the development of delinquent behavior, drug use, and related behavior (Thornberry, et al. 1997). This sample included young men (average age 21) who were interviewed originally in seventh or eighth grade. Risk factors were categorized into 10 domains, measured with multiple indicators, and assessed prior to the individuals becoming fathers. Although black and Hispanic (primarily Puerto Rican) males were more likely to be teen fathers, race/ethnicity status was mediated largely by parent's age at first birth, parental education, parent's college expectations for the adolescent, early sexual intercourse, and drug use. In addition, after controlling for other factors, youth were at greater risk of becoming teen fathers if they had sex early, belonged to a gang, were chronic drug users, or were chronically involved in violent behavior. However, consistent with Ku et al.'s (1993b) finding, neighborhood and family poverty were not significant risk factors for teen fatherhood in multivariate models.

Gang membership was shown to be the strongest predictor for the co-occurrence of juvenile offending and adolescent fatherhood among a sample of incarcerated youth in Oregon (Unruh, et al. 2004). The authors of this five-year longitudinal study concluded that the co-occurrence of these events resulted from a "combination of variables associated with individual characteristics, family disruption, and social disorganization of the individual's environment (p. 417)." In particular, family disruption was due to having a parent who was an alcoholic, felon, or had a low educational background.

Assessments of nine waves of data from a study of Pittsburgh inner-city youth, begun in 1987 when the boys were aged 12-13, found that participants who became fathers before age 19 were more likely to have a delinquent past than their peers who did not father a child (Stouthamer-Loeber & Wei, 1998). In addition, in the year they became fathers and in subsequent year, these males were significantly more likely to be involved in delinquent acts (car theft, breaking and entering, strong-arming, attack to seriously hurt or kill, or rape) than a control group of peers.

Finally, analyses with the Carolina Longitudinal Study of 475 participants (227 males and 248 females) who were followed from grade seven to young adulthood found that the configuration of childhood factors most relevant to predicting teen fatherhood included high aggression, low academic competence, old age for grade, and relatively low family socioeconomic status (Xie, et al. 2001). The researchers also noted that young males were more likely to become teen fathers when they affiliated closely with peers with similar characteristics. For males, peer characteristics were most influential when the participants themselves had a similar low achieving profile.

In short, teenage and young adult men who have fathered at least one child tend to be more disadvantaged in a variety of ways compared to their peers who have not fathered children. Although the evidence is rather clear that minority race/ethnic background and lower personal and parental educational status are predictors of young males' tendency to become fathers, family and neighborhood/community poverty do not appear to be significantly related to their fatherhood status.

Abortion Views and Pregnancy Resolution

A careful examination of young men's attitudes and behavior toward sex, contraception, and pregnancy should include consideration of their perceptions about abortion. Presumably, young men's views about abortion can influence their beliefs about nonmarital vaginal intercourse, and in some instances their experiences with pregnancies and abortions may affect their decisions about sex and contraception (Marsiglio & Hutchinson, 2002).

Because an unknown percentage of young women have abortions or miscarriages without informing their partners, males' estimates of their involvement in pregnancies and abortions are likely...
to be low. One study conducted in Granite City, Illinois revealed that 17 percent of a sample of married women did not inform their husbands that they had an abortion while in the relationship (Ryan & Plutzer, 1989). Presumably, a higher percentage of single women do not tell their partners that they are having an abortion. Young women who have become pregnant may decide to keep it a secret if they perceive their partner to be irresponsible or unsuitable as a mate and/or parent. Consequently, unless they are aware that they have impregnated someone, young males will be unaffected by their partner’s secret abortion.

According to data from the 1988 wave of NSAM, about 13 percent of young men aged 15-19 approved of abortion in each of eight different scenarios that were presented to them (e.g., rape, woman under age 15, woman’s health endangered, likelihood of child deformity, not affordable, man would not support child, woman wanted for any reason, if woman wanted but man did not), whereas four percent disapproved in every instance (Marsiglio & Shehan, 1993). In those instances where a pregnancy could endanger the woman’s health or resulted from rape, some 86-89 percent indicated that abortion would be acceptable. After controlling for social background factors, differences varied little by race. Those with more liberal attitudes toward nonmarital sex and those who reported that they would be upset if they were to become a father in the immediate future were more likely to express support for abortion.

This analysis notes a possible “gender conflict of interest” — 61 percent of males did not feel it would be all right for a woman to have an abortion if her partner objects. In an earlier study of 577 Midwestern high school students, Marsiglio and Menaghan (1990) found that males (19 percent) and females (18 percent) were similarly likely to report a preference for aborting an unplanned pregnancy that occurred with someone they had been dating for one year if they learned about it in the second month of the pregnancy. Although there were no within-race gender differences between whites and blacks, white males were twice as likely as black males to prefer abortion (23 to 11 percent).

A more recent study compared data from the 1988 and 1995 waves of NSAM and found that 24 percent of males aged 15-19 in 1995 (compared to 37 percent in 1988) agreed that it was all right for a woman to have an abortion “for any reason” (Boggess & Bradner, 2000). This decline in approval was due almost entirely to changing views about abortion among white males. Specifically, white males’ increased level of religiosity during this time frame accounted for much of this shift.

Although little is known about young men’s influence on teenage females’ decisions about their pregnancies, one study of young women under 18 who attended abortion clinics in 1991 reported that 37 percent came with their boyfriend. Of those who had not told either of their parents, 58 percent came with a boyfriend (Henshaw & Kost, 1992). Twenty-five percent indicated that their boyfriend had been the most helpful person to them in making the arrangements, while 78 percent said their boyfriend had been involved in the abortion decision. Twenty-seven percent of the respondents’ boyfriends tried to persuade them to have an abortion, and 20 percent tried to persuade them to continue the pregnancy.

All told, despite the relatively high rates of abortion in the United States, little research has focused on young males’ perceptions or experiences. Qualitative research (Marsiglio & Hutchinson, 2002) suggests that young males do not spend much time thinking about abortion until they are involved in an unplanned pregnancy. Apparently, a significant proportion of young males and females struggle to arrive at a mutually agreeable approach to resolving unintended pregnancies.

Procreative Identity and Fatherhood Readiness

Research reveals that most young men want and expect to father a child at some point in their lives. An analysis of the 2002 NSFG found that male teens expect to have 2.1 children during their lifetime, with Hispanics indicating 2.4, and whites and blacks expecting 2.0 and 1.9 respectively.
Among male teens in 1995, the ideal family size was calculated to be 2.3 with black and Hispanic men wanting slightly larger families than white men (Alan Guttmacher Institute, 2002). Not surprisingly, most young men do not want to have a child immediately. Among never-married males aged 15-19 in 2002, 51 percent indicated they would be “very upset” if they got a female pregnant now and 33 percent said “a little upset” (Abma, et al. 2004). Fifty-nine percent of whites, compared to 38 and 36 percent of Hispanic and black young males said they would be “very upset”. Using data from a similarly aged cohort in 1988, Marsiglio (1993) found that 69 percent of teenage men reported that they would be “very upset” if their girlfriend became pregnant. This response was more common among those living in moderate or more favorable conditions (57-77 percent) than those living in poor, run-down neighborhoods (46 percent). Sixty percent indicated that getting someone pregnant would not make them feel like a man, whereas only five percent said that it would make them feel “a lot” like a man.

One qualitative study focused on the social psychological and dynamic aspects of young men's experiences of becoming and being aware of their ability to procreate (Marsiglio & Hutchinson, 2002). This study, based on in-depth interviews with 70 men aged 16-30 (69 were not married), underscored how a comprehensive examination of men's involvement in teen sex, contraception, and pregnancy must consider how men develop a procreative consciousness (PC) and then express it in diverse situations and relationships. This consciousness refers to the cognitive and emotional aspects of men's awareness of their ability to create human life. It also includes their perceptions and knowledge about different aspects of their procreative ability (e.g., perceived degree of potency, realization that they have fathered a child). These researchers stressed the value of developing a deeper, process-oriented understanding of the cognitive and emotional elements that comprise young men's awareness of their ability to create human life. The approach broadens the type of information survey data typically provide while offering insights about additional survey data that could be useful.

Qualitative data from this study helped generate, refine, and expand a variety of conceptual categories (e.g., latent vs. wide-awake PC, situated vs. global PC, individual vs. relationship-based PC, fatherhood readiness, fathering and child visions, and turning points) that comprise the Procreative Identity Framework (see also, Marsiglio, 1998, 2003). Once they learn that they can procreate, young males typically store this knowledge in their long-term memory (latent); then, on various occasions, this awareness shifts to their wide-awake or active memory. Males can experience a situated PC when they encounter particular objects (e.g., condoms, parenting magazine), people (e.g., girlfriend, infant relative), images (e.g., advertisement with male model holding a baby, PSA announcement about teenage pregnancy), and specific situations (e.g., consultation with a family planning provider, sex education class). This study found that several types of circumstances activated young men's procreative consciousness: engagement in real or imagined problem-solving exercises, envisioning aspects of the procreative realm (any events, situations, ideas, or objects pertaining to reproductive issues), or participating in some form of observational learning. Participants were most likely to be aware of their procreative abilities when they were thinking about solving a problem. In addition, young men can have a more global or enduring sense of themselves as someone who wants to avoid a pregnancy or produce one. In this case, the self-awareness transcends any given situation and is part of their overall self-image. The individual-based mode of expressing PC is a form of awareness hinging on young males' own perspectives and orientation toward their procreative ability separate from any current romantic relationship. In contrast, relationship-based PC develops from a male's involvement and discussions with a particular partner. For example, a partner may encourage the male to be more or less aware and interested in abstaining from sex, contraception, or having a child.

The concept developed from this analysis most relevant to teen pregnancy prevention efforts is
fatherhood readiness. Several properties (e.g., degree and form of collaboration, focus of attention, temporal orientation, experience, and degree of clarity) emerged from participants’ assessments of how prepared they were to assume what they perceived to be the responsibilities associated with being a father. The first two properties suggest ways in which young men may take into account their female partners. Although most young men developed their sense of readiness largely on their own, some developed their understanding through discussions with their partners. Some men also indicated that they were concerned about how a pregnancy and birth would affect their partner’s life, though they were more concerned about how it would influence them or a prospective child.

Temporal orientation highlights the extent to which males direct their thinking toward previous, current, or future experiences as they contemplate their readiness for fatherhood. As young men think about their readiness to father children they are likely to have different types of experiences they can draw upon to evaluate their situation. Sometimes it may involve previous encounters dating women with children, babysitting for relatives, or having a child of their own. Finally, young males vary in how clear they are about whether they are prepared to become a father at this point in their life. Some are distinctly aware that they are not ready, others are confident that they are ready, and many have a muddled view—anxious about the possible changes, but of the mind that they could handle being a father if necessary.

Young men build their sense of readiness at times through their vision of fathering and children. The former refer to instances in which young men think about how they would like to raise and interact with their prospective children, whereas the latter captures instances of mental imaging depicting a future child as having a personality and/or physical features (e.g., gender, size, appearance).

This qualitative research also highlighted how young men’s procreative identities were at times fundamentally altered because men experienced procreative (e.g., miscarriage, pregnancy scare, birth) and non-procreative (e.g., father’s death, new job, religious conversion) turning points. The participants’ life stories revealed the nuances of how different personal experiences and situations can shape how males’ self-image and approach to sex, contraception, and fatherhood change over time.

In short, this framework differentiates how men acquire knowledge, change identities, and alter their perceptions over time as they are exposed to diverse situations and move in and out of romantic relationships. It can provide researchers and social service providers with insights to sharpen the way they think about and assist teenage and young adult men.

Conclusion

During the past 15-20 years, researchers, social service professionals, and policymakers have focused more attention on young males’ involvement in teen pregnancy. This approach was needed to counterbalance the earlier almost exclusive focus on teenage females. Over the last two decades many studies have helped to spotlight the obvious, but often overlooked, fact that teen pregnancy results from the actions of both genders—actions that are influenced by myriad personal, familial, and societal forces.

This review examined survey and qualitative research relevant to teenage boys and young adult men’s involvement in teen pregnancy. It focused primarily on young males’ sexual behavior, contraceptive use (condom use in particular), and perceptions and behavior related to fertility. Males’ virginity and noncoital experiences were reviewed briefly as well given their relevance to a broad understanding of teen pregnancy issues. As the list of key findings in the introduction suggests, much has been learned about these issues. Several key patterns are worth underscoring, and it is useful to review the findings related to the four basic research topics noted in the introduction:

- how the behavior of individual males has changed over time;
how the behavior of different cohorts of teenage and young men has changed;

- how individual attributes, background characteristics, and social and other contextual factors are associated with males’ experiences; and

- how young men and women compare with respect to reproductive health issues.

To recap the basic statistics: Nearly half (about 48 percent) of boys in high school report having had intercourse. Among older teen males aged 18-19, the proportion climbs to about 65 percent. Given that such a large number of young males are having sexual intercourse, it is important to know what they think about—and how they use—contraception. The good news is that rates of condom use have increased almost 27 percent in recent years with 69 percent of high school males in 2003 reporting condom use at last intercourse. Young men tend to cite pregnancy prevention, rather than STD prevention, as the most important reason for using condoms. About one in four (24 percent) young males who have had sexual intercourse during the past three months report using two methods of contraception the last time they had sexual intercourse, meaning they used a condom and their partner used an additional hormonal form of birth control. Finally, among high school males, about 17 percent have had intercourse with four or more partners, with a significant number having concurrent partners during the same period of their lives.

One issue receiving particular attention in recent years is relationships involving teenage girls and older males. A review of the findings and commentary suggests that, although some young males have sexual intercourse with girls who are significantly younger than they are, the vast majority of couples involve a male who is at most a few years older than his sexual partner. That said, research shows that the teenage girls in these relationships are less likely to use contraception and that the first sexual experience is more likely to be coercive the larger the age difference between the partners. When males are three or more years older than female partners aged 15-17, the girls are significantly more likely to become pregnant than peers whose partners are no more than two years older.

Several findings stand out when considering how individual young males change as they grow older. For instance, research shows that as boys get older they are less likely to use condoms. This pattern is due primarily to increased use of hormonal contraception by their correspondingly older partners. Moreover, the longer a male continues a relationship with the same partner, the less likely he is to use condoms. Presumably, this occurs because the partners trust one another more, and they have had time to negotiate implicitly or explicitly an understanding that female hormonal contraception might serve them best.

Understanding the nuances of how and why young males change as they move through adolescence and into young adulthood can be enhanced by qualitative studies. In-depth interviews with young men were instrumental in developing the Procreative Identity Framework, which provides a variety of conceptual categories that enable researchers and professionals to think more systematically about how boys and young men become aware of their ability to procreate, alter their identities, and change their perceptions about matters related to their sexual and procreative identities based on romantic relationships. This framework accentuates the value of developing a deeper sensitivity to males’ potential involvement in teen pregnancy issues.

Taking a look at trend data, comparisons of cohorts of young males from the 1980s, 1990s, and 2000s suggest that teenage and young adult men have changed in important ways over time. One notable trend is that the proportion of young males reporting having had sexual intercourse declined slightly in the 1990s. Although a large percentage of boys still have intercourse in the middle teen years, the proportion that does has stabilized. Among young males having intercourse, condom use has risen compared to the late 1980s and young males are more likely to use condoms the first and last time they had intercourse than they were in the past.
In addition to documenting such changes, researchers have been trying to figure out why young males think and behave as they do. They have identified a number of factors that predict various aspects of young males' sexual behavior (e.g., frequency of sexual intercourse, number of partners, and number of concurrent partners). Diverse studies indicate that self-reporting one's race as black is the most consistently significant predictor of early intercourse. Unfortunately, researchers have yet to explain the underlying reasons for this race difference. Although the strength of this finding is lessened when social background and attitudinal factors are controlled, young black males are more likely than whites or Hispanics to report having intercourse at an early age. As noted earlier, the timing of puberty may account for some of this difference. Researchers have documented significant racial differences in the age at which puberty begins for boys and girls, with blacks tending to mature more quickly. However, researchers have not yet rigorously tested how such differences in pubertal timing relate to males' age at first intercourse.

Young males who are more religious tend to delay having sexual intercourse for the first time, although some research does not find this pattern or it indicates that religiosity is important only if particular circumstances are in place (e.g., friends attending church). Some studies show that compared to virgins, young males who have sexual intercourse at a young age—white males in particular—are more likely to engage in unconventional behavior (e.g., substance use and criminal behavior). And although researchers are not clear about how the processes work, family-related variables (e.g., family structure, maternal characteristics, and presence of siblings) seem helpful in predicting whether males will have sexual intercourse at a relatively young age. Some evidence also suggests that parental monitoring of preadolescent sons may help postpone sexual activity. Finally, some recent studies point to higher levels of testosterone being directly and indirectly related to when males first have sex.

Studies attempting to identify predictors of young men's use of contraception, especially condom use, have found that males are more likely to use condoms the last time they had intercourse if they: (1) feel that males should share contraceptive responsibility, (2) worry about AIDS, (3) are black, (4) talk with their partner about contraception, (5) are in an early stage of their relationship, (6) feel that condom use will not adversely affect their sexual pleasure, (7) have fewer than three partners in the past year, and (8) have used fewer substances.

Finally, a few conclusions about male-female comparisons are noteworthy. Overall, high school-age males are more likely than their female peers to report having had sexual intercourse and to have had four or more lifetime partners. In some respects, the genders are more similar than different. Males and females offer very similar reports of having had sexual intercourse within the past three months, although males are more likely to report using a condom the last time they had intercourse. Not surprisingly, the remnants of the sexual double standard seem alive and well according to the reviewed studies (Fromme & Emihovich, 1998; Kalof, 1995; Stanton et al., 1994). Compared to females, males have less conservative attitudes about sex, are more willing to have sex with people they do not know well, and report more favorable views about the first time they had sexual intercourse.

These conclusions can be viewed against an evolving cultural backdrop in which norms and media representations of sexuality have changed, gender relations have become more egalitarian—although a sexual double standard to some extent still exists—and the public has grown more aware of HIV/AIDS. Obviously, cultural, community, familial, interpersonal, and personal/developmental factors affect males' involvement in teen pregnancy in complex ways. As this chapter suggests, numerous opportunities exist for enhancing our understanding of young males' roles in teen pregnancy. Collecting high quality data on young males' experiences and involvements at critical junctures in romantic relationships—that is, their decisions regarding sex, contraception, pregnancy, pregnancy resolution, and parenting—can help researchers, program directors, policymakers, and parents better understand the dynamics at play, which in turn can
help us become more effective in engaging young males, and ultimately, reducing the incidence of teen pregnancy. Moreover, we must not ignore that many males involved with a teen pregnancy encounter mixed outcomes related to their emotional, psychological, and financial well-being.

Looking towards the future, researchers must map out new directions for research in these areas. With that in mind, Appendix A discusses some timely research questions, as well as the methodological challenges researchers face. Because each successive cohort of teenagers and young adults is immersed in an ever-changing cultural milieu, researchers must diligently stay abreast of and address the complex circumstances shaping young males’ sexual attitudes and behaviors.
Appendix A: Methodological and Future Research Issues

As is clear from this review, an increasing amount of research has sought to clarify young men's attitudes and behavior regarding sex, contraception, pregnancy, and other procreative issues. This research is important for understanding young men's lives in these areas generally, and for addressing the complexities of teen pregnancy in particular. Developing a solid research base from which sound conclusions about young men's experiences can be drawn requires assessing the strengths and weaknesses of various methodologies. This includes highlighting the limitations of existing data and offering suggestions for improving the sampling as well as the reliability, validity, and richness of future data collection efforts. Sonenstein, Ku, et al. (1997) and Marsiglio and Hutchinson (2002) reflected on their own treatments of methodological issues involving their survey and qualitative research on young men respectively. Such self-assessments can go a long way in improving the quality of future studies on these topics. Similarly, much can be learned when researchers provide thoughtful commentary about the theoretical and methodological rationale guiding innovative study designs, such as Add Health (Udry & Bearman, 1998). The subsequent discussion offers some thoughts on methodological issues and ideas for future research.

Survey and Qualitative Insights

One methodological question of particular interest to funders, policymakers, and parents whose consent is required for children's participation in research is the following: Does asking young males personal questions about their sexual ideas and behavior, especially in successive interviews, increase their chances of becoming more sexually aware and active? Although little empirical evidence exists relevant to this question, Halpern, Udry, and Suchindran (1994) did find that such exposure to repeated questions in successive years did not affect adolescent males' reported sexual attitudes and activities.

Another important methodological challenge is including in research designs subpopulations of males who are usually excluded. For instance, although the three waves of NSAM data and the recent 2002 NSFG provide valuable nationally representative household samples of young men, their sampling frames excluded males not residing in households. Thus, important subpopulations of young men—most notably those serving in the military or in prison, and those living in dorms—are omitted from research on young men's role in teen pregnancy. These subpopulations warrant attention, in part, because a disproportionate number of blacks and Hispanics are imprisoned (Federal Bureau of Prisons, 2004) and a high percentage of blacks are in the military (Cleary & Wu, 2003; Quester & Gilroy, 2002). Moreover, as noted previously, sexual and procreative patterns for young incarcerated males tend to differ from men who are not imprisoned. Efforts to include them in future surveys are essential.

Researchers who explore these kinds of issues need to consider myriad methodological issues, many of which have been carefully considered by Sonenstein, Ku, et al. (1997), the researchers responsible for fielding the National Survey of Adolescent Males. These researchers provided a detailed account of decisions made regarding the research design, recruitment procedures, interviewer training, and measurement. In particular, they discussed their logic for measuring sexual and contraceptive behavior in the various waves of the NSAM. The researchers systematically described the process by which they learned how to improve their measures of: “patterns of sexual activity across time and across partners,” “consistency of contraceptive use across time and across sexual partners,” and “experience with condoms” (p. 97). Notably, they adopted a “partner-by-partner recall method” for both sexual and contraceptive experiences because, they reasoned, this approach was more consistent with respondents' cognitive processes. Their approach permitted analyses focusing on the changes during and between relationships. Similar strategies were incorporated into the Add Health and the NSFG (male) studies. These researchers, referencing their own experience with three waves
of data collection as well as other survey-based studies of adolescents in the United States, list six major methodological conclusions:

- Representative samples of teenage females and males can be recruited to participate in studies of sexual behavior.
- Obtaining parent consent is not a major obstacle for conducting studies with children under the age of 18 years.
- Asking teenagers questions about sexual behavior and contraceptive use does not have a major impact on further participation in longitudinal surveys.
- The majority of teenagers share a common understanding about what sexual intercourse is, even if they have not yet engaged in it.
- Self-reports of sexual activity and contraceptive use to interviewers and in self-administered surveys tend to be internally consistent.
- Teenage males’ reports of paternity experiences are consistent with those of teenage females (p. 101-102).

Another topic that warrants additional consideration is interviewees’ reporting inconsistencies. Although adolescents’ reports about sexual activity tend to be internally consistent, Lauritsen and Swicegood (1997) documented significant reporting inconsistencies across different survey years in how males reported their age at first intercourse. They surmised that the reporting errors were probably due to respondents trying to construct a specific self-image rather than the result of memory failure. The inconsistencies were most pronounced among blacks. Concerns about such misreporting have prompted some researchers to explore the value of using A-CASI technology as a way to improve adolescents’ reports of potentially sensitive behavior. This technology provides respondents the opportunity to record their answers using a laptop computer. For example, researchers developed a methodological experiment using the 1995 NSAM in which respondents were randomly assigned to answer questions using the A-CASI system or the more traditional self-administered questionnaire (Turner, et al. 1998). Although few reliable differences were found for the reporting of male-female sexual contacts, the proportion of males who reported that they had either been drunk or high at last intercourse was significantly different among those who used the standard SAQ and the A-CASI system (15.3 to 34.8 percent). This study did not report on possible racial/ethnic differences in the self-reporting of age at first intercourse. Future analyses could assess the relative value of using the A-CASI system to discern possible self-reporting biases among respondents from different racial/ethnic backgrounds.

Another viable option would be to have separate interviewers conduct in-depth qualitative interviews with a subset of respondents shortly after surveys have been completed (e.g. within the week). Such interviews might generate insights about how young men of different races/ethnicities manage their presentation of self in the interview while answering questions about sex (including their self-reported age at first intercourse), broaden the scope of information provided by the selected subsample, and enable researchers to link qualitative and survey data from the same research participants.

Marsiglio and Hutchinson (2002) showed through their novel in-depth interviews with young men that it is possible to provide an environment in which males feel comfortable talking at length about intimate matters related to sex, contraception, pregnancy, abortion, and fatherhood. In their methodological self-critique, these authors shared how they managed various challenges associated with conducting these types of interviews. Some of these dealt with: the use of language; figuring out how best to guide men as they talked about their past, present, and future selves; managing participants’ sexual and procreative inexperience or experimentation with new behavior; and making sense of the narrative foci (e.g., buying or using condoms, experiencing the gestation process with a partner) men used to present their stories. These researchers outlined six indices for judging the success of these types of interviews: (1) emotional accessibility,
view of interviewer as counselor, (3) collaborative behaviors, (4) declarations of comfort, (5) detailed, dense, personal information, and (6) narrative revisions. Like Sonenstein, Ku, et al. (1997), these researchers delineated six key lessons learned about the process of conducting research that may be useful guideposts for other researchers:

- We [researchers] should be aware of our own theoretical and methodological perspectives and how these affect the interview situation.

- Access to participants' thoughts, feelings, and experiences requires constant attention and strategic moves to remain connected throughout the interview.

- Age, gender, and/or race of interviewer and participant may directly affect the interview experience in a small percentage of cases, but most participants are receptive to either experienced or attentive interviewers.

- The experience and maturity level of participants may present particular difficulties in interviews dealing with procreative experiences.

- The directions of the interview in terms of temporal issues and focus require our [researchers'] attention during the interview process.

- Interviewers need to be aware of how they and participants use language and of how language affects the interview process (p. 60).

**Future Research Directions**

Keeping in mind the methodological issues raised above, plenty of research opportunities exist that could add richly to current understanding about the context in which males negotiate their decisions about sex, contraceptive use, and pregnancy outcomes. For example, much has been written about the timing of first sex, but little is known about the actual interpersonal dynamics that surround this pivotal event in young men's and women's lives. Similarly, little is known about how sexually experienced males navigate decision-making about the particulars of sex, contraception, and fertility-related events. Available data document rather well the outcomes (e.g., sex with or without a condom), but the processes that lead to these outcomes are not well understood.

As Giordano, Longmore, and Manning (2004) suggest, researchers need to examine more closely the subjective aspects of relationships among youth (awkwardness communicating, heightened emotionality, power dynamics, and degree of commitment). These data would enable researchers to treat relationships as the unit of analysis, deal more explicitly with the interpersonal processes of relationships, and study the dynamic processes associated with how romantic relationships evolve. This would lead to a better understanding of the factors and processes that place women (and men) at risk of teenage pregnancy.

Individuals often enter “friendships” and relationships with their own perspective on dating, relationships, sex, and procreative consciousness, but those ideas are subject to change in response to interactions and negotiations with a partner. Collecting more and richer data on relationship activities, the dynamic nature of relationships, and their gendered aspects is therefore essential (Blanc, 2001; Giordano, et al. 2004; Greene & Biddlecom, 2000; Manlove, Ryan, & Franzetta, 2004). Researchers need to develop more innovative methodologies to capture males' and females' interactions and relationship experiences more directly. The Add Health study provides a strong example of how researchers can develop a survey-based research design that includes data from romantic partners (Udry & Bearman, 1998).

Using a dyadic approach is challenging given the fleeting nature of typical adolescent relationships (Sonenstein, Ku, et al. 1997). Nevertheless, survey, qualitative, and clinical/programmatic designs can all be modified to collect such data from romantic and sexual partners either as part of a cross-sectional or longitudinal design. Ideally, these data would incorporate multi-method strate-
gies. Males and their partners would answer questions about their own perceptions and experiences with regard to each other as well as other relevant relationships or events.

From a methodological perspective, this effort would be enhanced by collecting data from both partners in various types of relationships while studying the processes by which key decisions relevant to pregnancy prevention and resolution were made. These decisions would include not only those directly involving sexual intercourse, but those relating to other intimate activities—particularly ones occurring prior to the first sexual experience as well as the first time individuals have sex with a new partner. Addressing the wide range of questions in this area requires a combination of survey and qualitative methods. Multi-method projects using regional (e.g., one city) or school-based (e.g., smaller version of Add Health) samples would be well-suited for this type of research.

When sexual activity is consensual, both partners either tacitly or explicitly participate in a decision-making process. As this review indicated, some researchers have considered partner characteristics and the relationship context (e.g., Cleveland, 2003), but much more can be learned by studying men’s experiences within a framework emphasizing various aspects of relationship dynamics. Although the recent Toledo Adolescent Relationship Study does not include couple data, its multi-method (survey and in-depth interviews) and intensive emphasis on relationship dynamics provides a useful model for exploring how young males (and females) think about and navigate romantic relationships that ultimately may have implications for teen pregnancy issues (Giordano, et al. 2004). The qualitative component of this study can generate rich insights about the varied ways teenage males experience and talk about their romantic relationships. As these authors stress, many young males wrestle with feelings for partners that challenge traditional masculine sexual scripts, such as the “player” identity (Sullivan, 1989).

Research dealing with relationship dynamics should take into account contemporary issues related to gender. For example, future research on gender and first sexual intercourse could be strengthened by applying West and Zimmerman’s (1987) sociological approach emphasizing the process of “doing gender” and Connell’s (1995) notion of “gender projects.” Rather than thinking of gender as a trait of an individual or their views about gender norms, these models stress that gender is part of a process of gender relations. Individuals are viewed as constructing gender in their everyday lives, using their bodies as agents for self-definition and social interaction. Individuals perform gender by evaluating their own and others’ attempts to express/display masculinity and femininity. Because individuals value others’ opinions of them, they often seek validation by doing gender.

Applying these models to how youth negotiate the first time they have sex would highlight how some males engage in masculine gender displays in their romantic involvements. Much can be learned by developing a better understanding of how males’ first sexual experience results from subtle or explicit use of coercive tactics while “doing gender” to persuade or force a girlfriend, dating partner, or friend to have sexual intercourse (or some other form of sex). This issue warrants attention given the notable proportion of young women reporting that their first sexual intercourse was either coerced or unwanted (Abma, Dricoll, & Moore, 1998; Abma, et al. 2004; O’Sullivan & Allgeier, 1998; Ryan, Manlove, & Franzetta, 2003). Addressed from another angle, to what extent and how do young male virgins engage in masculine posturing when they reluctantly succumb to their partner’s invitation to have sex? Males’ imagined fears of other males’ perceptions of them, should they say no to an opportunity for sex, may represent a form of pressure sufficient to persuade young males to have intercourse for the first time. What circumstances predict young males’ tendencies to protect their masculine image rather than remain virgins? Because masculinity is a social construct, understanding these personal and interpersonal processes can inform efforts to build initiatives that encourage young males to embrace a form of masculinity emphasizing a mindful approach to sex, contraception, and fatherhood (Marsiglio, 2003).
Another area that can benefit from additional research is the multilayered and complex ways family members and peers influence young men's involvement in issues related to teen pregnancy. Questions focusing on the types of messages young men are exposed to and the extent to which these messages influence their attitudes and decisions regarding sex, contraception, and other topics can best be addressed with both longitudinal designs (ensuring the temporal sequencing of relevant events) and qualitative methods (providing participants with the opportunity to discuss in detail the circumstances surrounding their decisions). The multifaceted parent-child relationship—including the topics and style of communication they share and parental monitoring—remains a poorly understood area that warrants attention, particularly when studying younger adolescents. Regarding peer relationships, some research should address young men's selection and perceptions of friends who do or do not have sexual experience. In addition, young men's association with friends needs to be characterized in terms of whether these individuals pursue other problem behaviors, most notably substance use, that are associated with sexual risk-taking. More extensive survey questions about friendship networks and qualitative studies that explore the meaning and influence of friends are warranted.

Whenever possible, questions about family and peer processes should take into account the larger community or neighborhood context in which young males (and females) make decisions about sex, contraception, and fertility-related events. Studying the impact of neighborhood characteristics is fraught with difficulties because of the complexities of measuring them (Jencks & Mayer, 1990; Krause, 1993; Ramirez-Valles, Zimmerman, & Newcomb, 1998). Jencks and Mayer, for example, argue that models using separate individual items (e.g., poverty level, unemployment rate, racial composition) to assess neighborhood properties can be problematic because the items are often highly correlated. The significance of individual items can be attenuated because they compete with each other to predict an outcome. One alternative is to develop composite measures for neighborhood characteristics, a strategy consistent with the theoretical notion that neighborhoods represent an ecological system comprised of several interrelated features. This strategy has its own shortcomings, including the inability to determine which neighborhood factors may be most important or which combination of factors matter most. Ramirez-Valles, et al. (1998) show how structural equation modeling can help to overcome these shortcomings in their analysis of adolescents' sexual risk-taking.

Once researchers choose a strategy for measuring neighborhood characteristics, they can consider ways to examine how family- and peer-related processes may be moderated by neighborhood conditions. Analyses focusing on young males' sex and contraceptive-related behaviors should then consider how parenting strategies and peer interactions may have different consequences in diverse neighborhoods (see for example, Longmore, et al. (2001); Roche et al. (2005). Attention also should be given to how young males' involvement in pro-social activities (e.g., community volunteering, participation in school clubs and sports) affects their behavior while being influenced by neighborhood context (Ramirez-Valles, et al. 1998). Research along these lines is vital because it deepens understanding about the relationship between social context and individual behaviors.

Another line of research should utilize ethnographic methods that relate neighborhood context to social psychological processes (Anderson, 1993). Multi-method studies focusing on youth living in specific neighborhoods or cities would be ideal. An important avenue for research on social context involves efforts to explain racial/ethnic differences in sex, contraceptive, and fertility-related experiences. In particular, more needs to be done to enhance understanding about the persistent racial/ethnic differences found in self-report survey data regarding sexual activity. Typically, research finds that significant differences between blacks and other racial/ethnic groups are attenuated but not eliminated when related background and neighborhood factors are controlled, including personal and neighborhood-level socioeconomic status. Although scholars have speculated as to why differ-

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**THE NATIONAL CAMPAIGN TO PREVENT TEEN PREGNANCY**

64
ences persist, the explanations remain unclear. The background control variables used to date may not capture adequately the full scope of properties associated with them. For example, young black men may negotiate their sexual lives somewhat differently than youth of other races/ethnicities due to other unmeasured, or poorly measured, variables.

Another way to consider the impact of social context is to study young men's perceptions and decisions about their virginity, including their willingness to make virginity pledges. These issues can only be addressed rigorously with longitudinal designs in which an adequate number of virgins at an initial observation point can be followed over time. Because the sentiments and experiences surrounding virginity are likely to emerge within the context of social influence from peers, research needs to consider how various types and levels of peer influence (e.g., single best friend, network of close friends, peer group or clique, leading crowd, school as a whole) affect how young men think, feel, and act.

Key questions concerning the relationship between substance use and sexual behavior or contraceptive use may not always directly implicate a social network of friends. For example, some assume that the use of substances (e.g., alcohol and drugs) around the time of a sexual episode will distort participants' judgment and increase the chance for sexual/contraceptive risk-taking and unwanted sex. More specifically, it is expected that individuals will be more likely to have sex indiscriminately and less likely to use condoms during a sexual episode where one or both partners have been using a substance.

Using various methodologies, a number of researchers have attempted to examine the relationship between alcohol use and risky sexual behavior, particularly condom use. This research has focused on various types of sexual events (e.g., first intercourse ever, first intercourse with most recent partner, last intercourse with most recent partner) for adolescents as well as adults. A critical review of studies conducted in the 1980s and early 1990s, not controlling for gender, concluded that:

future studies need to compare multiple sexual events for each subject, including those involving and not involving alcohol, and preferably with the same partner over multiple time points. Studies that do not include more than one event per subject limit our ability to determine the extent to which alcohol, in contrast to simply personality or partner characteristics, is associated with unprotected sexual intercourse (Halpern-Felsher, et al. 1996, p. 335).

This recommendation underscores the importance of measuring various types of contextual variables to better understand young men's sexual lives.

Some research has tried to measure the impact of media exposure on teens' sexual attitudes and behavior. As Steele (1999) observes, documenting adolescents' type and level of exposure to certain media, or determining how media exposure is correlated with particular sexual beliefs, does little to further our understanding of the processes by which youth apply media to their everyday lives in a practical sense. A worthwhile issue to consider is how youth process media within the context of their families, among their friends, and at their schools in ways that influence their decisions about sex and contraception. Although Steele's qualitative research with young men and women does not focus specifically on the potentially unique experiences young males have with the media, it encourages researchers to consider the complex ways males consume media and then incorporate it into their interactions.

Finally, much can be gained by using qualitative research and encouraging men to think about how the experiences they have had with previous partners affect their current expressions of procreative identity. Marsiglio and Hutchinson's (2002) qualitative research with young men highlighted social psychological issues related to how young men become aware of their ability to procreate and then negotiate that awareness within the course of their relationships. Their qualitative interviewing style highlights the value of this particular method-
ological approach, which gives participants the opportunity to discuss their distinct yet interrelated ways of thinking about their procreative abilities or "knowing." One specific recommendation that emerged from this line of questioning is relevant to qualitative and survey research: participants should be encouraged to comment on the "paternity confidence" they have about particular pregnancies and children (Marsiglio, in press). Young males vary in how certain they feel they are genetically responsible for a pregnancy or child. Developing survey measures and interviewing strategies to capture how males construct this concept in conjunction with, and separate from, their interactions with their partner would be useful.

This brief discussion of key methodological issues and directions for future research demonstrates that scholars have laid the groundwork for a new generation of high-quality survey and qualitative research on the sexual attitudes and behavior of young males (and females). To be successful, such research must address a wide range of theoretical and substantive issues. In addition, researchers should make a concerted effort to clarify how their findings can inform program and social policy initiatives that will bring about positive outcomes for young males, their relationship partners, and their future children.
Appendix B: Summary of Key Study Characteristics

Survey Data Set Legend:

Add Health: National Longitudinal Study of Adolescent Health
NLSY: National Longitudinal Survey of Youth
NLSYC: National Longitudinal Survey of Youth (Child Supplement)
NSAM: National Survey of Adolescent Males
NSFG: National Survey of Family Growth
NSYM: National Survey of Young Men
NYS: National Youth Survey
YRBS: Youth Risk Behavior Survey

Abbreviations and Definitions:

A-CASI: audio computer-assisted self-interviewing instrument
Hazard model: a multivariate statistical approach for examining longitudinal data that examines the relationship between independent variables and whether an event occurs (e.g., first sexual intercourse) while taking into account the duration of time (e.g., number of months, years) a person is at risk of making a transition from one state to another (e.g., from virginity to sexually experienced).
Time 1 versus Time 2: first and second data collection points
SES: Socioeconomic status
Sexual debut: having first sexual intercourse

Sexual Behavior

<table>
<thead>
<tr>
<th>Study Information</th>
<th>Sample Description</th>
<th>Research Methods</th>
<th>Design &amp; Analysis</th>
<th>Key Findings</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roche, Mekos, Alexander, Astone, Brandeen-Roche, &amp; Ensminger, 2005</td>
<td>Add Health, 1995-96, analysis sample includes virgins at Time 1, participated at Time 2, parents interviewed at Time 1, N=2,559</td>
<td>Males and females aged 12-16, Neighborhood socioeconomic status, parental involvement, parent-child communication about sex, family structure and background factors, gender, puberty, others</td>
<td>Likelihood of first sexual intercourse between survey dates</td>
<td>Longitudinal and logistic regression</td>
<td>Greater parental involvement predictor lower likelihood of first sex only for those living in disadvantaged neighborhoods. Longitudinal design controlling for virginity status at time one provides strong basis for conclusions. Good multilevel analysis.</td>
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</table>
### Study Information

<table>
<thead>
<tr>
<th>Publication Author(s)/Date</th>
<th>Sample Description</th>
<th>Research Methods</th>
<th>Results and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cleveland &amp; Gilson, 2004</strong></td>
<td>Add Health, 1995-96, complete in-home adolescent, parent, and contextual data, N=12,923</td>
<td>Males and females, mean age 16.2, females, 16.1</td>
<td>Proportion of single-parent households in census tract/block, mother-son relationship quality, race, mother's education</td>
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<td><strong>Longmire, Manning, Giordano, &amp; Rudolph, 2004</strong></td>
<td>Add Health, 1995-96, restricted use sample in-home surveys, analysis sample, N=7,965 (3,665 males, 4,300 females)</td>
<td>Male and females enrolled in grades 7-12 in 1995</td>
<td>Self-esteem and depressive symptoms, controls for age, race/ethnicity, dating status, mother's education, family household structure</td>
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<td><strong>Giordano, Longmire, &amp; Manning, 2004</strong></td>
<td>Toledo Adolescent Relationships Study (2000), N=950 for survey analysis, N=100 for qualitative analysis</td>
<td>Male &amp; female 7th, 9th, &amp; 11th graders from Lucas County, Ohio including Toledo, 69% white, 24% black, 7% Hispanic</td>
<td>Gender, race/ethnicity, age, family structure, parenting monitoring, time with friends, parental education</td>
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<tr>
<td>Publication Author(s)/Date</td>
<td>Data Source, Location, year, SES/ Sample Size (N)</td>
<td>Age, Gender, Grade, Race Ethnicity</td>
<td>Key Independent Measures or Concepts</td>
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<td>Borawski, Ievers-Landis, Lovegreen, &amp; Trapi, 2003</td>
<td>Urban high school students, N =692, males=345, females=347</td>
<td>Male &amp; females, 9th/10th grades, mean age 15.7, 43% white, 36% black, 21% Hispanic</td>
<td>Age, race/ethnicity, parental education, census tract poverty, parental monitoring, negotiated unsupervised time, parental trust</td>
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<td>Cleveland, 2003</td>
<td>Add Health, 1995-96, most analyses on 724 relationship pairs</td>
<td>Male-female relationship pairs, 56 percent white, 20 percent black, 14 percent Hispanic. Male partner, average age 17.5, females, 17</td>
<td>Virginity status, prior to relationship, family structure, parent-child closeness, GPA, school attachment, sex desires, physical maturity, drinking, delinquency, perceptions of sex</td>
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<td>Meier, 2003</td>
<td>Add Health, waves 1 &amp; 2, 1995-1996. Analysis sample, N=4,948</td>
<td>Male and female 15-18 year old virgins at Time 1. Never-married at Time 2.</td>
<td>Religiosity, attitudes about sexual intercourse, relationship status, background factors</td>
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<td>Study Information</td>
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<td>Results and Comments</td>
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<td><strong>Data Source, Location, year; SES/ Sample Size (N)</strong></td>
<td><strong>Key Independent Measures or Concepts</strong></td>
<td><strong>Key Findings</strong></td>
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<td>Rostosky, Regnerus, &amp; Wright, 2003</td>
<td>Add Health, waves 1 &amp; 2, 1995-1996, Analysis sample, N =8,691 (1,799 males)</td>
<td>Male and Female Virgins at Time 1, those 15 years of age or older and enrolled in school</td>
<td>Rac...</td>
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<tr>
<td>Kaestle, Morisky, &amp; Wiley, 2002</td>
<td>Add Health, Analysis sample, N =1,975</td>
<td>Females enrolled in grades 7-12 in 1994-95</td>
<td>Difference in age between respondent and partner, respondents' age at start of relationship, race/ ethnicity, religious affiliation, mother's educational level, lived with &quot;mother-figure&quot; at time of interview</td>
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<td>Harris, Duncan, &amp; Boisjoly, 2002</td>
<td>Add Health, Analysis sample N =10,192</td>
<td>Males and females enrolled in grades 7-12 in 1994-1995, aged 13-18 (age 13-15 at wave 1 for sexual onset analysis)</td>
<td>School contextual variables, mental health, family structure, parent's education, welfare receipt, race, individual expectations</td>
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## Sexual Behavior continued

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<thead>
<tr>
<th>Study Information</th>
<th>Sample Description</th>
<th>Research Methods</th>
<th>Results and Comments</th>
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<td><strong>Age, Gender, Grade, Race Ethnicity</strong></td>
<td><strong>Key Independent Measures or Concepts</strong></td>
</tr>
<tr>
<td>Forste &amp; Haas, 2002</td>
<td>NSAM, 1988 &amp; 1990-91. Analysis sample of 452 heterosexuals who had never had vaginal or oral intercourse by 1988</td>
<td>Males, racially diverse, aged 15-19 in 1988</td>
<td>Age, precoital sexual experiences, risky activities, attitudes about sex &amp; gender, peer/parental role models, parental monitoring, family structure, material education, household income, school involvement, church involvement</td>
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<td>Maxwell, 2002</td>
<td>Add Health, 1995-96, analysis sample includes respondents with one matched same sex friend (N=1,881 for sexual debut question)</td>
<td>Males &amp; females enrolled in grades 7-12 in 1994-1995, aged 12-18</td>
<td>Race, gender, age, friend's behavior</td>
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<td>Ramirez-Valles, Zimmerman, &amp; Juarez, 2002</td>
<td>Regional survey dealing with school dropout, respondents recruited from four main public high schools in 2nd largest Michigan school district. N = 658 (Males = 234, Females = 324)</td>
<td>African American Male and Female 9th graders in 1994, 8th grade GPAs of 3.0 or below, aged 14-16 at first interview</td>
<td>Family SES status, parental education, family structure, parental involvement, participation in family decision-making prosocial activities, neighborhood social context</td>
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<td><strong>Key Independent Measures or Concepts</strong></td>
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<td>Baumer &amp; South, 2001</td>
<td>National Survey of Children, 3-waves (1976, 1981, 1987), N=1,111</td>
<td>Males &amp; females aged 18-22 in 1987</td>
<td>Neighborhood disadvantage, family background, parenting, peers’ attitudes, others</td>
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<td>Davis &amp; Friel, 2001</td>
<td>Add Health, 1995 wave 1, males and females who had mother serve as parental respondent</td>
<td>Restricted to males and females aged 11-18 enrolled in grades 7-12 in 1994-1995</td>
<td>Mother-child relationship quality, mother-child level of interaction, &amp; mothers’ attitudes toward &amp; discussion of adolescent sexuality</td>
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<td>O’Donnell, L. O’Donnell, C., &amp; Stueve, 2001</td>
<td>Research for Health Study (RFH), 1,287 Brooklyn, N.Y exclusive minority students in three middle schools (1994-95 &amp; 1995-96)</td>
<td>Male and female interviewed initially as 7th graders, followed to 10th grade. Seventy-nine percent non-Hispanic Black, 20% Hispanic.</td>
<td>Gender, race/ethnicity, age, year of enrollment</td>
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<td>Gates &amp; Sonenstein, 2000</td>
<td>NSAM, 1988 (N=1,880) &amp; 1995 (N=1,653)</td>
<td>Males, racially diverse, aged in 1988</td>
<td>Cohort year, age, race/ethnicity</td>
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<td>Santelli, Lindberg, Abma McNeely, Resnick, 2000</td>
<td>NSFG, NSAM, YRBS, &amp; Add Health</td>
<td>Males in NSAM, YRBS, &amp; Add Health; Females NSFG, YRBS, &amp; Add Health School attending 15-17 yr olds (similar sub-samples analyzed in all surveys)</td>
<td>Survey instruments, control for gender, race/ethnicity</td>
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<tr>
<td>Upchurch, Aneshensel, Saccof, &amp; Levy-Stroms, 1999</td>
<td>Los Angeles longitudinal panel of youth, 1st round 1992-94 (N=672), 2nd round 1994-95 (N=675)</td>
<td>Male &amp; females aged 12-17 in wave 1, for males 26% white, 47% black, 12% Hispanic, 11% Asian American, mixed income</td>
<td>Neighborhood types, respondents' perceptions of neighborhood family structure, race/ethnicity</td>
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<td><strong>Key Independent Measures or Concepts</strong></td>
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<td>Ku, Sonenstein, Lindberg, Bradner, Boggess, &amp; Pleck, 1998</td>
<td>NSYM (1979), analysis sample, N=609, NSAM (1988, analysis sample, N=745, 1995, analysis sample, N=733)</td>
<td>Pooled data set: 2,087 never-married males aged 17-19 living in households in metropolitan areas (continuous U.S.)</td>
<td>Cohort year, race, sex ed, age school status, religious family background, region of country, premarital sex attitudes</td>
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<tr>
<td>Eyre, Hoffman, &amp; Millstein, 1998</td>
<td>Qualitative interviews, suburban high school students outside San Francisco, 79% of participants' mothers had at least college education (N=39)</td>
<td>Blacks (21 male, 19 female), mean age of 17</td>
<td>Explore adolescents' understanding of the social context of sexual behavior.</td>
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### Sexual Behavior continued

<table>
<thead>
<tr>
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<td>Warren, Santelli, Everett, Kann, Collins, Cassell, Morris, &amp; Kolbe, 1998</td>
<td>YRBS (1990, N=11,631; 1991, N=12,272; 1993, N=36,296; &amp; 1995, N=10,904)</td>
<td>Male &amp; female students grades 9-12</td>
<td>Cohort year, race/ethnicity</td>
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<tr>
<td>Upchurch, Levy-Stornes, Sucoff, &amp; Aneshensel, 1998</td>
<td>Los Angeles longitudinal panel of youth, 1st round 1992-94 (N=872), 2nd round 1994-95 (N=675)</td>
<td>Male &amp; female youth, 12-17 in wave 1, 14.5 mean age. White, 26% black 11%, Hispanic 49%, Asian American 11%, mixed income.</td>
<td>Gender, race/ethnicity with Asian Americans well-represented</td>
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<tr>
<td>Kowaleski-Jones &amp; Mott, 1998</td>
<td>NLSY (waves 1979-92), linked to 1994 young adult file for respondents' children (N=959)</td>
<td>Male and female youth, mostly aged 14-18. All respondents used in sexual activity analyses. 483 used in contraceptive models.</td>
<td>Gender, race/ethnicity, individual attitudinal variables (e.g., self-esteem, locus of control, gender views), risk taking behaviors, current family characteristics, maternal characteristics</td>
<td>Ever had sexual intercourse, if sexually active—whether any form of birth control was used at last intercourse, whether they have been responsible for fathering a child (or having child for females)</td>
<td>Correlational analysis</td>
<td>Males who report using substances are more likely to have had sex. The same behaviors are not related to birth control use. Males reporting having had sex also report reduced levels of depression. Males who feel more depressed or have more traditional gender views are less likely to report using contraception at last intercourse. Risk taking behavior was not related to probability of reporting pregnancy. Teen fathers have lower inclination to take risks, higher depression levels, greater involvement in socially productive activities.</td>
<td>On average, teenagers in this sample represent a fairly disadvantaged group because they were born to young mothers.</td>
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<tr>
<td>Lauritsen &amp; Swicegood, 1997</td>
<td>Longitudinal data for National Youth Survey, 1977-1981, 1984. N=1,725 in initial wave, 1,405 for 6th wave.</td>
<td>Male and female youth age 11-17 in 1981. Eight-three percent white, 17% black.</td>
<td>Gender, race, socioeconomic factors, family structure, age at first interview, grade-point average</td>
<td>Ever had sex, age of first sex. Classified as “consistent,” (all 6 years reported no sex, or report age for first sex was within 1 year of age reported in wave 6), “inconsistent,” or “left-censored” (self-reported age occurred prior to the availability of interview data for respondent)</td>
<td>Logistic regression R5 as adolescents provided initial reports and then offered last reports as adults.</td>
<td>Black males least likely to give consistent responses. Inconsistencies do not appear to affect predictors of sexual intercourse.</td>
<td>Methodological paper focuses on reliability of reports but cannot address validity issues. Authors conclude that inconsistencies are probably due to self-presentation factors rather than a function of memory-related tasks.</td>
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<td>Smith, 1997</td>
<td>Eastern urban city sample of public school students, 9-wave panel study between 1987-92, analysis sample (N = 793)</td>
<td>Males (N = 556) and females (237), black &amp; Hispanic (primarily Puerto Rican), mean age 13.5 in 1987</td>
<td>Neighborhood poverty, family structure, parent attachment, child maltreatment, school aspirations, depression, substance use, race/ethnicity</td>
<td>Having first sexual intercourse at age 15 or younger</td>
<td>Logistic regression</td>
<td>Greater likelihood of having had sex at age 15 or younger for those who reported child maltreatment, substance use, being black. Neighborhood poverty was not significant.</td>
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<td>Capaldi, Crosby, &amp; Stoolmiller, 1996</td>
<td>Oregon Youth Study, 9 wave study of two cohorts (1983-1984, 1984-1985) of 4th grade boys in higher crime areas, N = 201 at final interview</td>
<td>Males, mostly white and lower or working class, mean age 14 in 8th grade</td>
<td>Parental transitions, parent SES, problem behaviors, physical maturity, academic skills, deviate peer associations</td>
<td>Timing of first intercourse</td>
<td>Event history analysis</td>
<td>Delinquent behavior and substance use, physical maturity, parental transition predicted early onset of sexual intercourse.</td>
<td>Wide range of data available from study including interview, questionnaires, observational, test data and records data using children, parents, and teachers.</td>
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<td>Mott, Fondell, Hu, Kowaleski-Jones, &amp; Menaghan, 1996</td>
<td>NLSY and supplemental surveys of children age 14 or older by 1992 (waves of data for 1988, 1990, 1992). Children, N = 1,825</td>
<td>Male and female children of NLSY respondents, age 14 or older as of 1992</td>
<td>Mother and family characteristics (e.g., involvement in antisocial activities, use of controlled substances, age at menarche, age at first sex, mean weeks per year since child’s birth, economic well-being, father in home) and child characteristics (e.g., fighting, stealing, substance use, religious involvement, age at menarche, intended age to have first child, educational expectations)</td>
<td>Odds of children of original cohort having had sexual intercourse by age 14</td>
<td>Logistic regression done separately for males and females</td>
<td>About 15% of males reported having had sexual intercourse before age 13.25% before age 14. Males more likely to have sexual intercourse prior to age 14 if their mothers had sex at an early age and worked more hours during 1979-92 period. Among black males, controlling for background characteristics, those who used alcohol more likely to have sex early. Attending church regularly and having peers attend is associated with a lower likelihood of early sex.</td>
<td>Unique sample of children whose mothers gave birth at relatively young ages (all younger than 22).</td>
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<td>Gilmore, DeLamater, Wagstaff, 1996</td>
<td>Poor youth in Milwaukee, Wisconsin area involved in jobs programs, tutoring or family planning services to low income youth, N=27</td>
<td>Black males 15-19, all sexually active</td>
<td>Beliefs about what it means to be a man, good and bad things about sexual intimacy, condoms, and AIDS</td>
<td>Five focus groups met for 75-90 minutes, including an initial viewing of “Put It On,” a video produced by local Black youth where they discussed sexual behavior and condom use.</td>
<td>Young males provide qualitative insights about how they view sex within a complex sexual script. Comments highlighted ways of perceiving women as “clean” or “dirty,” awareness that each partner in a relationship may lie while “running their game,” and fears of being “hooked up” by being deceived into fatherhood.</td>
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<td>Ku, Sonenstein, &amp; Pleck, 1993a</td>
<td>NSAM, 1988 N=1,880 Males, racially diverse, aged 15-19</td>
<td>Race/ethnicity, maternal age at first birth, grade models retention, sex/ AIDS education, family composition, strictness of family rules, frequency of religious attendance</td>
<td>Age at first intercourse</td>
<td>Discrete-time event history</td>
<td>Young men more likely to have earlier sexual intercourse if black, held back a year in school, employed mother or no mother living at home while growing up, mothers with younger age at first birth, less strict family rules, less religious attendance (not significant for blacks), instruction about AIDS and resistance skills related to sex. Condom use at first intercourse less likely when first partners were not reported to be virgins, and when males had “just met” partner.</td>
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<td>Ku, Sonenstein, &amp; Pleck, 1993b</td>
<td>NSAM, 1988 N=1,880; Census data 1980. Males, racially diverse, aged 15-19 in 1989</td>
<td>Neighborhood, family, and individual characteristics in last 12 months; frequency of intercourse in last 12 months, use of effective contraceptive methods at last intercourse, ever made someone pregnant, ever fathered a child</td>
<td>Female sex partners in last 12 months; frequency of intercourse; risk of pregnancy</td>
<td>Various multivariate methods</td>
<td>Young men who worked more hours were more sexually active and more likely to have made someone pregnant. Higher neighborhood unemployment rates independently related to greater risk of impregnation.</td>
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<td>Manlove, Ryan, Franzetta, 2003</td>
<td>Add Health, waves 1 (1995) and 2 (1996) in home interviews. Analysis includes R's responding to both waves who had first coitus relationship between interviews (N =1,027)</td>
<td>Demographic characteristics and individual attributes, relationship and partner characteristics (e.g., age difference, contraception discussion prior to first sexual intercourse)</td>
<td>Contraceptive consistency using a three level constructed measure (nonuse, inconsistent use, consistent use)</td>
<td>Chi-square and logistic regression.</td>
<td>Among males, contraceptive consistency use in their first sexual relationship was categorized as never (19%), sometimes (12%), and always (69%). Both males and females with older partners were less likely than others to use contraceptives consistently</td>
<td>Although this study presented some data separately for males and females, gender was used primarily as one of a series of independent variables.</td>
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<td>Ott, Adler, Millstein, Tschann, &amp; Ellen, 2002</td>
<td>Sexually experienced adolescents (N =436) from two clinics in San Francisco (1997-98)</td>
<td>Demographic background factors, partner type, relationship characteristics</td>
<td>Condom use at last intercourse</td>
<td>Logistic regression</td>
<td>Most males perceiving pregnancy as more negative, regardless of concerns about STDs, used condoms more (65-70%). Among those who perceived pregnancy as less negative, condom use was higher for those who also were concerned about STDs. For males, 42% used condoms when partner used hormonal contraception, 69% when partner did not.</td>
<td>Useful study that considers condom use while taking into account the context of the relationship, i.e., either casual or main sexual partner.</td>
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<td>Ford, Sohn, &amp; Lepkowski, 2001</td>
<td>Add Health, analyses use relationships as the unit of analysis (17,266) reported on by 8,024 adolescents.</td>
<td>Race/ethnicity, age, grade in school, similar school attendance and neighborhood for partners, relationship duration, type of partner</td>
<td>Condom use ever with a partner, condom use every time, whether contraception was ever used, was condom used in combination with other contraception</td>
<td>Logistic regression</td>
<td>In 23% of male relationships, condoms were used at some point with other contraception. Hispanic males least like to experience dual contraceptive use. Males more likely than females to report condom use with casual partners. Controlling for gender, those adolescents whose partners were more than 2 yrs older were less likely to report condom use.</td>
<td>Made good use of unique features of data set to explore relationships as the unit of analysis.</td>
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<td>Brindis, Boggess, Katsurakis, Mantell, McCarter, &amp; Wolfe, 1998</td>
<td>Self-administered questionnaire to family planning first-time clinic attendees, 1992-94 (N=1,780). Analysis sample restricted to sexually active (N=1,540).</td>
<td>Sample description given for full sample (sexually active &amp; virgins). Fourteen percent 14 yrs of age or younger, 50% aged 15-17, &amp; 36% aged 18-19. Asian (12%), blacks (18%), Hispanics (37%), white (30%).</td>
<td>Sexual behavior, pregnancy and parenting history, psychosocial characteristics</td>
<td>Effective contraceptive use</td>
<td>Logistic regression</td>
<td>Twenty-one percent had impregnated a partner, 8% were fathers. Seventy-three percent reported contraceptive use at first sexual intercourse. Asked what they would want to do if their partner were to become pregnant, 41% “keep the baby,” 16% abortion, 5% something else, 35% were not sure. At last intercourse, about 50% indicated they or partner had used effective method of birth control (50% reported using condom). Thirty-five percent used no method at last intercourse. Being comfortable with method, agreeing with partner about method, and no experience with pregnancy increased odds that effective method was used at last intercourse.</td>
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<td>Murphy &amp; Boggess, 1998</td>
<td>NSAM, independent surveys (1988, N=1,880) and (1995, N=1,729)</td>
<td>Males, racially diverse, aged 15-19</td>
<td>Attitudes about pregnancy prevention, AIDS avoidance, &amp; social consequences</td>
<td>Consistency of condom use (% of times condom was used alone or in combination with other method) during heterosexual intercourse during the 12 months preceding survey</td>
<td>Multivariate models (two-limit tobit models)</td>
<td>Examining separate, but similarly aged cohorts of sexually active males in 1988 and 1995, condom use consistency increased 24% Males reported use in 56% of their episodes in 1988 and 68% in 1995. The respective increases by race/ethnicity were, 31% (White), 17% (Black), and 12% (Hispanic). Attitudes toward partner appreciation of condom use, condom use embarrassment, and pleasure reduction from condom use changed in a direction consistent with more consistent use.</td>
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<td>Sonenstein, Ku, Lindberg Turner, &amp; Pleck, 1998</td>
<td>NSAM, independent surveys (1988, N=1,880) and (1995, N=1,729)</td>
<td>Males, racially diverse, aged 15-19</td>
<td>Survey years of 1988 and 1995</td>
<td>Ever have sexual intercourse, condom use and contraception at last intercourse, condom consistency levels of sexual risk</td>
<td>Trend analysis comparing percentages of responses for key variables based on 1988 and 1995 data.</td>
<td>Marginally significant reduction in first sex (60 to 55%); condom use at last intercourse increased (57 to 67%); average percentage of times condoms used in last year increased (56 to 69%).</td>
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<td>Barthlow, Horan, DiClemente, &amp; Lanier, 1995</td>
<td>Youths in a southern state correctional facility, N=303</td>
<td>Males (N=303) and females aged 12-19 in 1988. Fifty-six percent white, 39 percent black.</td>
<td>Gender, perceptions of AIDS, substance use, number of sex partners</td>
<td>Frequency of condom use</td>
<td>Chi-square and logistic regression.</td>
<td>Those most likely to be using condoms frequently were those reporting not using marijuana, not drinking beer, frequently asking about their partner’s sexual history, and worrying a lot about friends catching AIDS.</td>
<td>Although this analysis did not focus separately on males, over 82 percent of the analysis sample was males and this is one of the few studies of incarcerated males.</td>
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<td>Sullivan, 1995</td>
<td>Ethnographic study between 1984-1988 of three low-income neighborhoods in Brooklyn, NY, N=42</td>
<td>Separate areas including 17 blacks, 17 Puerto Ricans, 10 whites</td>
<td>Aspects of neighborhood environment including family, peers, schools, medical providers, sexual partners.</td>
<td>Focuses on young males’ initiation of sexual activity and knowledge of reproduction and contraception at that time.</td>
<td>Participant observation and life history interviews.</td>
<td>Most had fathered children to teen mothers. Young men reported early ages of sexual initiation, inconsistent use of contraception, reliance on withdrawal. Condom use was more common among casual partners than those with whom an emotional bond had been established. Many expressed a kind of fatalism about their future.</td>
<td>This type of ethnographic study is important though rare.</td>
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<td>Ku, Sonenstein, &amp; Pleck, 1994</td>
<td>NSAM, 1988, N=1,880 &amp; 1990-91 N=1,676, data primarily from wave 2</td>
<td>Males, racially diverse, aged 15-19 in 1988 and generally 17-22 in 1990-91.</td>
<td>Number of partner and relationship measures (e.g., length of presexual relationship, partner’s age, perception of partner as high risk) and respondent characteristics (e.g., age at first intercourse with partner, number of partners since 1988, race/ethnicity)</td>
<td>Condom use since last interview at first and last intercourse with up to eight partners, and proportion of sexual episodes protected by condom or the pill for each relationship. Some condom measures using 1988 data.</td>
<td>Descriptive and multivariate analyses.</td>
<td>Condom use highest early in a relationship, decline as relationship continues. Fifty-three percent used condom during the first sexual intercourse with most recent partner and 44% used condom at most recent episode. At first intercourse with most recent partner, condom use declined with age: 59% (17-18 yr olds), 56% (19-20 yr olds), 46% (21-22 yr olds).</td>
<td>Authors describe their findings in terms of the “saw tooth hypothesis.” They suggest that condom use rates are relatively high at the outset of each successive relationship but then decline as the relationship evolves.</td>
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<td>Landry &amp; Camelo, 1994</td>
<td>Nine focus groups of nonmarried, sexually experienced males (N=53) and three groups of females (N=23) conducted in Denver, 1993.</td>
<td>Male groups organized by age and race/ethnicity Separate groups for black, Hispanic, and white males, 16-17, 18-19, and 20-29 yr olds.</td>
<td>Participants asked to share thoughts about what comes to mind when they think of contraception.</td>
<td>Reasons unmarried men do or do not involve themselves in contraceptive practice.</td>
<td>Thematic analysis of focus group transcript data, with most data being from males.</td>
<td>Desire to use contraception driven by desire to avoid pregnancy and STDs, particularly AIDS. Condoms more likely to be used in short-term relationships. Communication about contraception least likely to occur in casual relationships, and in early stage of new relationship. Tendency to switch to non-condom methods as relationship evolves—often based on instinctive means of partner risk assessment.</td>
<td>Most men said that child-support issues did not play a role in their contraceptive decisions. Suggests that young males don’t have a long-term view when they engage in sexual relationships.</td>
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<td>Marsiglio, 1993</td>
<td>NSAM, 1988, N=1,880</td>
<td>Males, racially diverse, aged 15-19</td>
<td>Neighborhood quality, parental education, race/ethnicity, attitudes about male gender</td>
<td>Attitudes related to paternity, attitudes regarding contraceptive and fatherhood responsibilities</td>
<td>T-tests and logistic regression.</td>
<td>Compared to young men living in average or very good neighborhoods, those living in poor areas more likely to indicate they would be pleased with an unplanned pregnancy and more likely to view pregnancy as enhancing their masculinity. Sexually active blacks and Hispanics more likely than whites to have discussed contraception with last partner. Those aware that they caused a previous pregnancy are less likely than those who have not produced a pregnancy to report effective contraceptive use at last intercourse.</td>
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<td>Ku, Sonenstein, &amp; Pleck, 1992</td>
<td>NSAM, 1988, N=1,880</td>
<td>Males, racially diverse, aged 15-19</td>
<td>AIDS and sex education, Race/ethnicity, age, religion, family income, mother gain birth as teen, behind in school</td>
<td>Within the past year: number of sex partners, acts of intercourse, condom consistency rate</td>
<td>Tobit model</td>
<td>AIDS and sex education associated with lower sexual activity and greater condom use. Instruction in birth control and resistance skills affected condom use.</td>
<td>Useful study because it considers specific types of instruction rather than just sex education in general.</td>
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<td>Marsiglio &amp; Main, 1998</td>
<td>Main sample in 1998-99, (N=52) supplemental sample (N=18), 2000</td>
<td>Sensitizing concepts developed by the first author (e.g., procreative consciousness—pc, procreative responsibility, situational &amp; relationship pc, individual &amp; global pc) were explored.</td>
<td>The concepts procreative consciousness, fatherhood readiness, and turning points were refined and a series of interrelated properties were identified for each. Most males became aware of their procreative ability when they were 12-14 yrs old. Bonding and distancing processes were reflected in how males dealt with procreative issues within their romantic relationships.</td>
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<td>Hutchinson, 2002</td>
<td>(N=52) supplemental black, Hispanic, and white</td>
<td>Focuses on how young males become aware of their ability to procreate and how this awareness relates to the way they conduct themselves in their romantic relationships.</td>
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<td>In-depth qualitative interviews were used as part of modified grounded theory approach. Analysis of transcript data generated a richer and deeper understanding of key concepts related to young men's procreative experiences.</td>
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<tr>
<td>Boggess &amp; Bradner, 2000</td>
<td>NSAM, independent surveys (1988, N=1,880) and (1995, N=1,729)</td>
<td>Survey years of 1988 and 1995 for trend analysis; background factors, ever had sex, made someone pregnant, attitude toward premarital sex, year of study for multivariate analysis</td>
<td>Trend toward more conservative attitudes toward abortion, with change most prominent among whites. Whites' views appear to have changed in part because of increased levels of religiosity. From 1988 to 1995, percent agreeing either a little or a lot that it was alright for a woman to have an abortion for any reason declined from 37 to 24%.</td>
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<td></td>
<td></td>
<td>Approval of abortion based on different circumstances, attitude toward premarital sex</td>
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<tr>
<td>Guagliardo, Huang, D'Angelo, 1999</td>
<td>Inner-city outpatient clinic sample recruited 1994-96 in Washington, DC, N=399.</td>
<td>Age, school progress, 3 or more lifetime sexual partners, confirmed drug positivity, STD history, household living arrangement, fighting history, age differential with last sex partner</td>
<td>Twenty-four percent reported a pregnancy history (PH). These males, compared to those without PH, were 1.4 times more likely to report 3 or more sex partners in last year, more than 5x more likely to have STD history, 3x more likely to test positive for drugs, and 2.5 times more likely to be inconsistent or nonusers of condoms.</td>
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<td></td>
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<td>Report that they had impregnated someone.</td>
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<tr>
<td>Study Information</td>
<td>Sample Description</td>
<td>Research Methods</td>
<td>Results and Comments</td>
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<tr>
<td><strong>Publication</strong></td>
<td><strong>Data Source, Location, year, SES/ Sample Size (N)</strong></td>
<td><strong>Key Independent Measures or Concepts Explored</strong></td>
<td><strong>Key Findings</strong></td>
<td></td>
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<tr>
<td><strong>Author(s)/ Date</strong></td>
<td><strong>Age, Gender, Grade, Race Ethnicity</strong></td>
<td><strong>Key Dependent Measures or Social Processes Studied</strong></td>
<td><strong>Comments</strong></td>
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<td></td>
<td>Males were aged 12-13 at wave 1. Equally distributed among white and black males.</td>
<td></td>
<td>Twelve percent reported becoming fathers before age 19. Drug use not a significant factor, but delinquency was. Other predictors were cruelty to people, raised in a family on welfare, drug exposure—being offered drugs or seeing a drug deal. Race, early sexual activity, low level of mother's education, low school achievement, being older than other boys in the same grade, predicted teen fatherhood.</td>
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<tr>
<td>Sugland, Wilder, &amp; Chandra, 1997</td>
<td>12 focus groups in Baltimore, Maryland and Houston, Texas in 1996 (N=106).</td>
<td>Teens' views about sex, pregnancy, and contraception.</td>
<td>Small groups of teens (males &amp; females combined) asked three main questions about sex, pregnancy, &amp; contraception.</td>
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<td>Males and females aged 16-19, black, Mexican, and white. Fifty-four percent low-income, 45% moderate income.</td>
<td>Study teens' attitudes and opinions about adolescents' having sex, teen pregnancy, and contraceptive use. Interest in getting feedback on possible pregnancy prevention programs and policies.</td>
<td>Thematic analysis of responses. White males more fearful of pregnancy, whereas blacks and Mexicans at least as likely to be concerned about STDs. Considerable gender distrust, especially from black males. Little discussion about sex before it happens. Aware of pregnancy possibilities, but don't think about it much.</td>
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</tbody>
</table>

**It's a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention**
<table>
<thead>
<tr>
<th>Study Information</th>
<th>Sample Description</th>
<th>Research Methods</th>
<th>Results and Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publication Author(s)/ Date</strong></td>
<td><strong>Data Source, Location, year, SES/ Sample Size (N)</strong></td>
<td><strong>Key Independent Measures or Concepts Explored</strong></td>
<td><strong>Key Dependent Measures or Social Processes Studied</strong></td>
</tr>
<tr>
<td>Thornberry, Wei, 1997</td>
<td>Panel study of urban youth from 1988 to 1996-97. Rochester, NY (N = 615), Interviews from youth, parents, and official sources.</td>
<td>Race/ethnicity, neighborhood characteristics, family SES, parental stress, parent-child relationship, educational attainment and commitment, early sexual activity, delinquent peers/gangs, individual characteristics, drug use or delinquency.</td>
<td>Does prior involvement in delinquent behavior increase the risk that a boy will become a teenage father (before age 20).</td>
</tr>
<tr>
<td>Marsiglio &amp; Menaghan, 1990</td>
<td>Self-administered survey to 577 high school students in Columbus, Ohio in 1985.</td>
<td>Gender, race, age, living with two parents, parental education, religious attendance, college expectations, desired number of children.</td>
<td>Predicting odds of different hypothetical pregnancy resolution options based on vignette: abortion vs. birth, adoption vs. parental rearing, two-parent vs. one-parent. Perceptions of consequences for parental rearing.</td>
</tr>
</tbody>
</table>
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It's a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention


Jaccard, J., Dittus, P. J., & Gordon, V. V. (1996). Maternal correlates of adolescent sexual and con-
traceptive behavior. Family Planning Perspectives, 28, 159-165, 185.


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Chapter 2

What Works for Boys?
A Re-examination of Coeducational School Curricula

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Center for Adolescent Health
The Johns Hopkins Bloomberg School of Public Health

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Introduction

Although girls have traditionally been the major focus of teen pregnancy prevention, especially family planning efforts, the importance of targeting teen boys and young men is now recognized. Indeed, the sharp reduction in teen pregnancy and birth rates since 1990 is due, in part, to substantial shifts in the sexual behavior of male teenagers over the past two decades. Recently released information from a 2002 national survey indicates that the proportion of teen boys who have had sex has decreased significantly since 1988, while condom use among those who are sexually experienced has increased. For the first time since surveys started to document teenagers' sexual activity, boys report having sexual intercourse at the same rate as girls. Just under half (46 percent) of single males aged 15-19 reported ever having had sex in 2002, as did 46 percent of single females in this age group.

The steady decrease in pregnancy and birth rates among teenagers in the United States since 1990 is encouraging. Between 1990 and 2000, the pregnancy rate declined 27 percent, and the teen birth rate declined 26 percent. Still, there is need for additional progress in reducing U.S. teen birth rates, which remain 25 percent higher than the rates in comparable European countries. Of specific concern are the large disparities in rates within the United States by race, ethnicity, income, and neighborhood economic deprivation. Birth rates among urban low income teenagers, especially teenagers of color, are markedly higher than the rates among other groups of teenagers. For example, the birth rate to females aged 15-19 in 2000 was one third higher in the nation's largest cities (89 per 1000) than for the nation as a whole (67 per 1000). In some cities with large concentrations of urban poor the rates were fifty percent higher. Eight cities had rates over 100, including Atlanta, Bakersfield, Dallas, Denver, Las Vegas, Louisville, Miami and Tampa. Further, teenagers are disproportionately affected by sexually transmitted diseases (STDs). Approximately one half of all STD cases occur among sexually active teenagers and young adults aged 15-24. Clearly, continued efforts are needed.
to reduce pregnancy, birth and STD rates among teenagers. Programs that seek to reduce sexual risk taking among male teens could be particularly promising because they address a constituency that contributes to pregnancies and STD transmission. Moreover, the opportunities offered by these programs have not yet been fully explored.

A question often posed by program planners is, "What can we do for the boys?" Some practitioners are unaware of the existing research or are concerned that the evidence from evaluations of male programs is quite limited. Programs designed specifically for males are relatively new to prevention efforts. Only two of these programs have been evaluated to see if they produce positive changes in behavior among participants compared to boys not in the programs. The most successful of these is the Be Proud, Be Responsible program. African American male teenagers randomly assigned to participate in this five-hour program were less likely to have sex and more likely to use condoms than the control group three months after the intervention. A second program, Wise Guys, targeting boys in middle school over an eight-week period, underwent a less rigorous evaluation and had mixed results. Middle school boys identified by their principals as low achievers or having "behavior problems" participated in the program. Program participants reported increased levels of sexual experience and contraceptive use six months after the intervention compared to boys in other schools. However, because the boys in the comparison group appeared to be initially quite different from those in the intervention group in terms of contraceptive use and knowledge about sexuality, the results of this evaluation should be interpreted cautiously.

Program planners who want to develop programs for boys have very limited options if they look for evidence-based, male-only programs. Luckily, they have more options if they consider programs that were designed to include both boys and girls. Compared to programs focused entirely on boys and young men, many more co-educational programs have been developed and rigorously tested. To date, however, these programs have not been systematically reviewed to assess which ones produce positive changes in the sexual and contraceptive behavior of male teenagers. This report examines the extensive research literature on co-educational, teen pregnancy, STD, and HIV prevention programs to identify programs that are particularly effective for teen boys. It focuses on programs that have been put in place in middle or high schools, but many could be used in other settings.

**Methods**

This report is based on a systematic literature review of studies that assessed whether programs resulted in positive behavior changes for both males and females or for one gender only. The intent was to identify programs that are effective in reducing sexual risk taking among teen boys including the initiation of sex, the frequency of sex, the number of sexual partners, and contraceptive use.

Co-educational, school-based programs were selected for review if the program had been rigorously evaluated and the results had been published in a peer reviewed journal. Further, the programs needed to meet specific criteria related to the type of program and the rigor of the study design (listed below). Many of these criteria have been used in other reviews of teen pregnancy prevention programs and are adapted from Douglas Kirby's review published in 2001. In a thorough literature review, 67 programs were initially identified as potentially eligible, but closer examination led to the selection of 27 program descriptions that actually met these criteria. Of these, 18 reported positive behavior changes for both males and females or for one gender. These 18 programs are the focus of this review. For additional discussion of the methods used to conduct the literature review and identify programs see Table 1 and Appendix A.
Table 1. Inclusion criteria for the selection of studies for this review

- The program was co-educational and includes a school-based component.
- The study measured impact on sexual behavior such as initiation of sex, contraceptive use, frequency of sex, number of sexual partners, pregnancy or childbearing.
- The study was conducted in 1980 or later.
- The study was conducted in the United States or Canada.
- Junior high school and/or high school aged adolescents who were not already parents were targeted by the intervention.
- The study design was experimental or quasi-experimental with baseline and follow-up data from intervention and comparison groups used to determine impact.
- The study sample size was 100 or more.
- Involvement of participants in the intervention was known by the researchers and not based on participant recall.
- Study follow-up time was at least 6 months after the intervention if initiation of sexual intercourse was measured and at least 4 months if frequency of sex or condom use was measured.
- Proper statistical analyses were used.

Table 2 lists the 18 programs showing some evidence of effectiveness by gender and by program type. The assignment of programs into a typology is admittedly an inexact process and is limited by the descriptions of the programs that are included in published articles. The selected categories based on these limited descriptions differentiate programs by the numbers and types of components. The first category included programs whose sole component was sex education. There were five of these programs, two of which used the Postponing Sexual Involvement (PSI) curriculum. The second category included the two programs with a service learning component. The third category included four programs with sex education and a parent component. The fourth category included seven programs with sex education and additional components such as changes to the school environment, community involvement, or health services. These programs are further classified—those that are designed to incorporate adaptations to the culture of the participants, those that include school, community and/or parent components, and two other programs that did not fall into any of these categories.

While studies of these programs found positive changes in sexual behavior using comparison groups or experimental designs, some of the evaluations were more rigorously designed and implemented than others. This is an important distinction because programs that have been more rigorously examined increase confidence that replications of these programs also will produce positive results under similar conditions. The studies were then further classified into two groups: those with particularly strong evaluation methodology and those without it. Studies were classified as particularly strong if they included the random assignment of participants to the intervention (an experimental design), if the investigators were able to adjust for confounding factors in the comparison group designs, if the study was able to follow at least 75 percent of the study participants, and if the study involved large numbers of participants. The rationale for the categorization of programs by the strength of the research is shown in Appendix B. In Table 2, the programs with particularly strong methods are highlighted. In this report, more in-depth descriptions are provided for effective programs with more rigorous evaluation designs.
### Table 2. Evaluation results by program type and gender

<table>
<thead>
<tr>
<th>Types of Programs</th>
<th>Positive Behavior Changes</th>
<th>Males &amp; Females</th>
<th>Males only</th>
<th>Females only</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Sexuality education component only</strong></td>
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<tr>
<td>Postponing Sexual Involvement (Howard &amp; McCabe, 1990)</td>
<td>+</td>
<td>+</td>
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<tr>
<td>Postponing Sexual Involvement (Aarons et al, 2000)</td>
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<tr>
<td>Untitled curriculum (Walter &amp; Vaughn, 1993)</td>
<td>+</td>
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<tr>
<td>Protection Express Program (Caron et al, 2004)</td>
<td>+</td>
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<tr>
<td>Teen Talk (Eisen et al, 1992)</td>
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<tr>
<td><strong>2. Programs with a service learning component</strong></td>
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<tr>
<td>Reach for Health (O’Donnell et al, 2002)</td>
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<tr>
<td>Teen Outreach Program (Allen &amp; Philliber, 2001)</td>
<td>+</td>
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<tr>
<td><strong>3. Programs with sexuality education and a parent component</strong></td>
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<tr>
<td>Taking Charge (Jorgensen et al, 1993)</td>
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<td>Sex Can Wait (Denny et al, 2002)</td>
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<tr>
<td>Reducing the Risk (Kirby &amp; Barth, 1991)</td>
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<tr>
<td>Rochester AIDS Prevention Project (Siegel et al, 2001)</td>
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<tr>
<td><strong>4. Programs with sexuality education and other components</strong></td>
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<tr>
<td><strong>a. Programs with a cultural component</strong></td>
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<tr>
<td>Aban Aya Youth Project (Flay et al, 2004)</td>
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<tr>
<td>Draw the Line/Respect the Line (Coyle et al, 2004)</td>
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<tr>
<td><strong>b. Programs with sexuality education, school, community and/or parent component</strong></td>
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<tr>
<td>Seattle Social Development Project (Lonczak et al, 2002)</td>
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<tr>
<td>Safer Choices (Kirby et al, 2004)</td>
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<tr>
<td>School/Community Risk Reduction Replication Initiative (Paine-Andrews et al, 1999)</td>
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<td><strong>c. Other program approaches</strong></td>
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<tr>
<td>Self Center (Zabin et al, 1986)</td>
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<td>Carrera Program (Philliber et al, 2002)</td>
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*+ indicates increase in positive behavior   **- indicates decrease in positive behavior

Highlight indicates a strong evaluation methodology was used.

### Results

#### Programs With Sexuality Education Curriculum Only

Five studies assessed programs with a classroom-based sexuality education curriculum as the sole intervention component. Two studies evaluated the Postponing Sexual Involvement (PSI) curriculum. The other three evaluated an untitled curriculum developed by Walter and Vaughn (1993), the Protection Express Program (Caron et al, 2004), and Teen Talk (Eisen, Zellman and McAlister, 1990). None of these studies met the criteria for “methodological rigor” (See Appendix B). As shown in Table 3, three of these programs resulted in positive behavior changes among boys and girls. One program showed positive changes among male participants but negative changes among females (in **bold**), and one showed positive changes among female participants only.
Program planners who want a sexuality curriculum for males should consider several issues before replicating any of these programs. If both boys and girls will participate, it is important to select a program that is effective for both genders, such as the “Protection Express Program” and the untitled program by Walter and Vaughn. The two studies of PSI provide conflicting results, and the Teen Talk program produced positive behavior changes in males but negative results for females. Still, the latter program might be suitable for a program serving only males.

Programs With A Service Learning Component

Both studies of service learning programs were identified as methodologically strong, and both reported positive changes in behavior for boys and girls. The Reach for Health program reported delays in sexual initiation and lower levels of recent sexual activity. The Teen Outreach (TOP) program demonstrated reduced incidence of pregnancy, though it is not clear which specific behavioral changes were responsible for this outcome. The outcomes for these programs appear in Table 4.

Table 3. Study outcomes for programs with sexuality education curricula only

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Males &amp; Females</th>
<th>Males Only</th>
<th>Females Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>Untitled (Walter &amp; Vaughn, 1993)</td>
<td>Reduced sexual activity. Increased condom use.</td>
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<td></td>
<td>Increased number of sexual partners. Reduced high risk partners. Reduced STD diagnosis.</td>
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<tr>
<td>Protection Express Program (Caron et al, 2004)</td>
<td>Increased condom use</td>
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<tr>
<td></td>
<td>Increased contraceptive use</td>
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<td></td>
<td>Increased contraceptive use at last sex.</td>
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</tbody>
</table>

Table 4. Study outcomes for programs with a service learning component

<table>
<thead>
<tr>
<th>Service learning programs</th>
<th>Males and Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teen Outreach Program (Allen &amp; Philliber, 2001)</td>
<td>Reduced pregnancy.</td>
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</table>

It’s a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention
Reach for Health Service Learning Program

The Reach for Health Service Learning Program was developed using the principles of service learning, which emphasize the importance of reflecting on the community service experience. It served economically disadvantaged 7th and 8th graders in New York City by helping them gain the knowledge, attitudes, and skills necessary for avoiding high-risk behavior and making healthy choices. One component of the program was a classroom curriculum consisting of 40 lessons in the 7th grade and 34 lessons in the 8th grade that focused on risk factors for early and unprotected sex, violence, and substance abuse. Ten of the sessions each year covered healthy development and sex education.

A second component of the program was participation in community service projects (three hours per week, 90 hours per year), which provided students with an opportunity to practice social competency skills such as effective communication, social problem solving, and conflict resolution. The community service sessions were accompanied by weekly classroom discussions. These sessions enabled students to debrief, reflect on their experiences, discuss problems, and generate solutions. Students also had group discussions, meetings with teachers, and artwork projects as part of their reflection exercises. The program evaluation used an experimental design in which classrooms were randomly assigned to receive either the service learning intervention and the classroom curriculum or the classroom curriculum alone.

The results indicated that boys and girls in the intervention group (those who had service learning and sexuality education) were significantly less likely to have initiated sex or had sex within the past 30 days at the 10th grade follow-up than those in the comparison group (who had only sex education).

Teen Outreach Program

The Teen Outreach Program (TOP) was conducted in high schools in several states. Ninth through 11th grade students participated in the program for one year, with baseline measures collected at program entry and follow-up measures collected at program exit one year later. The intervention consisted of a minimum of 20 hours of community service throughout the year. On average, participants completed 37.4 hours of community service. In addition, there were classroom discussions about the volunteer experience and about the social and developmental tasks of adolescence.

Several teaching methods were used in this program including structured discussions, group exercises, role plays, guest speakers, and informational presentations. Service learning discussions focused on helping prepare students for their volunteer experience by increasing self-confidence, social skills, assertiveness, and self-discipline as well as encouraging students to think about their volunteer experiences and listen to others talk about their experiences. Discussions about the social and developmental tasks of adolescence focused on the clarification of individual values, life skills, managing family stress, human growth and development, and the transition to adulthood. Developmental issues included family relationships, academic and employment challenges, friendships, and romantic relationships. Approximately 15 percent of the written curriculum involved materials about sexuality.

Results show that students in TOP were significantly less likely to get pregnant or cause a pregnancy than students in the comparison group. Overall, the greatest program effects were for teens who already had been pregnant or caused a pregnancy. The authors suggest that this program may be most effective for youth at greatest risk for problem behavior because TOP may prevent disengagement from school, a condition associated with adolescent pregnancy.

The Reach for Health and Teen Outreach Programs have similar structures but differ in several important respects. Both programs involve community field placements accompanied by class-

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For the analysis, change scores were calculated and regression analysis was used controlling for gender and ethnicity and accounting for clustering of data by classroom.
room discussion and exercises, as well as a classroom curriculum covering sexuality and development. Still, TOP’s curriculum was more comprehensive in that it addressed several developmental issues beyond sexuality, including relationships and academic and employment challenges. Furthermore, Reach for Health targeted younger participants and provided a longer and more intensive intervention. Finally, different program outcomes were evaluated: sexual initiation and recent sex in Reach for Health and pregnancy in TOP.

In sum, the positive results demonstrated by these two school-based service learning programs suggest that service learning offers a promising strategy for influencing sexual behavior and teen pregnancy for males and females.b

Programs With Sexuality Education and a Parent Component

Four programs with positive effects on behavior included a parent component and a sexuality education curriculum (See Table 5). (Some of the programs described later in this report also include a parent component but only as one of several elements.) The four discussed here are Taking Charge (Jorgensen et al, 1993), Sex Can Wait (Denny et al, 2002), Reducing the Risk (Kirby and Barth, 1991) and the Rochester AIDS Prevention Project (RAPP) (Siegel et al, 2001). None of the evaluations of these programs were especially rigorous, and it is unclear to what extent, if at all, the parental component affected the outcomes. Two of the programs, Taking Charge and Sex Can Wait, had positive results among boys and girls. Two programs, Reducing the Risk and Rochester AIDS Prevention Program, documented positive outcomes for girls only.

Program planners interested in curricula that work with boys and that include a parent component could consider Taking Charge or Sex Can Wait. These curricula might also be good choices for those seeking coeducational programs. However, neither Reducing the Risk nor the Rochester AIDS Prevention Project curricula reported positive results for males in the program—just females.

Programs With Sexuality Education and Other Components

The final seven programs combine sexuality education with several other components (See Table 6). All of these programs attempt to influence broader aspects of the participants’ environment, such as the school or the community as a whole. Two of these programs focus on participants’ cultural heritage. The Aban Aya Youth Project (Flay et al, 2004) was developed for African American teens

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b Two older programs, Learn and Serve America and the Conservation and Job Corps are not reviewed here because they were not school-based, did not include a focus on sexual behavior, and did not demonstrate similarly positive effects on sexual behavior. However, the results for the Learn and Serve program was close to significance (p value<0.10).
and the Draw the Line/Respect the Line program (Coyle et al, 2004) for Latinos. Both of these programs had methodologically rigorous evaluations and reported positive changes in behavior for boys in the program. Neither showed evidence of behavioral change among female participants.

Three programs combined sexuality education with school, community, and/or parent components. Two of these programs—Seattle Social Development Project (Lonczak et al, 2002) and the Safer Choices program (Kirby et al, 2004)—had methodologically strong evaluations. Both of these programs report positive behavioral changes among boys and girls. More specifically, the Seattle Social Development Project documented decreased pregnancy and birth rates for the girls, and Safer Choices demonstrated increased contraceptive use among boys. The third program in this group, the School/Community Risk Reduction Replication Initiative, had a less rigorous evaluation design and reported positive behavioral changes for boys and girls.

<table>
<thead>
<tr>
<th>Table 6. Study outcomes for programs with sexuality education and other components</th>
</tr>
</thead>
<tbody>
<tr>
<td>Programs with Multiple Components, Including Sexuality education</td>
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<tr>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td><strong>1) Programs with a cultural component</strong></td>
</tr>
<tr>
<td>Ában Aya Youth Project (Flay et al, 2004)</td>
</tr>
<tr>
<td>Draw the Line/Respect the Line (Coyle et al, 2004)</td>
</tr>
<tr>
<td><strong>2) Programs with sexuality education, school, community and/or parent component</strong></td>
</tr>
<tr>
<td>Seattle Social Development Project (Lonczak et al, 2002)</td>
</tr>
<tr>
<td>Safer Choices (Kirby et al, 2004)</td>
</tr>
<tr>
<td><strong>3) Other program approaches</strong></td>
</tr>
<tr>
<td>Self Center (Zabin et al, 1986)</td>
</tr>
<tr>
<td>Carrera Program (Philliber et al, 2002)</td>
</tr>
</tbody>
</table>
Two other programs were categorized as “other program approaches” because of their unique characteristics. One program, the Carrera Program (Philiber et al, 2002) had a strong evaluation design but only reported positive changes in behavior among female participants. The second program, the Self Center (Zabin et al, 1986), had a less rigorous design and reported increased contraceptive use for both boys and girls in the program. For girls only, the program delayed sexual initiation and reduced pregnancy.

Following are more detailed program descriptions of the Aban Aya Youth Project and Draw the Line/Respect the Line since both had rigorous evaluations and positive outcomes for males. Descriptions also are provided for the Seattle Social Development Project and Safer Choices because both had strong evaluation methods and demonstrated positive results for boys and girls.

**Aban Aya Youth Project**

The Aban Aya Youth Project addressed violence, substance use, and risky sexual behavior among a low-income, predominately African American population of 5th through 8th graders in 12 Chicago schools. These schools were divided into four risk quartiles and randomly assigned to receive the intervention curriculum, the intervention curriculum plus a parent/school/community component, or a less intensive health enhancement curriculum. All the curricula included components that promoted African American values and pride. The curriculum—16 to 21 lessons per year for grades 5 through 8—taught participants how to build self-esteem and empathy; manage stress and anxiety; develop interpersonal relationships; resist peer pressure; develop decision-making, problem-solving, conflict resolution and goal setting skills; and apply these skills to avoid violence, delinquency, and unsafe sexual behavior. The curriculum also focused on developing a sense of self and purpose by addressing career planning, feelings, personal strengths, and cultural pride among other topics. Cultural values and history also were discussed. Compared to the less intensive health curriculum, the evaluation indicated that the intervention with the parent, school and community component showed statistically significant positive changes in behavior. Baseline measures were taken before participants began the program in 5th grade, and follow-up measures were taken at each subsequent year until the end of 8th grade. Recent sexual intercourse was significantly lower and condom use was significantly higher among boys in schools with the intervention curriculum and the parent, school, community components compared to boys in the control schools. There were no significant positive changes in behavior for girls in the program. The boys participating in the intervention curriculum plus parent, school and community components also were less likely to engage in violence or “provoking behavior” and less likely to use drugs and alcohol. (These results did not occur for female participants.) In discussing these results, the authors posit that reducing risky behavior in females may be more challenging because their levels of risky behavior are lower to begin with compared to males. They also suggest that the use of female and male health educators may have been particularly effective for boys, who rarely have male teachers. They also note that the intervention may have addressed behavior, such as aggression, in a manner that was not as relevant to females.

**Draw the Line/Respect the Line**

This program took place in 19 public middle schools in urban Northern California serving a predominantly (59%) Latino population. The curriculum consisted of 20 sessions held during regular school periods across three school years. Several teaching methods were used including small and large group discussions, skill-building exercises for small groups, stories, and individual activities. Specifically, the program offered the following components:

- Participants were taught how to set individual limits and to respect those set by others.
- Participants practiced refusal skills for both nonsexual and sexual behavior and were given...
instruction in understanding the consequences of unplanned sex.

- An HIV-infected speaker addressed program participants, and correct condom use was demonstrated.

- The program addressed the core concepts of Latino culture, and materials were available in English and Spanish.

Schools within three districts were divided into matched pairs. Within each pair one school was randomly assigned to receive the Draw the Line/Respect the Line intervention while the other received the typical HIV, STD, and pregnancy prevention classroom curriculum. Participants were followed for three years, with measures taken at baseline and each subsequent year of the program.

The evaluation results showed that boys in the intervention schools were significantly less likely than those in the comparison school to report ever having had sex and having had sex in the past 12 months. (Females did not show these positive outcomes.) Neither males nor females in the intervention schools showed significant improvements in condom use. The authors suggest that females may need an intervention that provides more skill-building activities and a supportive social environment. They also suggested that having older boyfriends may have contributed to the null effects. The authors posit that the program may have created an environment that made boys more comfortable with choosing to refrain from sex.

Seattle Social Development Project

The Seattle Social Development Project took place in 1st through 6th grade classrooms in 18 public schools in high crime areas in Seattle, Washington. This program is unique among the programs in this review because it starts early – in 1st grade. It has been included because it has a 6th grade component, which is often part of middle school. The program promoted bonding between youth and their schools by strengthening such social competencies as communication, decision-making and negotiation skills, and encouraging active involvement in schools. The intervention included three components, none of which addressed sexuality: Teacher training that provided skills for proactive classroom management, interactive teaching, and cooperative learning; social and emotional skills development that bolstered children’s problem-solving and refusal skills; and parent training focused on skills for behavior management, academic support, and reducing the risk of drug use.

The evaluation used a quasi-experimental design that followed intervention and comparison students from 1st grade to age 21. Results showed that both male and female program participants began having sex at a later age, were more likely to use condoms the last time they had sex, and had fewer life time sexual partners. Females in the program also reported fewer pregnancies and births. No changes were detected in rates of STDs.

Safer Choices

This multi-component intervention sought to delay sexual activity and increase the use of condoms among students in selected high schools in California and Texas. The two year program provided ten lessons each in the 9th and 10th grades, which included activities focused on HIV, STDs and pregnancy; taught communication and refusal skills; and reinforced the social norms and behavior promoted by the intervention. Peer leaders facilitated the lessons.

There were several additional program components. A School Health Promotion Council was created that included teachers, parents, students, administrators, and community members to support and coordinate the program activities. A “student peer resource team” was formed to carry out

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d Linear and logistic regression models were run for both males and females.
e Behavioral outcomes were assessed with logistic and linear regression, and age of sexual initiation was assessed with survival analysis. Regression models for the pregnancy and birth outcomes were run separately for males and females. Interaction terms were used to assess gender differences for the other behavioral outcomes.
school activities such as publishing articles in the school newspaper, distributing materials, and holding small-group discussion sessions. Parents were involved through a parent newsletter, educational activities, and parent-child homework exercises about sexuality. Finally, the program forged links with the community by requiring students to gather information about community resources, by distributing information about these resources, and by inviting HIV-positive community members to speak.

Twenty schools were randomly assigned to receive either Safer Choices or a comparison program composed of a five-session curriculum and other activities. There were no significant differences between the intervention and comparison groups at baseline. Measures were taken at 7, 19, and 31 months after baseline. Although there were no significant differences between the two groups regarding sexual initiation, youth in the program had less unprotected sex than comparison group participants. In particular, male program participants reported having fewer sexual partners with unprotected intercourse and higher condom use and contraceptive use at last sex. These outcomes did not occur among female program participants. The authors suggest that these gender differences could be the result of males having more control over the use of condoms than females.

**Conclusion**

This review identified six co-educational school-based programs with strong evaluation designs and evidence of positively affecting young males’ sexual behavior. Four of these programs were effective for male and female students and two for male students only. Program planners seeking a proven approach for adolescent boys could consider any of these interventions. Those working with boys and girls should consider the four programs with positive results for both genders. While these outcomes are critical to take into account when selecting a program to implement, it is also important to consider other factors such as how complex the program model is to replicate, the population for which the program has proven effective, and the types of behavior that the program has influenced. To that end, Table 7 describes these programs’ content, the study population, and the behavioral outcomes.

All the studies selected for their rigor and positive results have been published in the last four years. This observation makes clear that our collective understanding about what works to change the sexual behavior of boys is still evolving. Most of these programs are intensive and have multiple components. They typically have curricula that span at least two grades and include additional elements such as service learning, parent and/or teacher components. In terms of target audience, some programs have been designed for economically disadvantaged students, who tend to have higher rates of risky sexual behavior than their higher income counterparts, and others for specific racial/ethnic groups. Finally, these programs influence a range of behavioral outcomes. Four programs report delaying first sex or reducing recent sex among boys. Two of these also increased the use of condoms or other contraception. One other program reduced the incidence of pregnancy, and one demonstrated lower levels of unprotected sex.

It is worth restating that one curriculum specifically developed for African American males, Be Proud, Be Responsible, has undergone rigorous evaluation and showed positive behavioral change (Jemmott et al, 1992). Participants reported less sexual intercourse and more condom use three months after program participation than a control group. Those looking for effective programs only for boys could consider using it.

This review also identified seven coeducational programs with less rigorous evaluations but promising findings for boys. These include the Protection Express Program (Caron et al, 2004), an untitled program developed by Walter and Vaughn (1993), Teen Talk (Eisen et al, 1992), Taking Charge (Jorgensen et al, 1993), Sex Can Wait (Denny et al,
<table>
<thead>
<tr>
<th>Study</th>
<th>Program Type</th>
<th>Population</th>
<th>Effectiveness by Gender</th>
<th>Behavior Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach for Health (O’Donnell et al, 2001)</td>
<td>Intensive curriculum spanning 7th-8th grades + intensive service learning</td>
<td>7th-8th grade, New York City, Low SES, Predominantly African American</td>
<td>Males &amp; Females</td>
<td>Delayed sexual initiation, Reduced recent sex</td>
</tr>
<tr>
<td>Teen Outreach Program (Allen &amp; Philliber, 2001)</td>
<td>Curriculum + Service Learning (1 year)</td>
<td>9th-12th grade, Multiple sites in the United States, Mixed SES, Predominantly African American and White</td>
<td>Males &amp; Females</td>
<td>Reduced pregnancy</td>
</tr>
<tr>
<td>Apan Aya Youth Project (Flay et al, 2004)</td>
<td>Curriculum spanning 5th-8th grades + parent &amp; teacher training + local school task force</td>
<td>5th-8th grade, Chicago, Low SES, Predominantly African American</td>
<td>Males only</td>
<td>Reduced recent sex, Increased condom use, Reduced violence &amp; substance use too</td>
</tr>
<tr>
<td>Draw the Line/Respect the Line (Coyle et al, 2004)</td>
<td>Curriculum spanning 6th-8th grades</td>
<td>6th-8th grade, Urban areas of Northern California, Mixed SES, Predominately Latino</td>
<td>Males only</td>
<td>Reduced sexual initiation, Reduced sex in the past 12 months</td>
</tr>
<tr>
<td>Seattle Social Development Project (Lonczak et al, 2002)</td>
<td>Programs for teachers, children and parents in a school to change climate and promote bonding of students to school (no sexuality education)</td>
<td>1st-6th grade, Seattle, Low SES, Predominantly White</td>
<td>Males &amp; Females</td>
<td>Delayed sexual initiation, Increased contraception, Reduced number of sexual partners (males &amp; females), Reduced pregnancy and births (females only)</td>
</tr>
<tr>
<td>Safer Choices (Kirby et al, 2004)</td>
<td>Curriculum spanning 9th-10th grades, peer leaders, School Health Promotion Council, parent involvement, &amp; links to community resources</td>
<td>9th-10th grade, Texas and California, Predominantly White (SES not reported)</td>
<td>Males &amp; Females</td>
<td>Lower frequency of unprotected sex (males &amp; females), Fewer unprotected sexual partners, Increased contraception (males only)</td>
</tr>
</tbody>
</table>
2002), the School/Community Risk Replication Initiative (Paine-Andrews et al, 1999) and the Self Center (Zabin et al, 1986). All of these programs (except Teen Talk, which only worked with boys) reported positive outcomes for male and female students. It may be beneficial to reevaluate them using a more rigorous design. More details about these programs and their evaluations are available in Appendix C.

Few evaluations of coeducational curricula report results by gender—a significant limitation of this literature review. Since almost one third of the featured programs have different results for males and females, future evaluations should be designed to test for these differences.

Several factors seemed to contribute to program effectiveness, including program duration. Four of the rigorously evaluated curricula served youth through two grades or more. The findings also suggest that curricula supplemented with other components are more effective. Three of the curricula with positive results for males included elements for parents, teachers and/or schools. Adding a community service component also appears to contribute to effectiveness for teen boys. Therefore, longer-term curricula supplemented with components that support other aspects of teens' lives appear to be the most promising approaches. It is important to note that, although these programs appear to require more resources, they often take advantage of resources already in the teens' environments.

This review of coeducational programs indicates that program planners seeking to reduce risky sexual behavior among teen boys have several programmatic options from which to choose. It also offers clues to what makes a difference in preventing sexual risk taking among boys. Still, understanding of these issues is limited due primarily to the small collection of rigorously evaluated programs with results by gender. Further program development combined with rigorous evaluation research is needed. Moreover, as new programs are developed it is critical to recognize two principles: efforts should target boys and girls either together or separately; and some programs might work better for boys and others for girls. Science-based efforts to reduce teen pregnancy in the United States could be further strengthened if more attention were given to gender differences in program outcomes.
Appendix A: Methods for conducting the literature review

The journal articles reviewed in this report were identified through a thorough literature review that included those published after Douglas Kirby's review (see Emerging Answers at www.teen-pregnancy.org). Several existing literature reviews of teen pregnancy prevention programs were used to identify co-educational school-based programs.10;18-24 A number of databases, including PubMed, Socioabstracts, ISI, PsycINFO, CINAHL and ERIC were searched for teen pregnancy, STD, and HIV prevention programs. Commonly searched terms included "sex education," "program evaluation," "adolescent pregnancy," and "teen pregnancy prevention."

A total of 67 programs were identified as potentially meeting the inclusion criteria, and journal articles about them were reviewed. Twenty-seven programs were found to be eligible, and 40 programs were excluded either because they did not have a school component, were not co-educational, were aimed at younger children, did not examine the effects of the program on sexual behavior, or did not present separate results by gender. Among those excluded, 12 did not present their evaluation results by gender, which made it impossible to determine whether they were effective with male students.25-36 Programs that used an interaction term9 to examine effects by gender rather than analyzing data separately for males and females were included.

After selecting the 27 programs to include in the review, each article was carefully examined to identify the characteristics of the intervention and the study design. Details about the study sample were recorded, including size of the study population, age, grade, gender, ethnicity and socioeconomic status of study participants. Each program was assessed to understand the setting, number and duration of program sessions, methods used to reach participants (such as formal classroom education, peer education and changes to the school environment among other approaches), the theory or the logic model guiding the program approach, program objectives, content (including intervention components such as skill development or role playing as well as content areas such as HIV and AIDS education), and training of the facilitator or teacher. The evaluation design for each program was also examined, including the method used to assign participants to intervention and comparison groups, the length of follow-up, and the measures used for both behavioral and mediating variables. The type of statistical analysis used to assess the intervention's impact on behavioral outcomes was considered, as well as the method used to conduct analysis by gender. Program results were summarized, and comments on any aspects of the study, including methodological issues, were noted. Appendix C summarizes the information collected for each program study in an annotated bibliography.

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An interaction term is used in a regression model to test whether a relationship between two variables is different in the presence of a third variable. In this example, the interaction term is used to test whether the relationship between program participation and the sexual behavior of interest is different for males and females.
### Appendix B: Annotated checklist of methodological rigor for programs included in the review

<table>
<thead>
<tr>
<th>Program Name</th>
<th>Study size (&gt;100)</th>
<th>Experimental or quasi-experimental design</th>
<th>Participant involvement known by researchers</th>
<th>Follow-up: 6 months for sex initiation, 4 months for frequency of sex or condom use</th>
<th>Attrition less than 25% or no significant difference between those lost and those retained</th>
<th>Proper statistical analyses</th>
<th>Methodological rigor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postponing Sexual Involvement (PSI)</td>
<td></td>
<td>■ Quasi-experimental</td>
<td>■</td>
<td>□</td>
<td>Not reported</td>
<td>□</td>
<td>Not strong</td>
</tr>
<tr>
<td>(Howard &amp; McCabe, 1990)</td>
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<td></td>
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<tr>
<td>Teen Talk (Eisen et al, 1992)</td>
<td></td>
<td>■ Experimental</td>
<td>■</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>Not strong</td>
</tr>
<tr>
<td>Untitled (Walter &amp; Vaughn, 1993)</td>
<td></td>
<td>■ Quasi-experimental</td>
<td>■</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>Not strong</td>
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<tr>
<td>PSI (Aarons et al, 2000)</td>
<td></td>
<td>■ Experimental</td>
<td>■</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>Not strong</td>
</tr>
<tr>
<td>Protection Express Program (Caron et al, 2004)</td>
<td></td>
<td>■ Quasi-experimental</td>
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<td>□</td>
<td>□</td>
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<td>Not strong</td>
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</table>

- **Postponing Sexual Involvement (PSI)**: Quasi-experimental design with potential for contamination across experimental groups. Use of experimental design and regression analysis. 62% of participants retained with significant differences between the intervention and control groups. Not strong. Important baseline differences in the intervention and comparison groups and failure to adjust for these differences as well as other potential confounding factors.

- **Teen Talk (Eisen et al, 1992)**: Experimental design with significant differences between those lost and those retained. Not strong. Use of experimental design and regression analysis. 62% of participants retained with significant differences between the intervention and control groups.

- **Untitled (Walter & Vaughn, 1993)**: Quasi-experimental design with potential for contamination across experimental groups. Short follow-up of 3 months. Attrition greater than 25% with significant differences between intervention and comparison groups. Not strong. Quasi-experimental design with potential for contamination across experimental groups. Short follow-up of 3 months. Attrition greater than 25% with significant differences between intervention and comparison groups.

- **PSI (Aarons et al, 2000)**: Experimental design with significant differences between those lost and those retained. Not strong. Use of cross-sectional data with researchers not aware of participant exposure to the intervention.

- **Protection Express Program (Caron et al, 2004)**: Quasi-experimental design with significant differences between those lost and those retained. Not strong. 29% lost to follow-up with significant differences between those lost and those retained.
<table>
<thead>
<tr>
<th>Program Name</th>
<th>Study size (&gt;100)</th>
<th>Experimental or quasi-experimental design</th>
<th>Participant involvement known by researchers</th>
<th>Follow-up: 6 months for sex initiation, 4 months for frequency of sex or condom use</th>
<th>Attrition less than 25% or no significant difference between those lost and those retained</th>
<th>Proper statistical analyses</th>
<th>Methodological rigor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reach for Health Service Learning Program</td>
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<td>□</td>
<td>□</td>
<td>■</td>
<td>Strong</td>
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<tr>
<td>(O’Donnell et al, 2001)</td>
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<td>Teen Outreach Program</td>
<td>■</td>
<td>Experimental &amp; quasi-experimental</td>
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<td>■</td>
<td>Strong</td>
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<tr>
<td>(Allen &amp; Philliber, 2001)</td>
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<td>Reducing the Risk</td>
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<tr>
<td>(Kirby &amp; Barth, 1991)</td>
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<td>Taking Charge</td>
<td>■</td>
<td>Quasi-experimental</td>
<td>■</td>
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<tr>
<td>Rochester AIDS Prevention Project (RAPP)</td>
<td>■</td>
<td>Quasi-experimental</td>
<td>■</td>
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<td>□</td>
<td>■</td>
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<tr>
<td>(Siegel et al, 2001)</td>
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<tr>
<td>Sex Can Wait</td>
<td>■</td>
<td>Quasi-experimental</td>
<td>■</td>
<td>□</td>
<td>□</td>
<td>■</td>
<td>Not strong</td>
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<tr>
<td>(Denny et al, 2002)</td>
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<tr>
<td>Program Name</td>
<td>Study size (&gt;100)</td>
<td>Experimental or quasi-experimental design</td>
<td>Participant involvement known by researchers</td>
<td>Follow-up: 6 months for sex initiation, 4 months for frequency of sex or condom use</td>
<td>Attrition less than 25% or no significant difference between those lost and those retained</td>
<td>Proper statistical analyses</td>
<td>Methodological rigor</td>
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<tr>
<td>Children's Aid Society Carrera Program (Philliber et al, 2002)</td>
<td></td>
<td>Experimental</td>
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<td>Strong.</td>
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<tr>
<td>Draw the Line/Respect the Line (Coyle et al, 2004)</td>
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<td>Strong.</td>
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<tr>
<td>Aban Aya Youth Project (Flay et al, 2004)</td>
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<td></td>
<td></td>
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<td>Strong.</td>
</tr>
</tbody>
</table>
### Appendix C: Annotated bibliography, co-educational pregnancy prevention programs with published results by gender

* SES = Socioeconomic status  
  ** ns = Not significant  
  + = Positive outcome  
  - = Negative outcome

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Study</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location / SES / Sample (N)</strong></td>
<td><strong>Age / Grade / Gender / Ethnicity</strong></td>
<td><strong>Program Description</strong></td>
</tr>
</tbody>
</table>
| Aban Aya Youth Project, Flay, Graumlich, Segawa, Burns, & Holiday, 2004 | Location: Chicago  
  SES*: Low  
  Grade: 5th – 8th  
  Sample: N=644  
  Ethnicity: Primarily African American | Age: 10.8 years  
  Setting: Schools  
  Sessions/Methods/Content: The Social Development Curriculum (SDC) was classroom-based and involved 16-21 lessons per year in grades 5 to 8. It was designed to teach skills to build self-esteem and empathy, manage stress and anxiety, develop interpersonal relationships, resist peer pressure, and develop decision-making, problem-solving, conflict-resolution, and goal-setting skills. The School/Community Intervention (SCI) included the SDC as well as parent support, school climate changes, and community components. The SDC and SCI incorporated principals promoting African American cultural values. The Health Enhancement Curriculum (HEC) served as the control and included 16-21 lessons per year focused on the promotion of healthy behavior. | Randomized block design  
  Eligible schools were stratified into four quartiles of risk, and risk groups were randomly assigned to one of three conditions: SDC, SCI or HEC.  
  Students were followed for 3 years with measures taken each year. | Hierarchical statistical models were used to accommodate nested observations and missing data.  
  The analysis was conducted separately for males and females.  
  Recent intercourse: Males + for SCI  
  Females ns**  
  Condom use: Males + for SCI  
  Females ns | There was high student turnover in this program. The analysis included students with one or more waves of data, but these students didn't necessarily have much exposure to the program. |
### Appendix C: Annotated bibliography continued

<table>
<thead>
<tr>
<th>Study Description</th>
<th>Study Design</th>
<th>Analytic Methods</th>
<th>Outcome</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carrera Program, Philliber, Kaye, Herrling, &amp; West, 2002 {Philliber, Kaye, et al. 2002 32 /id}</td>
<td>Experimental design</td>
<td>Logistic regression was used to determine whether participation was associated with impact on the study outcomes, controlling for baseline characteristics (age, ethnicity, barriers to social development, and baseline measures of outcome variables. Analyses were conducted separately by gender.</td>
<td>Pregnancy: Females + Males ns</td>
<td>The authors comment on possible contamination because intervention and control participants were sometimes at the same site. This intervention is costly at an average of $4,000 per year per participant.</td>
</tr>
<tr>
<td>Location / SES / Sample (N)</td>
<td>Age / Grade / Gender / Ethnicity</td>
<td>Program Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>New York</td>
<td>13-15 yrs</td>
<td>Setting 6 sites Sessions/ Methods/Content</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>6th, 7th, 8th</td>
<td>This program ran Monday to Friday for three hours per day during the school year and included summer sessions. Participants rotated among 5 major activities; (1) a work intervention providing stipends, employment experience, and career awareness. (2) an academic component involving tutoring, PSAT and SAT prep, and assistance with applying to college. (3) a family life and sexuality education component. (4) an arts component designed to develop talent and confidence through music, dance, writing and drama. (5) an individual sports component focusing on activities requiring impulse control. Mental health care and medical care were provided. Emphasis was placed on recognizing each person as potential and creating a forgiving environment.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample</td>
<td>55%F 45%M</td>
<td>60% Black 39% Hispanic 1% Other</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=484</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Draw the Line/Respect the Line, Coyle, Kirby, Marin, Gomez, Gregorich, 2004 {Coyle, Kirby, et al. 2004 5 /id}</td>
<td>Experimental design</td>
<td>Linear and logistic regression models were run separately for males and females. There were baseline group differences for ever having sex. Baseline peer norms were adjusted for in the analysis, diminishing this difference.</td>
<td>Intercourse ever: Males + Females ns</td>
<td>By 9th grade, 64% of participants were lost to follow-up. Attrition was more rapid for boys and some ethnic groups.</td>
</tr>
<tr>
<td>Location</td>
<td>Age / Grade / Gender / Ethnicity</td>
<td>Program Description</td>
<td>Study Design</td>
<td>Analytic Methods</td>
</tr>
<tr>
<td>Urban area of Northern California</td>
<td>11.5 years at baseline</td>
<td>Setting Public junior high schools Sessions/Methods</td>
<td>Linear and logistic regression models were run separately for males and females.</td>
<td></td>
</tr>
<tr>
<td>Mixed</td>
<td>6th, 7th, 8th</td>
<td>A total of 20 sessions took place during the regular school period, with 5 in 5th grade, 8 in 7th grade, and 7 in 8th grade. Several teaching methods were used, including small and large group discussions, the practice of skills in small groups, stories, and individual activities. The following content areas were covered: limit setting and refusal skills, consequences of unplanned sex, skills to maintain limits, respecting other's limits, condom demonstrations, information about other contraceptive methods, and core concepts of Latino culture.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sample</td>
<td>50.1%F 49.9%M</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>N=2829</td>
<td>59% Latino 17% White 16% Asian 5% Black 3% Other</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Appendix C: Annotated bibliography continued

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Study</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong> / <strong>Age</strong> / <strong>Grade</strong> / <strong>Gender</strong> / <strong>SES</strong> / <strong>Ethnicity</strong></td>
<td><strong>Program Description</strong></td>
<td><strong>Design</strong></td>
</tr>
<tr>
<td><strong>Healthy for Life</strong>, Moberg &amp; Piper, 1998</td>
<td>Quasi-experimental design</td>
<td>Logistic regression was used to assess program impact on sexual behavior. Substance abuse within schools was used to control for school contextual differences. Intervention effects were analyzed separately by gender.</td>
</tr>
<tr>
<td>Location: Wisconsin</td>
<td>Setting: Junior high schools</td>
<td>Schools were stratified by high, medium, and low levels of substance abuse and then randomly assigned to receive one of three conditions. The age appropriate condition received the full program over a 3-year period. The intensive condition received the 12-week curriculum during 7th grade. The control condition received the curriculum usually implemented in the schools. Participants were followed for 4 years.</td>
</tr>
<tr>
<td>SES: Not reported</td>
<td>Sessions/Methods/Content: This intervention took place over 16 class periods and involved 54 core lessons. Several methods were used including classroom-based education led by teachers and peers as well as family and community involvement. The program covered many topics, including refusal skills, clarifying parental values, analyzing media, communicating with parents and the opposite sex, body image, responsibility for health-related behavior, risks of early sex, and information about birth control. An emphasis was placed on skill-based, active learning.</td>
<td></td>
</tr>
<tr>
<td>Sample: N=2438 (baseline)</td>
<td>Age: 68% 14 yrs, 29% 15 yrs</td>
<td></td>
</tr>
<tr>
<td><strong>McMaster Teen Program</strong>, Mitchell-DiCenso, Thomas, Devlin, Goldsmith, Willan, Singer, Marks, Watters, &amp; Hewson, 1997</td>
<td>Experimental design</td>
<td>Cumulative survival analysis adjusting for clustering was used to assess time to first sex and first pregnancy. Chi-squared analysis was used to compare contraceptive use by treatment group. Multiple logistic regression was used to identify variables related to birth control use, first sex, and first pregnancy. All analyses were conducted separately by gender.</td>
</tr>
<tr>
<td>Location: Ontario</td>
<td>Setting: Junior high schools</td>
<td>Twenty-one schools were stratified as having &gt;200 or &lt;200 students in the 7th and 8th grades and then randomly allocated to the McMaster Teen Program or the control group, which received a conventional sex education program. Students were followed for four years.</td>
</tr>
<tr>
<td>SES: “Blue collar”</td>
<td>Sessions/Methods: The intervention consisted of 10 one-hour sessions for one year during which small coed groups and a facilitator met to watch films about puberty and follow program guides. The program aimed to provide students with information about reproduction and development, provide strategies for developing responsible relationships, assist in the communication of feelings and thoughts, and help learn systematic problem solving skills for making decisions related to sexual behavior.</td>
<td></td>
</tr>
<tr>
<td>Sample: N=2062</td>
<td>Grade: 7th and 8th</td>
<td></td>
</tr>
<tr>
<td>Intervention: M</td>
<td>Gender: 52% F, 48% M</td>
<td></td>
</tr>
<tr>
<td>Control: F</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity: Majority white</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Sample Description**
- **Location / Sample (N):** Specify the location and the sample size (N) of the study.
- **Age / Grade / SES / Ethnicity:** Provide the age, grade, SES, and ethnicity demographics of the sample.
- **Location / Setting:** Specify the location and setting of the intervention.
- **Age:** Specify the age range of the participants.
- **Grade:** Specify the grade level of the participants.
- **SES:** Specify the socioeconomic status of the participants.
- **Ethnicity:** Specify the ethnicity of the participants.
- **Program Description:** Describe the program details, including sessions, methods, and content.
- **Design:** Specify the design of the study, such as experimental, quasi-experimental, or observational.
- **Analytic Methods:** Specify the methods used for data analysis.
- **Outcome:** Describe the outcomes measured in the study.
- **Comments:** Provide additional comments or limitations of the study.
### Project SNAPP (Skills and Knowledge for AIDS and Pregnancy Prevention), Kirby, Korpi, Adivi, & Weissman, 1997 {Kirby, Korpi, et al. 1997 20 /id}

<table>
<thead>
<tr>
<th>Location / SES / Sample (N)</th>
<th>Age / Grade / Gender / Ethnicity</th>
<th>Program Description</th>
<th>Study</th>
<th>Design</th>
<th>Analytic Methods</th>
<th>Outcome</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>Setting Junior high schools</td>
<td>Experimental design</td>
<td>T-tests were used to compare change scores over time for the treatment and control groups. The analysis was conducted separately by gender for initiation of sex only.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES</td>
<td>Sessions/Methods</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>This program involved only 8 program sessions during a 2 week time period. This low amount of exposure could account for the lack of effects.</td>
</tr>
<tr>
<td>Sample</td>
<td>Posttest</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>N=1549</td>
<td>Age 12.3 (mean)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade</td>
<td>High school</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>46%M</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SES</td>
<td>54%F</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethnicity</td>
<td>64% Latino</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13% Asian</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9% Black</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5% White</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Location                   | Protection Express Program, Caron, Godin, Otis, & Lambert, 2004 {Caron, Godin, et al. 2004 3 /id}
| Location                   | Setting High schools            | Quasi-experimental design | Program impact was assessed with ANCOVA regression controlling for gender and score on pre-test. |
| SES                        | Sessions/Methods                 |                     |       |        |                  |         |          |
| Sample                     | This intervention included a total of 150 to 180 minutes of classroom-based activity involving peer education, sketches, and role plays. The objective was to postpone sex and increase condom use by influencing attitudes, perceived social norms, perceived behavioral control, and personal and normative beliefs. Peer educators (the seniors) received 25 hours of training prior to program implementation. |
| Posttest                   | The intervention group included 6 high schools in 2 regions of Quebec. The comparison group was matched in size and location and received regular sex education. Participants were followed for 17 months from the start of the intervention. |
| N=698                      | Program impact was assessed with ANCOVA regression controlling for gender and score on pre-test. |
| Senior level               | Postponing sexual intercourse:  |                     |       |        |                  |         |          |
| Post test N=306            | Males ns                         |                     |       |        |                  |         |          |
| Post test N=306            | Females ns                       |                     |       |        |                  |         |          |
| Location                   | Location expressed program, Caron, Godin, Otis, & Lambert, 2004 {Caron, Godin, et al. 2004 3 /id}
| Location                   | Setting High schools            | Quasi-experimental design | Program impact was assessed with ANCOVA regression controlling for gender and score on pre-test. |
| SES                        | Sessions/Methods                 |                     |       |        |                  |         |          |
| Sample                     | This intervention included a total of 150 to 180 minutes of classroom-based activity involving peer education, sketches, and role plays. The objective was to postpone sex and increase condom use by influencing attitudes, perceived social norms, perceived behavioral control, and personal and normative beliefs. Peer educators (the seniors) received 25 hours of training prior to program implementation. |
| Posttest                   | The intervention group included 6 high schools in 2 regions of Quebec. The comparison group was matched in size and location and received regular sex education. Participants were followed for 17 months from the start of the intervention. |
| N=698                      | Program impact was assessed with ANCOVA regression controlling for gender and score on pre-test. |
| Senior level               | Postponing sexual intercourse:  |                     |       |        |                  |         |          |
| Post test N=306            | Males ns                         |                     |       |        |                  |         |          |
| Post test N=306            | Females ns                       |                     |       |        |                  |         |          |
| Location                   | Location expressed program, Caron, Godin, Otis, & Lambert, 2004 {Caron, Godin, et al. 2004 3 /id}
| Location                   | Setting High schools            | Quasi-experimental design | Program impact was assessed with ANCOVA regression controlling for gender and score on pre-test. |
| SES                        | Sessions/Methods                 |                     |       |        |                  |         |          |
| Sample                     | This intervention included a total of 150 to 180 minutes of classroom-based activity involving peer education, sketches, and role plays. The objective was to postpone sex and increase condom use by influencing attitudes, perceived social norms, perceived behavioral control, and personal and normative beliefs. Peer educators (the seniors) received 25 hours of training prior to program implementation. |
| Posttest                   | The intervention group included 6 high schools in 2 regions of Quebec. The comparison group was matched in size and location and received regular sex education. Participants were followed for 17 months from the start of the intervention. |
| N=698                      | Program impact was assessed with ANCOVA regression controlling for gender and score on pre-test. |
| Senior level               | Postponing sexual intercourse:  |                     |       |        |                  |         |          |
| Post test N=306            | Males ns                         |                     |       |        |                  |         |          |
| Post test N=306            | Females ns                       |                     |       |        |                  |         |          |

### It's a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention

Appendix C: Annotated bibliography continued
### Appendix C: Annotated bibliography continued

<table>
<thead>
<tr>
<th>Study</th>
<th>Analytic Methods</th>
<th>Outcome</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI, Aarons, Jenkins, Raine, El-Khorazaty, Woodward, Williams, Clark &amp; Wingrove, 2000</td>
<td></td>
<td></td>
<td>Limitations include the use of cross-sectional data and failure to account for clustering within schools. Analyses showed that higher risk students may have had less exposure to the intervention.</td>
</tr>
<tr>
<td><strong>Location</strong></td>
<td>Washington, DC</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SES</strong></td>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sample</strong></td>
<td>N = 582 (baseline)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>12.8 years</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grade</strong></td>
<td>7th grade (baseline)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>52% F 48% M</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td>84% Black</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td>Junior high schools</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Program Description</strong></td>
<td>Six schools were paired according to class size, location, and racial/ethnic distribution and then randomly assigned to the intervention or control group. Students were followed from the beginning of 7th grade to the end of 8th grade.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Experimental design</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>Logistic and linear regression were used to assess differences between the study groups. Data were also analyzed separately by gender.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### PSI, Howard & McCabe, 1990

<table>
<thead>
<tr>
<th>Study</th>
<th>Analytic Methods</th>
<th>Outcome</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Atlanta</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SES</strong></td>
<td>Low</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sample</strong></td>
<td>N = 536</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>Not reported</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Grade</strong></td>
<td>8th grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td>Not reported</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td>Primarily African American</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td>Schools</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Program Description</strong></td>
<td>This 10 session program included 5 sessions on Preventing Sexual Involvement and 5 sessions on human sexuality. Classroom-based activities included peer education, video tapes, slides and discussion sessions. The objective was to postpone sex by providing information about reproduction, family planning and STDs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Design</strong></td>
<td>Quasi-experimental design</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Outcome</strong></td>
<td>T-tests were used to compare percentages for intervention and comparison groups by gender.</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Comments</strong></td>
<td>Initiation of sex: Males + Females + Females = Sex in the last month.</td>
<td>A major limitation of this study is failure to account for differences across schools. There was a significant difference by experimental group for being in the lowest income category and living with two parents. This was not adjusted for in the analysis.</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix C: Annotated bibliography continued

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Study</th>
<th>Results</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location: California (statewide)</td>
<td>SES: Diverse</td>
<td>Age: 12.8 years (mean)</td>
<td><strong>Setting</strong>: Junior high and high schools</td>
</tr>
<tr>
<td>Location: California (statewide)</td>
<td>SES: Diverse</td>
<td>Grade: 7.5 (mean)</td>
<td><strong>Sessions/Methods/Content</strong>: There were five PSI sessions of 45 to 60 minutes each that took place in classroom or small-group settings and involved discussion, group activities, videos, slides, and role playing. The objective was to postpone sexual initiation. Several content areas were covered, including risks of early sexual involvement, resisting social pressures to have sex, identifying peer pressure that can influence sexual behavior, setting limits for sexual behavior, and using assertive responses to resist pressures. Youth-led and adult-led interventions were implemented.</td>
</tr>
<tr>
<td>Location: New York City</td>
<td>SES: Low</td>
<td>Age: Not reported</td>
<td><strong>Setting</strong>: Public junior high schools</td>
</tr>
</tbody>
</table>
### Appendix C: Annotated bibliography continued

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Study</th>
<th>Results</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Reducing the Risk</strong>, Kirby &amp; Barth, 1991 {Kirby &amp; Barth 1991 19 /id}</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Location</strong> California</td>
<td><strong>Age</strong> 15.3 (mean)</td>
<td><strong>Setting</strong> High schools</td>
<td>Quasi-experimental design</td>
</tr>
<tr>
<td><strong>SES</strong> Not reported</td>
<td><strong>Grade</strong> 9th 27%</td>
<td><strong>Sessions/Methods/Content</strong> This classroom-based intervention aimed to reduce sexual risk-taking behavior. During 15 class periods several content areas were covered including modeling of socially desirable behavior, role playing of these behaviors, discussion of pressures to have sex, practice of skills to resist pressure to have sex, instruction and practice in using skills to reduce unsafe sex, and the promotion of parent-child communication about birth control and abstinence.</td>
<td>Logistic regression controlling for sexual behavior measured at pretest, gender, ethnicity, risk group and age was used to assess the impact of the intervention on dichotomous measures of sexual behavior.</td>
</tr>
<tr>
<td><strong>Sample</strong> N=1033 (baseline)</td>
<td><strong>Gender</strong> 47%M 53%F</td>
<td><strong>Outcome</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Ethnicity</strong> 62%White 20%Latino 9%Asian 2%Black 2%Native American 5%Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### The Responsible Sexuality Program, Kassirer & Griffiths, 1997 {Kassirer & Griffiths 1997 26 /id} | | | |
| **Location** Ontario | **Age** 14-15 years | **Setting** Physical education classrooms | Quasi-experimental design | Intervention had no effect on behavioral outcomes for males and females. |
| **SES** Not reported | **Grade** 9th grade | **Sessions/Methods/Content** The Responsible Sexuality program included three one-hour sessions during which groups of 5 to 8 students engaged in student-centered discussions, scripted role-plays and posed anonymous questions. The program was facilitated by medical students and the sessions aimed to increase knowledge and self-confidence and affect change in attitudes as well as safer intended and actual sexual behavior. | T-tests were used to compare intervention and comparison groups. Analyses were conducted separately by gender. | There were several limitations to this study including small numbers, potential for contamination, a short intervention and follow-up, and lack of controls in the statistical analysis. |
| **Sample** N=64 (post) | **Gender** 55%M 45%F | **Design** | | |
| | **Ethnicity** Predominantly White | **Analytic Methods** | | |

The Responsible Sexuality Program was designed to reduce sexual risk-taking behavior among adolescents in Ontario, Canada. The program included three one-hour sessions that focused on increasing knowledge and self-confidence about sexual health. The sessions were facilitated by medical students and targeted 9th-grade students. The study was conducted in physical education classrooms and used a quasi-experimental design with a control group. The outcome measures included sexual behavior and intentions. The study found no significant differences in sexual behaviors between the intervention and control groups, indicating a lack of effectiveness of the program in the short term. Further research is recommended to explore the potential for contamination and to improve the design and implementation of similar interventions.
### Sample Description

<table>
<thead>
<tr>
<th>Location / SES / Sample (N)</th>
<th>Age / Grade / Gender / Ethnicity</th>
<th>Program Description</th>
<th>Study</th>
<th>Analytic Methods</th>
<th>Outcome</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Rochester AIDS Prevention Project (RAPP)</strong>, Siegel, Aten, &amp; Enaharo, 2001; Siegel, Aten, et al., 2001</td>
<td><strong>Urban junior high and high schools</strong></td>
<td>Quasi-experimental design</td>
<td>A repeated measures ANOVA was conducted separately by gender using a three factor design including ethnicity, history of sexual experience, and study group. Control variables included demographics, life risk score, mean score for time in intervention, class climate score, and pretest scores for each dependent variable.</td>
<td><strong>Engagement in risky sexual behavior:</strong> Females ns Males ns</td>
<td><strong>Initiation of sexual activity:</strong> Females + (middle school only) Males ns</td>
<td>Only 55% of high school students were retained. Attrition analysis showed that higher risk students were over-represented among the drop-outs. A comparison of intervention groups showed that there were significant differences by age, socioeconomic area, ethnicity, and proportion reporting sex pre-intervention.</td>
</tr>
<tr>
<td><strong>Location</strong> Rochester, N.Y</td>
<td><strong>Age</strong> 13 years (mean, middle school) 17 years (mean, high school)</td>
<td><strong>Sessions/Methods</strong> This 2 to 7 week long intervention involved 2 to 3 sessions a week with a total of 10 sessions for high school students and 12 sessions for junior high school students. The intervention was classroom-based with depth discussion, skill-based activities, small and large group activities, games, role plays, and homework involving parents. Sessions were highly interactive and dynamic. The program emphasized abstinence as well as safer sex and focused on self-esteem, decision-making strategies, sexuality, STDs, pregnancy, and HIV/AIDS.</td>
<td><strong>Design</strong></td>
<td><strong>Outcome</strong></td>
<td><strong>Comments</strong></td>
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<td><strong>SES</strong> Low</td>
<td><strong>Grade</strong> Middle and high school</td>
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<td><strong>Gender</strong> Approximately 50% F 50% M</td>
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<td><strong>Ethnicity</strong> 50% Black 16% Hispanic 20% White 14% Other</td>
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<td><strong>Sessions/Methods/Content:</strong></td>
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<td>Texas and California</td>
<td>13 to 17</td>
<td>High schools</td>
<td>This 2-year program included 10 lessons in 9th grade and 10 lessons in 10th grade.</td>
<td>Experimental design</td>
<td>Sex initiation: Males ns, Females ns</td>
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<td>SES</td>
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<td>Methods used include classroom-based curriculum and changes to the school environment. The intervention aimed to address several content areas including knowledge of HIV and STDs, self-efficacy to refuse sex, use condoms, and communicate about safer sex, attitudes about sex and condom use, and communication with parents and partners about abstinence and safe sex. Five school program components included (1) health promotion council (2) curriculum &amp; staff development (3) peer resources &amp; and school environment (4) parent education (5) school-community linkages.</td>
<td>Multilevel statistical analysis was used to account for clustering of data within schools. Poisson multilevel regression was used for count data. The analysis was conducted by demographic and behavioral subgroups. Gender, parents' education, ethnicity, and baseline measures were controlled for.</td>
<td>Frequency of unprotected sex: Males +, Females +</td>
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<td>Not reported</td>
<td><strong>Gender</strong></td>
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<td>Participants were followed for 2 school years.</td>
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<td>Number of unprotected partners: Males +, Females ns</td>
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<td>N=3869</td>
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<td>52%F</td>
<td><strong>Sessions/Methods/Content:</strong></td>
<td>Twenty schools were randomly assigned to receive Safer Choices or the comparison group, which received a 5-session curriculum and some activities.</td>
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<td>Participants were followed for 2 school years.</td>
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### Appendix C: Annotated bibliography continued

<table>
<thead>
<tr>
<th>Sample Description</th>
<th>Study</th>
<th>Analytic Methods</th>
<th>Outcome</th>
<th>Comments</th>
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</thead>
<tbody>
<tr>
<td>Location / SES / Sample (N)</td>
<td>Age / Grade / Gender / Ethnicity</td>
<td>Program Description</td>
<td>Design</td>
<td></td>
</tr>
<tr>
<td>Location: Three communities</td>
<td>Setting: Three communities</td>
<td>Methods/Content: A multi-component school &amp; community-based model was used in which intervention components were different for each of the three communities. The basic components of each intervention included sex ed for teachers, parents and K-12th grade students, access to health services, collaboration with school administrators, mass media, increased awareness and involvement of the community in preventing teen pregnancy, peer education and support, alternative activities for youth, and involvement of the faith community.</td>
<td>Design: Quasi-experimental design</td>
<td>Analysis Methods: Z-statistics were used to test change in average annual estimated pregnancy rates and birthrates from pre to post intervention. Chi-squared analyses stratified by gender were used to assess change in sexual behavior.</td>
</tr>
<tr>
<td>Location: Kansas</td>
<td>Age: Not reported</td>
<td>Grade: Not reported</td>
<td>Gender: Not reported</td>
<td>Ethnicity: Geary: 66% White, 23% Black, 6% Hispanic, 4% Asian, 97% White, 2% Hispanic, 1% Black</td>
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<tr>
<th>Location / SES / Sample (N)</th>
<th>Age / Grade / Gender / Ethnicity</th>
<th>Program Description</th>
<th>Study</th>
<th>Analytic Methods</th>
<th>Outcome</th>
<th>Comments</th>
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<tbody>
<tr>
<td><strong>Location</strong></td>
<td>Public schools</td>
<td>Quasi-experimental design</td>
<td>Logistic and linear regression and survival analysis (for the age of sexual onset) were used to assess program impact.</td>
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<tr>
<td><strong>SSDP</strong></td>
<td>10.8 yrs (mean)</td>
<td>This intervention incorporated classroom education as well as changes to the school and home environment. In 1st and 6th grade, children received social and emotional skills training. From 1st through 6th grade, voluntary sessions for parents covered several parenting topics, including behavior management skills, academic support skills, and reducing the risk of drug use. A teacher training component taught proactive classroom management, interactive teaching, and cooperative learning skills.</td>
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<td><strong>Age</strong></td>
<td>Grade</td>
<td>Sessions/Methods/Content: Schools were assigned to either the full-intervention or the comparison group, which received no intervention. Participants were followed until they were 21 years old.</td>
<td>Logistic and linear regression and survival analysis (for the age of sexual onset) were used to assess program impact. Interactions between treatment group and gender were tested. Outcomes for pregnancy and birth were assessed separately by gender.</td>
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<tr>
<td><strong>Setting</strong></td>
<td>5th grade (baseline)</td>
<td>Educational, social, and emotional skills training.</td>
<td>Educational, social, and emotional skills training.</td>
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<tr>
<td><strong>SES</strong></td>
<td>Gender</td>
<td>White=47% Males and females +</td>
<td>Educational, social, and emotional skills training.</td>
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<tr>
<td><strong>Sample</strong></td>
<td>Ethnicity</td>
<td>Black=26% Males and females +</td>
<td>Educational, social, and emotional skills training.</td>
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<tr>
<td><strong>N=349</strong></td>
<td>Asian=21% Males and females +</td>
<td>Educational, social, and emotional skills training.</td>
<td>Educational, social, and emotional skills training.</td>
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<td>Other=7% Males and females +</td>
<td>Educational, social, and emotional skills training.</td>
<td>Educational, social, and emotional skills training.</td>
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This program shows positive findings despite a lack of program components specific to sex education and a long follow-up period from 6th grade to age 21.
### Appendix C: Annotated bibliography continued

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<th>Sample Description</th>
<th>Study</th>
<th>Analytic Methods</th>
<th>Outcome</th>
<th>Comments</th>
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<tbody>
<tr>
<td><strong>Self Center,</strong> Zabin, Hirsch, Smith, Streett, &amp; Hardy, 1986 (Zabin 1986 14 /id)</td>
<td>Setting: Schools and clinics&lt;br&gt;Sessions/Methods: Students were exposed to one or more classroom presentations a year where reproductive health topics and provision of services by the clinic were discussed. Staff members were available at the clinic for counseling and education, contraceptive counseling, and pregnancy testing. Clinic services were provided free of charge.&lt;br&gt;Location: Baltimore&lt;br&gt;Grade: 7-12th&lt;br&gt;Gender: 44% M, 56% F&lt;br&gt;Sample (N): 1201&lt;br&gt;Comparison group post: 1749</td>
<td>Quasi-experimental design&lt;br&gt;One junior and one senior high school received the intervention while one junior and one senior high school served as controls.&lt;br&gt;Participants were followed for three years.&lt;br&gt;T-tests were used to compare proportions by experimental group. Where appropriate, logistic regression was used to correct for age differences.&lt;br&gt;The analysis was broken down by exposure groups. All analyses were conducted separately by gender.</td>
<td>Protection by any method requiring advanced preparation at last intercourse: Males + Females +&lt;br&gt;Sex initiation: Females +&lt;br&gt;Pregnancy rates: Females +&lt;br&gt;The analysis does not adjust for potential group differences and does not account for the clustering of data within schools. The authors acknowledged problems with finding an appropriate comparison group.</td>
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<td><strong>Sex Can Wait,</strong> Denny, Young, Rausch, &amp; Spear, 2002 (Denny, Young, et al. 2002 30 /id)</td>
<td>Setting: Upper elementary, junior high schools and high schools&lt;br&gt;Sessions/Methods/Content: This 5-week curriculum-based curriculum included 23 lessons for upper elementary students and 24 lessons for junior high and high school students. Teaching methods involved role-plays, cooperative learning groups, and parent-child homework assignments. The program objective was to promote abstinence. Lessons focused on self-esteem, reproductive anatomy and physiology, communication, decision making, goal setting and life planning.&lt;br&gt;Location: Not reported&lt;br&gt;Grade: 5th - 12th&lt;br&gt;Sample (N): 1195&lt;br&gt;Comparison group post: Not reported&lt;br&gt;Gender: 65% White, 31% Black, 1% Asian, &lt;1% Native American&lt;br&gt;Ethnicity: 65% White, 31% Black, 1% Asian, &lt;1% Native American</td>
<td>Quasi-experimental design&lt;br&gt;The intervention group received the Sex Can Wait curriculum and the comparison group received the existing sexuality education program. Both groups were from the same schools.&lt;br&gt;Students were followed for 1 to 2 months after the program was implemented.&lt;br&gt;Logistic regression was used to analyze the relationship between group membership and sexual behavior, controlling for virgin status and behavioral intent at pretest. Interactions between treatment group and gender were tested.</td>
<td>Sexual intercourse (ever): Males and females +&lt;br&gt;Sexual intercourse (past month): Males and females +&lt;br&gt;There is the possibility of contamination in this study. Participants come from the same schools, and the same teachers taught both the intervention and comparison group classes. There are also pretest group differences in sexual behavior that are not addressed in the analysis. Participants were followed for only 30 days.</td>
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<td>Location / SES / Sample (N)</td>
<td>Age / Grade / Gender / Ethnicity</td>
<td>Program Description</td>
<td>Study</td>
<td>Analytic Methods</td>
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| **Success Express Program,** Christopher & Roosa, 1990 [Christopher & Roosa 1990 28 / id] | Location: Not reported  
SES: Predominantly low  
Sample: N=820 | Age: 12.8 yr (mean)  
Grade: 6th and 7th grade  
Gender: Predominately female  
Ethnicity: 69% Hispanic, 21% Black, 8% White, 2% Native Americans | Setting: Junior high schools and community sites  
Sessions/Methods/Content: This classroom based curriculum included five sessions focused on attitudes and skills consistent with the abstinence only approach. During the 6th session, there was a graduation ceremony and posttest data was gathered. Program content included self-esteem, family values, patterns of growth and development, reproductive knowledge, media and peer pressure, complications of premarital sex, teen pregnancy and STDs, benefits of abstinence, communication strategies, and goal setting. | Quasi-experimental design  
The program was implemented in five schools. Control group data came from classrooms in which the program wasn't implemented at the same schools. Students were followed for 6 weeks. | ANOVA was used to assess group differences and ANCOVA for tests of treatment group by gender by time. | Sexual behavior: Males and females ns  
Both males and females increased sexual behavior, but the increase was greater for males than females. | There is potential for contamination in this study because intervention and comparison students came from the same schools. There are concerns about attrition due to large differences between those lost and retained. There are also differences in age of sexual initiation for the experimental and control groups. |
| **Taking Charge,** Jorgensen, Potts & Camp, 1993 [Jorgensen, Potts, et al. 1993 29 / id] | Location: Wilmington, DE and West Point, MS  
SES: Low  
Sample: N=91 total | Age: 14.4 years  
Grade: 7th grade  
Gender: Predominately male  
Ethnicity: Predominately African American and White | Setting: Schools  
Sessions/Methods/Content: This 6 week classroom-based curriculum promoted abstinence only and focused on vocational goal setting to provide alternatives to premarital sex and parenthood. Content areas included self-development, sex education, vocational goal setting, family values and communication. Parent involvement was incorporated with three evening sessions with parents, children and home economics teachers. | Quasi-experimental design  
Teachers randomly assigned classrooms to receive either the intervention or comparison condition. Students were followed for 6 months. | Analysis was conducted using ANCOVA with treatment group as the main variable. Pre-test measures were controlled for and interactions between treatment group and gender were tested. | Sex initiation: Males & females ns  
(For participants who had not had sex prior to the program) | The results are called into question by the small sample size. Teachers assigned classrooms to the intervention or comparison group. This may not have been random, as between group differences were evident, with comparison group subjects more likely to be black and treatment group subjects more likely to live with their mother only. |
### Teen Outreach Program, Allen & Philliber, 2001

**Location**
Multiple sites in the U.S.

**SES**
Mixed

**Sample**
N=1,673 intervention
N=1,604 comparison

**Age**
- 16 years

**Grade**
- 9-12th grade

**Gender**
- Intervention: 25% F, 75% M
- Comparison: 29% F, 71% M

**Ethnicity**
- Intervention: 44% Black, 30% White, 13% Hispanic, 5% Other
- Comparison: 46% Black, 35% White, 13% Hispanic, 6% Other

#### Setting: High schools

**Sessions/Methods/Content**
- This one year intervention included a classroom component with classroom discussion at least once per week and a service component with 20 hours/year of volunteer work per participant. Several teaching methods were used including discussions, group activities, role plays, guest speakers and informational presentations. Classroom discussions focused on values, life skills, dealing with family stress, human growth & development, friendships and romantic relationships, and the social and emotional transitions from adolescence to adulthood. Service learning discussions focused on preparing students for service experiences and encouraging them to think about their experiences.

**Study**

**Design**
- Quasi-experimental design

**Analytic Methods**
- Target behavior by intervention and comparison condition was assessed with logistic regression controlling for demographics and baseline problem behavior.

**Outcome**
- Pregnancy: Males and females +
- Overall, the greatest effect was for teens at greatest risk of pregnancy.

**Comments**
- The control group had significantly more females and African Americans than the intervention group. The attrition rate was low, but dropouts were more likely to have caused a pregnancy to be suspended, failed courses, be younger male, a racial/ethnic minority and live in a single parent home.
### Appendix C: Annotated bibliography continued

<table>
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<th>Sample Description</th>
<th>Study</th>
<th>Analytic Methods</th>
<th>Results</th>
<th>Comments</th>
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<tbody>
<tr>
<td><strong>Location</strong></td>
<td><strong>Age</strong></td>
<td><strong>Setting</strong></td>
<td><strong>Design</strong></td>
<td><strong>Outcome</strong></td>
</tr>
<tr>
<td>California, Texas</td>
<td>13-19 yrs</td>
<td>Schools and family planning service agencies</td>
<td>Experimental design</td>
<td>Maintenance of abstinence</td>
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<tr>
<td>Low</td>
<td>Not reported</td>
<td>Experimental design</td>
<td>Stepwise regression was used to examine the contribution of age, race, family composition, educational aspirations, previous sex education, and sexual and contraceptive knowledge and perceptions at baseline and immediate follow-up to sexual behavior. Analyses were conducted separately by gender.</td>
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<tr>
<td>N=888</td>
<td>52% F</td>
<td>Experimental design</td>
<td>Stepwise regression was used to examine the contribution of age, race, family composition, educational aspirations, previous sex education, and sexual and contraceptive knowledge and perceptions at baseline and immediate follow-up to sexual behavior. Analyses were conducted separately by gender.</td>
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<tr>
<td><strong>Ethnicity</strong></td>
<td><strong>Sample</strong></td>
<td><strong>Gender</strong></td>
<td><strong>Program Description</strong></td>
<td><strong>Analytic Methods</strong></td>
</tr>
<tr>
<td>5% White</td>
<td>18 /id</td>
<td><strong>Sessions/Methods/Content</strong></td>
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<tr>
<td>24% Black</td>
<td>Experimental design</td>
<td>The intervention consisted of 5 hours of lecture on reproductive biology and 8 to 10 hours of small group discussions. Teaching methods included simulations, role-playing, “trigger” films, and a board game. The intervention was designed to increase awareness of the probability of becoming pregnant or causing pregnancy, the negative personal consequences of maternity or paternity, and the personal and interpersonal benefits of delayed sex and consistent contraceptive use.</td>
<td>Stepwise regression was used to examine the contribution of age, race, family composition, educational aspirations, previous sex education, and sexual and contraceptive knowledge and perceptions at baseline and immediate follow-up to sexual behavior. Analyses were conducted separately by gender.</td>
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<tr>
<td>53% Hispanic</td>
<td>31 /id</td>
<td>Three class sessions took place on three days during PE class. Teaching methods included slide presentations, small group slide presentations, small group discussions, role plays, videos, group exercises and games. The didactic component provided knowledge for making decisions about risk and prevention of STDs and HIV. Skill-building was emphasized by addressing problem-solving and communication skills and stressing the influence of peers on health decisions.</td>
<td>Quasi-experimental design</td>
<td>There was no intervention impact on behavioral variables.</td>
</tr>
<tr>
<td>8% Other (at baseline)</td>
<td>48% M</td>
<td>Students from two schools were assigned to the intervention and students from two schools were assigned to the comparison group, which received 1 session of didactic instruction.</td>
<td>The intervention and comparison groups were compared with logistic regression analysis, controlling for baseline variables and demographic factors, including gender.</td>
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<tr>
<td>30% Chinese</td>
<td>N=513</td>
<td>Students were followed for 4 weeks after the intervention.</td>
<td>The intervention and comparison groups were compared with logistic regression analysis, controlling for baseline variables and demographic factors, including gender.</td>
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<td>20% Latino</td>
<td>81% 9th graders</td>
<td>Students were followed for 12 months after the intervention.</td>
<td>The intervention and comparison groups were compared with logistic regression analysis, controlling for baseline variables and demographic factors, including gender.</td>
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<td>12% Mixed</td>
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### Appendix C: Annotated bibliography continued

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<td>52% 11th grade</td>
<td>adjusting for age, gender, race/ethnicity, and the baseline outcome variable was used to assess change in the outcome variable attributed to the intervention. Chi-squared analysis was used to compare changes in behavior from the behavior risk index.</td>
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<td>Four schools were grouped into two pairs of demographically similar schools. There was a 30% random sample of 9th grade classrooms in which one pair of two schools was selected to receive the AIDS-preventative curriculum. A 20% random sample of 9th grade classrooms was taken from the remaining 2 schools and served as the comparison. For 11th graders the same sampling procedure was used, but intervention students were sampled from the schools in which 9th graders served as the comparison and comparison students sampled from the schools where 9th graders served as the intervention group. Students were followed for 3 months post-intervention.</td>
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### Appendix C: Annotated bibliography continued

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<th>Program Description</th>
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<td>Ever used condoms with foam: Males &amp; females ns</td>
<td>The authors note that sample size is small when results are broken down by gender and ethnicity.</td>
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Endnotes


21. Franklin, C., Grant, D., Corcoran, J., Miller, P. O., & Bultman, L. (1997). Effectiveness of pre-


Endnotes 40-59 reference evaluated programs as noted in Appendix B and Appendix C.


Chapter Three

A Closer Look: A Qualitative Assessment of Involving Boys and Young Men in Preventing Teen Pregnancy

By Karen Troccoli and Molly Whitehead
National Campaign to Prevent Teen Pregnancy

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Introduction

The first two chapters of this report use statistics, program evaluation and other research to explain why and how teen boys and young men should be included in efforts to reduce teen pregnancy in the United States. While “it takes two to tango,” this report makes clear there are many issues that must be addressed in order to affect that dance. William Marsiglio’s review sheds light on the sexual attitudes and behavior of adolescent boys and young men, and Amy Reis and Freya Sonenstein describe the results of well-evaluated co-ed programs. The encouraging takeaway message is that there is growing recognition of the importance of including boys and young men in teen pregnancy prevention.

This chapter explores some of the challenges in engaging boys and young men in preventing teen pregnancy and offers some ideas for overcoming them. This chapter is based on information drawn from programmatic materials, background information, and discussions with practitioners, researchers, educators and state and local leaders who have experience working with boys and young men. This process led to the identification of key challenges to working with boys and young men, as well as various strategies for addressing them. They are:

- Many programs are not inviting to teenaged boys and young men.
  - Make programs/initiatives male-friendly
- Most boys are not in programs
  - Go to where the boys are
- Parents often struggle to communicate with their sons about pregnancy and related issues
  - Help tongue-tied parents
- Boys are not all the same
  - Tailor approaches
- Punitive measures after the fact may not be preventive
  - Emphasize prevention to reduce the need for punitive measures

Under each of these topics, a continuum of activities is described ranging from school-based programs to media campaigns. Although not all of these interventions have been formally evaluated,
all are examples of promising ways to connect with boys and young men regarding responsible sexual behavior.

The majority of teen males believes that it is a male responsibility to prevent teen pregnancy
— National Survey of Adolescent Males (NSAM), as analyzed by the Urban Institute (Sonenstein et al., 1997)

The primary obstacle to involving teenaged boys and young men in teen pregnancy prevention is a longstanding tendency to frame the issue as the girl’s problem. This mindset is reflected in areas ranging from surveys and studies that have primarily asked about females’ behaviors and attitudes about sex and pregnancy, to television and movie storylines that have tended to focus more on girls’ feelings regarding sex and pregnancy than boys’ feelings. This is understandable given that the most obvious consequence of teen sex—pregnancy—happens to girls. Still, the events that result in pregnancy—such as developing relationships and making decisions about sex and contraceptive use—involves both partners. Therefore, it is important to capitalize on opportunities to educate young men and women about the gravity of their actions, the potential consequences, and their respective responsibilities.

I was once told by the head of a federal agency that he could not move male involvement work forward because grantees saw it as taking money and resources away from their teen pregnancy prevention efforts. It is important for the teen pregnancy prevention world to realize that working with males will enhance their efforts, not detract from them.
— Joseph Jones, President, the Center for Fathers, Families, and Workforce Development.

Key Challenges and Strategies for Reaching Teenaged Boys and Young Men

Many programs are not inviting to teenaged boys and young men

Make Programs/Initiatives Male-Friendly

Although some organized efforts to prevent teen pregnancy have proven effective for both young men and women, some have been particularly effective in reaching the former. As Susan Philliber, Senior Partner of Philliber Research Associates, said, “To involve males in teen pregnancy prevention, you cannot just take the pink pamphlets created for females and put blue covers on them.” Male-oriented teen pregnancy prevention approaches must include the creation of male-friendly environments, the hiring of a committed and appropriate staff, and the use of tailored messages and content.

Male-Friendly Environment

As many practitioners have learned through trial and error, convincing teens to participate in pregnancy prevention activities can be difficult. Unless participation is required—such as a school health education program—the initiative must be inviting enough to bring them in and engaging enough to hold their interest. When the goal is to involve boys in particular, it is important to think about the environment. What might attract young men (such as offering sports physicals as part of a menu of health services, having men on staff)? What might keep them away (such as a lack of men on staff, female-oriented décor and materials)? In the next few pages such environmental issues are discussed in more detail.

Mission and Structure. When a program or organization decides to focus on teenaged boys and young men, many fundamental adjustments are required. For instance, when Planned Parenthood Mar Monte in California first began to build a new male involvement program into its services, one key step was to change the language in their mission statement from “every woman” to “every individual.” Beyond being symbolic, this change reflected that the entire organization, from the bottom to the
top, was committed to serving young men as well as young women.

Similarly, making adjustments to an existing program may be necessary. Examples include hiring male staff and providing males-only hours of operation (both discussed below). Some programs have added male-oriented services beyond reproductive health care to make the overall system more broadly appealing and less intimidating. For example, some clinics advertise that they offer school or work physicals so that teenaged boys and young men become comfortable in the setting before accessing reproductive health care.

Physical Environment. Practitioners also note the importance of the physical surroundings at a service site. The Young Men’s Clinic in New York City, for example, shows sports and entertainment videos in the waiting room and makes magazines such as Sports Illustrated and Men’s Health available. The Clinic also displays posters of Latino and African American men, since those are the populations they primarily serve. This led to the creation of the “Wall of Fame,” which includes pictures of distinguished men of color such as former Secretary of State Colin Powell.

Other approaches that programs have used include making materials and even the titles of programs male-friendly. Connie Kruzan, Director of Youth Services at the Valley Community Clinic in California, explained that creating gender-neutral pamphlets and materials for outreach activities has increased participation among young men.

Similarly, Jan Hayne, Director of Minnesota’s Dads Make a Difference, believes the success of that co-ed program is due, in part, to its name. Not only is the name positive, but it communicates to males that they are valued and that their involvement is welcomed.

Male-Focused Activities and Services. Once boys and young men are in a program, the challenge becomes keeping them involved. One effective strategy mentioned by several practitioners is making activities interactive. Simply lecturing young men – or young women for that matter – rarely holds their interest. Interactive teaching, on the other hand, especially if it involves humor, seems particularly effective.

“Patience and humor get you through to teens.”
- Connie Kruzan, Director of Youth Services, Valley Community Clinic

Laughter can not only help lighten serious topics, but it can also create an atmosphere where information may be absorbed more readily. Also, contrary to what some may assume, young men often feel shy about discussing sex and relationships. Humor can help ease their discomfort. Practitioners caution, however, that it is essential to use the humor strategically to create a fun and engaging environment, but not to gloss over an uncomfortable topic or to ever allow participants to make fun of individuals or their beliefs.

Offering male-only programs, activities or services can help create an atmosphere of trust where boys and young men might be more candid. For instance, the Always on Saturday program in Connecticut uses virtually the same curriculum for males and females; however, young men and women are taught in separate groups to put participants more at ease when dealing with sensitive topics. At Lee County High School in North Carolina, young men and women are divided for two after-school programs—Wise Guys and the Teen Outreach Program (TOP)—but are brought together occasionally to discuss a topic or incident of mutual interest and to share their perspectives.

If nothing else, the program is successful simply because boys want to come back, and it offers them a place free from negative behavior like drinking or drugs.
- Bill Mulligan, Facilitator, Wise Guys at Lee County High School

Practitioners also suggest that staff be honest about their own relevant experiences without offering up too much personal information. Bruce
Armstrong, Director of the Young Men’s Clinic, suggests that telling young men that many people are scared to go to a clinic can help alleviate their fear of health services. Other practitioners stressed the importance of reminding young men in the program that staff have been through many of the same life experiences as their clients and understand their issues.

**Committed and Appropriate Staff**

Working with teenagers is different from working with adults, and working with teenaged boys can be very different from working with teenaged girls. Hiring staff who are committed to and can connect with young men is essential. Staff need to fully embrace the notion that working with boys and young men is integral to teen pregnancy prevention. Whether the focus is paid staff, volunteers or even peer educators, two key points must be considered: do they have mutual respect for and trust from the participants; and do they appropriately reflect the clientele?

**Respect and Trust.** Young men will only feel comfortable within a program if they trust the staff. Several practitioners described the importance of the “initial test”—when staff and participants first meet. From day one the young men are assessing whether the staff are committed, reliable and trustworthy. Tyrone Waterman, facilitator of the boys’ Always on Saturday group, explains that “the kids can see right through somebody who is just doing it for a paycheck, and they will not respect the person if that is the case.” In order to get the young men to return, they need to feel the staff are interested in the program and in them. Staff need to be able to manage challenging behavior in a caring but firm way. Notes Dr. Sterling Lands, II of the Greater Calvary Bible Church in Austin, Texas, “you need to be very selective not only with your paid staff, but with your volunteers as well.” He believes that it is better to be short-staffed than to risk jeopardizing your relationship with the young men by having staff and volunteers who are not fully committed to the program or the participants.

It is important to determine whether staff or volunteers are truly committed to working with young men before they join a program and before the participants first arrive. The Family Initiatives Section in the Texas Attorney General’s Office has created a simple assessment tool to help staff in various agencies evaluate how welcoming the agency is to adolescent boys, young men, and fathers, as well as how they individually feel about the inclusion of males in agency services. Practitioners report that using this type of tool is most effective when accompanied by staff training. Training not only educates staff about best-practices for working with young men. It also helps ensure that they have attitudes and values consistent with the program’s goals and approach.

Staff and Volunteer Make-Up. Practitioners note the effect that staff members’ gender and age have on participants. In particular, the value of having males on staff is strongly emphasized. Adolescent boys often feel reassured knowing they can discuss topics such as sex and relationships with men. For young men without positive male role models in their lives, male staff and volunteers are especially important. This does not mean, however, that the staff must be exclusively male. Directors of the Valley Community Clinic believe it is important that the staff be co-ed so that those using the clinic see men and women who are not in an intimate relationship working together and getting along. The clinic’s peer education teams are also co-ed in order to model good behavior.

Having peer educators on staff is another recommended strategy. Many practitioners believe that male peer educators – especially those five to seven
years older than the participants—have an inherent legitimacy in talking about adolescent sexual behavior since the program participants can more easily relate to them than to older staff. In the Texas Attorney General’s program, No Kidding: Straight Talk from Teen Parents, including teen fathers as peer educators has added a powerful perspective to discussions.

Finally, cultural similarity can make a big difference. Pedro Elias of Planned Parenthood Mar Monte, points out that having the staff look like and speak the same language as participants can help them establish connections on multiple levels. It also fosters a greater sense of trust, comfort, and respect.

**Successful Messages and Content**

Just as the environment and staff need to be structured with young men in mind, so do messages. Although approaches and content vary among teen pregnancy prevention initiatives, some common themes exist.

One of the most prominent themes is, “keep it positive” and avoid scare tactics and finger-pointing. The Dads Make a Difference and No Kidding programs do this by emphasizing the positive role men play in raising children and by always inviting young men to share their perspectives. If teenaged boys and young men feel valued, they are more likely to embrace the messages and tools offered to them, practitioners say.

**Content**

Let’s Talk About Sex. Shifting the focus of pregnancy prevention messages from young women to young men can be challenging. One way to begin is to start with puberty. This topic tends to be discussed more thoroughly with young women than with young men in large part because young women have a clear sign—menstruation—that signals their entry into puberty. Boys do not have a single event that marks passing from boyhood to manhood. Linda Rigsbee, former President of the Adolescent Pregnancy Prevention Coalition of North Carolina, explains that “the lack of a defining moment in male development can lead to a vague discussion of puberty for young men and leave them without a full understanding of their own development or sexuality.” Once young men are

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**Quote from TRU focus group:**

“They shouldn’t just talk about getting girls pregnant or STDs. We already know that. They should talk about what we mostly don’t know. How it can hurt feelings, cause emotional and social problems, interfere with school work. That’s what worked with me.”

— NYC guy
better equipped to understand their own physical development, more meaningful discussions about sexual responsibility can occur.

Another strategy that seems to engage young men successfully is focusing on sexually transmitted diseases (STDs), including HIV/AIDS. Practitioners note that for many young men, the reality that an STD can directly affect their physical health makes the threat of STDs a more persuasive reason for modifying their sexual behavior than the threat of a partner’s pregnancy.

In their teen and young-adult years, few of men’s sexual and reproductive health needs require medical interventions per se. Instead, younger men primarily need information, counseling and skills-building services that can help them to resist peer pressure, make informed, positive decisions, take responsibility for their actions, and communicate effectively with their partners about personal and sexual matters.

- Looking at Men’s Sexual and Reproductive Health Needs (Alan Guttmacher Institute, 2002)

Beyond Sex. Discussions about sexual behavior must address attitudes and motivations, not just body parts. Interestingly, many of the topics that fall within this area can be most engaging for males. For instance, Caitlin Shetter, creator of Time Out, a program in Georgia, notes that young men tend to respond most strongly to statistics regarding the costs of raising a child. Similarly, facilitators in the Dads Make a Difference program discovered that teenaged boys and young men find the topics of paternity and child support very engaging because the information is new, often surprising, and relevant to them. Exploring the consequences of fathering a child provides another context in which to consider their behavior.

In one year supplies for raising a baby would cost more than: 1,230 movie tickets, 656 new CD’s, 2 used cars, or 151 pairs of new sneakers.
- From National Campaign to Prevent Teen Pregnancy analysis of data from the U.S Department of Agriculture, 2004

Being a Guy. Young men get conflicting messages from the media, parents, their friends, and others about what it means to be a man. Those who work with young men have noted that stereotypical views of masculinity can be detrimental because they contribute to risk-taking and make boys less likely to ask for help or advice. Bill Mulligan, Facilitator of Wise Guys at Lee County High School in North Carolina, explains that, in some communities, sex is thought of as a critical way to prove one’s manhood and heterosexuality. “This creates a situation where there are few acceptable excuses for not having sex.” Practitioners note that making young men aware of these pressures and stereotypes is a necessary part of teen pregnancy prevention. With this in mind, Planned Parenthood Mar Monte’s Circle of Noble Men Program includes discussions on why male participants should make certain choices related to their health and emotional well-being. These discussions and other program activities seek to help participants get to the “why” of their current and past actions and the “how” of their future actions.

Practitioners also stress the importance of communicating to young men about taking responsibility for their choices and behavior. Joseph Jones, President of the Center for Fathers, Families, and Workforce Development in Baltimore, believes that, “the portrayal of teen pregnancy in society and the media as being all the female’s problem has let males off the hook and excluded them from discussions about it.” As a result, many young men see pregnancy as something that happens to them, rather than as something they control. Practitioners try to counter this perception with messages that emphasize responsibility to themselves and others. The goal is to associate manhood with such charac-
teristics as caring, commitment, self-control, and greater respect for themselves, women, community, and family. The Los Compadres Program at the Community Action Commission emphasizes responsible behavior rather than punishing irresponsible behavior. For instance, rather than kicking participants out of the program for being late or disruptive, thereby excluding those who probably need to be there the most, staff work to address the issues behind the problematic behavior.

"The messages our culture sends to young people about gender are every bit as damaging to boys as girls. From a very young age, boys are told that ‘masculinity’ is something you can potentially lose if you’re not ‘man enough,’ and therefore something you must continually prove over and over again. In a culture that constantly links masculinity with toughness, violence, and sex, this deep rooted belief system is a terrible set up for our boys."

– Deborah Roffman, Author, Sex and Sensibility: The Thinking Parents Guide to Talking Sense About Sex

Contacting other agencies/organizations

Many programs trying to prevent teen pregnancy partner with other groups in their communities to offer a broader spectrum of services to their clients. For instance, the Always on Saturday program trains staff of local youth-serving agencies, such as the local Hispanic Health Council, to use the Always on Saturday curriculum within their programs. The Circle of Noble Men Program, which serves a large number of teenaged boys and young men formerly in juvenile detention, refers participants to agencies in the community that provide an array of support services ranging from job placement and GED tutoring to housing assistance.

Organizations creating programs that are male-friendly should make sure that the agencies they collaborate with share that commitment. If a referral is made to an agency that does not serve young men well, the experience can undermine the young

Media

Young people spend more time consuming media (television, music, internet, video games, etc) than they do with any other single activity. Indeed, youth aged 8-18 spend, on average, 6 hours a day and 44 hours a week (Roberts et al., 2005) with media. Given the inherent power of the media, some organizations have used the media to reach young men.

For example, the Monroe County Health Department in Monroe, New York, collaborated with an ad firm to create the Not Me, Not Now media campaign. Not Me, Not Now was designed to reduce teen pregnancy by encouraging kids to delay sexual involvement, promote improved parent-child communications; and increase awareness of the huge financial burden teen pregnancy brings to the community through an extensive media campaign. One of the keys to the campaign has been its use of ads on TV, radio, internet, billboards and posters where the voices are “kids talking to kids; not adults talking to kids.”

Although research has found that long-term public service campaigns can play a significant role in changing attitudes and behaviors (Dejong & W insten, 1998), the reality is that most organizations do not have the capacity to develop and run them. Therefore, it is useful to consider ways of using media that young men are already consuming to communicate messages about preventing teen pregnancy. Sex and relationships are common themes in most media. Following are a few examples of ways programs can capitalize on these trends in media consumption:

- Survey program participants about their favorite TV shows. Record an episode of one of their favorites and use it to initiate discussions about the messages conveyed, how they relate to the participants’ lives, why the characters made the choices they did, and what participants think of those choices.
- Find out what magazines participants like to read and talk about relevant articles, advertisements, and messages. What do they say about masculinity and sex? The same can be done with popular websites.
- Start a discussion about the messages being conveyed to young men through popular music.
- Create a guide to help parents initiate similar conversations with their sons about media and messages.

It's a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention
men’s trust in those who did the referring. At the Young Men’s Clinic, staff do site visits with potential referral organizations/agencies before partnering with them. Clinic staff also encourage these organizations to come and visit them as a way to generate additional referrals to the clinic.

Most boys are not in programs:
Go to Where the Boys Are

Of course, even if a teen pregnancy prevention initiative is male-friendly, it cannot be helpful if no one attends. In actuality, most young men are not in teen pregnancy prevention programs—including many of those most at risk of causing a teen pregnancy, such as those who are not in school or working. (In 2001, 13 percent of males aged 16 to 24 were neither working nor in school (Sum et al., 2003)). Connecting with adolescent boys and young men requires creative outreach strategies to draw them in, including targeting non-traditional settings.

Creative Outreach. Engaging young men who are least likely to attend teen pregnancy prevention programs requires diverse and creative outreach techniques. Some programs have reached young men in community settings where they naturally congregate, such as parks and community centers. As Joseph Jones explains, “you cannot just sit back and wait for people to come to you because only the most motivated ones will. The rest are the ones causing the most trouble and you need to do outreach to grab them by the hand.” In this spirit, the Plain Talk program in Louisiana uses a group of trained adults— “Walkers and Talkers”— to work with specific families, mentor individual children, knock on doors, and approach people in the community to talk about teen pregnancy and related issues.

Another interesting outreach strategy is used by the Young Men’s Clinic in New York City. Staff capitalize on the tendency of men in the community to congregate at sporting events. The clinic developed a cartoon series with information about its services that is distributed in places such as local parks and basketball games. A similar approach is used by the Time Out program in Georgia. Sports coaches receive a binder of resources about male involvement in teen pregnancy prevention, and they choose how and when to use it with their team members. Caitlin Shetter, creator of the curriculum, explains that, “young men were already talking about these issues in the locker rooms, and coaches were open to advice on how to discuss them. And because coaches are already role models for many young men, they are able to connect with them relatively easily about all kinds of issues.” The Time Out program also takes advantage of the fact that athletes often are admired by their peers; therefore, when coaches give them information, they can pass it along to their friends.

Non-Traditional Settings. Another way to reach young men is through programs they already attend. Publicizing the existence of a young men’s program in settings that already host potential clients can increase participation. Some agencies may even be open to incorporating teen pregnancy prevention into their current services.

This can be done either by training staff at interested agencies or involving staff from a teen pregnancy prevention program on a regular basis in the targeted agency. Targeting job training, juvenile justice, and fatherhood programs can be effective strategies for reaching teenaged boys and young men who are, in fact, more likely to be sexually active than their peers.
Job Training. Job training programs primarily work with young men who are not in school. Many of these young men have been involved in an unintended pregnancy. According to a 2001 Center for Law and Social Policy (CLASP) survey of youth employment staff, 70 percent said that unplanned pregnancy and parenthood were issues for their participants (Cohen, 2001). Linking teen pregnancy prevention programs with job training reinforces the connection between too-early parenthood and unemployment/poverty. Staff may be particularly receptive to adding a pregnancy prevention component to improve their clients’ prospects for securing employment and delaying parenthood.

For instance, the Milwaukee Community Service Corp (MCSC) in Wisconsin recognized that many program participants needed more than just vocational education and community service opportunities to succeed. MCSC added a life skills class to the program, which has a strong teen pregnancy prevention component, to reduce the incidence of too-early and repeat pregnancies among their clients. The Jobs For Delaware Graduates (JDG) program also connected teen pregnancy prevention to job training. Dr. Susanna Lee, President and CEO of JDG, shows staff a short video on teen pregnancy prevention during training and then encourages them to use it to teach about how participants can plan for the future. In both programs the message to the participants is that today’s decisions and actions affect tomorrow’s options.

Juvenile Justice. Because incarcerated juveniles have higher rates of risky sexual behavior (Campaign for Our Children, n.d.), they are an important audience for messages about preventing teen pregnancy. Refujio Rodriguez, Director of the

Media II

Media can be a valuable tool for communicating with teenaged boys and young men given the popularity of TV, movies, the internet, and video games. Media also helps to reach boys and young men where they are and can be used to draw them into a program or notify them about a special event. For instance:

- Host an Internet gaming tournament that includes brief presentations on teen pregnancy as part of the event.
- Screen a popular movie for free and discuss how the characters behaved. Were the choices they made responsible? Why or why not? Also give attendees an opportunity to sign-up for various prevention programs, including ones specifically for teen boys and young men.
- Organize a gathering to watch a sporting event and conduct an informational session during breaks in the game.

Time Youth Spend with Media:
According to 2004 data, youth aged 8 - 18 spend an average of 4 hours and 15 minutes each day using “screen media” (television, DVDs and videos). This is followed by audio media (radio, CDs and MP3s) at 1 hour and 44 minutes, using computers (1 hour 2 minutes), and playing video games (49 minutes).

Boys spend twice as much time as girls playing video games daily (1 hr and 12 minutes vs. 25 minutes), and less time listening to music (1 hour 29 minutes vs. 2 hours). (Roberts, et al., 2005)

Top 10 TV Shows Among Teen Boys (Aged 12-17) 4th Quarter 2005:
Family Guy
Simpsons
American Dad
Sunday NFL Football
Monday NFL Football
War at Home
Prison Break
King of the Hill
Lost
CSI

Top Ten Websites for Teen Young men:
Yahoo
Google
AOL
MSN
eBay
MySpace
AIM Today
Real Networks
Apple
Amazon

(Data courtesy Mindshore/Ogilvy & Mather)
Community Action Commission in California, explains that although incarcerated juveniles represent a small percentage of teens overall, they are involved in a disproportionate percentage of community-level problems. In his community, many of the fathers of children who are born to teen mothers have been through the juvenile justice system. Therefore, the Los Compadres Program seeks to establish trusting relationships with teenaged boys and young men when they are still in the juvenile justice system so that they will stay engaged with the project when they are out and be open to the support needed to avoid first and repeat pregnancies.

Similarly, when the Circle of Noble Men Program conducts presentations for incarcerated boys and young men, a primary goal is to establish trusting relationships that will endure when they are released. The clinic offers male-oriented services, and staff reassure the young men that they will be available to help them when they are released. The Circle of Noble Men Program also connects participants to community service projects so they feel they are contributing in a positive way to their future and that of their community.

Fatherhood Programs. While it is clearly preferable to reach young men before they have caused a pregnancy, prevention initiatives should not overlook young men who are already fathers. Robert Johnson, State Consultant for the Georgia Fatherhood Program, notes two benefits of reaching young fathers: preventing additional pregnancies by teen fathers and encouraging them to try and prevent their own children from becoming teen parents themselves.

Parents often struggle to communicate with their sons about pregnancy and related issues: Help Tongue-Tied Parents

Research shows that close parent/child relationships help young people successfully navigate adolescence and steer clear of many problems, including too-early sex, pregnancy, and parenthood. Yet many parents mistakenly believe that they have little or no influence on their teen children's decisions about sex. And though parents are encouraged to talk with their children about sex, many feel unsure of what to say or when to say it. Teens also say that what parents tell their sons is often quite different from what they say to their daughters.

Parent Power. In public opinion polling and other research, teens consistently say that parents most influence their decisions about sex—more than peers, teachers, religious leaders, or the media (Albert, 2004). Yet parents incorrectly believe that these other sources overshadow them, and they need to be reminded that is not the case. Overall closeness between parents and their children, shared activities, parental presence in the home, and parental caring and concern are all associated with a reduced risk of early sex and teen pregnancy (Blum, 1998). The influence of peers and others intensifies only when adolescents have poor or distant relationships with their parents (Miller, 1998).

"Working with parents might not be a quick fix, but from a longitudinal standpoint, the best way to prevent teen pregnancy is to have two parents involved in their kid's life from childhood, to adolescence, to adulthood, and communicating openly all the time."
- Joseph Jones, President of Fathers, Families, and Workforce Development.

Involving Parents. One way to educate parents about their influence is through the media. Another approach is to make parental involvement a cornerstone of prevention initiatives. The Community Action Commission of Santa Barbara works with
Head Start parents and helps them understand the importance of talking with their kids throughout their childhood. The Greater Calvary Rites of Passage Process in Texas requires parental participation in order for a child to enroll. Parents sign a contract at the beginning of the program and are required to attend four parent conferences each year.

Involving Fathers. While studies have shown that both parents can influence young men’s decisions about sex (Miller, 1998), fathers are ideally suited to model good behavior and to talk to their sons. However, practitioners note that few organizations and programs focused on preventing teen pregnancy specifically target fathers because they assume men do not want to be involved, are not interested, and/or are unavailable. Such assumptions not only let fathers off the hook, but they may discourage those fathers who would like to become involved in a program from doing so. Programs that have successfully engaged fathers have used several of the strategies mentioned earlier in this chapter—hiring male staff, ensuring staff are sensitive to issues of concern to men, and creating an inviting space.

According to The National Fatherhood Initiative website (www.fatherhood.org), kids overwhelmingly do better with involved, responsible and committed fathers. This comes from research indicating that parent/child closeness is associated with reduced teen pregnancy risk – teens who are close to their parents are more likely to remain sexually abstinent, postpone intercourse, have fewer sexual partners, and use contraception consistently.

Beginning the Conversation with Parents. Not only are parents often hesitant to speak to their sons about sex and too-early pregnancy, they also may be reluctant to talk with other adults about how to do so. Some parents feel they lack the basic information they need to begin such discussions and are embarrassed to admit it. Others may not know who they can turn to for guidance and information. Practitioners can provide parents with information and convince them of the value of sharing it with their sons.

Messages for Parents. Surveys of teen boys have yielded insights that can help parents frame discussions with their sons. For instance, over 80 percent of teenaged boys say that it would be much easier to postpone sexual activity and avoid teen pregnancy if they were able to have more open, honest conversations about these topics with their parents (Albert, 2004). Joseph Jones advises parents to talk frequently with their sons even when they act disinterested or resistant. He says that, “this is an important step in preventing undesirable consequences such as pregnancy” and in helping young men learn from their actions.

It is important to note that young women are not the only ones who feel pressured to have sex. A 2001 survey by the National Campaign to Prevent Teen Pregnancy found that young men aged 12-19 are more likely than young women the same age to report feeling pressured to have sex. While teen girls report that pressure comes from their partners, teen boys say that they feel more pressure from their friends. Therefore, parents should understand that even if their son is not currently in a romantic relationship, he still may be grappling with pressures regarding sex.

Finally, it is interesting to note that while teenaged girls tend to receive a clear message about avoiding too-early pregnancy and parenthood, nearly six in ten teens believe that teenaged boys often receive the message that sex and pregnancy are no big deal (Albert, 2004). Parents can help address this double standard by giving sons and daughters the same messages, being clear with their sons about their own attitudes and values about sex and pregnancy, letting their children know what they expect, supervising and monitoring their son’s whereabouts, and by asking their sons what messages they are getting about these same topics.
Advice from teens on how parents and other adults can help them avoid pregnancy
(From Talking Back: What Teens Want Adults to Know about Teen Pregnancy, National Campaign to Prevent Teen Pregnancy, 2003)

1. Show us why teen pregnancy is such a bad idea.
2. Show us what good, responsible relationships look like.
3. Talk to us honestly about love, sex, and relationships.
4. Telling us not to have sex is not enough. Whether we're having sex or not, we need to be prepared.
5. If we ask you about sex or birth control, don’t assume we're already “doing it”.
6. Pay attention to us before we get into trouble.
7. Don't leave us alone so much.
8. We really care what you think, even if we don't always act like it.
9. We have “The Talk” as much as you do.
10. For us, it’s not about abstinence or contraception; it’s about abstinence and contraception.

Boys are not all the same:
Tailor approaches to different groups of teenaged boys and young adult men

Although some messages about the importance of avoiding teen pregnancy are universal, tailoring an intervention to boys’ age, socio-economic status, and cultural and religious identification can make it more effective.

Age Differences

Just as teachers use curricula for math or English classes that are age-appropriate, so should those involved in pregnancy prevention. Taking into account where young men are developmentally

Reaching out to young men requires knowing how males think and react. How they think can depend a lot on how old they are. Practitioners stress the importance of distinguishing between early, middle, and late adolescence when considering how to connect with young men on the issue of teen pregnancy.

Early adolescent males, ages 12 - 14, are concrete and short term in their thinking. While it is an opportune time to encourage delaying sexual activity, arguments about long term benefits or harm are unlikely to be effective. Males this age are more responsive to positive feedback from caring adults.

Middle adolescent males, ages 15-17, tend to feel invincible and challenge limits and authority. They often take unnecessary risks, and do not respond well to scare tactics. Since their self-esteem at this stage depends largely on the views of their peers, interventions focused on changing group social norms are often most effective.

Adolescents ages 17 and older are sexually mature but are typically still struggling to develop their identities. When targeting males of this age, sexual behavior should not be dealt with in isolation. While sex, contraception, and related issues should be discussed, interpersonal relationships and community-wide issues should be addressed as well.

can point to promising interventions or messages to use at different times.

The Greater Calvary Rites of Passage Process, which serves adolescent boys aged 5-18, divides participants by age so that each group can address topics in an age-appropriate manner. In addition, the same facilitator stays with the members of each group throughout their time in the program (up to 13 years) in order to create continuity, trust, and consistency.

Adapting to age differences does not necessarily require creating different curricula for each group. For instance, although the Always on Saturday program does have three versions of its curriculum for different age groups, the program has evolved to accommodate young men aged 9-18 together in one group. The facilitator combines activities from the various curriculum levels and assigns roles to participants of all ages. Program leaders report that having the older kids help teach the younger kids is a particularly successful strategy. This model seems to lend credibility and relevance to the exercise for the younger kids and motivates the older kids to learn the material more thoroughly.

**Cultural Identification: Race/Ethnicity and Religion**

Because young men tend to tune out messages that do not seem credible or relevant to them, messages should reflect their culture and, ideally, come from someone with whom the boys can identify in terms of background, religion, or other personal characteristics. Several programs have taken such steps.

The Greater Calvary Rites of Passage Process, which serves primarily African American youth and was originally boys-only, devotes much attention to culture and religion. All aspects of the program are founded in Christian belief as well as in the seven principles of Kwanza, such as Umoja (Unity), Kujichagulia (Self-Determination), Ujima (Collective Work and Responsibility), Nia (Purpose), and Imani (Faith). Weekly meetings use these themes to frame discussions about teen pregnancy prevention in groups divided by gender and age. The church also raises funds for field trips to historic sites in the United States and Ghana so participants can learn more about their roots.

Plain Talk in New Orleans, LA uses an “Afrocentric” approach to prevent teen pregnancy generally, and for its male-involvement piece in particular. Using the African proverb, “It takes a village to raise a child,” members of the community use such activities as individual and family mentoring, door to door conversations, and community forums to address pertinent issues. Within the Plain Talk project, Black Men United For Change Inc. was formed to address men’s sexual behavior and to encourage them to become more informed and vocal regarding community issues. Believing that preventing teen pregnancy is part of the total “village” development, boys in the program reach out to other boys in their community about their responsibilities as individuals, as well as family and community members.

The National Latino Fatherhood and Family Institute’s Joven Noble program-curriculum primarily targets young, at-risk Latino boys and young men. The Institute uses ancient teachings from indigenous communities of the Americas to confront current societal and cultural challenges. The core of these teachings is rooted in the concept of Cara y Corazón (Face and Heart), which encompass such ideals as Dignidad (Dignity) – everyone is special and has an honorable sacred purpose – and Confianza (Trust) – a bond that means if you do something to someone else you are also doing it to
yourself. Jerry Tello, Director of the Institute, explains that because this philosophy exists in almost all cultures (the Yin and Yang in many Asian cultures, for instance), it is suitable for participants from any background in initiatives to prevent teen pregnancy.

**Socio-Economic Status**

Research has found an association between teens’ socio-economic status and their attitudes and behaviors regarding sex and pregnancy. More specifically, those teenaged boys and young men living in neighborhoods beset by poverty, unemployment, and high crime rates are more likely to start having sex at a younger age, not to use contraception, and to cause a pregnancy (Miller, 1998). Many researchers and practitioners hypothesize that young men in these communities have more direct concerns than early fatherhood – they may lack opportunities for the future and are consequently less motivated to avoid risky sexual behavior, and/or they may view their sexuality and fertility as one of the few ways available to display their manhood.

Those working with teenaged boys and young men in communities with high levels of unemployment, poverty, and incarceration and few educational and health care opportunities should know that pregnancy prevention may not be a priority for boys preoccupied with issues of daily survival. When talking about reproductive health and relationships, these other issues also need to be addressed. The Young Men’s Clinic, the Los Compadres Program, and the Circle of Noble Men Program share a common primary mission of promoting teen boys’ sexual health and responsibility. But they also offer services ranging from mentoring to referrals to GED programs. These additional services respond to participants’ other needs and bolster their sense of hope for the future.

**Punitive measures after the fact may not be preventive**

**Emphasizing Prevention Reduces the Need for Punitive Approaches**

A primary way that young men have been linked to teen pregnancy is through laws that seek to make them responsible for children they have fathered. This responsibility tends to be financial – that is, these laws focus on ensuring fathers provide monetary support to the young families they helped create. While such measures are important for the wellbeing of the mothers and children involved, many practitioners believe that more attention should be focused on encouraging young men to be good fathers as well for their own sakes and for their children. “Many strategies for engaging fathers put economic support first and positive father involvement a distant second,” explained Refugio Rodriguez. But many practitioners stress that teaching these young men, and those who are not yet fathers, that being a good father entails more than financial obligations. As Héctor Sánchez Flores explained, “If you make a young father who never had a man in his life feel like he is important and like he can be a positive male role model for his own children, it motivates him to rise to the occasion.”

It is worth noting that few of the practitioners we spoke with discussed how enforcement of statutory rape laws (that is, laws that declare sexual intercourse between two people with significant age differences, variously defined, to be illegal) affected their work or the young men in their programs. Most felt that more positive approaches, such as those described below, were preferable to punitive approaches. A few studies have attempted to assess the effect of these punitive laws and their enforcement on the sexual behavior of teens and young adults, but reviewing such evidence is beyond the scope of this chapter.

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By providing men with resources and strategies to stay out of jail, avoid poverty, continue their education, and find work, you give them concrete incentives to avoid pregnancies.

- Robert Johnson, State Consultant, Georgia Fatherhood Program
Fatherhood as more than Child Support

Practitioners agree that young men should be held responsible for fathering children and often emphasize the value of using a broad definition of “responsible.” Many programs that focus on men who are parents are called “fatherhood programs.” Their goal is to improve the well-being of children by increasing the proportion of children growing up with involved, responsible, and committed fathers (National Fatherhood Initiative, n.d.). These programs communicate positive messages to young fathers about the importance of being involved in their children’s lives and delaying having more children until they are financially and emotionally ready to do so.

One such program is the Georgia Fatherhood Program. It works with non-custodial fathers to help them improve their academic, life and job skills, so that they can contribute economically and emotionally to their children’s lives. Robert Johnson explains that, “by participating in this program, these males have new insight that gives them vision and a sense of future. This increases their motivation to avoid additional pregnancies and their enthusiasm about being positive resources for their children so they will avoid unintended pregnancies in their lives.”

Other programs are working to communicate this information to young men before they become fathers. One example is Minnesota’s Dads Make a Difference program. With support from the Minnesota Department of Human Services-Child Support Enforcement Division, it targets middle-schoolers and stresses the important roles that fathers play in children’s lives. It encourages students to think carefully about the myriad responsibilities of a parent – ranging from financial to emotional support – before they become one.

Similarly, through the Parenting and Paternity Awareness (P.A.P.A.) program run through the Texas Attorney General’s office, teens learn about the realities, rights and responsibilities of being a parent. This information, coupled with discussions about what kind of parent each teen wants to be, helps them see reasons for delaying parenthood. Interestingly, earlier versions of the program had a more negative focus, warning about incarceration for avoiding child support and other punitive consequences of avoiding paternal responsibilities. The program was revised to emphasize the positive impact that fathers have on their children and the benefits of being involved in their lives. Michael Hayes, Director of Family Initiatives in the Office of the Attorney General of Texas, explains that the curriculum “is not how you typically think of pregnancy prevention, since it does not cover the ‘how’ of avoiding it. Rather, it empowers males as potential fathers by giving them the ‘why’ of avoiding it until they are truly ready.”

In addition, the Family Initiatives section recently began publishing and distributing “Maps for New Dads: A Prenatal Handbook” to young men with pregnant partners. The book emphasizes the many positive roles a father plays in his child’s life, along with providing information on the value of paternity establishment and responsibility of financial support.

As Linda Riggsbee summarized, “Boys need to know about the consequences of becoming fathers while in their teens, including the punitive measures that can be implemented if they do not financially support their children. But punitive measures alone won’t prevent teen pregnancies or absent fathers. Adolescent males need mentoring, guidance, and medically accurate information about the facts of growing up.”
Conclusion

The importance of including boys and young men in initiatives to prevent teen pregnancy is supported by research and by many practitioners who see the benefits of doing so in their work. However, connecting with adolescent boys and young men and effectively communicating information about sex, love and relationships presents some unique challenges. The good news is that many of these challenges have been creatively addressed by program leaders. A summary of key cross-cutting themes from this chapter follows:

Make sure initiatives are welcoming and engaging for boys and young men. To be truly successful, initiatives to prevent teen pregnancy must include activities developed with boys and young men in mind. Working with boys needs to be an integral part of the initiative’s mission, structure, messages and environment. Among other things, practitioners suggest making the physical space welcoming, hiring male staff, training staff to work with young men, and providing male-only services at convenient hours.

Trust is key. Instilling a sense of trust and good rapport with the clientele is much more important than possessing expertise on teen sex and behavior. Trust only occurs when staff are truly committed to working with young men, particularly adolescent boys. Such trust and rapport often develop more readily when staff reflect the backgrounds of those they are serving.

Include male staff and volunteers. Having men on staff is important—both for their ability to model positive behavior and to provide “male-only” time. It also can contribute to a more welcoming environment for young men.

Keep it positive. In the past, much of the focus on involving young men in teen pregnancy prevention has been punitive and involved young men only after they have become fathers. Experience indicates that positive messages about the benefits of becoming financially secure before parenthood and the important roles that fathers play in their children’s lives can go far in engaging young men around issues of too-early childbearing and help break the cycle of teen pregnancy and parenting.

One Size Does Not Fit All. Successful male-focused initiatives take into account the perspectives that their clients bring with them in order to know how best to connect with them. These factors range from age, cultural background and socioeconomic status, to the kinds of activities they enjoy.

Make the connection between teen pregnancy and other issues. Teenaged boys and young men should be reminded that teen pregnancy is tied to much more than just sex. To effectively motivate boys, it is important to address the factors that influence their decisions about relationships, responsibility, and sexual activity including how notions of masculinity and manhood affect them. It is also important to link reproductive health services to other services such as job placement and GED assistance that will prompt boys to think about their future.

Be creative with outreach. Most teenaged boys and young men are not in programs to prevent teen pregnancy, particularly those who are most at-risk for becoming teen fathers. Therefore, it is important to reach out to young men where they are and try and draw them into programs. This can be done by partnering with agencies and organizations that already work with young men, publicizing information about a program via media campaigns, and/or distributing information at sporting events and other places where boys and young men tend to congregate.

Involve parents. Parents are one of the great untapped resources in teen pregnancy prevention. Parents’ influence on their children’s sexual attitudes and behavior is second to none. Efforts to involve parents should underscore just how influential parents are and provide them with the information they need to exercise that influence, particularly in regard to their sons. Reaching fathers in particular is valuable, and programs should take
steps to clarify that “parental involvement” means dads as well as moms.

In conclusion, the field of teen pregnancy prevention is at a crossroads. Until recently, teen girls were almost exclusively the focus of both the “problem” and the “solution” to teen pregnancy. Growing awareness about the important role that teen boys and young men play in this issue has prompted a gradual broadening of approaches to preventing teen pregnancy, which increasingly includes them. The National Campaign to Prevent Teen Pregnancy believes that there is much to gain from targeting adolescent boys and young men with messages that match their experiences and backgrounds, programs that meet their needs, and strategies that convince them that being responsible is “a guy thing.” Hopefully this publication will fuel further efforts in these areas.
References


Resources (Programs and organizations mentioned in this chapter)

■ **Organization:** The Young Men's Clinic, Center for Community Health & Education at the Mailman School of Public Health, Columbia University and New York Presbyterian Hospital  
**Contact Person:** Bruce Armstrong, DSW. Director of Men’s Health Initiatives  
**Address:** Center for Community Health & Education  
60 Haven Ave. B-3  
New York, N.Y. 10032  
**Phone:** 212-304-5247  
**Fax:** 212-304-5209  
**E-mail:** ba5@columbia.edu  
**Description of organization/initiative:** The Young Men's Clinic (YMC) is a component of a network of ambulatory clinics operated by New York Presbyterian Hospital and the Center for Community Health & Education at the Mailman School of Public Health. These clinics provide women’s health care at over 25,000 visits each year and men's health services at about 4,000 visits each year, as well as comprehensive school-based health services at five NYC public schools. Medical, health education, short-term counseling, and outreach services are provided by an interdisciplinary staff of health professionals. The YMC provides comprehensive physicals for sports, school, and work, episodic care for illness & injury, reproductive health care services such as counseling and testing for HIV and STIs, individual and group health education, short-term counseling, and referrals to employment, educational, health, mental health, and substance abuse services.

■ **Organization:** Milwaukee Community Service Corps  
**Contact Person:** Chris Litzau  
**Address:** 1441 N. 7th Street  
Milwaukee, WI 53205  
**Phone:** 414-372-9040  
**Fax:** 414-372-9060  
**E-mail:**investinyouth@wi.rr.com  
**Website:** http://my.execpc.com/~mcsc/  
**Description of organization/initiative:** The Milwaukee Community Service Corps (MCSC) is a grassroots organization working to meet the needs of the community through visible and measurable community service. Corpsmember participants have the opportunity to learn new skills, earn a wage, serve their community, earn a high school equivalency diploma, and prepare themselves for post-corps college or trade apprenticeships. In the field, corpsmembers renovate vacant homes, plant community gardens, landscape vacant lots, remove graffiti, intern in youth service agencies, perform lead outreach and reduction activities, distribute food for food pantries, engage in recycling projects, and construct new playgrounds.

■ **Organization:** Attorney General of Texas - Office of Family and Legal Policy  
**Program:** Family Initiatives (P.A.P.A., No Kidding: Straight Talk from Teen Parents)  
**Contact Person:** Michael Hayes  
**Address:** P.O. Box 12017  
Austin, TX 78711 MC 039  
**Phone:** 512-460-6218  
**Fax:** 512-460-6070  
**E-mail:** michael.hayes@cs.oag.state.tx.us  
**Website:** www.oag.state.tx.us  
**Description of organization/initiative:** The Family Initiatives section within the Texas Attorney General's Office of Family and Legal Policy (OAG - OFLP) provides leadership and support for a wide range of family strengthening projects and policy development within the state of Texas. The guiding vision for the section is "a Texas where all children benefit from the support, involvement, and caring of both parents regardless of family structure and where forming families receive the resources necessary to create healthy, stable homes." The OAG - OFLP Family Initiatives section works with Faith and Community Based Organizations, schools, Head Start agencies, local civic organizations, and other state agencies providing training and resources for thousands of professional staff each year to strengthen organizational capacity for involving fathers in the lives of children and supporting the formation of stable families.

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It's a Guy Thing: Boys, Young Men, and Teen Pregnancy Prevention

157
Over the last three years the section has received and managed federal grants for projects with incarcerated fathers, unemployed fathers, fathers who need help seeing their children, unmarried parents in forming families, youth at risk of becoming parents, and young, low-income fathers.

■ Organization: Community Action Commission of Santa Barbara
Program: Los Compadres: The Young Men’s Project
Contact Person: Refujio Rodriguez
Address: 5683 Hollister Avenue
Suite 230
Goleta, CA 93117
Phone: (805) 964-8857 ext. 117
E-mail: rrodriguez@cacsb.com
Website: www.cacsb.com
Description of organization/initiative: The Community Action Commission (CAC) is a private, nonprofit agency serving the low-income residents of Santa Barbara County since 1967. CAC operates four main programs: Children Services (Head Start/Child Development/Early Head Start); Family and Youth Services (Los Compadres/Las Comadres/MISC/IDAs/Job Placement); Environmental Services (Oil Recycling/Home Weatherization/Utility Assistance/Boater Education); and Nutrition Services (Senior Nutrition/Mobil Meals/Summer Food Service Program/Back Door Deli). Collaborative projects include HE/LP, the Santa Maria Community Kitchen, the GETA Computer Lab, Guadalupe Family Services Center, and Storyteller. CAC’s mission is to provide low-income families and the entire community the opportunities and resources to become self-sufficient while maintaining dignity, self-esteem, and respecting cultural diversity.

■ Organization: Georgia Fatherhood Services Network
Contact Person: Robert D. Johnson
Address: 2 Peachtree Street 20-485
Phone: (404) 657-1134
Fax: (404) 657-1134
E-mail: rfjohnson@dhr.state.ga.us
Website: Fatherhood-CSC@dhr.state.ga.us
Description of organization/initiative: Since 1997, the Georgia Fatherhood Program has helped over 13,000 non-custodial parents find jobs that enable them to pay their child support. An additional 3,000 non-custodial parents are currently in job training classes, studying for their GED or receiving help to overcome other barriers to stable employment. The Georgia Fatherhood Program is sponsored by the Georgia Department of Human Resources and is recognized nationally as the most comprehensive program in the country for helping low-income fathers.

■ Organization: Planned Parenthood Mar Monte
Program: Male Involvement Program - Circle of Noble Men
Contact Person: Pedro Elias
Address: 633 N. Van Ness
Fresno CA 93728
Phone: 559-488-4908 x 322
Fax: 559-488-4940
E-mail: pedro_elias@ppmarmonte.org
Website: www.ppmarmonte.org
Description of organization/initiative: PPM M’s Male Involvement Program - The Circle of Noble Men uses multiple strategies to engage young men in reducing unintended fatherhood and teenage pregnancy. Program strategies include between 8 and 11 educational sessions, rites of passage and on-going Circulos which provide support and mentorship through connection with older men who participate on a monthly basis. The Circle of Noble Men help young men take a leadership role in their community through projects that enhance the quality of life for all people (i.e., community gardens, neighborhood clean-up days, etc.). The project is funded through a grant with the California Department of Health Services through the Office of Family Planning and private donations and community partnerships.
Organization: Hartford Action Plan  
Program: Always on Saturday  
Contact Person: Alice Leibowitz  
Address:  
30 Arbor Street  
Hartford, CT 06106  
Phone: (860) 236-4872  
Fax: (860) 232-8321  
E-mail: alicel@pariskygroup.com  
Website: www.teenpregnancyhartford.org  
Description of organization/initiative:  
The Hartford Action Plan sponsors Breaking the Cycle, a city-wide campaign to prevent teen pregnancy in Hartford, CT. The Always on Saturday program is one component of Breaking the Cycle's community initiatives. Always on Saturday is a weekly teen pregnancy prevention youth group serving boys and girls ages 9-18 in single sex groups. Adult facilitators lead youth in discussions and activities on teen pregnancy-related topics, including sexuality, contraception, and life skills such as values and assertive communication.

Organization: Valley Community Clinic  
Program: Valley Teen Clinic, Health Education/Outreach, & Male Outreach Program  
Contact Person: Connie Kruzan  
Address:  
6801 Coldwater Canyon Ave.  
North Hollywood, CA 91605  
Phone: 818.763.1718 ext. 210  
Fax: 818.763.7231  
E-mail: connie@teen411.com or ckruezan@valleclinic.org  
Website: www.teen411.com & www.jovenes.com  
Description of organization/initiative:  
Valley Teen Clinic is an outreach and service delivery model in which young adults provide individual and group outreach to teens and adolescent staff provide reproductive health services to their peers. Through the Male Outreach Program (a part of Valley Teen Clinic) special emphasis is placed on providing services to male adolescents in both outreach and clinic settings. This includes off-site 1:1 male outreach health education and chlamydia testing and in-clinic peer provided prevention education as well as a medical exam visit that covers a male exam, lab work, testicular self-exam education, testing and treatment of STIs, and condom use education. Medical exams are provided by clinicians who have a desire and talent for working with youth.

Organization: The Coalition to Improve the Quality of Life in Lee County  
Program: Wise Guys  
Contact Person: Bill Mulligan  
Address:  
310 Westover Dr  
Sanford NC 27330  
Phone: 919-718-1510  
E-mail: kaiju@aol.com  
Website: www.wiseguysnc.org  
Description of organization/initiative:  
Wise Guys, developed by the Family Life Council of Greater Greensboro in 1990, is a male-oriented teen pregnancy prevention program for young men ages 11-19. Adolescent males are learning self-esteem, respect for others and pregnancy prevention from the male point of view. The program frankly discusses topics such as sexuality, abstinence and contraception, dating violence, teen parenthood and sexually transmitted diseases, including AIDS. In addition, it gets at the root causes of problem behavior, including sexual, with learning activities about issues that affect young men and impact their decisions, including personal and family values, conflict resolution, masculinity, effective decision making, goal setting and improving communication with parents, teachers, peers and others. The program seeks to provide a creative atmosphere where issues of importance to young men can be explored in a frank and open way.

Organization: The Center for Fathers, Families, and Workforce Development  
Contact Person: Joseph Jones  
Address:  
3002 Druid Park Drive  
Baltimore, MD 21215  
Phone: (410) 367-5691  
Fax: (410) 367-5761  
E-mail: jjones@cfwd.org  
Website: www.cfwd.org
Description of Organization/Initiative:
The Center for Fathers, Families and Workforce Development (CFWD) was founded by Joseph T. Jones, Jr. in 1999. Its origins began in 1993, when Mr. Jones developed Men's Services for Baltimore's federally funded Healthy Start program. Men's Services was created to engage men in the fight against infant mortality and low-birth weight babies and to support men to be more active in the lives of their children. CFWD empowers low-income families by enhancing the ability of men to fulfill their roles as fathers and of men and women to contribute to their families as wage earners. Two beliefs are central to the CFWD approach: that men want to be emotionally and financially responsible for their children, and that poverty can hinder parental involvement and support.

Organization Name: Jobs for Delaware Graduates, Inc.
Contact Person(s) Name: Dr. Susanna Lee
Address: 381 W. North Street
Dover, Delaware 19904
Phone: 302-734-9341
Fax: 302-734-4912
E-mail: suelee@jobsdegrads.org
Website: www.jobsdegrads.org

Description of organization/initiative:
JDG's mission is to enable students to achieve academic, career, personal, and social success. Jobs for Delaware Graduates (JDG), organized in 1979, is a private, non-profit corporation designed to prepare highly challenged high school students to transition from school to work. The JDG Five-Year Program serves students in grades 9, 10, 11 and 12, plus one year of work placement and training follow-up after graduation. The JDG program works in cooperation with all public high schools in the state of Delaware to provide a year long program at each high school site. Students with at least two of the following challenges to learning and/or gainful employment are recommended by school staff to participate in the Jobs for Delaware Graduates program:
- Economically disadvantaged
- Lack of Job Skills and/or Poor Academic Performance
- Personal and/or family problems
- Excessive absences and/or disciplinary problems
- One or more modal grade(s) behind their peers

Program: Time Out
Contact Person: Caitlin Shetter, Program Director
Address: Cornell University cc: 2170 Carlyle Dr.
Marietta, GA 30062
Phone: (770) 722-5357
E-mail: cshetter@timeoutonline.org
Website: www.timeoutonline.org

Description of Organization/Initiative:
Time Out is a program to target teenaged males with information and discussions on sex and being a teen parent. The program targets high school athletic coaches, who are often role models for boys. Traditionally, programs have been geared towards female teenagers, but pregnancy takes two. Time Out provides teen males with statistics and information on the consequences of sex, and the program information can be found at Timeoutonline.org.

Organization Name: ANAK Consultants, Inc.
Program Name: Servant Leader Rites of Passage
Contact Person(s) Name: Dr. Sterling Lands, II
Address: 6510 Berkman Drive
Austin, Texas 78723
Phone: (512) 454-6170
Fax: (512) 302-9806
E-mail: sterling.lands@greatercalvary.org

Description of organization/initiative:
The program specializes in providing tools and training designed to prevent youth from engaging in self destructive behavior by offering a character development and abstinence education rites of passage process. The mission is to equip individuals to become capable role models of high moral character who plant roots of positive character, conscience and conduct in the lives of children and youth.
The National Campaign to Prevent Teen Pregnancy is a nonprofit, nonpartisan organization supported largely by private donations. The National Campaign’s mission is to improve the well-being of children, youth, and families by reducing teen pregnancy. When we began in 1996, we set a goal of a one-third reduction in the teen pregnancy rate in ten years. Ten years later, it seems almost certain that the nation will reach this goal. Building on this great success, the National Campaign’s new challenge to the nation for the next decade will be to reduce the teen pregnancy rate by another one-third.