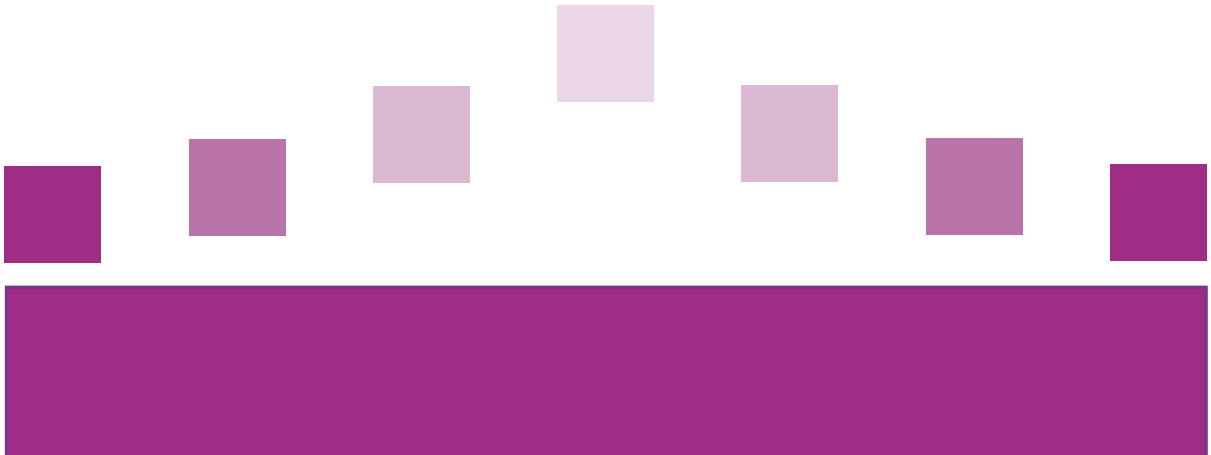
Joint Center for Political and Economic Studies

The Reproductive Health of African American Adolescents

What We Know and What We Don't Know

By Wilhelmina A. Leigh and Julia L. Andrews



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Joint Center for Political and Economic Studies, 1090 Vermont Avenue, NW, Suite 1100, Washington, DC 20005-4961

Phone: 202-789-3500
Web: www.jointcenter.org

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Foreword

Family formation and single parenting have been issues of concern within the African American community at least since 1965, when Daniel Patrick Moynihan first raised the matter in the context of federal policy. At that time, most black families were still headed by married couples, and black leaders felt that Moynihan's focus was unwarranted. But over the next 15 years, as the decline in marriage rates and growth in single parenting became apparent, members of the African American community began to speak out.

Early and out-of-wedlock parenting can be harmful in a variety of ways to mothers, their children, and the broader community. Through a number of studies conducted in the 1980s, the Joint Center for Political and Economic Studies examined the social and economic consequences of the growth in single parenting and the changing economic fortunes of black children. These studies supported calls for action on the part of both individuals and government.

During the 1990s, however, marked improvements became evident in a number of reproductive health measures for African American adolescents. Pregnancy and birth rates have declined dramatically. In addition, rates for selected sexually transmitted diseases (syphilis and gonorrhea) have shown phenomenal reductions. By the end of the century, condom use (both to prevent the transmission of infections and to reduce the likelihood of pregnancy) was more common among African American teens than among either white or Latino adolescents, males and females alike.

Curious about the underlying causes of these changes and wanting to learn what might foster continued improvements, the Joint Center undertook a review of the research literature on teenage pregnancy and, more broadly, on the reproductive health of African American adolescents. As a research and public policy institution that focuses on issues related to Black Americans, the Joint Center is keenly aware of the importance of securing a healthy future for all adolescents, the adults of tomorrow. It is our hope that this book, which lays out the most relevant current findings concerning these young people, can help move us all a step in that direction.

Generous support for conducting this literature review was provided by the Annie E. Casey Foundation. In particular, we thank Debra Delgado, senior associate at the Foundation, who had the foresight to suggest what needed to be done and to help us select an advisory work group whose members offered many valuable suggestions that improved the final product. Thanks also are due to Drs. Trude Bennett, Lacey Henriques, Patricia Rodney, and Margaret Beale Spencer, outside reviewers whose comments on an earlier draft were both detailed and cogent. In addition, the camaraderie and collegiality of the team at the Center for Reproductive Health Research & Policy at the University of California - San Francisco (UCSF), led by Dr. Claire Brindis, must be acknowledged. Exchanges with the UCSF team as they conducted a similar review for Latino adolescents synergized our efforts.

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Eddie N. Williams
President
Joint Center for
Political and Economic Studies

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EXECUTIVE SUMMARY

Why do we (or should we) as a nation care about the reproductive health of adolescents? We care because adolescents' decisions and behaviors during the teen years can have life-altering and lifelong consequences for them. Their decisions and behaviors also can have major cost implications for society as a whole. For example, an adolescent can contract fatal diseases, such as human immunodeficiency virus (HIV) infection or auto immune deficiency syndrome (AIDS), or have an early, nonmarital childbirth from engaging in sexual-risk behavior. Both of these outcomes have direct emotional, psychological, and financial implications for the adolescent and his or her family. In addition, these outcomes often result in costs for society at large — to provide needed healthcare services or other supports (e.g., welfare payments) for the families created by adolescents.

For most of the 20th century, the buzz words for the reproductive health of African American adolescents included "early sexual initiation," "high rates of sexually related infections," and "high pregnancy and birth rates." The early onset of puberty, combined with the lack of access to healthcare services, has contributed to these outcomes. A broad set of socioeconomic and historical factors that influence all African Americans have also contributed to these outcomes. Slavery and the post-slavery northern migrations that resulted in the loss of community institutions (and their restraints on social behavior) established the basis for African American family structure. Internalized and institutional racism helped shape an environment in which many African Americans are reluctant to seek healthcare services. It is also an environment in which the care provided to them may not be the same quality as the care provided to others. In addition, over time, the nation's economic policies, programs (e.g., welfare), and institutions have brought about changes in the structure of the African American family in ways that have been detrimental to the reproductive health outcomes among adolescents.

During the 1990s, however, a number of reproductive health measures for African American adolescents improved markedly. Pregnancy and birth rates declined dramatically. In addition, rates of selected sexually transmitted diseases, such as syphilis and gonorrhea, also have shown phenomenal reductions. By century's end, condom use (both to prevent the transmission of infections and to reduce the likelihood of pregnancy) was more common among African American teens than among either white or Latino adolescents.

These dramatic changes in reproductive behavior and outcomes among African American adolescents should stimulate interest in gaining a fuller understanding of their causes. Therefore, to reveal what we know and what we don't know about the reproductive health of African American adolescents, relevant research literature published between the late 1970s and the early 21st century was reviewed. The objectives of the literature review were to seek possible explanations for the recent changes, to determine gaps in knowledge on this important topic, and to suggest the need for further inquiry.

What do we know about the reproductive health of African American youth as a result of this literature review? In general, we know more about African American female teens than about African American male teens. For example, we know that black female adolescents who view their parents'

monitoring of their activities as either too lax or too strict, rather than as more appropriate, are more likely to make an early sexual debut. (Sexual debut is defined as first sexual intercourse.) They are also more likely to have sexual intercourse more frequently (post-debut). However, we do not know whether this is the case for black male teens. More research is needed about the reproductive health of African American male adolescents.

In addition, when both male and female teens are studied, gender differences are commonly noted. For example, research conducted with both male and female African American teens about the relationship between religiosity and sexual behavior found that only the females who reported religiosity were less likely to report sexual activity or an early sexual debut. (Religiosity is usually defined as church attendance.) These facts suggest a need for more research about adolescent reproductive health as a concern and interest of African American male and female teens. Also, many findings reflect the low-income populations with whom the studies were conducted. Therefore, additional research is needed on the reproductive health of black adolescent populations at other income levels.

Research findings are limited about interventions that are effective at helping African American teens achieve good reproductive health. In addition, available findings from relevant program evaluations seem to apply to all adolescents. This seemingly universal applicability of some findings may suggest that black adolescents are no different from white or other teens in what they need for healthy growth and development. On many levels this is true. However, services and interventions for African American teens are provided and received in the environment of persistent social and economic inequality experienced by many African Americans. This environment influences the ability of interventions to work as intended. It also influences whether African American teens can benefit from such services and interventions in the same way as teens who do not experience this disadvantage.

Thus, the findings below summarize what we know and what we don't know about the reproductive health of African American teens. Although we know that this knowledge is evolving and that the information presented is only a snapshot, this synthesis can be a starting point. We hope this analysis will indeed be the starting point for a future in which the reproductive health of African American adolescents continues to improve. The improvements should come, in part, because of more highly refined and applied knowledge about the attitudes, expectations, behaviors, and outcomes for this population. We also hope that this future will include fewer societal disadvantages faced by African American adolescents and fewer costs to the nation resulting from the sexual health behaviors and outcomes of this teen population.

What We Know

Sexual Behavior

- Since the late 1970s, African American adolescents have been more likely than other teens to report having ever engaged in sexual intercourse and to have initiated sexual intercourse during the early teen years. However, the gap in sexual experience has narrowed markedly during that period. This result is due to both delays in sexual initiation by African American teens and to increases in the proportions of other teens reporting sexual intercourse.[1]

- African American youth whose peers do any of the following — use alcohol, marijuana, or cocaine; show violent behavior; smoke cigarettes; or skip school — are more likely to have sexual intercourse than their counterparts whose friends do not act in any of these ways.[2]

■ In most studies, black teens report a younger age at first intercourse (younger than either 13 or 15) than white teens. Among all race and gender groups, black males are the most likely to make their sexual debut at the youngest ages.[3]

■ The frequency with which current sexual activity is reported declined among African American female teens during the 1990s, whereas this rate remained almost constant among African American male teens.[4] (Current sexual activity is defined as having had sexual intercourse at some point during the preceding three months.) Despite these declining and steady rates, black teens report higher rates of sexual activity than white and Hispanic teens.

■ Although use of contraceptives **during first intercourse** has been reported by increasing percentages of adolescents over time, the proportions among African American male and female teens are less than among their white counterparts. However, there is evidence that black female teens who use contraceptives at first intercourse are more likely than white female teens to use birth control pills, a more effective method, than they are to rely on condoms alone.[5]

■ Although condom use has increased among all teens since the 1980s, the use of the condom consistently and during last intercourse is more common among black adolescents than among any other racial or ethnic group.[6] Nearly three-fourths (73 percent) of African American male teens reported condom use either alone or in combination with other contraceptive methods during all heterosexual intercourse in the 12 months preceding the 1995 National Survey of Adolescent Males.[7]

■ African American adolescents are more likely than other adolescents to report having had sex with multiple partners.[8] At the same time, African American female teens are less likely than other teens to report current sexual activity. Perhaps this finding suggests a pattern of sexual experiences involving a series of either "one-night stands" or involuntary sexual experiences.[9]

Sexual Outcomes

■ During the 1990s, reported rates among African American youth have increased for some sexually transmitted diseases (STDs) (e.g., chlamydia) and decreased for others (i.e., gonorrhea and syphilis). However, rates for STDs among black youth exceed reported rates for other youth.[10]

■ HIV infection and AIDS are present among African Americans at a rate disproportionate to their representation in the total U.S. population. The 968 AIDS cases that had been reported by black non-Hispanic male teens 13 to 19 by June 2001 constituted 40 percent of all AIDS cases reported by all same-age males (2,450 cases). At that time, black males were only 15 percent of all male teens. The 1,176 cases among black non-Hispanic female teens 13 to 19, however, were a majority (66 percent) of the 1,769 cases reported by all female teens, although black females were only 15 percent of all female teens.[11]

■ However, the number and proportion of cases of HIV infection reported for African American male and female teens 13 to 19 are greater than the reported number and proportion of AIDS cases. This finding suggests a future increase in the incidence of AIDS among African Americans in this particular group.[12]

■ Since the 1950s, birth rates among both black and white female teens 15 to 19 have decreased. Birth rates for black teens have been two (or more) times the rates for white teens, although the rates for black female teens also have experienced a downward trend, especially during the 1990s. Between 1991 and 2001, the birth rate for black teens declined by 37 percent.[13]

■ Nearly one-third of black female teens with older partners are more likely to report low rates of contraceptive use and high rates of pregnancy and childbirth.[14]

Influence of Knowledge and Other Individual Attributes

■ African American male and female adolescents have greater knowledge about sexual topics and have better communication with their parents and other family members than other adolescents do.[15]

■ Black adolescents are more likely than other adolescents to expect teen parenthood and non-marital childbearing.[16]

■ African American teens who feel part of school or are doing well in it and who have high educational or occupational achievements or aspirations, or both, are less likely to be sexually active or to engage in high-risk behavior (i.e., early age of sexual debut).[17] Using a slightly different measure, Lauritsen (1994) found that black female teens who reported educational frustration also reported greater engagement in sexual activity. Therefore, educational involvement is associated with lower sexual activity. (Educational frustration is defined as believing that college enrollment is "very important," but believing that the chances of attending college are only "fair at best.")[18]

■ African American female adolescents with high educational aspirations and attainment have lower childbirth rates.[19]

■ African American female adolescents are likely to have reduced fertility associated with the following factors: greater employment opportunities, teens' perceptions of economic opportunities, and expectations of employment in the primary labor market (in which additional training or education is rewarded with higher wages).[20]

■ An African American female adolescent is more likely to have a second or repeat pregnancy if she has the following characteristics: is a younger teen, is below the grade level for her age, has lower educational goals, has a weaker belief in her occupational goals, and is closer to her boyfriend.[21] Other related factors include the following: the contraceptive method used soon after the first delivery, the consistency of contraceptive use, and a history of miscarriages.[22] Specifically, older first-time mothers, teen mothers who reported inconsistent contraceptive use, and teen mothers with a history of miscarriages were more likely to become pregnant again within 24 months of their first birth.

■ African American teens who feel more spiritual interconnectedness (i.e., social support from their faith) with friends, family, and others are less likely to have sexual intercourse than their counterparts who do not feel this way.[23]

■ Selected interventions also have demonstrated their effectiveness in changing the sexual knowledge and intentions of African American adolescents. In particular, several programs have been evaluated as effective at preventing teen pregnancy, at reducing the risk of AIDS transmission, and at encouraging responsible sexual behavior.[24]

Parental Influences

■ Black female teens who were not sexually active reported the strongest influence of their families on their sexual attitudes and behaviors. These teens also were the most likely to have a father living at home.[25]

■ Teens in single-parent families are more likely to have had sexual intercourse than those in two-parent families.[26]

■ African American adolescents with family routines and close family relationships and who had not experienced household trauma were more likely to delay sexual initiation (until age 15 or older) than their counterparts. They were also more likely to not become mothers than their counterparts who had experienced the opposite conditions within their families.[27]

■ African American youth who perceive higher levels of social support and parental monitoring report a reduced frequency of sexual activity and a smaller number of lifetime partners.[28]

■ Black female teens who view their parents' monitoring as either too lax or too strict are more likely to make an early sexual debut. They are also likely to have sexual intercourse more frequently, once having made their debut (than are teens who view their parents' monitoring as more appropriate).[29]

■ Some aspects of family structure (single-parent versus two-parent family) at various ages in the life of a teen (specifically, 11 and 14) are associated with aspects of teen sexual activity (e.g., age at first intercourse and frequency of intercourse), but not with all aspects considered in this review (e.g., having ever had sexual intercourse or whether contraceptives were used at first intercourse).[30] In particular, African American teens who lived in two-parent families at 11 (in one study) or 14 (in another study) are more likely to report their sexual debut at an older age and are less likely to report frequent intercourse. However, living in a two-parent family at other ages has not been found to either deter adolescents from ever having intercourse or encourage them to use contraceptives at first intercourse.

■ The parent-teen communication and relationship or other family relationships, or both, influence teen sexual activity. Most often, African American teens who feel their parent-teen communication and relationship are strong delay their sexual debut or experiences and use contraceptives more consistently.[31] Family conflict generally is associated with greater occurrence of high-risk sexual behavior.[32]

What We Don't Know

As the previous section demonstrates, we have considerable knowledge about the sexual behaviors and outcomes of African American adolescents and about the individual and parental influences on these sexual behaviors. However, the supporting research has provided both insights and further questions about how the outcomes came to be. A major remaining question is, "Do the factors that account for the reproductive health outcomes of African American adolescents offer insights into how adolescents can successfully navigate 'coming of age' in problematic, stressful environments?" In other words, by studying the possible explanations for reproductive health outcomes, have we learned which factors support which outcomes, and which factors support other outcomes?

The answer to these final questions is that we have partial knowledge about the factors that support given reproductive health outcomes among African American adolescents. This partial knowledge is used not only to craft programs to meet the needs of these teens but also to ask the additional questions we want to answer and raise the issues we need to address to build on the constructive behaviors and strengths of black adolescents. In this way, we will help them achieve enduring reproductive health.

■ Although African American teens are most likely to report condom use at last intercourse,[33] more research is needed about their contraceptive use at first intercourse. Most research studies based on national survey data find that white teens are more likely than black teens to use contraceptives at first sexual intercourse.[34] However, other research found that black teens were more likely than

white teens to use contraceptives, specifically condoms, at first sexual intercourse.[35]

- We do not understand how knowledge about sexual topics influences sexual-risk behavior, including contraceptive use. Some studies have found an association between knowledge about sexual topics and behavior; [36] other studies have found little evidence of such an association.[37] Knowledge about HIV/AIDS, in particular, has been found to inhibit sexual activity among African American teens in some research,[38] but to have no effect in other research.[39]

- We do not fully understand the relationship between religiosity and sexual behavior among adolescents. Some research finds that African American female teens of any age who reported church attendance (a common definition of religiosity) were the least likely to report sexual activity or to report an early sexual debut.[40] However, other research did not find such a relationship for either African American male or female teens.[41]

- Research about the influence of the number of siblings on whether an African American teen has had sexual intercourse is inconclusive. That is, some studies find that the number of siblings matters, and other studies do not.[42] In addition, the nature of the influences identified is mixed.

- We don't know what factors influence the age at first voluntary intercourse for black teens.[43]

- Although most research suggests that there is a relationship between career aspirations and school performance and the likelihood of African American adolescents' having sexual intercourse (and other sexual-risk behaviors), we do not know the direction of this relationship. More research has examined whether high career aspirations or better school performance is associated with a delay in sexual initiation and with less frequent sexual activity, although a relationship also could exist in the other direction. In other words, the outcomes of sexual behaviors (such as pregnancy, number of childbirths, and number of unwanted children) may determine educational attainment and income (one result of occupational aspirations).[44] Relationships in both directions are indeed possible, so additional research on each type of relationship is needed.

- Little research has been conducted about the reproductive health knowledge, behaviors, and outcomes for teens with disabilities.[45] Even less research has been conducted about the reproductive health of black teens with disabilities. Therefore, we have inadequate knowledge about the reproductive health needs and issues for black teens with disabilities or mental health problems, or both.

- We need a more thorough understanding of role definitions, power dynamics, and patterns of interaction in opposite-sex relationships among African American adolescents and how these influence their sexual behaviors and outcomes.

- Little is known about the nature of same-sex relationships among African American teens, that is, characteristics of, or teens' expectations for, these relationships. When conducted, research about the health of gay, lesbian, bisexual, and transgender persons generally is done with adults only. Furthermore, if such research is conducted with adolescents, it is seldom specific to African American adolescents. Differences between African American and white youth with both same-sex and opposite-sex attractions also have not been fully explored.

- We lack a thorough understanding of the relationship between violence in other areas of an adolescent's life (e.g., losing family and friends to violence, playing violent video games, and being a victim of personal violence) and sexual-risk behaviors. We also do not fully understand the factors that cause dating violence among African American adolescents.

- We need to know more about the development of racial or ethnic identity and adolescent reproductive health.

- We need to learn more about the predictors of consistent condom use among teens who lack high aspirations or expectations for their present or future.

- We also lack a thorough understanding of the decisions black youth make about marriage after pregnancy or childbirth has occurred.

- We need to study African American adolescent males more frequently, to increase our knowledge about this group. Such studies would provide knowledge comparable to that about African American female adolescents.

- We need to know more about how parents can monitor adolescents so that teens perceive that the monitoring is appropriate for their needs, that is, neither too lax nor too strict. Both of these perceived styles have been found to cause problems among teens.

- We need a thorough understanding of the relationship between socioeconomic status and sexual behaviors and outcomes.

- We need more complete knowledge about the programs and interventions that are effective at helping African American adolescents cope with the experience of becoming sexual beings.

- We need to research and understand more completely the influence of media on the reproductive health of African American adolescents.

Source Notes

1. Furstenberg, Morgan, Moore, & Peterson 1987; Forrest & Singh 1990; Young, Jensen, Olsen, & Cundick 1991; Freeman & Rickels 1993; Walter, Vaughan, Armstrong, Krakoff, Maldonado, Tiezzi, & McCarthy 1995; Schuster, Bell, & Kanouse 1996; Abma, Chandra, Mosher, Peterson, & Piccinino 1997; Doljanac & Zimmerman 1998; Ku, Sonenstein, Lindberg, Bradner, Boggess, & Pleck 1998; Sonenstein, Ku, Lindberg, Turner, & Pleck 1998; Upchurch, Levy-Storms, Sucoff, & Aneshensel 1998; Singh & Darroch 1999; Strunin 1999; Blum, Beuhring, & Rinehart 2000; Blum, Beuhring, Shew, Bearinger, Sieving, & Resnick 2000; Lindberg, Boggess, Porter, & Williams 2000; Hogan, Sun, & Cornwell 2000; Abma & Sonenstein 2001; O'Donnell, O'Donnell, & Stueve 2001; Siegel, Aten, & Enaharo 2001; and Youth Risk Behavior Surveillance — United States 2001 [2002].

2. Furstenberg, Morgan, Moore, & Peterson 1987; Doljanac & Zimmerman 1998; Perkins, Luster, Villarruel, & Small 1998; and Blum, Beuhring, & Rinehart 2000.

3. Zelnik & Kantner 1980; Zelnik & Shah 1983; Moore, Simms, & Betsey 1986; Hofferth, Kahn, & Baldwin 1987; Day 1992; Freeman & Rickels 1993; Mott, Fondell, Hu, Kowaleski-Jones, & Menaghan 1996; Youth Risk Behavior Surveillance — United States 1997 [1998], 1999 [2000], and 2001 [2002]; Perkins, Luster, Villarruel, & Small 1998; Upchurch, Levy-Storms, Sucoff, & Aneshensel 1998; and Abma & Sonenstein 2001.

4. Youth Risk Behavior Surveillance — United States 2001 [2002].

5. Zelnik & Shah 1983.

6. Zelnik & Kantner 1980; and Youth Risk Behavior Surveillance — United States 2001 [2002].

7. Murphy & Boggess 1998.

8. Binson, Dolcini, Pollack, & Catania 1993; Ku, Sonenstein, Lindberg, Bradner, Boggess, & Pleck 1998; Santelli, Brener, Lowry, Bhatt, & Zabin 1998; Dutra, Miller, & Forehand 1999; and Abma & Sonenstein 2001.

9. Young, Jensen, Olsen, & Cundick 1991; Freeman & Rickels 1993; and Lauritsen 1994.

10. Sexually Transmitted Disease Surveillance 1998 [1999] and 2000 [2001].

11. HIV/AIDS Surveillance Report 2001 (U.S. HIV and AIDS Cases Reported Through June 2001) [2001].

12. HIV/AIDS Surveillance Report 2001 (U.S. HIV and AIDS Cases Reported Through June 2001) [2001].

13. Ventura, Mathews, & Hamilton 2001; Martin, Hamilton, Ventura, Menacker, & Park 2002; and Martin, Park, & Sutton 2002.

14. Darroch, Landry, & Oslak 1999; Ford, Sohn, & Lepkowski 2001; and Marín, Coyle, Gómez, Carvajal, and Kirby 2000.

15. Scott-Jones & Turner 1988; Freeman & Rickels 1993; Abma, Chandra, Mosher, Peterson, & Piccinino 1997; Hutchinson & Cooney 1998; and Miller & Whitaker 2001.

16. Trent 1994; Santelli, Kouzis, Hoover, Polacsek, Burwell, & Celentano 1996; and East 1998.

17. Hogan & Kitagawa 1985; Furstenberg, Morgan, Moore, & Peterson 1987; Freeman & Rickels 1993; East 1998; Perkins, Luster, Villarruel, & Small 1998; and Blum, Beuhring, & Rinehart 2000.

18. Lauritsen 1994.

19. Hanson, Myers, & Ginsburg 1987; and Freeman & Rickels 1993.

20. Duncan & Hoffman 1990; Olsen & Farkas 1990; Meyer & Mukerjee 2000; and Sugland, Driscoll, Manlove, & Papillo 2002.

21. Freeman & Rickels 1993.

22. Stevens-Simon, Kelly, & Singer 1999; and Coard, Nitz, & Felice 2000.

23. Holder, Durant, Harris, Daniel, Obeidallah, & Goodman 2000.

24. Jemmott, Jemmott, & Fong 1992; Jemmott, Jemmott, Spears, Hewitt, and Cruz-Collins 1992; Freeman & Rickels 1993; Stanton, Li, Ricardo, Galbraith, Feigelman, & Kaljee 1996; and Siegel, Aten, & Enaharo 2001.

25. Keith, McCreary, Collins, Smith, & Bernstein 1991.

26. Young, Jensen, Olsen, & Cundick 1991.

27. Danziger 1995; and Doljanac & Zimmerman 1998.

28. St. Lawrence, Brasfield, Jefferson, Alleyne, & Shirley 1994; and DiClemente, Wingood, Crosby, Sionean, Cobb, Harrington, Davies, Hook, & Oh 2001.

29. Hogan & Kitagawa 1985; and Murry 1996.

30. Rosenbaum & Kandel 1990; Murry 1992; Murry 1996; and Upchurch, Levy- Storms, Sucoff, & Aneshensel 1998.

31. Dittus, Jaccard, & Gordon 1999; Li, Stanton, & Feigelman 2000; and DiClemente, Wingood, Crosby, Sionean, Cobb, Harrington, Davies, Hook, & Oh 2001.

32. Doljanac & Zimmerman 1998.

33. Youth Risk Behavior Surveillance — United States 2001 [2002].

34. Zelnik & Shah 1983; Abma, Chandra, Mosher, Peterson, & Piccinino 1997; Hogan,

Sun, & Cornwell 2000; Manning, Longmore, & Giordano 2000; and Abma & Sonenstein 2001.

35. Doljanac & Zimmerman 1998.

36. Scott-Jones & Turner 1988; Murry 1992; Murry 1996; and Stanton, Li, Galbraith, Feigelman, & Kaljee 1996.

37. Chilman 1979; and Marsiglio & Mott 1986.

38. St. Lawrence 1993.

39. DiClemente, Lodico, Grinstead, Harper, Rickman, Evans, & Coates 1996; and Dittus, Jaccard, & Gordon 1999.

40. Leigh, Weddle, & Loewen 1988; and Day 1992.

41. Perkins, Luster, Villarruel, & Small 1998; and Dittus, Jaccard, & Gordon 1999.

42. Hogan & Kitagawa 1985; Blum, Beuhring, & Rinehart 2000. Young, Jensen, Olsen, & Cundick 1991; Murry 1992; and Perkins, Luster, Villarruel, & Small 1998.

43. Young, Jensen, Olsen, & Cundick 1991; Murry 1992; and Perkins, Luster, Villarruel, & Small 1998.

44. Scott-Jones & Turner 1990.

45. Surís, Resnick, Cassuto, & Blum 1996; and Seiler 2001.

INTRODUCTION

For most of the 20th century, the reproductive health of African American adolescents was a story of early sexual initiation, high incidences of sexually related infections, and high pregnancy and birth rates. The early onset of puberty, combined with the lack of access to healthcare services, contributed to these outcomes. The broad set of socioeconomic and historical factors that influence the African American population at large also contributed to these outcomes. For example, slavery and the post-slavery northern migrations that resulted in the loss of community institutions (and their restraints on social behavior) established a baseline for African American family structure. This baseline family structure has been buffeted and stressed by later economic changes and policies, often to the detriment of reproductive health outcomes among adolescents. In particular, federally supported welfare policies (especially under the Aid to Families with Dependent Children (AFDC) program, historically), as administered by the 50 states, created economic disincentives to maintaining two-parent families. In addition, structural job market changes — from the disappearance of high-wage jobs for high school graduates in the manufacturing sector to the growth of low-wage jobs for high school graduates in the service sector — have decreased "living-wage" job opportunities and, therefore, the ability of less well-educated black men to support families. Social isolation, emanating from our national legacy of "separate but equal" and entrenched residential segregation by race, along with worsening economic circumstances for less well-educated African Americans, resulted in a community in which early and adolescent childbearing was normative.

During the 1990s, however, pregnancy and birth rates among African American female teens (ages 15 to 19) declined dramatically. Their birth rate declined 37 percent between 1991 and 2001, the greatest decline among all female teens for which birth rates were reported, that is, white or white non-Hispanic, black, and Hispanic (Martin, Hamilton, & Ventura 2001). In addition, by the end of the 1990s and through 2001, condom use (both to prevent the transmission of infections and to reduce the likelihood of pregnancy) was more common among African American teens than among either white or Latino teens, both males and females. In the 2001 Youth Risk Behavior Surveillance — United States (YRBS) report, 67 percent of black high school students, males and females combined, reported using a condom during last sexual intercourse (YRBS 2001 [2002]). This frequency of use exceeded the reported condom use at last intercourse among the white (57 percent) and Hispanic (54 percent) high school students queried in the same survey.

These dramatic changes in reproductive behavior and outcomes among African American adolescents should pique national curiosity about, and interest in, gaining a fuller understanding of their determinants and underlying factors. If we can learn how these changes came about among a segment of the teen population viewed by many as representing the worst in adolescent reproductive health behaviors and outcomes, we may be able to apply the lessons learned with other teens in the United States.

Thus, the purpose of this literature review is to increase awareness of these recent outcome changes, to debunk the myths and stereotypes, and to suggest what can be done to further improve reproductive health outcomes for African American teens. Data collected and studies conducted (between the

late 1970s and 2002) about the reproductive health of African American adolescents (both males and females) are reviewed to assess the current state of knowledge and associated gaps. The goal of this synthesis is to paint a picture — framed by the proper socioeconomic and historical context — of the reproductive health knowledge, attitudes, behaviors, and outcomes for African American adolescents. Findings from this review are used to deduce the characteristics of policies and programs that will be effective at meeting the needs of African American adolescents (and perhaps other adolescents).

This analysis does not draw extensively from evaluations of programs serving adolescents. Instead, the data and research studies that have guided the development of such programs are the focus of this review. This report takes a fresh look at what we know, what we don't know, and the quality (and, therefore, reliability) of the research available to guide program development.

The report is organized as follows: First, the definitions (of black or African Americans and of adolescent reproductive health) used for this review are provided. This section is followed by a discussion of the socioeconomic and historical context that influences the reproductive health of African American adolescents. Then, the methodology for the literature review and synthesis is described, followed by the literature review itself. Strengths and limitations of the research, and implications for policies and programs, follow. The final section includes an assessment of gaps in knowledge and, therefore, the need for further research.

DEFINITIONS

Black or African American

According to Statistical Policy Directive No. 15, "Race and Ethnic Standards for Federal Statistics and Administrative Reporting," promulgated by the Office of Management and Budget, the term "black or African American" refers to any person having origins in any of the black racial groups of Africa. Although this category is dominated by descendants of Africans brought to the United States during the slave era, it also includes more recent migrants primarily from Africa and the Caribbean region. Approximately 5 percent of African Americans are foreign born, mainly French-speaking Haitians and other non-Spanish-speaking Caribbean people. These include residents from Dutch-speaking islands such as Aruba and English-speaking persons from former British colonies in the Caribbean Sea and on land (e.g., Belize and Guyana). Depending on their color and the groups with whom they affiliate and identify in the United States, some Spanish-speaking people (often from the Dominican Republic and Puerto Rico) consider themselves black or African American (Neighbors & Williams 2001).

Although the overwhelming majority of black or African Americans in the United States are native born, and most research about blacks or African Americans focuses on this segment of the population, several cultural and ecological areas with varying histories, economics, and social characteristics have been identified and are associated with considerable heterogeneity among the native-born black population. These areas are as follows: (1) Tidewater Piedmont (eastern Maryland, Virginia, and North Carolina); (2) coastal Southeast (South Carolina and eastern Georgia); (3) black belt (central and western Georgia, Alabama, Mississippi, parts of Tennessee, Kentucky, Arkansas, Missouri, Louisiana, and Texas); (4) French tradition (Louisiana, eastern coastal Texas, and southwestern Mississippi); (5) areas of Indian influence (Oklahoma and parts of Arkansas and Kansas); (6) Southwestern areas (west Texas, New Mexico, Arizona, and California); (7) old Eastern colonial areas (New Jersey, Pennsylvania, New York, and Massachusetts); (8) Midwestern and far Western areas (Illinois west to Washington state); and (9) post-1920 metropolitan North and West ghetto areas (major inner cities in places such as New York, Detroit, Chicago, and San Francisco) (Neighbors &Williams 2001).

Adolescent Reproductive Health

In the research reviewed in this synthesis, adolescence is variously defined to include subpopulations between 10 and 21. Most frequently, data are provided for adolescents, defined as between 15 and 19. Data for youth 10 to 14 sometimes are also provided in other analyses of adolescents.

Reproductive health is defined as follows: "A state of complete physical, mental, and social well-being, and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes" (United Nations International Conference on Population and Development (UN ICPD) 1994). This definition "implies that people are able to have a satisfying and safe sex life and that they have the capacity to reproduce and the freedom to decide if, when, and how often to do so" (UN ICPD 1994).

How is reproductive health defined for adolescents? At the 1994 United Nations meeting in Cairo, Egypt, attendees agreed that globally the health needs of adolescents have been largely ignored within the systems that provide reproductive health services. In viewing the desired role of the world's societies relative to adolescent reproductive health, the conferees affirmed that the response to the reproductive health needs of adolescents should be based on information that helps them attain the level of maturity to make responsible decisions. Information and services should be made available to adolescents to help them understand their sexuality and to protect them from unwanted pregnancies, sexually transmitted diseases, and subsequent risk of infertility. Efforts to provide this information and related services should be combined with the education of young men to share responsibility with young women in matters of sexuality and reproduction (UN ICPD 1994).

Reproductive health care was defined to include, at a minimum, the following (UN ICPD 1994):

- family planning counseling, information, education, communication, and services;
- education and services for pre-natal care, safe delivery, and post-natal care;
- health care for infants and women;
- treatment of reproductive tract infections, sexually transmitted diseases, and other reproductive health conditions;
- safe abortion services (where legal), and management of abortion-related complications;
- prevention of, and appropriate treatment for, infertility; and
- information, education, and counseling about human sexuality, reproductive health, and responsible parenthood, and discouragement of harmful practices such as female genital mutilation.

The aforementioned general definitions of reproductive health and reproductive healthcare have greater relevance for females than for males. Clearly, all males and females can pursue "...complete physical, mental, and social well-being...in all matters relating to the reproductive system...," whereas only females get abortions or have children (UN ICPD 1994). The gender emphasis of the definition is consistent with the research literature about the reproductive health of teens in general, and of African American adolescents in particular. This research literature focuses less on the role and experiences of the male teen. In addition, the hormone-driven physiological changes all teens undergo make it difficult to separate general health concerns from reproductive health concerns during what is typically a very healthy period in the life cycle.

The Young Men's Sexual and Reproductive Health Working Group has addressed this shortcoming by developing the following vision of sexual health for men (Sonenstein 2000):

> All males will grow and develop with a secure sense of their sexual identity, an understanding about the physical and emotional aspects of sexual intimacy, and attitudes that lead to responsible behavior. Achieving these developmental goals will result in men's postponing sexual intercourse until they are emotionally mature enough to manage the physical and psychological aspects of sexual intimacy. When they have sexual intercourse, it will occur with as little risk as possible to either themselves or their partner. (p. 27)

How do we define reproductive health for African American teens? In other words, how do we incorporate in the definition of reproductive health the context of living in

United States' society as a member of a visible and often negatively stereotyped and stigmatized racial subpopulation? Given the racial or racist overlay and associated stressors of life in the United States for African Americans, how would "...complete physical, mental, and social well-being... in all matters related to the reproductive system..." be defined for African American teens? For example, the increased incidence of low birth-weight and very low birth-weight infants with the aging of African American women beyond the teen years supports the "weathering" hypothesis for African American females. That is, the stressors associated with living in a racist society cumulatively impair the health of African Americans (Geronimus 1996). The research findings that support this hypothesis, in turn, suggest that teen childbearing is rational for black females. In the language of the UN ICPD related to adolescent reproductive health, the weathering of African American females between adolescence and their 20s and 30s could be interpreted as making pregnancies during the teen years "wanted," for physiological reasons. Does childbearing during the teen years therefore become part of "good" reproductive health for African American females?

Does the belief that genocide of African Americans is an objective of the United States Government also justify childbearing during the teen years? Many African Americans believe that the human immunodeficiency virus (HIV) that causes acquired immune deficiency syndrome (AIDS) was developed in a government laboratory as part of a plot to dramatically reduce the number of people of color in the United States. In addition, African Americans commonly refer to the Tuskegee Syphilis Experiment as a reason for not supporting any kind of government public health interventions. Both of these facts suggest that defining reproductive health for African American teens would be both controversial and difficult (Leigh 2000; and Shavers, Lynch, & Burmeister 2000).

The services noted in the definition of reproductive health care include those that both African American teens and other females (teens and older) clearly could need and would benefit from (Park, Macdonald, Ozer, Burg, Millstein, Brindis, & Irwin 2001). Because adolescents are in the stage between childhood and adulthood, they may need more information, education, counseling, or treatment for reproductive tract infections and sexually transmitted diseases than adults need. Limited knowledge and concerns about confidentiality reduce access to reproductive health services for all teens. However, what determines access to these services in the communities in which African Americans live? Do social and economic status restrict the receipt of reproductive health-care services by African American teens (Institute of Women and Ethnic Studies 2000)? In addition, how are services delivered to African American teens? Do service providers respect the rights of these teens to make choices about their health and outcomes? Do providers observe the ethical principle "do no harm," or at least seek to do more good than harm? Are interventions implemented or services provided, or both, in keeping with an ethical framework for public health (Kass 2001)? In other words, are programs implemented or services provided fairly and in a manner that minimizes pre-existing social injustices? Are fair procedures used to determine which changes or burdens from the provision of services or the implementation of programs are acceptable to the community being affected?

The ideal would be for African American adolescents to define "good" reproductive health outcomes for themselves. Lacking a consensus from African American teens about the definition of good reproductive health outcomes, we will adapt the UN ICPD definition of reproductive health as follows. For the purpose of this document, reproductive health for African American youth is "...complete physical, mental, and social well-being...in all matters relating to the reproductive system...," with special emphasis on pro-

viding the necessary education to help them understand their sexuality and to avoid unwanted pregnancies, sexually transmitted diseases, and subsequent risk of infertility. This definition reflects the belief that most African American adolescents and adults would agree that good reproductive health involves avoiding the pain or discomfort, or both, of sexually transmitted diseases and the morbidity or mortality, or both, associated with HIV/AIDS. However, disagreement may remain about the desirability of adolescent childbearing.

CONTEXT AND FACTORS

Early, adolescent childbearing is very often the window through which adolescent reproductive health is viewed and studied. All too often such childbearing comes as a package with incomplete schooling, the inability to find gainful employment, and poor parenting skills, each of which has side effects in society at large. For African American adolescents, early childbearing commonly is viewed as one of the following: a result of the welfare system, a moral problem, or the consequence of institutionalized racism and the lack of opportunities for black men and women (Moore, Simms, & Betsey 1986). Many researchers also agree that early, adolescent childbearing among African Americans results from the interaction of the behavioral norms of African Americans with socioeconomic and historical factors and facts that confront both African Americans and their adolescents (Franklin 1992). These factors prominently include poverty, which has been demonstrated to link race to certain reproductive health outcomes such as infant mortality (Davis 1988).

Research on African American populations at varying income levels (i.e., poor, middle income, and upper income), however, reveals a range of adolescent reproductive health characteristics and outcomes, all of which should be examined and incorporated into the knowledge for adolescent health. Gay, lesbian, bisexual, and transgender adolescents who are African American seldom are studied. In addition, the diversity in reproductive health behaviors and outcomes of the African American teen population undoubtedly would be magnified if the behaviors and outcomes of teens of other African diaspora populations residing in the United States (such as Cape Verdeans or Haitians) were studied systematically.

Furthermore, comparing the reproductive health behavior and outcomes of African American teens to those of white teens, which is commonly done, may be misleading, because it is difficult to define a methodologically valid comparison group. For example, using parental education and occupation to control for socioeconomic status (SES), and then comparing white and black adolescents, is problematic; African Americans as a group do not get the same return for education as whites and are, therefore, disproportionately underemployed. In addition, having similar occupations does not necessarily imply having similar incomes for black and white families (Henly 1993). As Henly (1993) states, "A history of political struggle, denied economic and social opportunities, and other means of persecution based on skin color cannot be 'controlled' in statistical comparisons with Whites" (p. 474).

Although establishing proper comparison groups for the study of the reproductive health of African American adolescents is problematic, comparisons are made routinely and research findings based on these comparisons are discussed in this report. Therefore, to set the stage for the research synthesis that follows, the remainder of this section describes the context for the reproductive health of African American teens. First, the biological realities, social mores, and access to services that influence the reproductive health of teens are discussed. A description of the major socioeconomic and historical factors that influence the reproductive health of African American teens follows.

Biology, Social Mores, and Access to Services

The most influential biological factor related to the reproductive health knowledge,

attitudes, behaviors, and outcomes of teens is the onset of puberty or sexual maturation, which begins earlier in black girls than in white girls (Halpern, Udry, and Suchindran 1997; and Kaiser Daily Reproductive Health Report February 15, 2001). Although researchers have theorized that the greater incidence of obesity among black girls was an explanation for their earlier physical maturation, findings to date do not confirm this hypothesis. In fact, recent work has found that obesity is closely tied to the early onset of puberty among white girls but not among black girls (Kaplowitz, Slora, Wasserman, Pedlow, & Herman-Giddens 2001). In addition, why more girls of all races are going through puberty earlier than in previous generations remains unexplained. Failure to confirm the "obesity theory" suggests that genetic or environmental factors that affect the onset of puberty may have a stronger effect on black girls. Hyperinsulinism, a condition that causes the pancreas to produce increased amounts of insulin, and which is more common among blacks than whites, has been suggested as a possible explanation for early puberty.

The age at which the outward biological changes of puberty occur is a concern because the result of early puberty is a child who looks sexually mature but lacks the ability to make the judgments that would be expected of someone who is physically mature (Franklin 1988; and Brooks-Gunn & Furstenberg 1989). Youth who mature early sexually may be motivated to engage in behaviors whose consequences they do not know and cannot rigorously assess.

In addition to the changes taking place within a child during adolescence, social mores and access to healthcare services by youth also influence their reproductive health knowledge, attitudes, behaviors, and outcomes. One clear example of a societal change in sexual mores and attitudes is the "sexual revolution," motivated not only by the availability of a greater array of birth control devices but also by the sexual maturation of the baby boomers during the 1960s and 1970s. Frequency of non-marital intercourse increased sharply during the mid-to-late 1960s and into the 1970s (Chilman 1980). This change in sexual attitudes and behaviors undoubtedly has influenced the reproductive health knowledge, attitudes, behaviors, and outcomes of all teens. The term "unwed teenage mother" has lost much of its stigma, in society at large and in black communities in particular (Moore, Simms, & Betsey 1986).

Despite the nation's changed sexual mores and widespread parental support for sex education, not all teens receive sexual education in local public schools (Leigh 2000). In addition, adolescents are more likely than either younger children or adults in the United States to "fall through the cracks" of our primary healthcare system (English, Morreale, & Stinnett 1999; and English 2000). Accessibility of facilities, user-friendliness, and concerns about confidentiality are only a few of the impediments to receipt of healthcare services by teens. The separation of family planning services (often a necessary feature of health care for teens) from other primary health care makes it even more difficult for adolescents to achieve the reproductive health outcomes they desire.

Socioeconomic and Historical Factors

The economic and social history of African descendants who were brought to this country as slaves between 1619 and the 1800s has shaped the social and family structures that govern the lives of most of the people known today as African Americans. In addition, African American families, like other families in the United States, have been influenced by societal changes that have increased the independence and autonomy of women, by changes in gender roles both within the family and in the workplace,

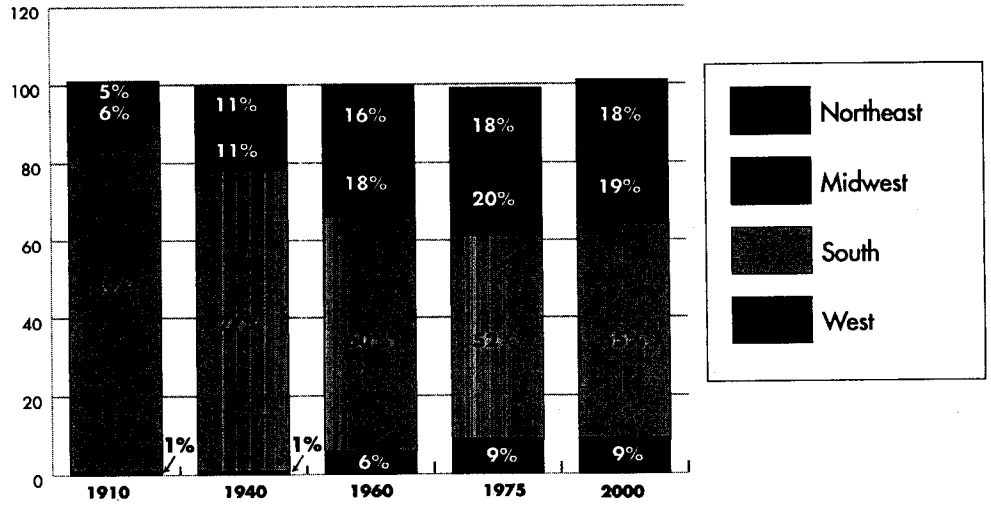
and by the more liberal attitudes toward out-of-wedlock births and single parenthood (Franklin 1997). Although this section does not discuss comprehensively all these changes and their impacts, five major factors, whose cumulative effects have transformed African American family structure over time, are noted and briefly discussed:

- slavery;
- northern migration that resulted in the loss of community institutions (and their restraints on social behavior);
- welfare policies (i.e., formerly AFDC and currently Temporary Assistance for Needy Families (TANF));
- decreasing job opportunities for "lower class" black men; and
- social isolation in neighborhoods of high poverty concentration.

During slavery and in the post-slavery agrarian South, childbearing was an asset for the slave owner who thus acquired "additional property" and for the sharecroppers who gained future laborers to boost their household income (Franklin 1992). Therefore, to increase their total number of offspring, slave women were more likely than white women to become pregnant during their teens (Franklin 1997). Because of prohibitions against marriages among slaves and because slave owners often fathered children with their slaves, out-of-wedlock childbearing was common. During the sharecropping era, which supplanted the slave era in the South after the Civil War, childbearing outside of marriage remained common despite high rates of marriage. Black tenant farmers considered children as economic assets and discouraged marriage after a teen pregnancy occurred because it would result in the loss of a family member and farm laborer (Franklin 1997).

The migration from the agrarian South to the industrialized North post-World War II resulted in a greater number of blacks living in urban than in rural areas by 1950 (Franklin 1997). (See Figure 1.) This change of venue was associated with several major sociological and economic changes to African American families. Because of varying job opportunities, black males and females often migrated

Figure 1
Distribution of the African American Population in the United States, by Region, 1910, 1940, 1960, 1975, and 2000*



* Percents may not add to 100 because of rounding.
Source: U.S. Census Bureau, n.d. and 2000b

from the South to different cities in the North, a pattern that resulted in sex ratio imbalances in various urban areas. These imbalances often destroyed the family relationships that had governed sexual behavior in the rural South (Franklin 1992). In addition, black men unable to find employment in Northern cities often deserted their families, resulting in a marked increase in the number of households headed by black women (Franklin 1997). Black women who had left sharecropping and domestic work for factories during World War II often were displaced by men (mainly white) returning from the war. If they were unable to retain their toehold in the industrial labor force, these women increasingly turned to welfare to sustain themselves and their families, especially if they did not have spouses. These changes are reflected in the marked shift in marriage rates around 1950. Between 1890 and 1950, marriage rates of blacks exceeded those of whites; after 1950, black marriage rates fell below white rates and have continued to decline.

Also post-World War II, society's norms regarding sex and marriage began to change. The liberalization that began in the 1950s was in full force by about 1967 (Chilman 1980). In addition, the post-World War II era witnessed a marked divergence between the fertility rates of better educated blacks (lower rates, similar to rates among better educated whites) and of less well-educated (higher rates) blacks (Franklin 1988; Franklin 1997). At the same time, both the number and the percentage of black females becoming better educated increased more rapidly than the corresponding number and percentage of either white females or black males. Thus, two fertility streams among African American females began to appear. Better educated black females had fewer births over time, whereas both the number of births to unmarried, less well-educated black women and the proportion of all births to African Americans that were non-marital births increased.

The post-industrial period in the North, centered around the 1980s, further contributed to the disruption or disintegration of black families. New jobs increasingly were located in the suburbs, and blacks often were unable to follow these jobs to the suburbs because decades of federally sanctioned segregation had created residential patterns impervious to the efforts of the Civil Rights Movement (Leigh 1991). High-paying manufacturing jobs were replaced by lower paying service-sector jobs in the urban areas in which blacks largely resided (Franklin 1992). Poorly educated, low-income blacks concentrated in urban areas seldom had the skills to get the better paying jobs in the new information services sector.

Feeling powerless from job dislocation and loss, black males and females established sexual relationships to bolster self-esteem and to provide a sense of self-worth. Some suggest that black males have reacted to the economic insecurity associated with this relocation of employment opportunities by exalting "in their sexual prowess" (Franklin 1992). Low-income African American females have been found to engage in early sex to have a sense of belonging and to feel needed by their boyfriends, as well as to gain a sense of identity and purpose (Franklin 1988).

Findings such as those in the preceding paragraph raise the question of whether African American teens who have children or who engage in sexual-risk behaviors have made a conscious fertility decision based on awareness of their circumstances and opportunities and the associated expectations for their futures. Some research supports the notion that African American teens base fertility decisions on their assessment of current or likely socioeconomic status (Freeman & Rickels 1993; and Sugland, Manlove, & Romano 1997). Other research finds that "differences in sexual behavior by race/ethnicity cannot easily be attributed to the effects of socioeconomic status" (Santelli, Lowry, Brener, & Robin 2000: p. 1586). Still other research suggests that early, adolescent

childbearing may reflect an alternative life course strategy — a response to compelling developmental, social, and economic factors unique to the adolescent's subculture — rather than to a non-normative life event (Franklin 1988). If the "weathering hypothesis" is considered, teen childbearing can be viewed as rational behavior, given the knowledge that the chances of delivering an infant of normal (i.e., not low or very low) birth weight decline markedly for black females in their 20s and 30s (Geronimus 1996).

Although there is debate about whether there is intergenerational transmission of fertility patterns, the intergenerational transmission of behavioral norms (such as fertility patterns or religiosity, usually defined as church attendance) is more likely to occur if there is no change in the economic circumstances or social isolation of a population between generations (Franklin 1988). In addition, the disproportionate criminalization and incarceration of black males have implications for the availability of employed, marriageable African American males, which increases the likelihood of high-risk, nonmarital sexual behavior among teens and adults alike.

Focusing on identifying and modifying sexual-risk behaviors without addressing society's many deep-seated, complex influences on these behaviors (noted previously) may not be the most effective approach. However, lasting modifications can occur only once both the "big picture" and the "little picture" have been made clear. This section painted in broad strokes the big picture, within which the little picture, created from the following review of the research literature, is a part.

METHODOLOGY FOR LITERATURE REVIEW

The articles and reports considered for inclusion in this review are based on data from the late 1970s and early 1980s through 2002. Most were identified using the following online databases — ERIC, Medline, and PsychInfo. Once identified, items were acquired either by fax or the Web, or from collections at local libraries. Although the holdings of online databases primarily date from the early 1990s, analyses based on data from the late 1970s were acquired (through other means) and considered for inclusion in this report, for several reasons. Although some of their findings may be less relevant today than when the studies were conducted, these earlier studies provide a baseline, or historical perspective, for the more recent findings. Therefore, the early 1980s was chosen as the baseline because it was a period when abortions were available to poor women and, therefore, would presumably represent a period when teens would not have unwanted births. Because the last baby boomers ended their adolescence (i.e., turned 20) in 1984, the early 1980s also should reflect the "beginning of the end" of the upsurge in teen births to this particular group (Freeman & Rickels 1993).

The search terms used to locate materials about African American teens were as follows: for race, "African American" or "black" and for teens, "adolescent" or "teenager" or "youth." The search terms for reproductive health included the following: abortion; abstinence/virginity; birth; contraceptive; family planning services; femininity; gender; health insurance; HIV/AIDS; infant mortality; intercourse; low birth-weight infants; masculinity; pregnancy; pre-natal care; reproductive health; sex; and sexually transmitted diseases (chlamydia, gonorrhea, or syphilis), or STDs. Additional materials were identified from reference lists in the articles acquired and reviewed and from suggestions by the advisory work group for this project. Reviews conducted by others about various aspects of adolescent reproductive health also were identified and used in this research synthesis. (See Brooks-Gunn & Furstenberg 1989; Chilman 1980; Franklin 1988; Henly 1993; Miller & Moore 1990; Moore, Simms, & Betsey 1986; and Weddle, McKenry, & Leigh 1988.)

As might be expected, given the years during which the research was conducted, some studies use the term "black" and other studies use the term "African American." This document uses these two racial designations interchangeably. As a general rule, reviewed materials are cited only if findings for black or African American adolescents are isolated from other analytical findings, and if the analyses examined measurable reproductive health outcomes for this population. Few studies (Strunin 1999; and Walter, Vaughan, Armstrong, Krakoff, Maldonado, Tiezzi, & McCarthy 1995) compared African American teens with other teens of the African diaspora living in the United States (such as Cape Verdeans, Dominicans, or Haitians). Some cited research focuses on age groups that include, but are not limited to, adolescence (e.g., females 15 to 44 and males 12 to 70). Findings from these analyses are incorporated into this review if adolescent populations are effectively isolated.

Most studies included in this review are epidemiological; that is, they count various populations and measure associations among the characteristics of these groups. Therefore, few findings noted in this review explain causality, and reported significance primarily refers to associations among variables.

Finally, the data used for the studies included in the review are based mainly on either national surveys or local sample surveys. Studies based on national survey data are viewed as more reliable and as having findings that can be more readily generalized. However, studies based on local survey data often feature questions better targeted to given research objectives and sometimes provide the only available information about subpopulations of African American teens (e.g., middle-income teens).

LITERATURE REVIEW

In this literature review, studies that illuminate the knowledge, attitudes, expectations, and intentions of African American adolescents relating to their reproductive health are discussed first. Next, research characterizing various sexual behaviors is described, followed by research that seeks to explain each of the behaviors noted. Finally, the outcomes of the reproductive health attitudes and behaviors, as well as their explanations, are presented and discussed.

Knowledge, Attitudes, Expectations, and Intentions

Knowledge

Most research about adolescents' knowledge of sexual issues and contraceptives has been conducted with female teens, and most studies report that mothers shared more information about sexual-risk topics than fathers. African American females, when compared to both African American males and other female teens (e.g., Hispanics and whites), had greater knowledge about sexual topics (from multiple sources such as school and family) and communicated more with their parents (both mother and father) and with other family members about these topics (Scott-Jones & Turner 1988; Freeman & Rickels 1993; Abma, Chandra, Mosher, Peterson, & Piccinino 1997; Hutchinson & Cooney 1998; and Miller & Whitaker 2001). These findings reflect both the greater exposure of African American female teens to instruction in school settings and to learning within the family context about topics including contraception, menstruation, pregnancy, body changes, self-protection from STDs and HIV infection, and postponement or abstaining from sex.

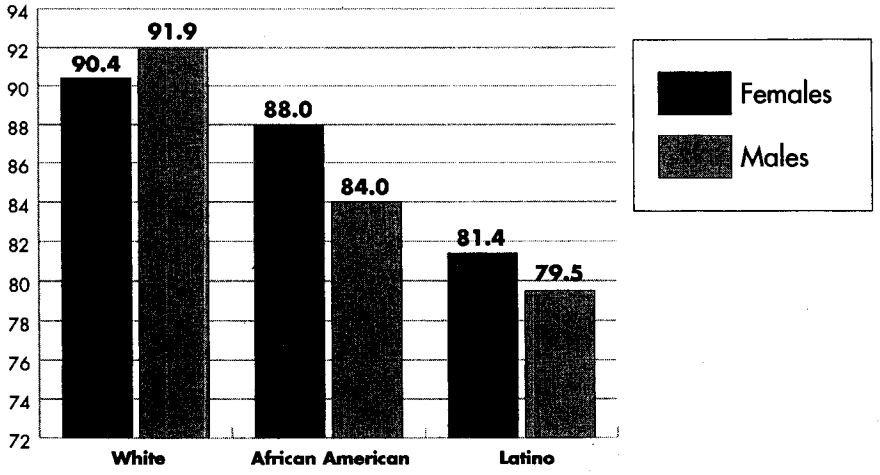
Black female teens who had never been pregnant or had abortions were much more likely than teens who became mothers to have obtained contraceptive information from their mothers (Freeman & Rickels 1993). When knowledge among black male teens in particular was assessed, in this same study, they were found to have less knowledge (about the need for contraception, even with occasional sex) than their female counterparts. Black male teens were also found to be more likely to report their health classes (rather than a parent or other family member) as their primary source of information (Freeman & Rickels 1993). The black male teens surveyed believed that female teens had the correct information and used this belief to justify their lack of involvement in contraception. Despite the greater overall knowledge among black female teens, there were also significant gaps in what they knew. For example, few teens in this study knew about the most fertile time during the menstrual cycle and about different contraceptive methods (Freeman & Rickels 1993).

Black teens were the most likely group of teens by race to report having talked to an adult family member about AIDS (YRBS 1997 [1998]; and Bradner, Ku, & Lindberg 2000). Although more than 80 percent of white, African American, and Latino teens in grades 9 to 12 reported being taught about HIV/AIDS in school, African American male and female teens lagged behind their white counterparts in receipt of this instruction in school (YRBS 2001 [2002]). (See Figures 2 through 4.)

The impact of knowledge about sexuality and reproductive health on the behaviors and outcomes (e.g., initiation of sexuality and use of contraceptives) of African American teens, however, is influenced by many variables and in ways that are not yet fully

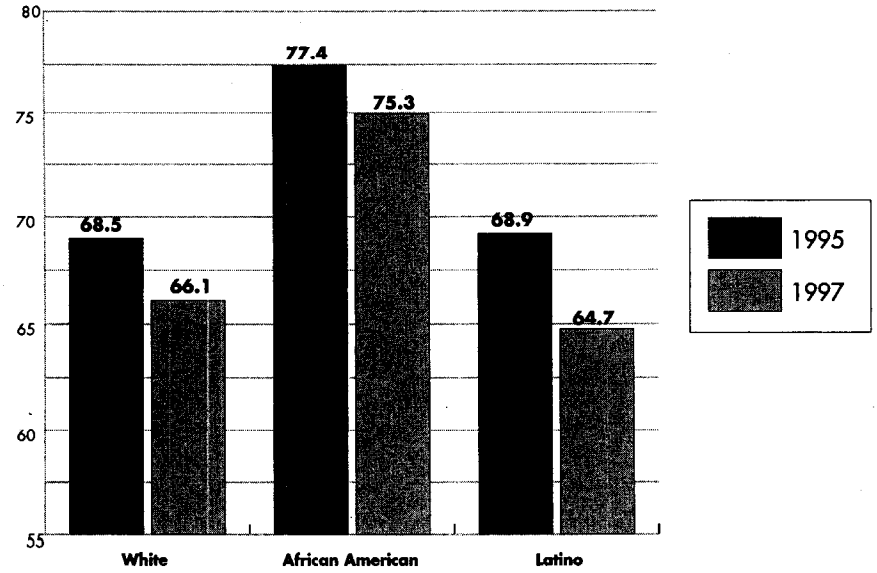
understood. Although some studies have found an association between knowledge and behavior (Scott-Jones & Turner 1988; Murry 1992; Murry 1996; and Stanton, Li, Galbraith, Feigelman, & Kaljee 1996), other studies have found little evidence of such an association (Chilman 1979; and Marsiglio & Mott 1986). Among studies that have identified an association between knowledge and behavior, the impact of sex education on teen behaviors and outcomes has been found to vary with the following factors: source of sex

Figure 2
Percent of Students Who Were Taught About HIV/AIDS in School, During 9th-12th Grades, by Gender and Race/Ethnicity, 2001



Source: Youth Risk Behavior Surveillance — United States 2001 [2002]

Figure 3
Percent of Female Students (Grades 9-12) Who Talked About HIV/AIDS With Parents or Other Adult Family Members, by Race/Ethnicity, 1995 and 1997



Source: Youth Risk Behavior Surveillance — United States 1995 [1996] and 1997 [1998]

education instruction (i.e., school versus parents, and even mother versus father); timing of sex education instruction, for example, age and whether before or after sexual debut (i.e., first intercourse); and SES of the teen's family. For example, Murry (1992) found that black female teens of middle SES who receive sex education about menstruation from their parents are more likely to engage in coitus at an early age than black female teens of middle SES who did not receive such information from their parents. However, the opposite is true for black female teens of low SES. Having received sex education about menstruation from their parents makes black female teens of low SES less likely to engage in early coitus (or more likely to delay initiation of coitus) than those who did not receive this instruction from their parents.

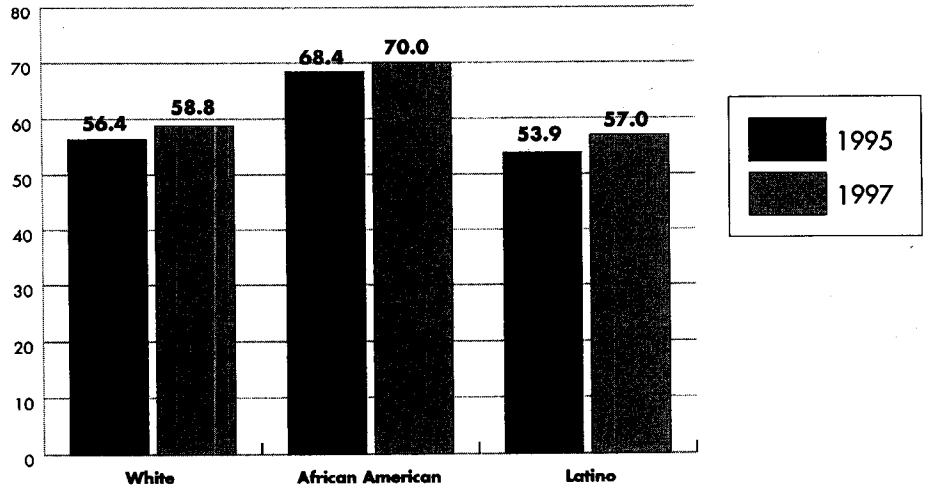
Selected interventions, however, have demonstrated their effectiveness in changing the sexual knowledge and intentions of African American adolescents (Jemmott, Jemmott, & Fong 1992; Jemmott, Jemmott, Spears, Hewitt, and Cruz-Collins 1992; Freeman & Rickels 1993; Stanton, Li, Ricardo, Galbraith, Feigelman, & Kaljee 1996; and Siegel, Aten, & Enaharo 2001). These articles feature five interventions evaluated as effective at preventing teenage pregnancy, at reducing the risk of AIDS transmission, and at encouraging responsible sexual behavior.

Attitudes, Expectations, and Intentions

Numerous studies have been conducted about the influence of a range of attitudes, perceptions, expectations, and intentions on subsequent sexual behaviors and outcomes among African American adolescents. In both national and local research, black adolescents were more likely than others to expect teen parenthood and non-marital childbearing. Aspirations about the school-to-work transition and religiosity (church attendance), however, are among the attitudes and behaviors that determine whether these expectations materialize for African American teens. In addition, values, attitudes, and expectations often differ for African American male and female teens, as the following indicate:

- Expectations of teen parenthood and non-marital childbearing generally are

Figure 4
Percent of Male Students (Grades 9-12) Who Talked About HIV/AIDS With Parents or Other Adult Family Members, by Race/Ethnicity, 1995 and 1997



Source: Youth Risk Behavior Surveillance — United States 1995 [1996] and 1997 [1998]

greater among blacks than among other teens. The intention to engage in sexual activity during adolescence (which could result in either teen parenthood or a non-marital birth) is more likely among black and other females, however, whose aspirations about the school-to-work transition are pessimistic (Freeman & Rickels 1993; Trent 1994; Santelli, Kouzis, Hoover, Polacsek, Burwell, & Celentano 1996; and East 1998).

■ Black female teens who were not sexually active reported the strongest influence of their families on their sexual attitudes and behaviors. These teens also were the most likely to have a father living at home (Keith, McCreary, Collins, Smith, & Bernstein 1991).

■ Black male and female teens have different views about responsibility for birth control. Black female teens were more likely than black male teens to use birth control if not ready to have a child, whereas black male teens were more likely than black female teens to think that females should be the only ones responsible for contraception (Carver, Kittleson, & Lacey 1990).

■ Over time, when faced with a hypothetical non-marital pregnancy, the proportion of all adolescent males who endorsed the mother's having the baby and their providing support for the baby has increased (Ku, Sonenstein, Lindberg, Bradner, Boggess, & Pleck 1998).

■ Although African American female teens generally believe that teen parents are not prepared to take care of children because of emotional and financial instability, many believe that teen mothers still could lead productive lives and that there were some benefits associated with this status (Crump, Haynie, Aarons, Adair, Woodward, & Simons-Morton 1999).

■ Black adolescents who are satisfied with their mother-teen communication are less likely to engage in sexual behavior than those teens who are not satisfied. The adolescent's perceptions and judgments of mother-teen communication are a better indicator of teen sexual behavior than the mother's perceptions or judgments (Jaccard, Dittus, & Gordon 1998).

■ African American adolescents who expressed more positive attitudes toward using condoms reported stronger intentions to use condoms than their counterparts who had less positive attitudes (Jemmott, Jemmott, & Hacker 1992).

■ In addition, African American adolescents with the following characteristics reported stronger intentions to use condoms: favorable hedonistic beliefs (e.g., "Sex feels good if you use a condom"),[1] normative support, partner and mother approval beliefs, high perceived behavioral control, and perceptions that they could use condoms skillfully (Jemmott, Jemmott, & Hacker 1992).

■ Church attendance influences the attitudes of African American girls regarding sexual permissiveness. If they are churchgoers, they are less likely to be sexually permissive (i.e., engage in pre-marital sex) (Brown 1985).

■ If African American male adolescents reported that they felt religion was important, they were less likely (than African American male adolescents who did not feel that religion was important) to approve of abortion. African American male adolescents who felt sex was never "okay" until marriage also were less likely to approve of abortion (Boggess & Bradner 2000).

■ Social cognitive interventions for risky sexual behavior — which increase teens' knowledge about HIV/AIDS and STDs, raise teens' self-efficacy (i.e., the confidence in one's ability to perform a given behavior) regarding safer sex behaviors, and increase their intentions to help prevent HIV infection — have been found to alter or shape the perceptions and expectations of black female

teens (Jemmott, Jemmott, Spears, Hewitt, & Cruz-Collins 1992).

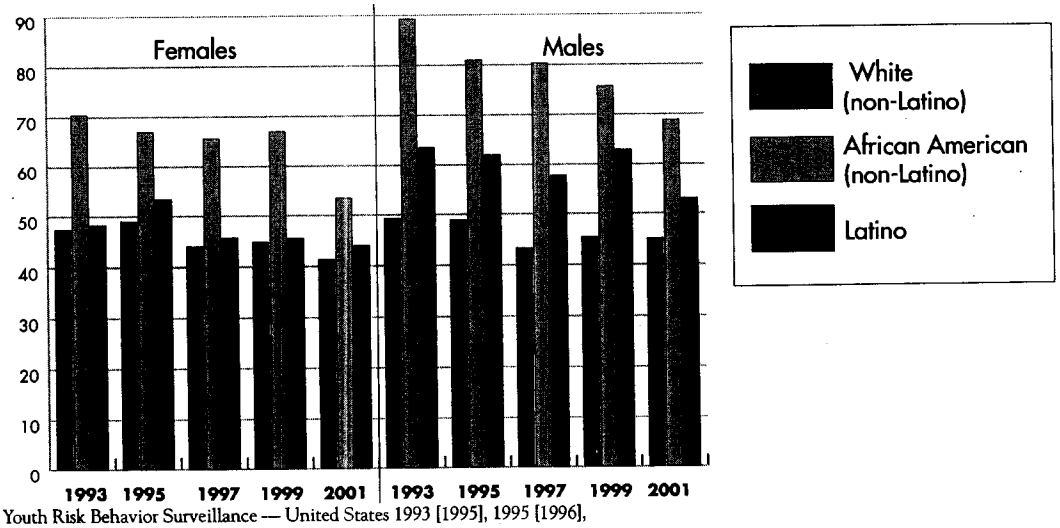
Sexual Behaviors

Reproductive behaviors form the bridge between knowledge, attitudes, expectations, and intentions, on the one hand, and outcomes that often include pregnancy, childbirth, STDs, and HIV infection/AIDS, on the other hand. The behaviors identified in the literature reviewed center around the onset of sexual activity and are captured using a variety of variables: having ever had sexual intercourse, age at initiation of sexual intercourse, contraceptive use at first intercourse, whether currently sexually active, frequency of intercourse or number of sexual partners, and consistent use of contraceptives or condoms.[2] Research findings related to each of these variables are described below, along with explanations for these findings derived from subsequent analyses. These explanations explore the relationships between sexual behaviors and the characteristics of individuals, their peers, their families, their locations, and their access to healthcare services.

Having Ever Had Sexual Intercourse

Findings. In both large-scale national surveys and in local sample surveys since the 1970s, African American adolescents have been more likely than white adolescents (and than other adolescents of the African diaspora in the United States (e.g., Haitians and Cape Verdeans) to report having ever had sexual intercourse (Furstenberg, Morgan, Moore, & Peterson 1987; Young, Jensen, Olsen, & Cundick 1991; Freeman & Rickels 1993; Walter et al. 1995; Schuster, Bell, & Kanouse 1996; Abma et al. 1997; Doljanac & Zimmerman 1998; Ku et al. 1998; Sonenstein et al. 1998; Upchurch, Levy-Storms, Sucoff, & Aneshensel 1998; Strunin 1999; Blum, Beuhring, & Rinehart 2000; Blum Beuhring, Shew, Bearinger, Sieving, & Resnick 2000; Hogan, Sun, & Cornwell 2000; Abma & Sonenstein 2001; O'Donnell, O'Donnell, & Stueve 2001; and YRBS 2001 [2002]). (See Figure 5.) However, the gap in sexual experience between black teens and other teens has

Figure 5
Percent of Students (Grades 9-12) Who Reported Having Ever Had Sexual Intercourse, by Gender and Race/Ethnicity, 1993, 1995, 1997, 1999, and 2001



Source: Youth Risk Behavior Surveillance — United States 1993 [1995], 1995 [1996], 1997 [1998], 1999 [2000], and 2001 [2002]

narrowed during this period. During the 1990s, this gap has narrowed, in part, because African American teens are modifying their behavior and are becoming more likely to delay sexual initiation (Lindberg, Boggess, Porter, & Williams 2000; and Siegel, Aten, & Enaharo 2001). Another major contributing factor to the narrowing of this gap has been increasing proportions of black adolescent females reporting having ever had sexual intercourse (Forrest & Singh 1990; and Singh & Darroch 1999).

Across racial or ethnic groups, teens in single-parent families are more likely to have engaged in sexual intercourse than teens in two-parent families (Young, Jensen, Olsen, & Cundick 1991). Older teens also are more likely than younger teens to report having had sexual intercourse (Abma et al. 1997; Blum, Beuhring, Shew, Bearinger, Sieving, & Resnick 2000; Abma & Sonenstein 2001; and O'Donnell, O'Donnell, & Stueve 2001). Younger teens, however, are more likely than older teens to report that their first intercourse was involuntary (Abma et al. 1997).

Explanations. A variety of factors — individual, peer, familial, and locational — have been examined for their correlation with whether an adolescent ever had sexual intercourse. Individual factors considered include biological attributes as well as the opportunity for sex, motivations regarding sex, and a teen's general life expectations and achievements. Among peer factors, the behavior and characteristics of friends and the characteristics of the school setting or climate relate to whether an African American teen has engaged in sexual intercourse. The familial characteristics examined by researchers to explain whether an African American adolescent has ever had sexual intercourse are of two broad types. The first includes measures of family type (usually single-parent versus two-parent family) and other characteristics of families, such as income and parents' education or employment. The second type measures the adolescent's view of his or her relationship with parents and includes factors such as the teen's view of communication with parents or of parental control. Neighborhood of residence is the major locational factor studied for its association with whether a teen has ever had sexual intercourse. Findings vary considerably and include the following:

- In some research, being black is associated with the likelihood of teens' having had sexual intercourse. Therefore, after controlling for other explanatory factors, teens who are African American were significantly more likely than white or Hispanic teens to have ever had sexual intercourse (Young et al. 1991; and Blum, Beuhring, Shew, Bearinger, Sieving, & Resnick 2000).

- Age also is positively associated with the likelihood of African American teens having had sexual intercourse. In other words, older teens are more likely than younger teens to have engaged in sexual intercourse (Hogan & Kitagawa 1985; and Perkins et al. 1998).

- The timing of transition to first intercourse from the onset of menarche (the first menstrual period) for a black female is tied to the age that the female began to date. The younger the adolescent was when she began dating, the more likely she was to make an early transition to intercourse (less than 3.2 years between menarche and first sexual intercourse) (Leigh, Weddle, & Loewen 1988). Furstenberg et al. (1987), however, found that an adolescent's dating pattern was not associated with the likelihood of having ever had sexual intercourse.

- Black teens who have a greater opportunity for sex (e.g., having been in a romantic relationship in the 18 months before the survey) are more likely to have ever had sexual intercourse. This is also true for black teens who erroneously think they have accurate knowledge about birth control methods (Blum, Beuhring, & Rinehart 2000).

- Black female adolescents with the following characteristics are more likely to post-

pone first intercourse: living in a higher income family, having a mother with a higher level of educational attainment, and living with both parents at age 14 (Leigh, Weddle, & Loewen 1988).

■ Although some studies have found no relationship between whether an African American teen has had intercourse and his or her school performance and educational or occupational aspirations, most have found an inverse relationship between the two. In other words, teens who are doing well in school and have high educational or occupational aspirations are less likely to engage in sexual intercourse than teens who are not doing well and have no similar aspirations (Hogan & Kitagawa 1985; Furstenberg et al. 1987; Perkins et al. 1998; and Blum, Beuhring, & Rinehart 2000).

■ The relationship between a teen's religiosity and whether he or she has engaged in sexual intercourse is mixed. That is, some studies find that religiosity is associated with intercourse status, whereas others find that it is not (Dittus et al. 1999). This relationship also varies by gender for African American teens, and it is unclear why. For example, in analyses of national survey data, African American female adolescents who reported higher religious involvement (based on attendance and communion), or membership at a church holding more conservative sexual attitudes, were more likely to delay transition from menarche to intercourse (Brown 1985; Leigh, Weddle, & Loewen 1988; and Murry 1996). In addition, in one state study (Michigan), Perkins et al. (1998) found that black females who reported greater religiosity were less likely than black females who did not to report having ever had sex. They defined religiosity by a composite measure that captured both the frequency of attending services and the importance of religion to a teen.

■ African American adolescents who report greater spirituality (measured by spiritual interconnectedness, which is defined as social support within the context of one's faith) are less likely to report voluntary sexual activity (Holder, Durant, Harris, Daniel, Obeidallah, & Goodman 2000).

■ Peer influences (e.g., close friends who use alcohol, marijuana, or cocaine; violent behavior of friends; friends' skipping school; friends' smoking cigarettes; non-violent delinquency among friends; and school climate) were strongly associated with having ever engaged in intercourse. Having close friends who use alcohol and marijuana or cocaine are both associated with an increased likelihood of an African American teen's having had intercourse (Furstenberg et al. 1987; Doljanac & Zimmerman 1998; Perkins et al. 1998; and Blum, Beuhring, & Rinehart 2000). In addition, African American teens in classrooms that are predominantly black have higher rates of sexual intercourse than African American teens in classrooms with lower percentages of blacks (Furstenberg et al. 1987).

■ Friendships among African American teens do not seem to be based on virgin or non-virgin status. In other words, virgins do not only have other virgins as friends, and non-virgins do not only have non-virgins as friends (Billy & Udry 1985).

■ African American teens are more likely than white teens to report having had a first sexual encounter with someone whom they were dating but with whom they were not going steady (Zelnik & Shah 1983).

■ The mix of parents in the home has been related to the intercourse status of African American adolescents in several studies. Hogan and Kitagawa (1985) found that black female teens who lived with an unmarried parent were more likely to have ever engaged in sexual intercourse. Also, Dittus, Jaccard, and Gordon (1997) found that teens who have a father's presence in their lives or in their households are less likely to engage in sexual intercourse.

■ However, some research finds that the number of siblings is related to whether an African American teen has engaged in intercourse, whereas other research does not. Hogan and Kitagawa (1985) found black females with five or more siblings more likely to have had sexual intercourse, whereas Blum, Beuhring, and Rinehart (2000) found in the 1995-1996 National Longitudinal Study of Adolescent Health (known as Add Health) that black females with a larger number of siblings are less likely to have engaged in sexual intercourse. A relationship was not identified between number of siblings and likelihood of sexual intercourse for black male teens, however.

■ Some studies find that whether an adolescent has engaged in intercourse is associated with the teen's view of the teen-parent relationship; other studies find that the teen's view of the teen-parent relationship is not. African American female teens who felt that their parents were overly strict or too lax were more likely to have engaged in intercourse (Hogan & Kitagawa 1985). Teens who reported the highest level of satisfaction with their maternal relationship were the least likely to engage in sexual intercourse (Dittus, Jaccard, & Gordon 1999). However, another study (Perkins et al. 1998) did not find a relationship between whether the teen was satisfied with the level of parental monitoring and whether the teen had engaged in sexual intercourse.

■ African American teens whose mothers have a low level of educational attainment are more likely to have engaged in sexual intercourse (Furstenberg et al. 1987; Leigh, Weddle, & Loewen 1988; and Ensminger 1990).

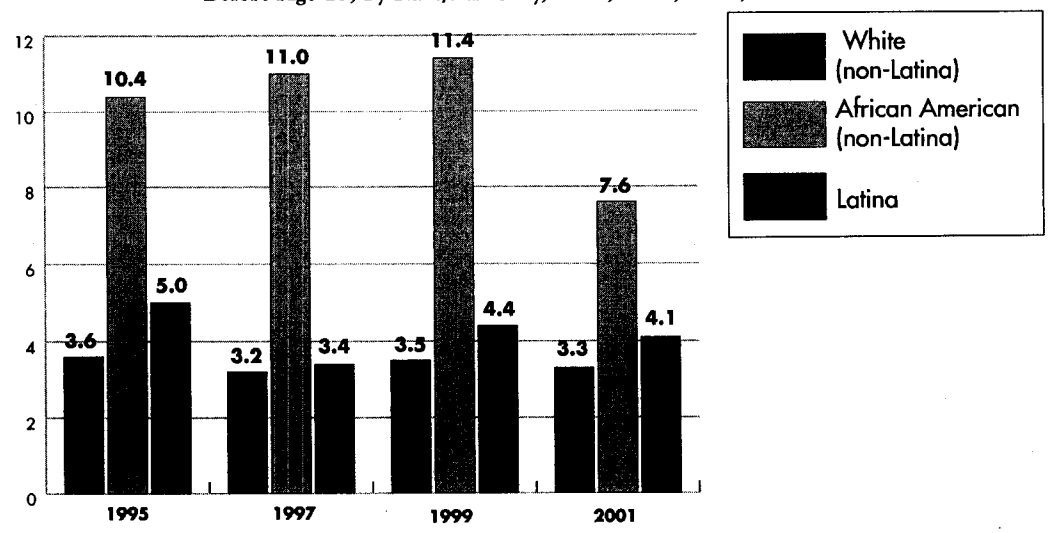
■ Residential location, as well as both SES and racial or ethnic makeup of a neighborhood, are related to whether a teen has engaged in sexual intercourse, although this effect seems to differ for males and females. Black female teens of lower SES are more likely to have ever had sexual intercourse. However, black female teens living in underclass neighborhoods are less likely than their male counterparts to report having ever had sexual intercourse (Scott & Black 1989; Allison, Burton, Marshall, Perez-Febles, Yarrington, Kirsh, &Merriwether-DeVries 1999; and Upchurch, Aneshensel, Sucoff, & Levy-Storms 1999).

Age at Initiation of Sexual Intercourse

Findings. Most national and local studies found that black teens report younger age at first intercourse (usually younger than 13 or 15) than white teens (Zelnik & Kantner 1980; Zelnik & Shah 1983; Moore, Simms, & Betsey 1986; Hofferth, Kahn, & Baldwin 1987; Day 1992; Freeman & Rickels 1993; Mott, Fondell, Hu, Kowaleski-Jones, & Menaghan 1996; YRBS 1997 [1998], 1999 [2000], and 2001 [2002]; Perkins et al. 1998; Upchurch et al. 1998; and Abma & Sonenstein 2001). Black male teens are most likely to make their sexual debut at the youngest ages (i.e., by 15), followed by black female teens. (See Figures 6 and 7)

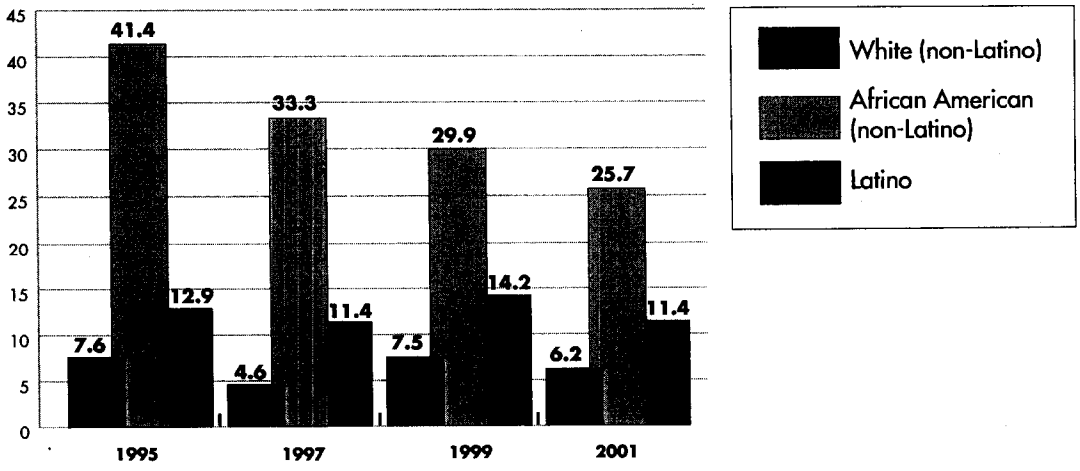
However, two studies (Miller, Norton, Curtis, Hill, Schvaneveldt, & Young 1997; and Resnick, Bearman, Blum, Bauman, Harris, Jones, Tabor, Beuhring, Sieving, Shew, Ireland, Bearinger, & Udry 1997) did not find a relationship between race and age at first voluntary intercourse. Yet another study found that SES modified this finding for African American females 15 to 21. Using data from the 1988 National Survey of Family Growth, Murry (1996) found that a majority (64 percent) of these middle-income female teens had first intercourse at 16 or older, although a substantial share of respondents (36 percent) indicated that their first sexual experience occurred at 15 or younger. In addition, she found that black female teens of low SES became sexually active on average at age 16.4, with their middle- and high-socioeconomic counterparts becoming sexually active later. These ages for becoming sexually active are comparable to the ages at which

Figure 6
Percent of Female Students (Grades 9-12) Who First Had Sexual Intercourse Before Age 13, by Race/Ethnicity, 1995, 1997, 1999, and 2001



Source: Youth Risk Behavior Surveillance — United States 1995 [1996], 1997 [1998], 1999 [2000], and 2001 [2002].

Figure 7
Percent of Male Students (Grades 9-12) Who First Had Sexual Intercourse Before Age 13, by Race/Ethnicity, 1995, 1997, 1999, and 2001



Source: Youth Risk Behavior Surveillance — United States 1995 [1996], 1997 [1998], 1999 [2000], and 2001 [2002].

females who are white and of middle SES become active.

Another study found that the sexual debut of African American female teens lags further behind the sexual debut of African American male teens than the debut of white teen females lags behind that of white male teens. This finding results in white male teens and black female teens initiating sexual intercourse at about the same rate (Hofferth & Hayes 1987). Because many studies do not

distinguish between voluntary and involuntary intercourse, they do not allow us to gauge the proportion of early sexual intercourse reported by African American teens that was consensual.

Explanations. Although researchers have used a range of measures to explain age at first intercourse, most findings relate to individual or familial factors. Much of the work defines early age of first intercourse as "before age 16" and late initiation as "after age 17." Key explanatory measures considered with age at first intercourse include the level of sexual knowledge a teen had and the age at which instruction was provided (either by schools or parents) about sexual topics. Delinquent behavior and racial composition of the school attended are two peer measures examined for their relationship to age at first intercourse. Familial research about age at first coitus either aims to predict age at first coitus based on various factors or compares family characteristics or influences on teens who engage in intercourse at a young age (generally before 15 or 16) with teens who engage in intercourse at older ages (older than 17 or 18). Finally, location of residence (urban or nonurban area) is found to be associated with age at first intercourse, as well as availability of contraceptives,[3] which also may be related to one's residence. In particular:

- Regardless of SES (defined by the mother's education), African American female teens with higher levels of educational attainment are more likely to report a later age at first coitus (Murry 1992). Relatedly, black female adolescents with low academic ability are significantly more likely to make their sexual debut by 16 (Rosenbaum & Kandel 1990).

- African American youth who receive sexual education through communication with their parents or in school are more likely to delay their sexual initiation (Tucker 1991; and Murry 1996).

- The timing of the sexual debut for teens is related to the age at occurrence of various other events, for example, age at first menses (or menstruation), age when sex education was received, and age when first dated (Rosenbaum & Kandel 1990; Tucker 1991; and Murry 1992). In addition, findings for black females vary by family SES. The younger the age at first menses, the younger the age at first intercourse; similarly, the older the age at first menses, the older the age at first intercourse. Age at which female adolescents of low SES began dating is associated with age at first coitus; that is, African American females of low SES who begin dating at an older age have first coitus at an older age (Murry 1992).

Murry (1992) also found that the younger a black female of low SES is when she receives sex education about menstruation from her parents, the older her age at first intercourse. However, the older the black female of middle SES is when receiving this same instruction, the older her age at first intercourse. Also, the older a black female of low SES is when she receives sex education about contraception from her parents, the older her age at first intercourse.

- In one study (Murry 1996), all middle-class[4] black female adolescents who reported a sexual debut at 17 or older (i.e., late coital initiators) reported church attendance once weekly; only 75 percent of early coital initiators (i.e., first intercourse before 16) reported the same attendance.

- Early initiators of sexual intercourse (before 16) among middle-class African American females had less knowledge about the least and most effective contraceptive methods than later initiators (Murry 1996).

- Early age at first intercourse is more likely among both black and white teens if the friends of these teens engaged in delinquent behaviors, such as aggression and theft, and alcohol or drug use (Doljanac & Zimmerman 1998).

■ The racial composition of the school attended also is related to early age at first intercourse. Rosenbaum and Kandel (1990) found that black adolescents who attended a school with a high percentage of black students were more likely (than their counterparts in schools with a smaller black population) to initiate sexual intercourse by age 16.

■ Adolescents who had close family relationships and familial routines and who had not experienced household trauma were more likely to delay sexual initiation (until 15 or older) than their peers who experienced the opposite household conditions (Danziger 1995; and Doljanac & Zimmerman 1998).

■ Female teen students who possessed a positive sense of self (61 percent) or who had family support (76 percent) were much more likely to delay sex than their peers who possessed a negative sense of self (33 percent) or who lacked family encouragement (32 percent) (Danziger 1995).

■ Family structure is associated with age at first intercourse (Murry 1992; Murry 1996; and Upchurch et al. 1998). African American female adolescents of middle and high SES (but not low SES) who lived in a two-parent family at age 14 were more likely to initiate intercourse at a later age (Murry 1992). This finding was confirmed by the related finding that a larger percentage of late coital African American females than early coital African American females lived in two-parent families at age 14 (Murry 1996). In addition, adolescents living with a single parent and in a step family had higher rates of first sex at an early age those living with both biological parents (Upchurch et al. 1998).

■ A higher percentage of early coital (before 16) than of late coital (17 and older) African American female teens rated their parents as either permissive or very strict (Murry 1996).

■ African American males — but not African American females — with older brothers in the household when they were age 15 were more likely to engage in intercourse before age 16 (Rosenbaum & Kandel 1990).

■ Living in a metropolitan area (rather than in a non-metropolitan area) is associated with making an early sexual debut. In other words, African American female teens living in metropolitan areas are more likely than their non-metropolitan-area counterparts to initiate sexual activity before 16 (Murry 1996).

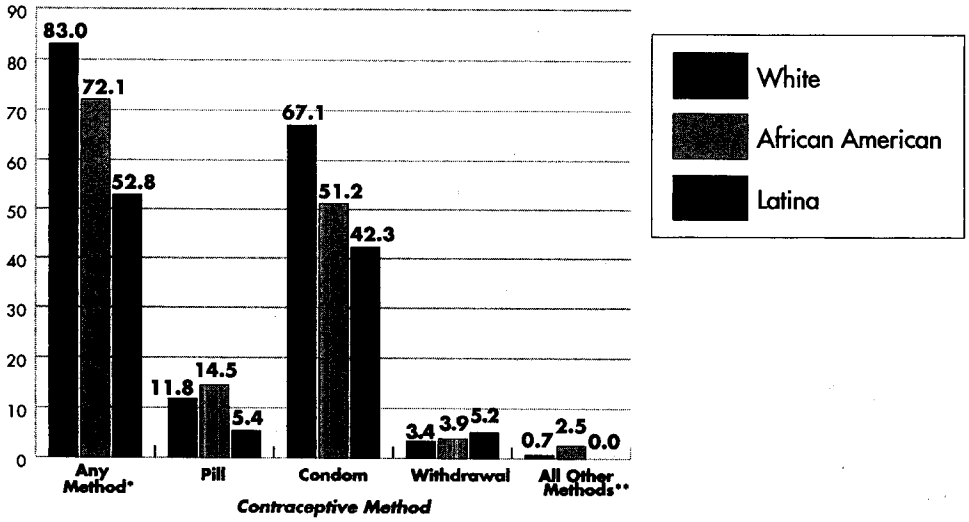
■ Differences attributable to SES and metropolitan or non-metropolitan and regional residence seem inconsistent. That is, African American girls of high SES in the Northeast were more likely to postpone sexual initiation than their counterparts in other regions. Also, African American females of middle SES in metropolitan areas were more likely to delay sexual initiation than African American females of middle SES in non-metropolitan areas. Finally, African American females of high SES in metropolitan areas were less likely to delay sexual initiation than similar girls in non-metropolitan areas (Murry 1992).

■ African American girls of high SES to whom contraceptives were available were less likely to delay sexual initiation than similar girls to whom contraceptives were not available (Murry 1992).

Contraceptive Use at First Intercourse

Findings. Use of contraceptives at first intercourse has increased over time among all teens (Zelnik & Kantner 1980; Forrest & Singh 1990; and Abma & Sonenstein 2001). Studies based on national survey data generally find that white teens are more likely than black teens to use contraceptives at first sexual intercourse (Zelnik & Shah 1983; Abma et al. 1997; Hogan, Sun, & Cornwell 2000;

Figure 8
Percent of Women Under 20 Who Used the Specified Contraceptive Method at First Intercourse (in 1990-1995, as Reported in 1995)



*Pill, condom, withdrawal, or any other methods
**Any method not measured separately
Source: Abma & Sonenstein, 2001

Manning, Longmore, & Giordano 2000; and Abma & Sonenstein 2001). (See Figure 8.) Two local studies, however, found greater contraceptive use among females than males (Hogan, Astone, & Kitagawa 1985; and Doljanac & Zimmerman 1998), and one of these (Doljanac & Zimmerman 1998) found that black teens were more likely than white teens to use contraceptives, specifically condoms, at first sexual intercourse. In 1995, black females and black males (about two-thirds) were about equally likely to report condom use at first sexual intercourse (Abma & Sonenstein 2001).

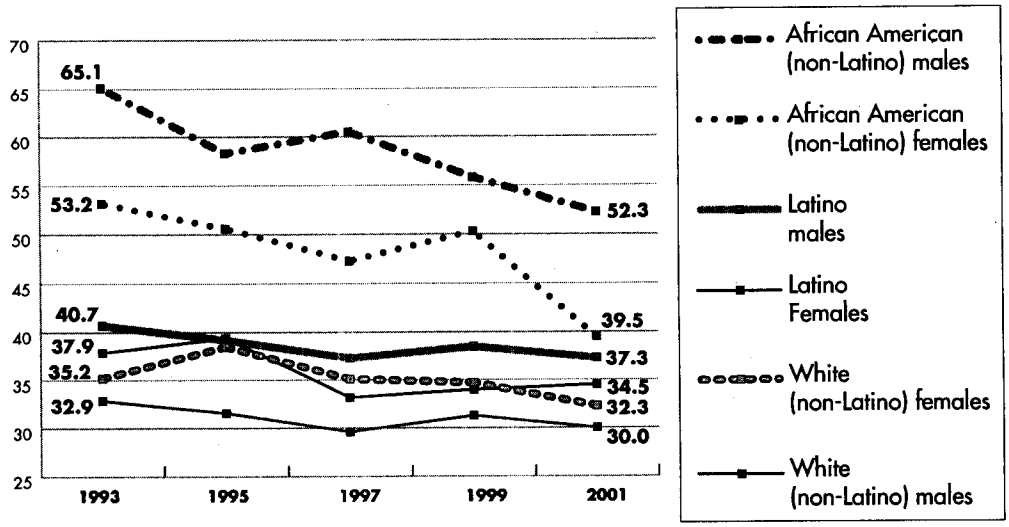
Among females who voluntarily initiated sexual intercourse before 14, black adolescents were less likely than their white counterparts to report having used contraceptives at that time (Manning, Longmore, & Giordano 2000). However, among female adolescents who used contraceptives when voluntarily initiating sexual intercourse before 14, black females were more likely to have used a more effective prescription method, such as birth control pills, than to have used condoms (which are less effective) (Zelnik & Shah 1983). Among both black and white sexually initiated female teens, however, the condom was the most commonly used contraceptive at first intercourse (Abma & Sonenstein 2001).

Explanations. Individual factors, such as age, receipt of formal sex education, and career aspirations, correlate with contraceptive use at first intercourse. Whether there was family conflict and whether the marriage of a teen's parents was intact also influence contraceptive use. In addition, residence in low-quality neighborhoods influences such use. The findings for each factor are as follows:

- Contraceptive use at first intercourse seems to vary with age at first intercourse and gender. African American female teens who initiate sexual intercourse at younger ages are less likely to use contraceptives than their counterparts who initiate intercourse at older ages (Scott-Jones & Turner 1988).

- African American female teens who received formal sex education instruction before their sexual debut are more likely than those who did not to use contraceptives at

Figure 9
Percent of Students (Grades 9-12) Who Reported Being Currently Sexually Active, by Gender and Race/Ethnicity, 1993, 1995, 1997, 1999, and 2001



Source: Youth Risk Behavior Surveillance -- United States 1993 [1995], 1995 [1996], 1997 [1998], 1999 [2000], 2001 and [2002]

first intercourse (Scott-Jones & Turner 1988).

■ African American females who have higher career aspirations are more likely to use contraceptives at first intercourse than are teens without such aspirations (Hogan, Astone, & Kitagawa 1985).

■ African American female teens whose parents' marriage was intact when the adolescents were 11 were more likely to have used a contraceptive at first intercourse (Hogan, Astone, & Kitagawa 1985).

■ African American teens in families where there was conflict were less likely to use contraceptives at first intercourse than teens from families without conflict (Doljanac & Zimmerman 1998). Relatedly, black youth in families with supportive parents and good family problem-solving skills are more likely to report condom use at first intercourse than their counterparts with other family characteristics (Doljanac & Zimmerman 1998).

■ African American female teens living in the lowest quality neighborhoods were the least likely to have used a contraceptive at first intercourse, when compared to African American female teens living in middle- or high-quality neighborhoods (Hogan, Astone, & Kitagawa 1985). However, African American males living in the lowest quality neighborhoods were less likely to have used contraceptives at first intercourse than their female counterparts in these neighborhoods and less likely to have used contraceptives at first intercourse than their male counterparts in better quality neighborhoods. (Neighborhoods were ranked using data on the social, economic, and demographic characteristics of the census tract of residence for each adolescent. Tracts were defined as high, middle or low quality on the basis of this ranking.)

Whether Currently Sexually Active

Findings. In 2001, two-fifths (40 percent) of African American female teens reported current sexual activity, compared to about half (52 percent) of African American

male teens (YRBS 2001 [2002]). (See Figure 9.) (Current sexual activity is defined as having had sexual intercourse at some point during the preceding three months.) The proportion of African American female teens who are sexually active has declined notably since the 1980s, the same period during which the proportion of all sexually active female teens has either remained stable or declined slightly (Zelnik & Kantner 1980; and YRBS 2001 [2002]). In addition, during this same period, the following proportion has increased: African American female teens who have engaged in sexual intercourse at least once but have not remained sexually active (Singh & Darroch 1999). The proportion of African American male teens who are sexually active has remained constant since the late 1980s, whereas reported rates of current sexual activity have decreased among white males (Abma & Sonenstein 2001).

Despite the steady and declining rates of current sexual activity among black teens, they remain more likely than white and Hispanic teens to report current sexual activity (YRBS 2001 [2002]). In addition, black teens are more likely than Haitian teens to report being sexually active. This finding is the only comparison identified between African Americans and teens of another African diaspora population in the United States (Strunin 1999).

Explanations. A variety of individual, peer, familial, and locational characteristics are related to whether teens are currently sexually active. However, the existence and nature of these relationships differ by study, with findings about the influence of religiosity (most commonly defined as church attendance) and of alcohol use being the most variable. In addition, the interaction between selected familial characteristics and the characteristic of being currently sexually active differs by gender among African American adolescents. Further explanation of these characteristics follow:

- Alcohol use and current engagement in sexual activity were most often found as a pair among African American male teens (Day 1992). Some research found that African American female teens were likely to both use alcohol and be sexually active, whereas other work found no linkage between the behaviors for either males or females (Day 1992; Perkins et al. 1998; and Strunin 1999).

- Younger black males with limited occupational aspirations were more likely to report current sexual activity (Day 1992).

- African American female teens who reported church attendance were the least likely to report sexual activity (Day 1992). However, other research did not find such a relationship for either African American males or females (Perkins et al. 1998).

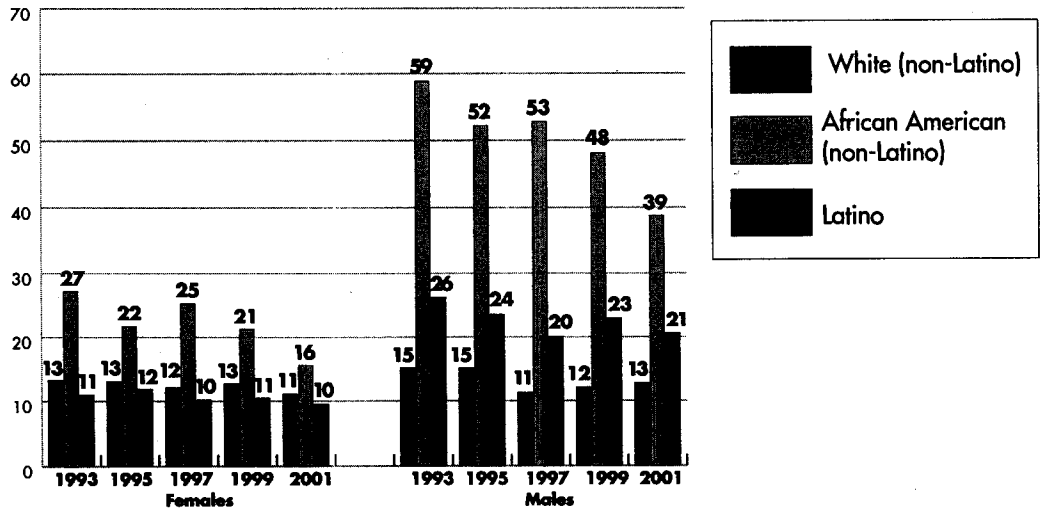
- Time spent with peers in general increased the likelihood that an African American female adolescent would engage in sexual activity (Lauritsen 1994). More specifically, negative peer characteristics (close friends who drink alcohol, use marijuana or cocaine, or get into trouble) increased the probability that African American teens would be sexually active (Perkins et al. 1998).

- Black female adolescents who report educational frustration (i.e., believing that college enrollment is "very important," but believing the chances of attending to be only "fair at best") are more likely to engage in sexual activity. Correspondingly, the more that black female adolescents are involved in school, the less likely they are to engage in sexual activity (Lauritsen 1994).

- Attending schools with a large percentage of blacks increased the likelihood that both younger and older black female teens and younger black male teens were sexually active at any age (Furstenberg et al. 1987; and Day 1992).

- A biological father or stepfather's presence increased the likelihood that older

Figure 10
Percent of Students (Grades 9-12) Who Reported Having Had Four or More Sex Partners in Their Lifetime, 1993, 1995, 1997, 1999, and 2001



Source: Youth Risk Behavior Surveillance — United States 1993 [1995], 1995 [1996], 1997 [1998], 1999 [2000], and 2001 [2002]

African American teens would be sexually active at any age but decreased this same likelihood for younger African American female teens (Day 1992).

■ Both a mother with a low level of educational attainment and a mother with a more external (rather than internal) locus of control (one's belief about factors that influence one's life) increased the likelihood of sexual activity for black females older than 18 (Day 1992).

■ Having parents who were permissive about dating increased the likelihood that female teens were sexually active. Having five or more siblings and having a sister who was a teen mother each had the same effect (Hogan & Kitagawa 1985).

Frequency of Intercourse and Number of Sexual Partners

Findings. Among sexually experienced teens, the frequency of sexual activity is measured both by the number of times a teen has engaged in sexual activity over a given period and by the number of sexual partners in the teen's lifetime. Large numbers for both of these measures suggest an increased likelihood of exposure to infections and pregnancy. African American teens are more likely to report having had multiple sex partners than other teens (Binson, Dolcini, Pollack, & Catania 1993; Ku, Sonenstein, Lindberg, Bradner, Boggess, & Pleck 1998; Santelli, Brener, Lowry, Bhatt, & Zabin 1998; Dutra, Miller, & Forehand 1999; Abma & Sonenstein 2001; and YRBS 2001 [2002]). (See Figure 10.) In fact, over time (from 1988 to 1995), while the average number of partners reported by non-black teen males decreased, the average number of partners among black teenage males increased (Ku et al. 1998). However, the finding of a greater number of sexual partners for African American female teens must be tempered with other findings of their reduced likelihood of recent sexual activity (Young et al. 1991; Freeman & Rickels 1993; Lauritsen 1994; and YRBS 2001 [2002]). These findings together suggest that a greater percentage of black female teens, than of other female teens, may have intercourse only once (perhaps involuntarily) with a particular

partner, but may do this with a greater number of partners. Thus, for African American female teens, a large number of sexual partners may not equate to frequent intercourse.

African American males were more likely than African American females to report multiple lifetime sexual partners (Ku et al. 1998). For example, in one survey, African American male teens (39 percent) were more than twice as likely as African American female teens (16 percent) to report having four or more lifetime partners (YRBS 2001 [2002]). In addition, the greater frequency with which current sexual activity is reported by black male teens (than black female teens) suggests that black males may be more at risk of exposure to sexually transmitted infections than African American female teens who may have a comparable number of lifetime sex partners.

Explanations. Measuring and studying the frequency of intercourse or the number of sexual partners, or both, using individual and familial factors reveals several predictable — and some not so predictable — findings. For example, some research finds that the emotions and feelings of an adolescent and his or her mother are more strongly associated with the frequency of intercourse than are concerns about the consequences of intercourse (such as pregnancy or STDs). The levels of parental support and parental monitoring (as perceived by the adolescent), however, relate to the frequency of sexual intercourse or the number of partners, or both, in a predictable manner. That is, the teens who perceive more support are likely to have intercourse less frequently and to have a smaller number of partners. In particular:

- Concerns about pregnancy (with the exception of embarrassment and concern about being tied down), AIDS, or STDs do not seem to influence the frequency of intercourse among African American teens. Similarly, religiosity does not affect frequency of intercourse (Dittus, Jaccard, & Gordon 1999).

- Emotions and feelings (must be in love, guilt, or regret) of the teen and of the teen's mother more strongly relate to the frequency of intercourse than to concerns about the consequences of intercourse (Dittus, Jaccard, & Gordon 1999).

- Employment status of young black men is associated with the number of sexual partners, with unemployed men more likely to report multiple partners (Finer, Darroch, & Singh 1999).

- African American adolescents who perceive higher levels of social support and parental monitoring report a lower frequency of sexual activity and a smaller number of lifetime sexual partners (St. Lawrence, Brasfield, Jefferson, Alleyne, & Shirley 1994; and DiClemente, Wingood, Crosby, Sionean, Cobb, Harrington, Davies, Hook, & Oh 2001).

- Black female teens in single-parent families and black female teens in two-parent families report comparable frequency of sexual intercourse (Young et al. 1991). However, for both black and white male teens, the male teens from two-parent homes engage in intercourse less frequently than their counterparts from single-parent homes (Young et al. 1991).

- In one study, African American adolescents who reported satisfaction with their maternal relationship also reported reduced frequency of intercourse (Dittus, Jaccard, & Gordon 1999), but not in another study (Dutra, Miller, & Forehand 1999).

- African American adolescents who experience intra-familial conflict are more likely to have intercourse frequently or with multiple partners (Doljanac & Zimmerman 1998). However, a reduced likelihood of the same behavior is found among African American adolescents who receive parental or other social support (St. Lawrence, Brasfield, Jefferson, Alleyne, & Shirley 1994;

and Doljanac & Zimmerman 1998). (Social support includes both familial support and friendship networks.)

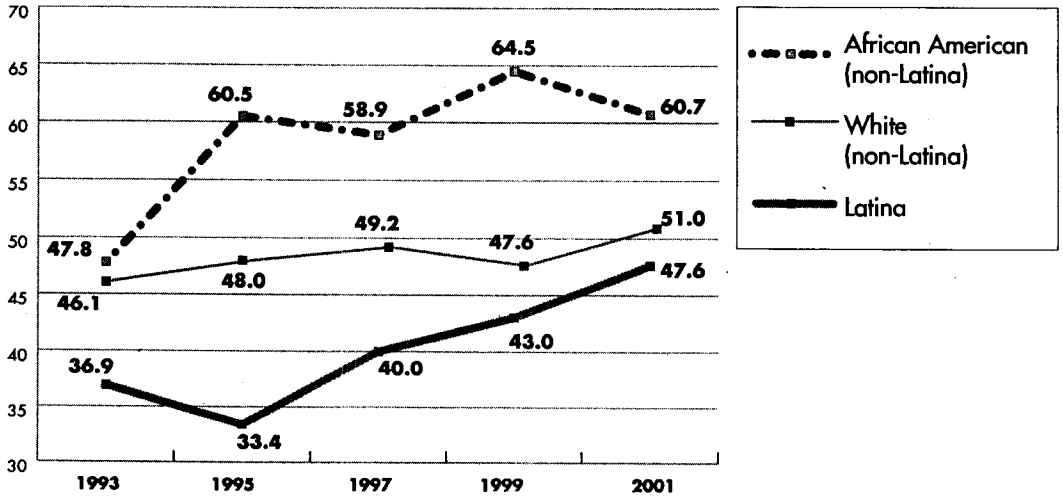
Consistent Use of Contraceptives (Including Condoms)

Findings. Although condom use has increased among all teens since the 1980s, the use of the condom both consistently and during last intercourse is more common among black adolescents than among any other adolescents (Zelnik & Kantner 1980; and YRBS 2001 [2002]).(See Figures 11 and 12.) In the 1995 National Survey of Adolescent Males (NSAM), nearly three-fourths (73 percent) of African American males reported condom use either alone or in combination with other contraceptive methods during all heterosexual intercourse in the 12 months preceding the survey (Murphy & Boggess 1998). In addition, a large majority (86 percent) of sexually active, unmarried African American teen females 15 to 19 reported using one or more contraceptives at last intercourse (Abma et al. 1997). One study found that black females younger than 20 were even more likely than older black women to use condoms consistently, particularly with a new partner (Geringer, Marks, Allen, & Armstrong 1993). This use, however, accompanies a decline between 1988 and 1995 in the reported use of female contraceptives during intercourse by African American male teens (Piccinino & Mosher 1998; and Sonenstein et al. 1998).

Findings about contraceptive use must be tempered by findings about contraceptive failure. Of almost 3 million pregnancies in the United States in 1994, for example, more than half (53 percent) occurred among women 15 to 44 who were using contraceptives (Fu, Darroch, Haas, & Ranjit 1999). Although this study did not provide data for black adolescent females, Fu et al. (1999) found that two groups of women — those younger than 20 and black — were more likely than their separate age and race or ethnic counterparts to report contraceptive failure.

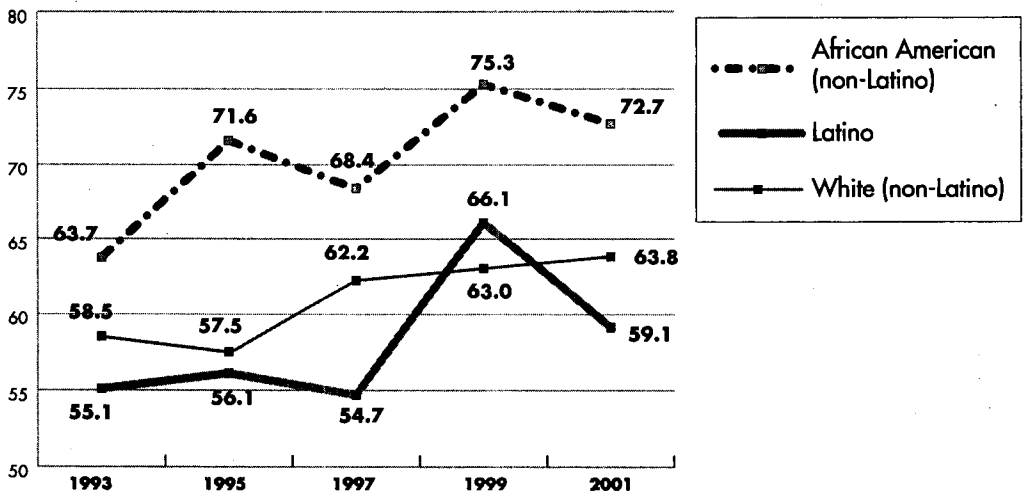
Explanations. Consistent use of contraceptives by African American adolescents is associated with several individual, peer, and familial characteristics. For example, younger teenagers, teens who perceive a supportive

Figure 11
Percent of Female Students (Grades 9-12) Who Reported Condom Use During Last Sexual Intercourse, by Race/Ethnicity, 1993, 1995, 1997, 1999, and 2001



Source: Youth Risk Behavior Surveillance — United States 1993 [1995], 1995 [1996], 1997 [1998], 1999 [2000], and 2001 [2002]

Figure 12
Percent of Male Students (Grades 9-12) Who Reported Condom Use During Last Sexual Intercourse, by Race/Ethnicity, 1993, 1995, 1997, 1999, and 2001



Source: Youth Risk Behavior Surveillance — United States 1993 [1995], 1995 [1996], 1997 [1998], 1999 [2000], and 2001 [2002]

peer norm about condom use, and teens who perceive greater parental monitoring are more likely to use condoms or other contraceptives consistently. In particular:

■ African American adolescents with the following characteristics are more likely to report consistent use of condoms: younger, have greater impulse control, and have high assertive self-efficacy (DiClemente, Lodico, Grinstead, Harper, Rickman, Evans, & Coates 1996). However, frequency of intercourse directly correlates with less consistent condom use. That is, those engaging in more frequent intercourse are less likely to use condoms.

■ The relationship between knowledge about HIV/AIDS and consistent condom use differs across research studies. Although African American teens who have this knowledge were no more likely than teens without this knowledge to report more consistent condom use in two studies (DiClemente et al. 1996; and Dittus, Jaccard, & Gordon 1999), in another analysis, knowledge about HIV/AIDS accompanies consistent condom use by African American female teens (St. Lawrence 1993).

■ Black (and white) adolescents in romantic relationships were more likely to have ever used condoms than adolescents of other racial/ethnic groups in comparable relationships (Ford, Sohn, & Lepkowski 2001).

■ African American female teens with the following characteristics are more likely to report condom use during intercourse in the previous six months: being in a lower grade in school, having a favorable attitude toward condoms, perceiving themselves to have control in their sexual relationship, and perceiving that their individual choices can influence their health (internal health locus of control)[5] (St. Lawrence 1993).

■ African American male adolescents with the following characteristics were likely to report more consistent condom use: being in a lower grade in school, having a favorable attitude toward condoms, and carrying a condom with them (St. Lawrence 1993).

- Concerns about pregnancy (being embarrassed, having money problems, and being forced to grow up too fast) motivate consistent condom use among African American teens (Dittus, Jaccard, & Gordon 1999).

- The "perception of a supportive peer norm about condom use" also motivated consistent condom use among African American teens (St. Lawrence, Brasfield, Jefferson, Alleyne, & Shirley 1994; DiClemente et al. 1996; and Stanton, Li, Ricardo, Galbraith, Feigelman, & Kaljee 1996). Having a regular partner who supports condom use also increases the likelihood of use (Santelli et al. 1996). On the other hand, African American females whose peers exhibit negative behaviors (such as use of marijuana with sex partners) are more likely to report reduced condom use (Fortenberry 1995).

- African American adolescents who are satisfied with their maternal relationship and who perceive greater parental monitoring also are more consistent contraceptive users (Dittus, Jaccard, & Gordon 1999; Li, Stanton, & Feigelman 2000; and DiClemente et al. 2001).

Overall Summary: Explanations of Sexual Behaviors

The research findings about the reproductive health behaviors of African American adolescents discussed in this literature review can be summarized as follows:

- African American adolescents had greater knowledge about sexual topics and communicated more with their parents and other family members than other adolescents did (Scott-Jones & Turner 1988; Freeman & Rickels 1993; Abma, Chandra, Mosher, Peterson, & Piccinino 1997; Hutchinson & Cooney 1998; and Miller & Whitaker 2001).

- Perceptions about teen pregnancy among adolescents were mixed. Many felt that teens still could lead productive lives as mothers, although stresses related to the emotional and financial instability likely among teens made teenage pregnancy undesirable (Crump et al. 1999).

- Adolescents who expressed positive attitudes regarding condom use reported stronger intentions to use them. Those adolescents who had favorable hedonistic beliefs, normative support, support from their partner and mother, high perceived behavioral control, and perceptions that they could use condoms skillfully also reported similar intentions (Jemmott, Jemmott, & Hacker 1992).

- In most research, African American youth were more likely than other youth to report having had intercourse and to have initiated sexual intercourse during their early teen years (Furstenberg et al. 1987; Young et al. 1991; Freeman & Rickels 1993; Walter et al. 1995; Schuster, Bell, & Kanouse 1996; Abma et al. 1997; Doljanac & Zimmerman 1998; Ku et al. 1998; Sonenstein et al. 1998; Upchurch et al. 1998; Strunin 1999; Blum, Beuhring, & Rinehart 2000; Blum, Beuhring, Shew, Bearinger, Sieving, & Resnick 2000; Hogan, Sun, & Cornwell 2000; Abma & Sonenstein 2001; O'Donnell, O'Donnell, & Stueve 2001; and YRBS 2001 [2002]).

- Adolescents who had close family relationships and familial routines, and who lacked household trauma, were more likely to delay sexual initiation than their peers who experienced contrasting household conditions (Danziger 1995; and Doljanac & Zimmerman 1998).

- The frequency with which current sexual activity is reported has declined among black females during the 1990s, whereas this frequency has remained almost constant among black males (YRBS 2001 [2002]). Despite the declining rates among black females and steady rates among black males,

black teens report higher rates of sexual activity than white and Hispanic teens.

- African American teens who felt part of (or who were doing well in) school and who had high educational or occupational achievement and aspirations, or any of these characteristics, were less likely to be sexually active or to engage in high-risk behavior (i.e., early age at sexual debut) (Hogan & Kitagawa 1985; Furstenberg et al. 1987; Lauritsen 1994; Perkins et al. 1998; and Blum, Beuhring, & Rinehart 2000).

- The relationship between the religiosity of a teen (i.e., church attendance or a teen professing his or her religious views and their importance) and sexual activity has not been thoroughly examined. However, several studies find that African American teens who report religiosity are less likely to report sexual activity at any age and are more likely to delay their sexual debut (Day 1992).

- Knowledge about HIV/AIDS has been found to inhibit sexual activity among African American teens in some research (St. Lawrence 1993), but to have no effect in other research (DiClemente et al. 1996; and Dittus, Jaccard, & Gordon 1999).

- Although use of contraceptives **during first intercourse** has been reported by increasing percentages of adolescents over time, the proportions among African Americans are less than among their white counterparts. However, there is evidence that African American females who use contraceptives at first intercourse are more likely than white females to use birth control pills, a more effective method, than they are to rely on condoms alone (Zelnik & Shah 1983).

- Nearly three-fourths (73 percent) of African American males reported condom use either alone or in combination with other contraceptive methods during all heterosexual intercourse in the 12 months preceding the 1995 NSAM (Murphy & Boggess 1998).

- Black female adolescents were likely to be at the greatest risk of experiencing contraceptive failure when compared to all black, Hispanic, and white women 15 to 44 (Fu, Darroch, Haas, & Ranjit 1999).

- African American adolescents are more likely than other adolescents to report having had sex with multiple partners (Binson et al. 1993; Ku et al. 1998; Santelli et al. 1998; Dutra, Miller, & Forehand 1999; and Abma & Sonenstein 2001). At the same time, African American female teens are less likely than other teens to report current sexual activity, suggesting perhaps a pattern of sexual experiences involving a series of "one-night stands" or involuntary sexual experiences among these teens (Young et al. 1991; Freeman & Rickels 1993; and Lauritsen 1994).

- African American adolescents who perceive higher levels of social support and parental monitoring report a reduced frequency of sexual activity and a smaller number of lifetime partners (St. Lawrence, Brasfield, Jefferson, Alleyne, & Shirley 1994; and DiClemente et al. 2001).

- African American teens who report having peers with negative characteristics (e.g., close friends who use alcohol, marijuana, or cocaine) are more likely to report having ever had intercourse and being currently sexually active (Perkins et al. 1998).

- Black female teens who report educational frustration also report greater engagement in sexual activity, whereas educational involvement is associated with less engagement in sexual activity (Lauritsen 1994).

- Some aspects of family structure (single-parent versus two-parent family) at various ages in a teen's life (specifically, 11 and 14) are associated with some aspects of teen sexual activity (e.g., age at first intercourse and frequency of intercourse), but not with all aspects considered in this review (e.g., having ever had sexual intercourse and using contra-

ceptives at first intercourse) (Rosenbaum & Kandel 1990; Murry 1992; Murry 1996; and Upchurch et al. 1998). In particular, African American teens who lived in two-parent families at 11 (in one study) or 14 (in another study) are more likely to report their sexual debut at an older age and are less likely to report frequent intercourse. However, living in a two-parent family at other ages has not been found to either deter adolescents from ever having intercourse or encourage them to use contraception at first intercourse.

■ Parent-teen communication or relationship or other family relationships, or both, are significantly associated with teen engagement in sexual activity. Most often, African American teens who perceive strong parent-teen communication or relationship delay their sexual debut or experiences and are more consistent contraceptive users (Dittus, Jaccard, & Gordon 1999; Li, Stanton, & Feigelman 2000; and DiClemente et al. 2001). Family conflict generally is associated with greater occurrence of high-risk sexual behavior (Doljanac & Zimmerman 1998).

■ The evidence is mixed about the influence of parental monitoring; both too much and too little is problematic for African American female adolescents (e.g., for the age at first intercourse and for the likelihood that they are currently sexually active). (Note: Reliable comparisons of the magnitudes of perceived parental monitoring are difficult to make across studies.) (Hogan & Kitagawa 1985; and Murry 1996).

Outcomes of Sexual Behaviors

The main measured outcomes of adolescent reproductive health behaviors are STDs, HIV infection and AIDS, pregnancy, abortion, and childbirth. Risk factors for STDs include early age of intercourse and no (or irregular) contraceptive use (Brooks-Gunn & Furstenberg 1989). In addition, risk factors for genital human papillomavirus (HPV) infection include initiating sexual intercourse at a young age and having multiple sex partners (Kenney 1996).

Sexually Related Diseases

During the 1990s, reported rates among African American teens have increased for some STDs (e.g., chlamydia) and decreased for others (i.e., gonorrhea and syphilis). However, rates for STDs among black adolescents exceed reported rates for other teens.

Rates of chlamydia per 100,000 teens 15 to 19 of all races have increased steadily from 1,081 in 1996 to 1,373 in 2000 (Sexually Transmitted Disease Surveillance 2000 [2001]). African American teens report higher rates than white teens. In addition, African American female teens reported significantly higher rates (6,659 in 1996, and 7,959 in 2000) than African American male teens (988 in 1996, and 1,415 in 2000). (See Figures 13 and 14.)

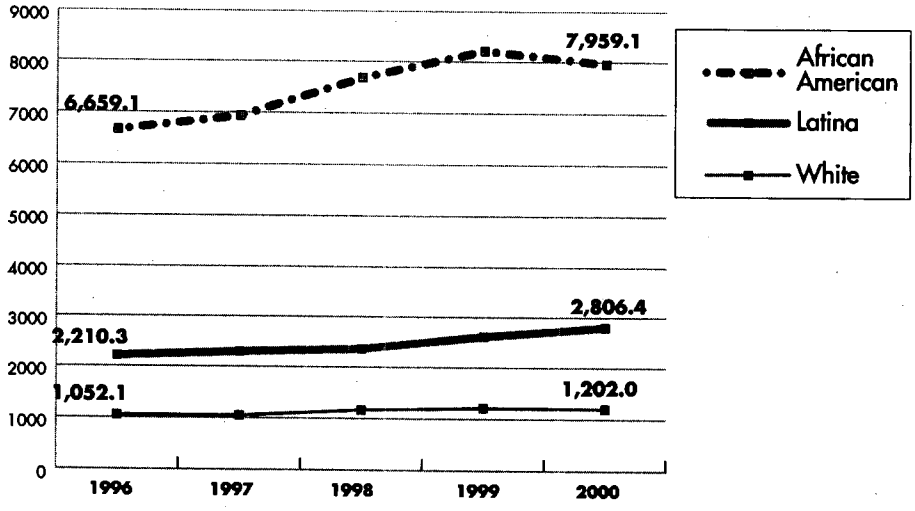
Reported rates of gonorrhea for all teens have declined during the latter half of the 1990s. However, the decline has been more marked among African American males than among African American females. In 1994, among black females 15 to 19, 4,683 cases per 100,000 were reported; this figure had declined to 3,594 cases per 100,000 by 2000. The rate was lower among African American male teens in 1994 (3,801 per 100,000) than among African American female teens; the rate for these males declined to an even lower level (1,912 per 100,000) by 2000 (Sexually Transmitted Disease Surveillance 1998 [1999]; and Sexually Transmitted Disease Surveillance 2000 [2001]). (See Figures 15 and 16.)

Rates for primary and secondary syphilis show the most marked decline overall, although rates for African American female teens remain nearly double those for African American male teens. In 1994, the reported

syphilis rate for African American females 15 to 19 was 103.5 per 100,000; by 2000, this rate had fallen to 16.6 per 100,000. Among African American males, the 1994 rate of 50 per 100,000 had fallen to 8.8 per 100,000 by 2000 (Sexually Transmitted Disease Surveillance 1998 [1999]; and Sexually Transmitted Disease Surveillance 2000 [2001]). (See Figures 17 and 18.)

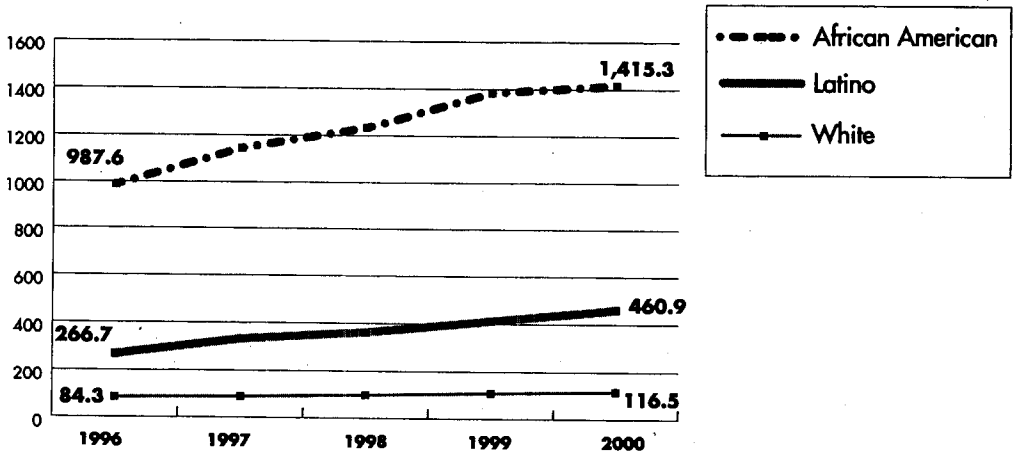
Chlamydia and gonorrhea are responsible for most cases of pelvic inflammatory disease

Figure 13
Reported Rates of Chlamydia per 100,000 Female Teens 15-19, by Race/Ethnicity, 1996-2000



Source: Sexually Transmitted Disease Surveillance 2000 [2001]

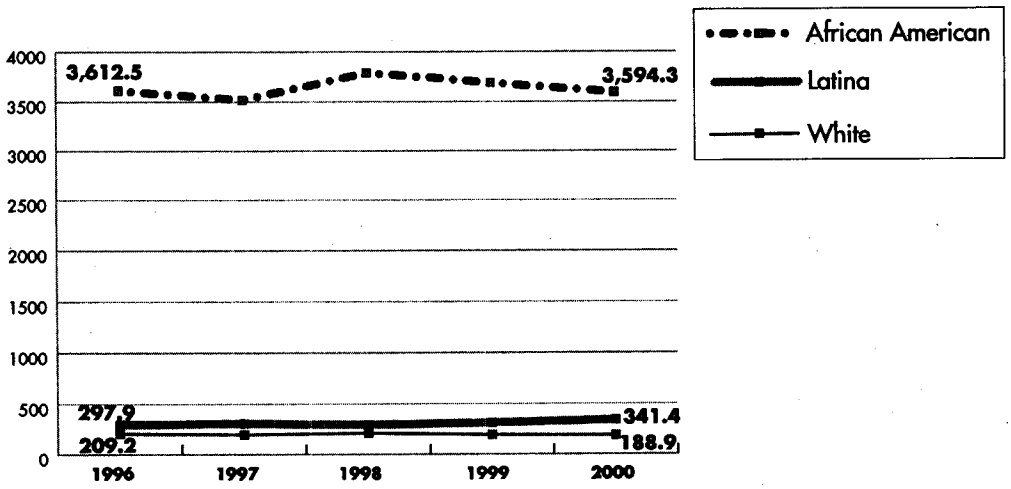
Figure 14
Reported Rates of Chlamydia per 100,000 Male Teens 15-19, by Race/Ethnicity, 1996-2000



Source: Sexually Transmitted Disease Surveillance 2000 [2001]

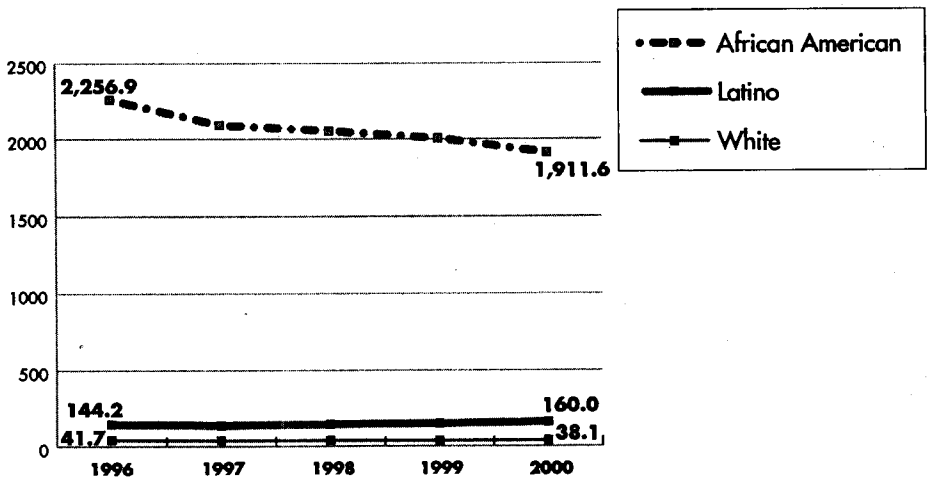
(PID) in the United States (American Social Health Association 1996). PID is the leading cause of preventable infertility, potentially fatal ectopic (tubal) pregnancy, and chronic pelvic pain. Initiating sexual intercourse during the teen years appears to enhance the risk for developing PID. African American females who initiated sexual intercourse as teens were more likely than all African American females 15 to 19 to report having been treated for PID (Abma et al. 1997). Although only 3 percent of all African

Figure 15
Reported Rates of Gonorrhea per 100,000 Female Teens 15-19, by Race/Ethnicity, 1996-2000



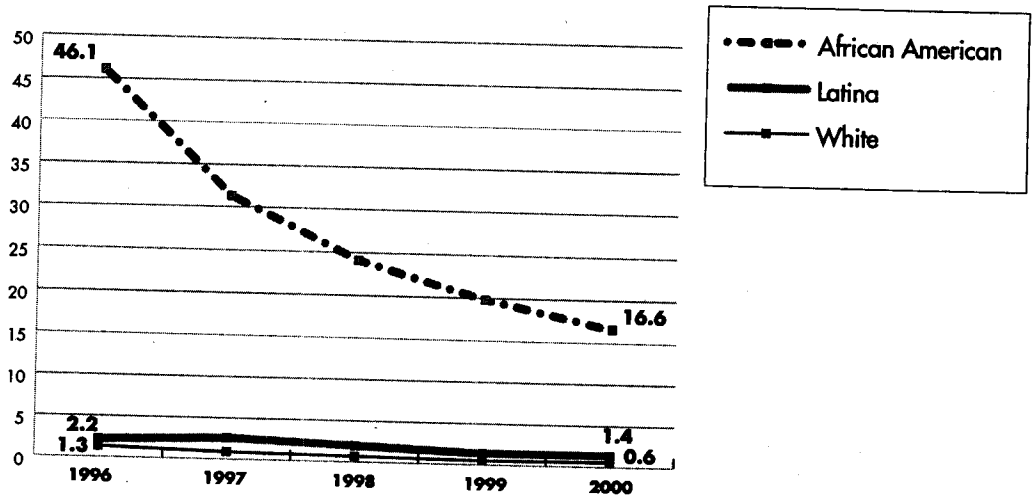
Source: Sexually Transmitted Disease Surveillance 2000 [2001]

Figure 16
Reported Rates of Gonorrhea per 100,000 Male Teens 15-19, by Race/Ethnicity, 1996-2000



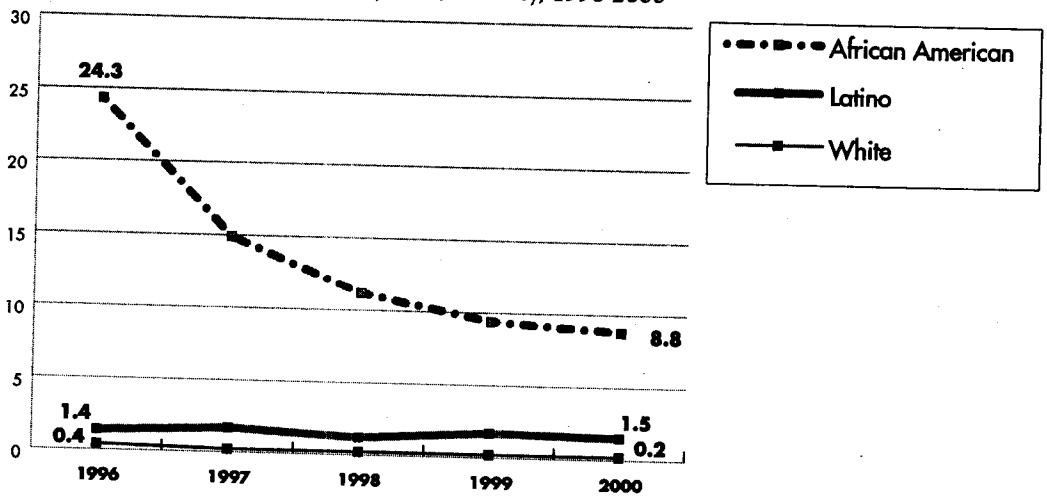
Source: Sexually Transmitted Disease Surveillance 2000 [2001]

Figure 17
Reported Rates of Primary and Secondary Syphilis per 100,000 Female Teens 15-19, by Race/Ethnicity, 1996-2000



Source: Sexually Transmitted Disease Surveillance 1998 [1999] and 2000 [2001]

Figure 18
Reported Rates of Primary and Secondary Syphilis per 100,000 Male Teens 15-19, by Race/Ethnicity, 1996-2000



Source: Sexually Transmitted Disease Surveillance 1998 [1999] and 2000 [2001]

American women 15 to 19 reported having been treated for PID, nearly 13 percent of African American females who initiated sex at 15 to 17 and 8 percent of African American females who initiated sex at 18 and 19 reported having been treated for PID. African American females who had first sexual intercourse when younger than 15 were the group most likely to report having been treated for PID (15 percent), whereas African American females who have never had intercourse were the least likely to report this treatment (nearly 1 percent). Only 8 percent of African American females whose age at

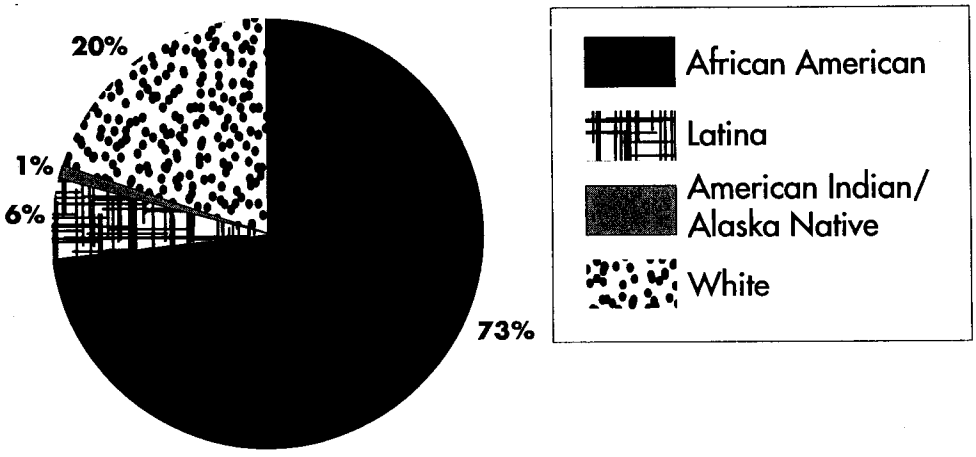
first intercourse was 20 or older reported having been treated for PID.

HIV Infection and AIDS. HIV infection and AIDS are present among African Americans in disproportion to their representation in the total U.S. population. Cumulatively, from 1981 through June 2001, a total of 968 cases of AIDS have been reported among African American males 13 to 19, representing less than 1 percent of all cases reported among African American males (220,982 cases). However, these 968 cases reported by black non-Hispanic males 13 to 19 constituted 40 percent of all AIDS cases reported by such males (2,450 cases); black males were only 15 percent of all male teens at that time (HIV/AIDS Surveillance Report 2001). Black females 13 to 19 reported 1,176 cases over that same 20-year period, representing more than 1 percent of the 80,802 cases among all black females. The 1,176 cases among black non-Hispanic females 13 to 19, however, were the majority (66 percent) of the 1,769 cases reported by all female teens, although black females were only 15 percent of all female teens (HIV/AIDS Surveillance Report 2001). (See Figures 19 through 22.)

However, the number and proportion of cases of HIV infection reported for African Americans 13 to 19 are greater than the reported number and proportion of AIDS cases. This finding suggests a future increase in the incidence of AIDS among African Americans in this cohort. By June 30, 2001, the 1,480 cumulative cases of HIV infection among African American males 13 to 19 were 3 percent of the 47,575 cases among all African American males, whereas the 2,458 cases reported among African American females 13 to 19 constituted 9 percent of the 28,112 cases among all black females. Because it may take as long as a decade for HIV infection to develop into AIDS, infections resulting from high-risk behaviors during the teen years could be expected to show up as AIDS when this particular group is 20 to 29.

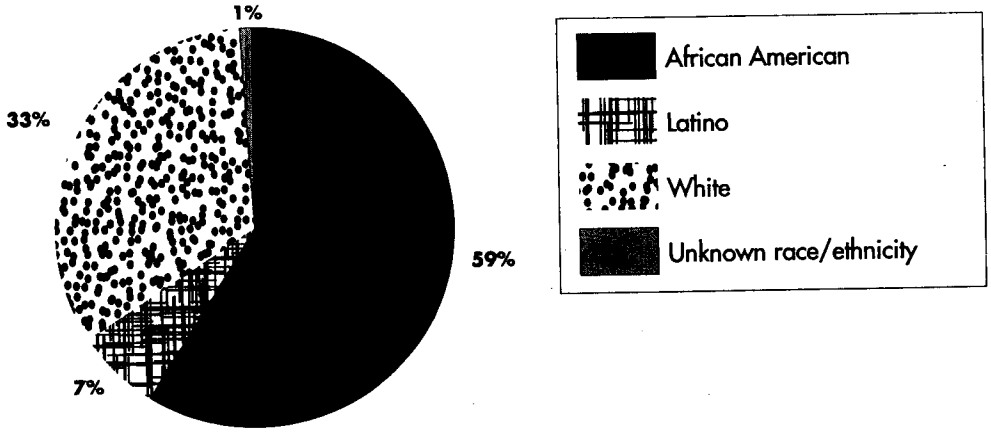
Consistent with this overrepresentation among persons infected with HIV/AIDS is a greater level of personal concern among African American teens about becoming infected (Kaiser Family Foundation 2000). In a national representative survey of 1,512 teens ages 12 to 17, 60 percent of African American teens indicated that they personal-

Figure 19
Distribution of Cases of HIV Infection Among Females 13-19, by Race/Ethnicity, Reported Through June 2001*



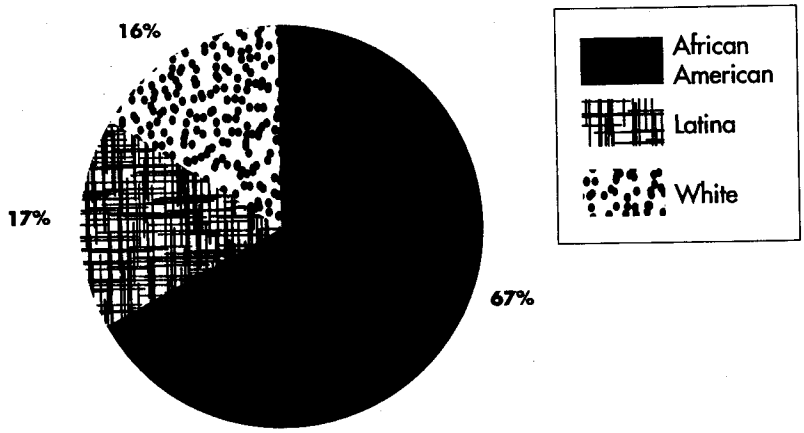
(N=3,360)
*Not shown: Asian/Pacific Islander, which was only 0.21%, and Unknown race/ethnicity, which was only 0.63%. Percents on graph are rounded to the nearest whole numbers.
Source: HIV/AIDS Surveillance Report (U.S. HIV and AIDS Cases Reported Through June 2001), 2001

Figure 20
Distribution of Cases of HIV Infection Among Males 13-19, by Race/Ethnicity, Reported Through June 2001*



(N=2,532)
*Not shown: Asian/Pacific Islander, which was only 0.32%, and American Indian/Alaska Native, which was only 0.67%. Percents on graph are rounded to the nearest whole numbers.
Source: HIV/AIDS Surveillance Report (U.S. HIV and AIDS Cases Reported Through June 2001), 2001

Figure 21
Distribution of AIDS Cases Among Females 13-19, by Race/Ethnicity, Reported Through June 2001*



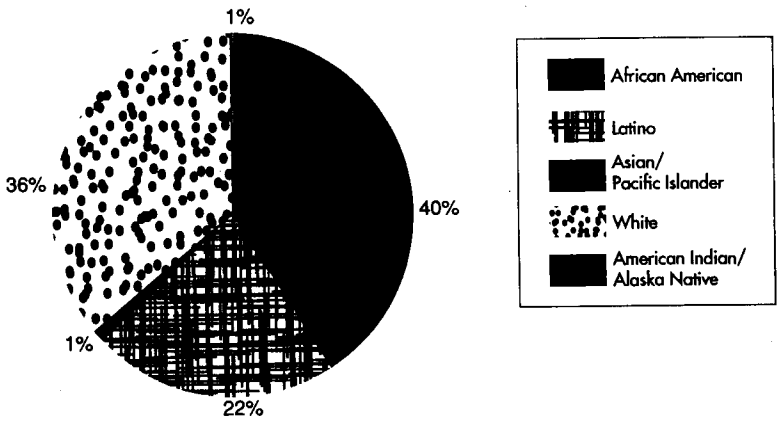
(N=1,769)
*Not shown: Asian/Pacific Islander, which was only 0.46%, and American Indian/Alaska Native, which was only 0.23%. Percents on graph are rounded to the nearest whole numbers.
Source: HIV/AIDS Surveillance Report (U.S. HIV and AIDS Cases Reported Through June 2001), 2001

ly were very concerned about becoming infected. This share was double that among white teens (28 percent) and substantially higher than among Latino teens (44 percent).

Pregnancy and Childbearing

Although African American female teen respondents to the 2001 YRBS report were more likely to report having been pregnant than other female teens, the late 1990s was a period of record low pregnancy rates for all

Figure 22
Distribution of AIDS Cases Among Males 13-19, by Race/Ethnicity, Reported through June 2001*



(N=2,450)
*Not shown: Unknown race/ethnicity, which was only 0.04%. Percents on graph are rounded to the nearest whole numbers.
Source: HIV/AIDS Surveillance Report (U.S. HIV and AIDS Cases Reported Through June 2001), 2001

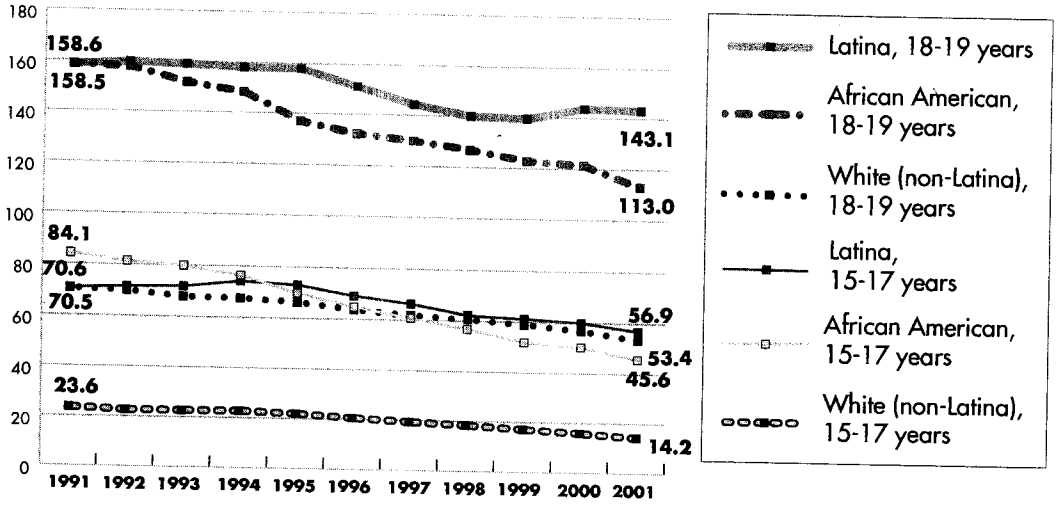
teens. Female teens were less likely to become pregnant in 1997 than at any time since 1976, when national data about pregnancy rates first became available. Between 1990 (when peak rates were recorded) and 1997, pregnancy rates for African American teens (15 to 19) declined 23 percent, only slightly less than the 26-percent decline in rates for white non-Hispanic female teens (Ventura, Mosher, Curtin, Abma, & Henshaw 2001).

Births to teen mothers — the major outcome of teen pregnancy — can be analyzed from several perspectives. First, births to teen mothers can be viewed as a proportion of births to all women. Second, births to adolescent females can be examined for whether they occur inside or outside of marriage. Finally, rates of birth to teens can be examined.

Births to teen females 15 to 19 as a share of all births in the United States increased during the 1990s, after declining from higher rates in the 1970s and early 1980s (Moore, Simms, & Betsey 1986). However, births to African American teens actually represented a declining share of births to all African American women during this period. In 1990, births to teen mothers were less than 13 percent (12.8 percent) of all births in the United States; black teen births were nearly a quarter (23 percent) of all births to black mothers at this time. The 1990 proportion of all teen births is lower than the 19-percent share in 1975 and the 14-percent share in 1982 that births to all teens were of all births in the United States. Births to black teens also constituted a smaller share of births to all black women in 1990 (23 percent) than they had in either 1975 (33 percent) or 1982 (25 percent) (Moore, Simms, & Betsey 1986). In 1998, teen births were nearly 15 percent (14.6 percent) of all births in the United States, whereas births to African American teens had declined slightly to 21.5 percent of births to all black mothers (U.S. Census Bureau 2000a). By 2000, teen births as a share of births to all women had declined further for both blacks (19.7 percent) and for all races (11.8 percent) (Martin, Hamilton, Ventura, Menacker, & Park 2002).

Since the 1950s, the proportion of babies born outside of marriage increased for all

Figure 23
Birth Rates per 1,000 Females by Mother's Age and Race/Latino Origin, 1991-2001



Source: Martin, Park, & Sutton, 2002

female teens (Chilman 1980). By 1999 and 2000, most births to female teens 15 to 19 occurred outside of marriage (79 percent in both years), although women 20 to 24 had the highest non-marital birth rates — 73 per 1,000 unmarried women in 1999, and 75 per 1,000 unmarried women in 2000 (Moore, Manlove, Terry-Humen, Williams, Papillo, & Scarpa 2001; and Martin, Hamilton, Ventura, Menacker, & Park 2002).

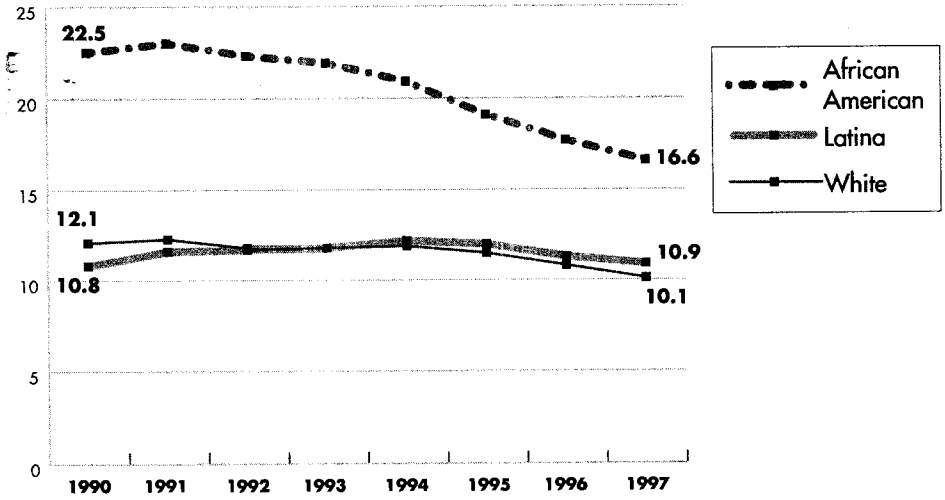
Rates of birth among both black and white females 15 to 19 have decreased during the latter half of the 20th century, at the same time that non-marital childbearing has increased. Throughout this period, birth rates for black teens have been two (or more) times the rates for white teens, although the rates for black female teens also have trended downward, especially during the 1990s. (See Figure 23.) For black non-Hispanic teens 15 to 19, the birth rate (per 1,000 women) declined from 115.5 in 1991, to 88.2 in 1997, to 85.4 in 1998, to 81.0 in 1999, and to 73.1 in 2001. Between 1991 and 2001, the birth rate for black teens declined 37 percent (Ventura, Mathews, & Hamilton 2001; Martin, Hamilton, Ventura, Menacker, & Park 2002; and Martin, Park, & Sutton 2002). Among black teens 15 to 17, the childbirth rate declined 46 percent between 1991 and 2001 — from 84.1 to 45.6 per 1,000 women. A 29-percent decline in rate (from 158.6 to 113.0 per 1,000 women) was reported for black women 18 and 19 between 1991 and 2001. Rates of decline were comparable, although smaller, for white non-Hispanic females during this period.

Not all pregnancies are carried to term, however; some are terminated by abortion or other forms of fetal loss. In 1997, the pregnancy rate among African American females 15 to 19 was 170.8 per 1,000 females; the rate of live births was only 88.2 per 1,000, however, and the rate of induced abortions was 62.7 per 1,000 (Ventura, Mosher, Curtin, Abma, & Henshaw 2001; and Ventura, Mathews, & Hamilton 2001). The rate of fetal loss was 16.9 per 1,000. Except for the rate of fetal loss, these figures were more than double the rates for white teens, although rates for Hispanic teens (especially for pregnancy and live births) were comparable to the rates among African American teens. (See Figures 24 and 25.)

Factors Related to Pregnancy and Childbearing. Local and national studies about pregnancy and childbearing explore and more fully characterize teen pregnancy and the decisions associated with it, such as aborting or bearing the child. Research about factors related to pregnancy and childbearing by an adolescent female can be summarized as follows:

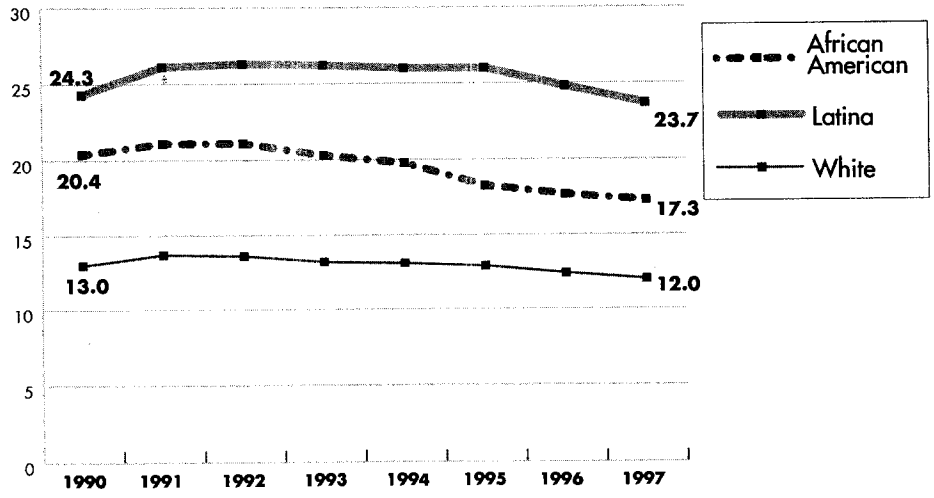
- A black adolescent female between 13 and 19 who has the following characteristics is more likely to report ever having been pregnant: being of low social class, having five or more siblings, living in a lower quality neighborhood, having parents who exercise

Figure 24
Fetal Loss Rates per 1,000 Females 15-17, by Race/Ethnicity, 1990-1997



Source: Ventura, Mosher, Curtin, Abma & Henshaw, 2001

Figure 25
Fetal Loss Rates per 1,000 Females 18-19, by Race/Ethnicity, 1990-1997



Source: Ventura, Mosher, Curtin, Abma & Henshaw, 2001

limited control over dating, having a sister who was a teen mother, and having low career aspirations (Hogan & Kitagawa 1985; and Landry, Bertrand, Cherry, & Rice 1986).

■ Black female teens were more likely to report a higher rate of first pregnancy (measured as the relative increase in the pregnancy rate over time from age 11 among the sexually active female teens in this study) if they also had the following characteristics: older age, belonging to the low and middle social classes, and failing to use a contraceptive at first intercourse (Hogan & Kitagawa 1985).

■ The following factors were common among black female teens who had not become mothers: close family ties, household rules, and absence of major family traumas (Danziger 1995).

■ For black female teens, a relationship exists between both family structure (single-parent or two-parent family) and educational attainment, on the one hand, and age at first conception and duration of the period of preconception sexual activity, on the other. However, the influence of these measures differed for female teens of low, middle, and high SES (Murry 1992). For example, African American female teens of low and middle SES with greater educational attainment were likely to have a longer duration of preconception sexual activity than teens of high SES. In addition, living in a two-parent family at age 14 correlates with a longer period of preconception sexual activity for teens of high SES but not for teen females of low and middle SES.

■ African American female adolescents with high educational aspirations and attainment have lower childbirth rates (Hanson, Myers, & Ginsburg 1987; and Freeman & Rickels 1993).

■ The relationship between teen childbearing and subsequent educational attainment has been difficult to specify. Some studies found higher subsequent educational attainment among black teen mothers (than among white teen mothers) (Moore & Waite 1981; Mott & Maxwell 1981; Ahn 1994; and Klepinger, Lundberg, & Plotnick 1995). Other research has found either comparable high school completion rates for black and white teen mothers or greater educational attainment for white mothers (Martin, Hamilton, Ventura, Menacker, & Park 2002).

■ Nearly one-third of black teen females with older partners are more likely to report low rates of contraceptive use and high rates of pregnancy and birth (Darroch, Landry, & Oslak 1999; Ford, Sohn, & Lepkowski 2001; and Marín, Coyle, Gómez, Carvajal, and Kirby 2000).

■ African American female adolescents are likely to have reduced fertility in conjunction with the following: greater employment opportunities, teens' perceptions of economic opportunities, and the expectation of employment in the primary labor market (in which additional schooling is rewarded with higher wages) (Duncan & Hoffman 1990; Olsen & Farkas 1990; Meyer & Mukerjee 2000; and Sugland, Driscoll, Manlove, & Papillo 2002).

■ Black teen mothers are less likely than black mothers 20 to 25 to have a low-weight or pre-term birth (Geronimus 1996; and Ekwo & Moawad 2000).

■ An African American female adolescent is more likely to have a second or repeat pregnancy if she has the following characteristics: younger age within her teens, being below grade level for her age, having lower educational goals, having weaker belief in her occupational goals, and being closer to her boyfriend (Freeman & Rickels 1993). Other related factors include the following: the contraceptive method used soon after the first delivery, the consistency of contraceptive use, and a history of miscarriages (Stevens-Simon, Kelly, & Singer 1999; and Coard, Nitz, & Felice 2000). Specifically, older first-time mothers, teen mothers who reported inconsistent contraceptive use, and teen mothers with a history of miscarriages were more likely to become pregnant again within 24 months of their first birth.

STRENGTHS AND LIMITATIONS OF LITERATURE REVIEWED

The studies featured in the literature review are more likely to discuss their limitations than their strengths. The strengths identified by the researchers generally relate to the topic analyzed, the findings about the topic, or the population studied to analyze the given topic. The fact that the discussions of limitations are lengthier than the discussions of strengths, both in the research literature and in this review, does not necessarily imply that limitations outnumber strengths in these studies, but may instead reflect the code of honesty among researchers and their desire to place their work properly in the context of related research. It also may reflect the wisdom in acknowledging the shortcomings of one's work, rather than having someone else do so.

Limitations related to research conducted about the reproductive health of African American youth are discussed under two main headings — Overarching Issues and Methodological Issues. Methodological issues include data collection, variable measurement, and data analysis.

Overarching Issues

Who Conducts the Research?

For many reasons, the vast majority of the researchers who study the reproductive health of African American adolescents (and virtually any other researchable topic imaginable) are not African American. The paucity of African American researchers in this field can detrimentally affect the definition of key variables, the conceptualization and formulation of models to gauge relationships, and the interpretation of research findings about sensitive issues with African American adolescents.

Research conducted in predominantly African American communities by researchers who are not African American may limit what is learned about the reproductive health of teens in still other ways. Because black communities throughout the United States feel exploited, overstudied, and undercompensated for the time and disruption that research studies entail, African Americans increasingly are reluctant to participate. Both suspicions about the purposes of the research and disenchantment with the aftermath of previous studies contribute to low participation rates among African American males, in particular, and to the self-selection of survey respondents who have the more stable life circumstances (Allison et al. 1999).

Even if the researchers are African American, they are not adolescents, which adds to the difficulty of getting at the truth about teen reproductive behaviors. It is difficult for adults to understand or interpret any teen culture besides the one that prevailed during their adolescence. Valid research about adolescents would somehow be infused with the voices of adolescents. This infusion could be accomplished by using a broader range of tools than the standard statistical associations and models and by employing a broad range of qualitative research tools. The focus group has become a standard technique for this purpose, but using a greater variety of such qualitative techniques would enhance researchers' ability to robustly formulate approaches to assess the reproductive health of African American (or other) teens (Sugland, Wilder, & Chandra 1997).

How Is the Research Conducted?

The preponderance of the research about African American adolescents has been conducted with low-income, urban teens, a subpopulation that reports the greatest incidence of undesirable life events and stressors when compared to both low-income European Americans and middle-income African Americans and European Americans (Allison et al. 1999). Although making this subpopulation the focus of research — almost to the exclusion of other African American teen populations that are not urban or not low income, or both — can be justified, it does not provide the full range of knowledge needed to serve all African American teens effectively.

Two theories (Problem Behavior Theory (PBT) and Social Interaction Theory (SIT)) commonly support the models used to study high-risk sexual behavior (such as frequency of intercourse or number of sexual partners) of African American teens. In addition, the analyses to test these models are generally quantitative. These two facts, however, can be problematic. The PBT hypothesizes that high-risk sexual behaviors result because of the clustering of other "problem behaviors" among teens. The SIT maintains that high-risk sexual behaviors are motivated by social interactions with family and peers. Both of these theories explain more of the variance in behavior for whites than for blacks. Therefore, they do a better job of predicting outcomes for whites. Thus, more research needs to be conducted that incorporates the neighborhood or societal or environmental factors precluded from models based on these theories and that may have greater explanatory power with African American teens (Doljanac and Zimmerman 1998; Allison et al. 1999; and Blum, Beuhring, Shew, Bearinger, Sieving, and Resnick 2000). In addition, these improved models may use either quantitative or qualitative methodologies (not exclusively quantitative) to get the best results. No one model or type of model will fully explain adolescent sexual, contraceptive, pregnancy, and parenting behavior for the many subpopulations of teens in the United States (Miller & Moore 1990).

Methodological Issues

Data Collection

The quality of data collected is influenced not only by the way samples are drawn and by the size of the samples but also by the physical means employed to gather data (e.g., use of the phone, use of adult interviewers, and use of written retrospective surveys). Whether data are gathered at one point in time or over time also influences their quality. Particular issues include the following:

- Is research done with large enough random or representative samples of African American adolescents to allow one to generalize findings with a reasonable degree of confidence?

- Are samples drawn to allow comparisons of findings about African American adolescents with findings for other adolescents, or for comparisons among African American teens by SES?

- Is research done with standard definitions of the age groups that constitute adolescence to facilitate meaningful comparisons across studies?

- Is the comparative picture of reproductive health behaviors and outcomes among teens skewed by the fact that black females are more likely (than white females) to receive services at public clinics that may have more comprehensive public health STD reporting than at private physician offices (Tracking the Hidden Epidemics: Trends in STDs in the United States 2000)?

- When self-reporting about reproductive health behaviors, would adolescents report the facts honestly? Would responses be

expected to vary by age (or other characteristics) of the interviewer?

■ Are data collected by phone? If so, is this problematic with samples drawn from low-income communities in which phone ownership may not be the norm (Binson et al. 1993)?

■ Does collecting data retrospectively introduce inaccuracies into survey results, because of the loss of detailed memory about past events (Rosenbaum & Kandel 1990)?

■ What biases are introduced by surveying youth about their perceptions of their parents' attitudes and monitoring without also surveying their parents (Weddle, McKenry, & Leigh 1988; Miller & Moore 1990; and Li, Stanton, & Feigelman 2000)?

■ Are data collected at one point in time or over time (longitudinally)? Longitudinal data and analyses allow researchers to assess the impacts of program implementation and to estimate more robust models with greater explanatory power (Allison et al. 1999). The few longitudinal studies conducted about the reproductive health of African American teens (Li, Stanton, & Feigelman 2000; Miller et al. 1997; and Mott et al. 1996) often confront the problem of sample attrition over time (which limits the explanatory power of the model results).

■ How useful for understanding today's adolescents are findings based on data collected in the 1970s and the 1980s from African American teens? The influences of family structure and social environment on these adolescents, as well as the meanings of relevant terms such as "sexual permissiveness," are likely to vary.

Variable Measurement

Defining measures that capture the concepts and attributes associated with reproductive health behavior and outcomes becomes challenging because of the many factors for which one might need to control if interested in isolating a given reproductive health attribute. For example, religiosity is commonly defined by church attendance, although most researchers would agree that this is only a rough approximation of the desired concept. Other examples include the following:

■ The need to measure a complex set of factors and interactions to explain early childbearing makes it doubly hard to construct measures that do the job well. Relevant factors and interactions include, for example, developmental level, SES, race or ethnicity, religion, and region of residence.

■ The definitions and measurement of the following concepts can influence the quality of the data collected about the reproductive health behaviors and outcomes for African American adolescents:

- race (single race or ethnicity classification versus multi-race or ethnicity classification)
- fertility (pregnancy or birth)
- socioeconomic status (e.g., family income and economic opportunity)
- contraceptive use (e.g., during recent sex or frequency: always, sometimes, never)
- family structure (usually only single-parent versus two-parent family)
- religiosity (e.g., church attendance, communion, or spirituality)

Data Analysis

The manner in which data are analyzed influences the findings that emerge and become accepted knowledge. In particular:

■ Whether data collected for purpose "A" is analyzed for purpose "B" can result in ambiguity in findings (Chilman 1980; Hanson,

Myers, & Ginsburg 1987; Santelli et al. 1998; and Li, Stanton, & Feigelman 2000).

- How race is used (i.e., as an independent variable to explain given behavior or as the basis for estimating separate models by race) when constructing models to analyze data matters when interpreting research findings.

- Whether interactions between variables (such as race and gender or race and contraceptive use) are measured and included in models being analyzed can be critical to the research outcomes. How data are reported in published research — for example, separately by race and gender or by race interacted with gender to report findings for black females and males — also shapes the understanding gained of the reproductive health of African American adolescents.

PROGRAM IMPLICATIONS

As noted in the previous section, the research about the reproductive health of African American adolescents has limitations; in addition, this research literature features only a small number of evaluations of programs developed to serve these teens. Despite these facts, this existing body of research undergirds the programs that have been developed to meet the needs of this population. Thus, insights and implications from this research are examined here to help answer the question: What should be the components of a program that provides reproductive health services to African American adolescents? To answer this question, selected findings highlighted in the literature review are featured in this section.

One purpose of this report is to make it possible for providers to eliminate stereotypes they may hold about African American teens and to work from a solid base of knowledge about this population. Although African American teens are the target beneficiaries of any changes that may result from these program-specific recommendations, other groups of teens may benefit as well, if the recommended changes are implemented in programs that serve teens of a wide range of races or ethnicities.

The order of presentation for each topic is as follows. The finding is stated first, followed by a brief statement about its implications. Next, recommended programmatic changes are noted. Finally, the general principle underlying each recommendation is stated.

Note that the general principles are repeated frequently throughout the text, reflecting the fact that a few common themes underlie the effective provision of reproductive health services to African American teens. These general principles emanate from three fairly basic concepts. First, adolescents are not miniature adults. They are individuals going through a distinct phase of life and who require or desire interventions tailored to meet their needs. Second, parents are important, and, finally, context is important.

Findings Related to Individual Characteristics and Behaviors

Finding A

African American female teens who perceived themselves to be more in control in their sexual relationships and their lives were more likely to use condoms than their counterparts who did not have this perception (St. Lawrence 1993).

Implication: Fostering self-efficacy among teens could enhance the likelihood that teens would engage in safer sex practices.

Recommendation: Programmatic initiatives should be implemented to enhance the self-efficacy and sense of control among African American teens.

General Principle: A teen is a single entity who must be served holistically, if he or she is to be served effectively.

Finding B

African American female teens with pessimistic or limited aspirations about the school-to-work transition were more likely to

currently engage in sexual activity (Day 1992) and to expect teen parenthood and a non-marital childbirth than teens with more optimistic aspirations (East 1998). Female teens with pessimistic or limited aspirations about the transition to work also were less likely to use contraceptives at first intercourse (Hogan & Kitagawa 1985).

Implication: Teens do incorporate expectations about the future as they consider reproductive health options and actions.

Recommendation: Programs to help teens through (and to ease anxiety about and enhance aspirations for) their school-to-work transition should be developed and made more universally available to African American teens.

General Principle: A teen is a single entity who must be served holistically if he or she is to be served effectively.

Finding C

African American teens who are aware of, and concerned about, HIV/AIDS and STDs do not always decrease their frequency of intercourse or use condoms more consistently because of this awareness and concern (Dittus, Jaccard, & Gordon 1999; and DiClemente et al. 1996).

Implication: African American teens may be more likely than other teens to unwittingly contract a fatal condition.

Recommendation: HIV/AIDS prevention interventions targeted to, and proven effective with, African American teens should be made available within U.S. school systems, as appropriate.

General Principle: Teens learn to care about themselves to the extent that society shows that it cares about them through the messages, instruction, and information it provides.

Findings Related to Peer Influences

Finding A

The "perception of a supportive peer norm about condom use" motivates consistent condom use among African American teens (DiClemente et al. 1996; and Dittus, Jaccard, & Gordon 1999).

Implication: To change the behavior of one teen may require changing the behavior of many teens and the social environment in which teens function.

Recommendation: Policies and program interventions that can change peer perceptions and can enhance social support for condom use among African American teens should be implemented. One example of a programmatic change that could work toward this end is to use peer facilitators in prevention interventions.

General Principle: African American teens do not exist and function in a vacuum. Their reproductive health needs should not be targeted that way.

Finding B

African American teens with peers who have negative characteristics (e.g., close friends using alcohol, marijuana, or cocaine) are much more likely to have ever engaged in intercourse and to be sexually active than their counterparts whose peers do not have these characteristics (Perkins et al. 1998; and Blum, Beuhring, & Rinehart 2000).

Implication: To modify the reproductive health behaviors of one African American teen, the behavior of their peers may also need to be modified.

Recommendation: The need to jointly address a range of behaviors in all African American teens and to establish programs

that target all behaviors (either jointly or separately) should be acknowledged.

General Principle: African American teens do not exist and function in a vacuum. Their reproductive health needs should not be targeted that way.

Findings Related to Familial Influences

Finding A

African American female teens communicate more with their parents (mothers and fathers) about sexual topics than other teens do (Hutchinson & Cooney 1998).

Implication: If this natural communication linkage can be mined, African American teens can be better served.

Recommendation: The development of programs that encourage and build up teen-parent communication among African Americans should be fostered.

General Principle: Parents can be active, constructive partners in enhancing the reproductive health outcomes for their adolescents.

Finding B

African American teens who report greater parental support and family problem-solving skills are more likely to report condom use (both at their sexual debut and thereafter) (Doljanac & Zimmerman 1998).

Implication: The relationships and skill set within a family can influence the reproductive health behaviors of African American teens.

Recommendation: Programs and other forms of interventions should be developed to bolster the problem-solving skills within African American families and to foster parental support for the teens within these families.

General Principle: Families and parents are integral to healthy reproductive behaviors and outcomes for African American teens.

Finding C

Having parents who are perceived as either overly lax or overly strict encourages early and unprotected coital experiences for African American teens (Hogan & Kitagawa 1985; Murry 1996; Dittus, Jaccard, & Gordon 1999; and Li, Stanton, & Feigelman 2000).

Implication: African American parents need guidance about how to monitor their adolescents in ways that are perceived as neither too lax nor too strict.

Recommendation: Programs about parenting African American adolescents should be made available to interested adults. Such programs designed to foster reproductive health among African American adolescents should aim to facilitate parental understanding of how to walk the "thin line" between too much and too little monitoring of their teens' behavior.

General Principle: Parents can be active, constructive partners in enhancing the reproductive health outcomes for their adolescents.

Findings Related to Interventions

Finding A

African American female teens who receive sex education through communica-

tion with parents or in school are more likely to delay their sexual debut (Murry 1992; and Murry 1996).

Implication: Sex education provided through different vehicles and in various venues can encourage safer sex practices.

Recommendation: Classes should be provided to teach parents how to communicate effectively with their teens about sexual topics. Also, the provision of formal sex education instruction in local public schools should be supported.

General Principle: It takes a village to raise a child.

Finding B

If received before sexual debut, formal sex education instruction (in school, by a community organization, or in church) is more effective at imparting knowledge and encouraging African American females to engage in safer practices (i.e., use of contraceptives at first intercourse and use of the more effective contraceptives) (Scott-Jones & Turner 1988; and Murry 1996).

Implication: Properly timed sex education instruction can achieve its objectives.

Recommendation: Formal sex education instruction should be provided to African American females in their pre-teen years.

General Principle: Knowledge can be empowering.

Finding C

African American adolescents who received a safer sex intervention were more likely to later report consistent condom use than adolescents who received either an abstinence intervention or a health-promotion intervention (Jemmott, Jemmott, & Fong 1998).

Implication: Interventions that provide specific reproductive health knowledge and skills to African American adolescents are more effective than interventions that promote abstaining from sex or foster health promotion in a general way.

Recommendation: Safer sex instruction should be incorporated into reproductive health programming for African American adolescents.

General Principle: The arsenal of tools to enable African American adolescents to achieve desired reproductive health outcomes includes many types of instruments.

Finding D

An HIV risk-reduction intervention based on Protection Motivation Theory (PMT) was effective at increasing condom use among African American adolescents 9 to 15 (as demonstrated with follow-up studies of condom use among teens who received the intervention and among teens who did not — i.e., the control group) (Fang, Stanton, Li, Feigelman, & Baldwin 1998).

Implication: Interventions that provide specific reproductive health knowledge and foster skill development can be effective with African American adolescents.

Recommendation: Risk-reduction interventions (based on PMT) should be incorporated into the reproductive health programming for African American adolescents.

General Principle: The arsenal of tools to enable African American adolescents to achieve the desired reproductive health includes many types of instruments.

Finding E

When compared to standard education-only interventions, behavioral skills training (BST) has been found to be effective at doing the following: increasing condom use and deferring the onset of sexual initiation among African American adolescents and reducing the frequency of unprotected vaginal, oral, and anal intercourse among African American males (St. Lawrence, Brasfield, Jefferson, Alleyne, O'Bannon, & Shirley 1995).

Implication: Rather than rely solely on programs that arm African American teens with reproductive health knowledge, offering African American teens training in skills to enable them to modify their behavior either under pressure or in emotionally charged situations can foster desired reproductive health behaviors and outcomes.

Recommendation: BST and other training to impart behavioral skills should be incorporated into reproductive health programming delivered to African American adolescents.

General Principle: The arsenal of tools to enable African American adolescents to achieve the desired reproductive health includes many types of instruments.

Societal Finding

The socioeconomic and historical context of African American adolescents and their parents influences their reproductive health knowledge, attitudes, behaviors, and outcomes (Franklin 1997). For example, African American female teens living in the lowest quality neighborhoods in 1979 (an artifact of this context) were least likely to have used a contraceptive at first intercourse (Hogan, Astone, & Kitagawa 1985). This behavior could clearly have implications for reproductive health outcomes such as STDs, HIV/AIDS, and pregnancy.

Implication: Interventions (broadly defined) that influence the consequences of life in the United States for most African Americans (especially low-income African Americans) also can enhance the reproductive health knowledge, attitudes, and behaviors of African American youth, which can lead to improved outcomes. Innovations such as community-based family services agencies to combat the effects of social isolation, poor quality education, and other social ills on the parents and thus on the African American youth themselves could be helpful. Programs that focus on improving economic opportunities for youth, their families, and their communities also would be beneficial.

Recommendation: A full menu of social support and economic opportunity programs should be developed and implemented with the understanding that these programs are integral to the reproductive health outcomes of African American youth.

General Principle: Programs with the mission of enhancing the reproductive health knowledge, attitudes, behavior, and outcomes of African American youth are not the only ones that can foster these objectives. Indeed, in certain contexts, other programs with broad, comprehensive, systematic objectives might do more to enhance adolescent reproductive health than programs more narrowly focused on adolescents and on reproductive health.

What We Don't Know: Areas for Future Research

As noted previously, we don't know — and we want to identify — the factors that enable African American adolescents to maneuver through difficult environments to achieve "good" reproductive health outcomes (i.e., avoid too early childbearing, HIV/AIDS, and STDs). Knowledge of these factors has been sought in the review of the research literature, in the discussion of the strengths and limitations of this research, and in the consideration of the programmatic inferences from this research. The gaps in our knowledge of these factors become areas for future research.

The gaps are of two main types:

- Topics about which research findings are inconclusive (i.e., topics that have been studied often, completely, and rigorously, but about which the findings remain inconclusive); and

- Topics that need more study (i.e., topics that have never been studied, have been examined only a few times, or have not been studied recently).

Topics With Inconclusive Findings

As became clear from the literature review, the findings about the most commonly studied reproductive health topics for African American adolescents often vary, making it difficult to conclude what the truth is. Following are the major subject areas in which this inconsistency has been noted and in which more research could help clarify what we know about the topic:

- What factors influence the age at first voluntary intercourse for black teens?

Although most research concludes that African American males first engage in intercourse at an earlier age than other male teens, some studies have found comparable ages for sexual initiation among black and white female teens (Young et al. 1991; Murry 1992; and Perkins et al. 1998). Many studies, however, fail to distinguish between voluntary and involuntary initial sexual intercourse among male or female teens, and most research studies low-income African American teens (without considering their counterparts of higher SES). Thus, the issues of age and voluntariness of intercourse need to be examined jointly, along with other individual, peer, familial, and societal influences.

- How do awareness of, and knowledge about, HIV/AIDS and STDs influence adolescent sexual behaviors?

Although STDs have been transmitted among U.S. teens for many generations, the existence of HIV/AIDS has added urgency to the need to encourage teens to protect themselves (i.e., limit number of partners and use barrier contraception) from all sexually transmitted conditions. Research conducted with low-income African American adolescents that has examined the influence of knowledge about, and awareness of, HIV/AIDS on either the consistency of use of condoms or other barrier contraceptives (DiClemente et al. 1996) or the frequency of intercourse (Dittus, Jaccard, & Gordon 1999) has found no association between this knowledge or awareness and subsequent sexual behavior. If these findings reflect African American teens in general, additional research will be needed to determine the types of interventions that are effective at motivating more consistent contraceptive use.

■ What is the relationship between career aspirations and school performance and the likelihood of African American teens' engaging in sexual intercourse (and other sexual-risk behaviors)?

Some research has found no association between career aspirations or school performance and sexual behaviors (Furstenberg et al. 1987), whereas other work has found a relationship (Hogan & Kitagawa 1985; Freeman & Rickels 1993; and Perkins et al. 1998). Although more work has examined whether high career aspirations or better school performance is associated with a delay in sexual initiation and with less frequent sexual activity, a relationship could also exist in the other direction, however, with outcomes of sexual behaviors (such as pregnancy, number of children given birth to, and number of unwanted children) determining educational attainment and income (one of the results of occupational aspirations) (Scott-Jones & Turner 1990). Relationships in both directions are indeed possible; therefore, additional research on each type of relationship is needed, because the findings to date have been mixed.

■ How is the religiosity of African American teens associated with their sexual behaviors and outcomes?

Although examined with increasing frequency in the more recent studies identified in this review, the variables defined to measure religiosity yield conflicting information about its influence on the reproductive health behaviors and outcomes of African American teens. In addition, most studies examining religiosity and sexual behavior are cross-sectional and cannot assess causality. For example, Leigh, Weddle, & Loewen (1988) found in their cross-sectional analysis that black females with greater religious involvement were less likely to make an early transition to sexual intercourse. However, an African American teen who is sexually active and does not report a religious affiliation or church attendance at any point in time may reflect either of the following: the teen may have been active in a church or religion before becoming sexually active (i.e., sexual behavior caused a change in religious behavior), or never having been involved in a church or religion may have influenced the decision of the teen to become sexually active (i.e., religious status influenced sexual behavior). Because of the snapshot design of cross-sectional research, most analyses of religiosity and sexual behavior do not allow us to determine whether the relationship between the two works in either of these ways or perhaps works in some other way.

Many studies found no relationship between measures of religiosity and sexual behaviors (Hanson, Myers, & Ginsburg 1987; Hofferth, Kahn, & Baldwin 1987; Billy et al. 1988; Rosenbaum & Kandel 1990; Ku, Sonenstein, & Pleck 1992; Trent 1994; Mott et al. 1996; Halpern, Udry, & Suchindran 1997; Miller et al. 1997; Doljanac & Zimmerman 1998; Ku et al. 1998; Bankole, Darroch, & Singh 1999; Dittus, Jaccard, & Gordon 1999; Blum, Beuhring, & Rinehart 2000; Manning, Longmore, & Giordano 2000; DiClemente et al. 2001; and Zavodny 2001). Several other studies based on surveys of black female adolescents only, however, found a relationship between religiosity (usually defined as frequency of church attendance) and sexual activity (Brown 1985; Leigh, Weddle, & Loewen 1988; and Murry 1996). In studies of black males and females, findings differ about the influence of religiosity for the two groups, with religiosity associated with sexual behaviors and outcomes for black females but not for black males (Day 1992; and Perkins et al. 1998).

One study examined the association between adolescent spirituality and voluntary sexual activity within a largely African American, largely female, and middle-adolescent population (15 to 17) (Holder et al. 2000). African American teens who reported spiritual interconnectedness — a proxy for spirituality defined as social support (of family or friends, or both) within a faith context — also reported a reduced likelihood of voluntary sexual activity.

■ How do we reconcile these seemingly inconsistent findings — black females are more likely than white females to report ever having engaged in intercourse, but are also more likely than whites to engage in intercourse infrequently?

What is the meaning of these two findings when considered together? Do they mean that although African American female teens are more likely to report having engaged in intercourse, they also are more likely to report having had intercourse only once? We know little about the teens who have had intercourse only once. Are these teens more likely to have had an involuntary first intercourse? What percentages of black teens have had sexual intercourse only once?

■ How do various family characteristics (both internal and external) influence teen sexual behaviors and outcomes?

Characteristics internal (such as family structure, teen-parent communication, parental monitoring, and parents' employment) and external (such as residential location) to a family are hypothesized to influence youth sexual behaviors, as follows:

- Teens from single-parent families would be more likely than teens from two-parent families to engage in high-risk sexual behaviors.
- Teens who rate highly their communication with their parents about sexual matters would be less likely to engage in high-risk sexual behaviors.
- Teens whose parents monitor their whereabouts and the persons with whom they associate would be less likely to engage in high-risk sexual behaviors.
- Teens whose parents are more gainfully employed (both in terms of earnings and whether part-time versus full-time employment) would be less likely to engage in high-risk sexual behaviors.

Because the studies conducted to test these hypotheses are either very limited in number or do not unequivocally support any of these hypotheses, further research is needed either to test or reformulate these hypotheses. For example, some studies (e.g., Li, Stanton, & Feigelman 2000) have found that African American teens who report greater parental monitoring also report a reduced likelihood of engaging in unprotected sex. Other research has found that black female teens who rate their parental monitoring as either too lax or too strict are more likely to engage in high-risk sexual behavior (e.g., Hogan & Kitagawa 1985).

Topics That Need More Study

Although the topics with inconclusive findings in the preceding subsection also need additional study, those topics were noteworthy because of the conflicting findings emanating from the existing analyses about them. The topics in this subsection differ from those in the previous subsection because some have not been studied at all (to our knowledge) and because others have been examined only infrequently.

Disabilities and Mental Health Problems

In both section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, disability is defined as a physical or mental impairment that "substantially limits" one or more major life activities, a record of such impairment, or one's being perceived as having such an impairment. While physical impairments may limit the types of sexual activity in which individuals can engage, mental impairments may alter the quality of the judgments made about sexual activity and other matters. Little research has been conducted about the repro-

ductive knowledge, behaviors, and outcomes for adolescents with disabilities (Surís, Resnick, Cassuto, & Blum 1996; and Seiler 2001), and even less has been conducted about the reproductive health of African American teens with disabilities.

Youth who do not receive needed services for physical conditions are even less likely to receive screening or services for mental health conditions (U.S. Surgeon General 2000; and Park et al. 2001). Research about African American youth and mental health problems such as depression, which may influence sexual-risk behaviors, is limited. For example, we don't know whether becoming pregnant a second time causes depression or whether being depressed results in a teen's becoming pregnant a second (or even the first) time.

Relationships

Little is known about the nature of same-sex or opposite-sex relationships among African American teens, that is, characteristics of these relationships or expectations by the teens for them.

Relationships both sexual and non-sexual between adolescent African American males and females are shaped not only by the contextual factors noted near the beginning of this document but also by the circumstances in the environments in which African Americans live. For example, the balance of power within male or female relationships is shaped by the supply of, and the demand for, African American males and females. "Supply and demand" also may influence the use of condoms or other contraceptives by black female teens who are concerned about finding an eligible African American male in an environment in which doing so is perceived to be difficult (Wingood & DiClemente 1997a). Specifically, African American females have been found less likely to use condoms if they perceived a scarcity of males, if they had a partner who resisted using condoms, and if they believed that asking a partner to use a condom implied that they believed he was unfaithful.

Gay, Lesbian, Bisexual, and Transgender Relationships. When conducted, research about the health of gay, lesbian, bisexual, and transgender persons generally is done with adults only. In addition, when such research is conducted with adolescents, it is seldom specific to African American adolescents. However, there is evidence that gay, lesbian, and bisexual adolescents are more likely than heterosexual teens to engage in sexual-risk behaviors, to engage in other health-impairing behaviors (such as substance use, suicide ideation and attempts, and violence), and to experience emotional distress (Blake, Ledsky, Lehman, Goodenow, Sawyer, & Hack 2001). These coping behaviors are often adapted by adolescents in an attempt to repress, deny, or attempt to change the same-sex feelings and attractions that may cause internal conflict (Ryan & Futterman 1997).

Because of the generally greater likelihood for African American adolescents (than for white adolescents) to engage in some of these risk behaviors, it is unclear what to expect from adolescents who simultaneously have to grapple with establishing both their racial or ethnic identity as African Americans and their sexual orientation as gay, lesbian, bisexual, or transgender. This area is clearly one in which further research is needed. For example, we have limited knowledge about how African American adolescents define themselves when they identify as gay, lesbian, bisexual, or transgender and whether they are "out." This becomes relevant when seeking to study these adolescents and affects what they might be likely to say, if surveyed.

Differences between African American and white adolescents with both same-sex and opposite-sex attractions also have not been explored. For instance, are bisexual African American adolescent males less likely than bisexual white adolescent males to

identify themselves as gay? Is bisexuality associated with the rapidly growing rate of infection with HIV among African American females? In addition, what do we know about the incidence of violence in the lives of gay, lesbian, bisexual, and transgender African American teens?

Violence and Sexual Abuse

Although the determinants of violent behavior among adolescents have been studied, the focus primarily has been on violence perpetrated by males and violence outside of the context of an interpersonal relationship. Additionally, little is known about the association between violence and other risk behaviors, especially sexual-risk behaviors, and about the factors that may motivate violent behavior, such as violent video games (Bensley & Van Eenwyk 2001). Also, some research designed to study violence does a better job of explaining violent behavior among white males than among black males (Salts, Lindholm, Goddard, & Duncan 1995).

Violence or its aftermath in the lives of adolescents can manifest in several ways within romantic or sexual relationships. Violence to individuals who are significant in teens' lives (e.g., parents or other relatives, and boyfriends or girlfriends) could impair their mental health and could be associated with engaging in high-risk sexual behaviors (such as having multiple partners or inconsistently using contraceptives). Adolescents also may experience or be threatened with violence because of their sexual orientation, as revealed in work by Russell, Franz, and Driscoll (2001) based on Add Health data.

Dating violence among adolescents in opposite-sex romantic relationships has been examined using Add Health data (Halpern, Oslak, Young, Martin, & Kupper 2001). Both physical and sexual abuse and dating violence have been associated with sexual-risk behaviors and with outcomes such as sexually related diseases or infections and pregnancy. Most of the research about the relationship between childhood sexual abuse[6] and subsequent sexual-risk behaviors, however, has been conducted using predominantly white populations or clinic samples. Similarly, much of the research about dating violence has been conducted with school-based, predominantly white populations. The few studies identified that focus on African American adolescent female populations, however, concur in finding associations between childhood sexual abuse and high-risk sexual behaviors and between dating violence and these behaviors (Wingood & DiClemente 1997a; Wingood & DiClemente 1997b; and Wingood, DiClemente, McCree, Harrington, & Davies 2001).

Media Influences

Although scholars disagree about the extent of media influence on teen sexual behaviors, there is little disagreement that the young girls who develop first into adolescents and later into adults are the targets of an aggressive media and marketplace culture bent on selling sex and sexiness (Whitehead & Ooms 1999). Music targeted to teens conveys explicit sexual context and messages (Wyatt 1997). The messages of rap and hip-hop culture, in particular, influence the values and development of African American teens (Stephens, Braithwaite, &Taylor 1998). Although both male and female teens are exposed to sexual images and messages in the media, girls are more susceptible to media appeals because they rely on the media for advice about health, fashion, diet, and relationships. In addition, the media cultivates and exploits adolescent girls' dreams and desires for love, intimacy, commitment, and the "happily ever after" life.

The "hypersexualized culture" in which teenagers are raised has made them more frank and sophisticated about sexual matters than previous generations of teens. However, this culture has not provided the nurture,

comfort, and guidance that adolescents also need during the transitional period that adolescence is (Whitehead & Ooms 1999). Although scholars do not agree about the extent and nature of media influences on teens, determining both of these would inform the interactions of parents and others with teens and would enable them to provide appropriate developmental aids.

Toward this end, Whitehead and Ooms (1999) note the following "positive" actions the media can take to reach and influence teens (pp. 26-27):

- develop media features and forums on issues that concern teenagers;
- present media images that more accurately reflect the racial and ethnic diversity as well as the variety of sizes and shapes among adolescent girls;
- present features or story lines that clearly communicate the risks and problems that teen pregnancy and childbearing pose, as well as the ways to avoid teen pregnancy; and
- focus on girls' achievements that have nothing to do with weight loss, fashion, diet, or "makeovers."

Overarching Themes

Several overarching and often overlapping topics emerge as needing further study with African American youth:

- teen sexuality — definitions, relationship to other aspects of a teen's life, and ways to incorporate it into one's life;
- same-sex preferences and behaviors;
- definitions of, and changes in definitions of, gender roles, and the relationship of these definitions to teen sexual behaviors;
- gender and racial differences among teens in the ways biological factors influence reproductive health knowledge, attitudes, behaviors, and outcomes (especially differences between male and female teens);
- age differences with respect to reproductive health knowledge, attitudes, behaviors, and outcomes; and
- socioeconomic contexts (e.g., caliber of schools, neighborhood levels of poverty, quality of local labor markets, social stressors confronting families of African American adolescents, and perceived quality of opportunity structure) for teens and the influence of these contexts on reproductive health knowledge, attitudes, behaviors, and outcomes.

The rest of this section consists of a list of topics, related to the reproductive health of African American teens, that need further study. Most of these topics relate to the individual teen. Because the themes listed earlier in this section were broad, many of the topics listed below would fit under these. All topics should be considered as they relate to understanding the reproductive health of African American teens:

What do we know about...

- ...development of racial or ethnic identity and adolescent reproductive health?
- ...the role of more "positive" (although perhaps equally flawed) motivations for teens to engage in sexual activity, for example, desire to have a baby and desire for commitment in a relationship?
- ...the relationship between teens' self-esteem and their rating of the experience of sexual intercourse?
- ...how teens prioritize protecting themselves from disease and avoiding pregnancy?

- ...predictors of consistent condom use among teens who lack high aspirations or expectations for their present or future?

- ...pregnancy resolution decisionmaking (including abortion)?

- ...decisionmaking among black teens about marriage after pregnancy or childbirth has occurred?

- ...how knowledge and intentions influence behaviors such as contraceptive use?

- ...the linkage between perceptions of consequences and sexual behaviors? (A study to get at this might look, first, at how and at what age the concrete response pattern of childhood is replaced by more formal operational responses and, then, at the relationship between this developmental process and subsequent sexual behavior.)

- ...the extent to which first intercourse is involuntary and why?

- ...the role of hormones and other physiological changes (especially those associated with early puberty) in explaining sexual-risk behaviors?

- ...sexual pathology and violence?

- ...special needs of adolescents with various disabling conditions?

- ...regional and urban or rural variations?

- ...teens not in school?

- ...the relationship between age at first intercourse and consistent condom use?

- ...African American adolescent males (e.g., knowledge about sexual issues, knowledge and attitudes about contraceptive use, characteristics distinguishing regular and irregular contraceptive or condom users from one another, how to include them in the family planning process, who their sexual partners are (given the large differences in reported sexual activity between African American males and females), predictors of age at first coitus, and determinants of adolescent fatherhood)?

- ...protective effect for African American female teens living in poor neighborhoods?

- ...contraceptive or condom availability?

- ...influence on sexual initiation of the actual (rather than perceptions of) sexual behavior of peers?

- ...impacts of interventions to modify teen sexual behaviors?

- ...correlates of repeat pregnancy?

- ...frequency of intercourse among African American teens and if it varies with the age and voluntariness of sexual debut?

CONCLUSION

This literature review has included research undertaken to identify the relationships between the attitudes, knowledge, and behaviors of African American teens with respect to their reproductive health, on one hand, and the outcomes from these behaviors that attract most of the interest in the reproductive health of African American adolescents (e.g., pregnancy, childbirth, and sexually related diseases), on the other hand. Examination of these inputs and outcomes reveals differences by race or ethnicity, which must be interpreted using a finely crafted lens. As Moore, Simms, & Betsey (1986) note in the following excerpt:

> ...Black-white differences in teenage fertility would probably not exist, in our view, if blacks currently and historically had enjoyed social and economic equality with whites; but they have not... (p. 139)

Other researchers (Freeman & Rickels 1993; and Franklin 1997) support this view and conclude that the reproductive health outcomes of African American adolescents can be influenced as much by factors not explicitly related to health (such as family structure, neighborhood environment, and perceived employment opportunities) as by health-related ones (such as access to health-care services and knowledge and use of contraceptives).

Although this review was undertaken to assess the attitudes, knowledge, and behaviors underlying the reproductive health outcomes of African American youth, it has unearthed both information and further questions about how the outcomes came to be. A major remaining question is, "Do the factors that account for the reproductive health outcomes of African American youth offer insights into how youth can successfully navigate 'coming of age' in problematic, stressful environments?" In other words, by studying the possible explanations for reproductive health outcomes, have we learned which factors support which outcomes, and which factors support other outcomes?

We think the answer is that the montage we have created can help develop this answer, if viewed in the proper light. It is our cherished hope that the perspective taken on these findings is affirmative and builds on the constructive aspects and the strengths of African American adolescents to help them achieve reproductive health.

NOTES

1. Hedonistic expectancies refer to whether sex feels good when a condom is used, whether using condoms during sex ruins the mood, whether their feelings toward using condoms are positive or negative, whether sex is natural when a condom is used, and whether they would be embarrassed to use a condom.

2. The terms "behavior" and "outcomes" are used as described in the text, although definitions may vary by study. For example, contraceptive use is described as a behavior here, although it also could be considered an outcome (of educational or service programs).

3. Availability of contraceptives is defined by whether or not sexually active respondents obtained birth control and, if so, the sources from which it was obtained (e.g., private physician, clinic, or counselor).

4. Middle class is defined as African American females in families whose incomes were at or above the national median.

5. Health locus of control is measured by attributions concerning internal and external factors that influence health. External health locus of control reflects a belief that health is largely determined by random events such as luck, chance, or fate. Internal health locus of control reflects the belief that individual choices influence health.

6. Sexual abuse is defined by Wyatt (1985) as contact of a sexual nature with a female under 18 years of age by a perpetrator five or more years older than the subject but with any relationship to the subject.

REFERENCES

Abma, J.C., A. Chandra, W.D. Mosher, L. Peterson, and L. Piccinino. 1997. "Fertility, Family Planning, and Women's Health: New Data From the 1995 National Survey of Family Growth," *Vital Health Statistics* Series 23, No. 19 (Hyattsville, MD: National Center for Health Statistics).

Abma, J.C., and F.L. Sonenstein. 2001. "Sexual Activity and Contraceptive Practices Among Teenagers in the United States, 1988 and 1995," *Vital Health Statistics* Vol. 23, No. 21 (Hyattsville, MD: National Center for Health Statistics).

Ahn, Namkee. 1994. "Teenage Childbearing and High School Completion: Accounting for Individual Heterogeneity," *Family Planning Perspectives* Vol. 26, No. 1, pp. 17-21.

Allison, Kevin W., Linda Burton, Sheree Marshall, Alina Perez-Febles, Jason Yarrington, Linda Bloch Kirsh, and Cynthia Merriwether-DeVries. 1999. "Life Experiences among Urban Adolescents: Examining the Role of Context," *Child Development* Vol. 70, No. 4, pp. 1017-1029.

American Social Health Association. 1996. "Position Statement of STD Prevention Partnership: Women and Sexually Transmitted Diseases" at http://www.ashastd.org/advocacy/wompos.html (accessed April 23, 2001).

Bankole, Akinrinola, Jacqueline E. Darroch, and Susheela Singh. 1999. "Determinants of Trends in Condom Use In the United States, 1988-1995," *Family Planning Perspectives* Vol. 31, No. 6, pp. 264-271.

Bensley, Lillian, and Juliet Van Eenwyk. 2001. "Video Games and Real-Life Aggression: Review of the Literature," *Journal of Adolescent Health* Vol. 29, pp. 244-257.

Billy, John O., Nancy S. Landale, William R. Grady, and Denise M. Zimmerle. 1988. "Effects of Sexual Activity on Adolescent Social and Psychological Development," *Social Psychology Quarterly* Vol. 51, No. 3, pp. 190-212.

Billy, John O., and J. Richard Udry. 1985. "Patterns of Adolescent Friendship and Effects on Sexual Behavior," *Social Psychology Quarterly* Vol. 48, No. 1, pp. 27-41.

Binson, Diane, M. Margaret Dolcini, Lance M. Pollack, and Joseph A. Catania. 1993. "Data from the National AIDS Behavioral Surveys: Multiple Sexual Partners Among Young Adults in High-Risk Cities," *Family Planning Perspectives* Vol. 25, No. 6, pp. 268-272.

Blake, Susan M., Rebecca Ledsky, Thomas Lehman, Carol Goodenow, Richard Sawyer, and Tim Hack. 2001. "Preventing Sexual Risk Behaviors Among Gay, Lesbian, and Bisexual Adolescents: The Benefits of Gay-Sensitive HIV Instruction in Schools," *American Journal of Public Health* Vol. 91, No. 6, pp. 940-946.

Blum, Robert W., Trisha Beuhring, and Peggy Mann Rinehart. 2000. *Protecting Teens: Beyond Race, Income, and Family Structure* (Minneapolis, MN: Center for Adolescent Health, University of Minnesota).

Blum, Robert W., Trisha Beuhring, Marcia L. Shew, Linda H. Bearinger, Renée E. Sieving, and Michael D. Resnick. 2000. "The Effects of Race/Ethnicity, Income, and Family Structure on Adolescent Risk Behaviors,"

American Journal of Public Health Vol. 90, No. 12, pp. 1879-1884.

Boggess, Scott, and Carolyn Bradner. 2000. "Trends in Adolescent Males' Abortion Attitudes, 1988-1995: Differences by Race and Ethnicity," *Family Planning Perspectives* Vol. 32, No. 3, pp. 118-123.

Bradner, Carolyn H., Leighton Ku, and Laura Duberstein Lindberg. 2000. "Older, but Not Wiser: How Men Get Information About AIDS and Sexually Transmitted Diseases After High School," *Family Planning Perspectives* Vol. 32, No. 1, pp. 33-38.

Brooks-Gunn, Jeanne, and Frank F. Furstenberg, Jr. 1989. "Adolescent Sexual Behavior," *American Psychologist* Vol. 44, No. 2, pp. 249-257.

Brown, Shirley V. 1985. "Premarital Sexual Permissiveness Among Black Adolescent Females," *Social Psychology Quarterly* Vol. 48, No. 4, pp. 381-387.

Carver, Vivien C., Mark J. Kittleson, and Ella P. Lacey. 1990. "Adolescent Pregnancy: A Reason to Examine Gender Differences in Sexual Knowledge, Attitudes and Behavior," *Health Values* Vol. 14, No. 6, pp. 24-29.

Chilman, Catherine S. 1979. "Teenage Pregnancy: A Research Review," *Social Work* Vol. 24, No. 6, pp. 492-498.

Chilman, Catherine S. 1980. "Social and Psychological Research Concerning Adolescent Childbearing: 1970-1980," *Journal of Marriage and the Family*, pp. 793-805.

Coard, Stephanie Irby, Katherine Nitz, and Marianne E. Felice. 2000. "Repeat Pregnancy Among Urban Adolescents: Sociodemographic, Family, and Health Factors," *Adolescence* Vol. 35, No. 137, pp. 193-200.

Crump, Aria Davis, Denise L. Haynie, Sigrid J. Aarons, Elissa Adair, Kathy Woodward, and Bruce G. Simons-Morton. 1999. "Pregnancy Among Urban African-American Teens: Ambivalence About Prevention," *American Journal of Health Behaviors* Vol. 23, No. 1, pp. 32-42.

Danziger, Sandra K. 1995. "Family Life and Teenage Pregnancy in the Inner-City: Experiences of African-American Youth," *Children and Youth Services Review* Vol. 17, Nos. 1 and 2, pp. 183-202.

Darroch, Jacqueline E., David J. Landry, and Selene Oslak. 1999. "Age Differences Between Sexual Partners in the United States," *Family Planning Perspectives* Vol. 31, pp. 160-167.

Davis, Richard A. 1988. "Adolescent Pregnancy and Infant Mortality: Isolating the Effects of Race," *Adolescence* Vol. 23, No. 92, pp. 899-908.

Day, Randal D. 1992. "The Transition to First Intercourse Among Racially and Culturally Diverse Youth," *Journal of Marriage and the Family* Vol. 54, November Issue, pp. 749-762.

DiClemente, Ralph J., Mark Lodico, Olga A. Grinstead, Gary Harper, Richard L. Rickman, Patricia E. Evans, and Thomas J. Coates. 1996. "African-American Adolescents Residing in High-Risk Urban Environments Do Use Condoms: Correlates and Predictors of Condom Use Among Adolescents in Public Housing Developments," *Pediatrics* Vol. 98, No. 2, pp. 269-278.

DiClemente, Ralph J., Gina M. Wingood, Richard Crosby, Catlainn Sionean, Brenda K. Cobb, Kathy Harrington, Susan Davies, Edward W. Hook III, and M. Kim Oh. 2001. "Parental Monitoring: Association With Adolescents' Risk Behaviors," *Pediatrics* Vol. 107, No. 6, pp. 1363-1368.

Dittus, Patricia J., James Jaccard, and Vivian V. Gordon. 1997. "The Impact of African American Fathers on Adolescent Sexual Behavior," *Journal of Youth and Adolescence* Vol. 26, No. 4, pp. 445-465.

Dittus, Patricia J., James Jaccard, and Vivian V. Gordon. 1999. "Direct and Nondirect Communication of Maternal Beliefs to Adolescents: Adolescent Motivations for Premarital Sexual Activity," *Journal of Applied Social Psychology* Vol. 29, No. 9, pp. 1927-1963.

Doljanac, Robert F., and Marc A. Zimmerman. 1998. "Psychosocial Factors and High-Risk Sexual Behavior: Race Differences Among Urban Adolescents," *Journal of Behavioral Medicine* Vol. 21, No. 5, pp. 451-467.

Duncan, G.J., and S.D. Hoffman. 1990. "Welfare Benefits, Economic Opportunities, and Out-of-Wedlock Births Among Black Teenage Girls," *Demography* Vol. 27, No. 4, pp. 519-535.

Dutra, Robin, Kim S. Miller, and Rex Forehand. 1999. "The Process and Content of Sexual Communication with Adolescents in Two-Parent Families: Associations with Sexual Risk-Taking Behavior," *AIDS and Behavior* Vol. 3, No. 1, pp. 59-66.

East, Patricia L. 1998. "Racial and Ethnic Differences in Girls' Sexual, Marital, and Birth Expectations," *Journal of Marriage and the Family* Vol. 60, No. 1, pp. 150-162.

Ekwo, Edem E., and Atef Moawad. 2000. "Maternal Age and Preterm Births in a Black Population," *Paediatric and Perinatal Epidemiology* Vol. 14, pp. 145-151.

English, Abigail. 2000. "Reproductive Health Services for Adolescents: Critical Legal Issues," *Adolescent Gynecology* Vol. 27, No. 1, pp. 195-211.

English, Abigail, Madlyn Morreale, and Amy Stinnett. 1999. *Adolescents in Public Health Insurance Programs: Medicaid and CHIP* (Chapel Hill, NC: Center for Adolescent Health & the Law).

Ensminger, Margaret E. 1990. "Sexual Activity and Problem Behaviors Among Black, Urban Adolescents," *Child Development* Vol. 61, No. 6, pp. 2032-2046.

Fang, Xiaoyi, Bonita Stanton, Xiaoming Li, Susan Feigelman, and Robert M. Baldwin. 1998. "Similarities in Sexual Activity and Condom Use Among Friends within Groups Before and After a Risk-Reduction Intervention," *Youth & Society* Vol. 29, No. 4, pp. 431-450.

Finer, Lawrence B., Jacqueline E. Darroch, and Susheela Singh. 1999. "Sexual Partnership Patterns as a Behavioral Risk Factor For Sexually Transmitted Diseases," *Family Planning Perspectives* Vol. 31, No. 5, pp. 228-236.

Ford, Kathleen, Woosung Sohn, and James Lepkowski. 2001. "Characteristics of Adolescents' Sexual Partners and Their Association with Use of Condoms and other Contraceptive Methods," *Family Planning Perspectives* Vol. 33, No. 3, pp. 100-105 and 132.

Forrest, Jacqueline Darroch, and Susheela Singh. 1990. "The Sexual and Reproductive Behavior of American Women, 1982-1988," *Family Planning Perspectives* Vol. 22, No. 5, pp. 206-214.

Fortenberry, J. Dennis. 1995. "Adolescent Substance Use and Sexually Transmitted Diseases Risk: A Review," *Journal of Adolescent Health* Vol. 16, No. 4, pp. 304-308.

Franklin, Donna L. 1988. "Race, Class, and Adolescent Pregnancy: An Ecological Analysis," *American Journal of Orthopsychiatry* Vol. 58, No. 3, pp. 339-354.

Franklin, Donna L. 1992. "Early Childbearing Patterns among African Americans: A Socio-Historical Perspective," in *Early Parenthood and Coming of Age in the 1990s* (New Brunswick, NJ: Rutgers University Press), pp. 55-70.

Franklin, Donna L. 1997. *Ensuring Inequality: The Structural Transformation of the African-American Family* (New York, NY: Oxford University Press).

Freeman, Ellen W., and Karl Rickels. 1993. *Early Childbearing: Perspectives of Black Adolescents on Pregnancy, Abortion, and Contraception* Vol. 192, Sage Library of Social Research (Newbury Park, CA: Sage Publications).

Fu, Haishan, Jacqueline E. Darroch, Taylor Haas, and Nalini Ranjit. 1999. "Contraceptive Failure Rates: New Estimates From the 1995 National Survey of Family Growth," *Family Planning Perspectives* Vol. 31, No. 2, pp. 56-63.

Furstenberg, Frank F., Jr., S.P. Morgan, K.A. Moore, and J.C. Peterson. 1987. "Race Differences in the Timing of Adolescent Intercourse," *American Sociological Review* Vol. 52, pp. 511-518.

Geringer, Wendy M., Suzanne Marks, Winston J. Allen, and Kay A. Armstrong. 1993. "Knowledge, Attitudes, and Behavior Related to Condom Use and STDs in a High Risk Population," *Journal of Sex Research* Vol. 30, No. 1, pp. 75-83.

Geronimus, Arline T. 1996. "Black/White Differences in the Relationship of Maternal Age to Birthweight: A Population-Based Test of the Weathering Hypothesis," *Social Science and Medicine* Vol. 42, No. 4, pp. 589-597.

Halpern, Carolyn Tucker, Selene G. Oslak, Mary L. Young, Sandra L. Martin, and Lawrence L. Kupper. 2001. "Partner Violence Among Adolescents in Opposite-Sex Romantic Relationships: Findings From the National Longitudinal Study of Adolescent Health," *American Journal of Public Health* Vol. 91, No. 10, pp. 1679-1685.

Halpern, Carolyn Tucker, J. Richard Udry, and Chirayath Suchindran. 1997. "Testosterone Predicts Initiation of Coitus in Adolescent Females," *Psychosomatic Medicine* Vol. 59, pp. 161-171.

Hanson, Sandra L., David E. Myers, and Alan L. Ginsburg. 1987. "The Role of Responsibility and Knowledge in Reducing Teenage Out-of-Wedlock Childbearing," *Journal of Marriage and the Family* Vol. 49, No. 2, pp. 241-256.

Henly, Julia R. 1993. "The Significance of Social Context: The Case of Adolescent Childbearing in the African American Community," *Journal of Black Psychology* Vol. 19, No. 4, pp. 461-477.

HIV/AIDS Surveillance Report (U.S. HIV and AIDS Cases Reported Through June 2001). 2001. Vol. 13, No. 1, Centers for Disease Control and Prevention (National Center for HIV, STD, and TB Prevention).

Hofferth, S.L., and C.D. Hayes (eds.). 1987. *Risking the Future: Adolescent Sexuality, Pregnancy, and Childbearing — Vol. 2* Working Papers and Statistical Reports (Washington, DC: National Academy Press).

Hofferth, Sandra L., Joan R. Kahn, and Wendy Baldwin. 1987. "Premarital Sexual Activity Among U.S. Teenage Women Over the Past Three Decades," *Family Planning Perspectives* Vol. 19, No. 2, pp. 46-53.

Hogan, Dennis P., Nan Marie Astone, and Evelyn M. Kitagawa. 1985. "Social and Environmental Factors Influencing Contraceptive Use Among Black Adolescents," *Family Planning Perspectives* Vol. 17, No. 4, pp. 165-169.

Kenney, Janet W. 1996. "Ethnic Differences in Risk Factors Associated with Genital Human Papillomavirus Infections," *Journal of Advanced Nursing* Vol. 23, pp. 1221-1227.

Klepinger, Daniel H., Shelly Lundberg, and Robert D. Plotnick. 1995. "Adolescent Fertility and the Educational Attainment of Young Women," *Family Planning Perspectives* Vol. 27, No. 1, pp. 23-28.

Ku, Leighton, Freya L. Sonenstein, Laura D. Lindberg, Carolyn H. Bradner, Scott Boggess, and Joseph H. Pleck. 1998. "Understanding Changes in Sexual Activity Among Young Metropolitan Men: 1979-1995," *Family Planning Perspectives* Vol. 30, No. 6, pp. 256-262.

Ku, Leighton C., Freya L. Sonenstein, and Joseph H. Pleck. 1992. "The Association of AIDS Education and Sex Education with Sexual Behavior and Condom Use Among Teenage Men," *Family Planning Perspectives* Vol. 24, No. 3, pp. 100-106.

Landry, Evelyn, Jane T. Bertrand, Flora Cherry, and Jane Rice. 1986. "Teen Pregnancy in New Orleans: Factors That Differentiate Teens Who Deliver, Abort, and Successfully Contracept," *Journal of Youth and Adolescence* Vol. 15, No. 3, pp. 259-274.

Lauritsen, Janet L. 1994. "Explaining Race and Gender Differences in Adolescent Sexual Behavior," *Social Forces* Vol. 72, No. 3, pp. 859-884.

Leigh, Geoffrey K., Karen D. Weddle, and Irene R. Loewen. 1988. "Analysis of the Timing of Transition to Sexual Intercourse for Black Adolescent Females," *Journal of Adolescent Research* Vol. 3, Nos. 3 and 4, pp. 333-344.

Leigh, Wilhelmina A. 1991. "Civil Rights Legislation and the Housing Status of Black Americans: An Overview," *Review of Black Political Economy* Vol. 19, Nos. 3 and 4, pp. 5-28.

Leigh, Wilhelmina A. 2000. *HIV/AIDS Prevention Education for African American Youth: Approaches, Issues, and Recommendations* (Washington, DC: Joint Center for Political and Economic Studies).

Li, Xiaoming, Bonita Stanton, and Susan Feigelman. 2000. "Impact of Perceived Parental Monitoring on Adolescent Risk Behavior Over Four Years," *Journal of Adolescent Health* Vol. 27, pp. 49-56.

Lindberg, Laura Duberstein, Scott Boggess, Laura Porter, and Sean Williams. 2000. *Teen Risk-Taking: A Statistical Portrait* (Washington, DC: The Urban Institute).

Manning, Wendy D., Monica A. Longmore, and Peggy C. Giordano. 2000. "The Relationship Context of Contraceptive Use At First Intercourse," *Family Planning Perspectives* Vol. 32, No. 3, pp. 104-110.

Marín, Barbara Vanoss, Karin K. Coyle, Cynthia A. Gómez, Scott C. Carvajal, and Douglas B. Kirby. 2000. "Older Boyfriends and Girlfriends Increase Risk of Sexual Initiation in Young Adolescents," *Journal of Adolescent Health* Vol. 27, pp. 409-418.

Marsiglio, W.K., and F.L. Mott. 1986. "The Impact of Sex Education on Sexual Activity, Contraceptive Use, and Premarital Pregnancy Among American Teenagers," *Family Planning Perspectives* Vol. 18, No. 4, pp. 151-162.

Martin, Joyce A., Brady E. Hamilton, and Stephanie J. Ventura. 2001. "Births: Preliminary Data for 2000" *National Vital Statistics Reports* Vol. 49, No. 5 (Hyattsville, MD: National Center for Health Statistics).

Martin, Joyce A., Brady E. Hamilton, Stephanie J. Ventura, Fay Menacker, and

Melissa M. Park. 2002. "Births: Final Data for 2000," *National Vital Statistics Reports* Vol. 50, No. 5 (Hyattsville, MD: National Center for Health Statistics).

Martin, Joyce A., Melissa M. Park, and Paul D. Sutton. 2002. "Births: Preliminary Data for 2001." *National Vital Statistics Reports* Vol. 50, No. 10 (Hyattsville, MD: National Center for Health Statistics).

Meyer, Christine Siegwarth, and Swati Mukerjee. 2000. "Black Teen Childbearing: Reexamining the Segmented Labor Market Hypothesis," *Review of Black Political Economy* Vol. 27, No. 4, pp. 27-42.

Miller, Brent C., and Kristin A. Moore. 1990. "Adolescent Sexual Behavior, Pregnancy, and Parenting: Research through the 1980s," *Journal of Marriage and the Family* Vol. 52, pp. 1025-1044.

Miller, Brent C., Maria C. Norton, Thom Curtis, Jeffrey Hill, Paul Schvaneveldt, and Margaret H. Young. 1997. "The Timing of Sexual Intercourse Among Adolescents: Family, Peer, and Other Antecedents," *Youth & Society* Vol. 29, No. 1, pp. 55-83.

Miller, Kim S., and Daniel J. Whitaker. 2001. "Predictors of Mother-Adolescent Discussions About Condoms: Implications for Providers Who Serve Youth," *Pediatrics* Vol. 108, No. 2, p. e28.

Moore, Kristin A., Jennifer Manlove, Elizabeth Terry-Humen, Stephanie Williams, Angela Romano Papillo, and Juliet Scarpa. 2001. *CTS Facts at a Glance* (Washington, DC: Child Trends, Inc.).

Moore, Kristin A., Margaret C. Simms, and Charles L. Betsey. 1986. *Choice and Circumstance: Racial Differences in Adolescent Sexuality and Fertility* (New Brunswick, NJ: Transaction Publishers).

Moore, Kristin A., and Linda Waite. 1981. "Marital Dissolution, Early Motherhood and Early Marriage," *Social Forces* Vol. 60, No. 1, pp. 20-40.

Mott, Frank L., Michelle M. Fondell, Paul N. Hu, Lori Kowaleski-Jones, and Elizabeth G. Menaghan. 1996. "The Determinants of First Sex by Age 14 in a High-Risk Adolescent Population," *Family Planning Perspectives* Vol. 28, No. 1, pp. 13-18.

Mott, Frank L., and Nan L. Maxwell. 1981. "School-Age Mothers: 1968 and 1979," *Family Planning Perspectives* Vol. 6, pp. 287-292.

Murphy, Joseph J., and Scott Boggess. 1998. "Increased Condom Use Among Teenage Males, 1988-1995: The Role of Attitudes," *Family Planning Perspectives* Vol. 30, No. 6, pp. 276-280 and 303.

Murry, Velma M. 1992. "Sexual Career Paths of Black Females: A Study of Socioeconomic Status and Other Life Experiences," *Journal of Adolescent Research* Vol. 7, pp. 4-27.

Murry, Velma M. 1996. "An Ecological Analysis of Coital Timing Among Middle-Class African American Adolescent Females," *Journal of Adolescent Research* Vol. 11, No. 2, pp. 261-279.

Neighbors, Harold W., and David R. Williams. 2001. The Epidemiology of Mental Disorders (p. 117), in Braithwaite R.L., Taylor S.E. (eds.). *Health Issues in the black community* (2d edition) (San Francisco, CA: Josey-Bass Publishers).

O'Donnell, Lydia, Carl R. O'Donnell, and Ann Stueve. 2001. "Early Sexual Initiation and Subsequent Sex-Related Risks Among Urban Minority Youth: The Reach for Health Study," *Family Planning Perspectives* Vol. 33, No. 6, pp. 268-275.

Olsen, R.J., and G. Farkas. 1990. "The Effect of Economic Opportunity and Family Background on Adolescent Cohabitation and Childbearing among Low-Income Blacks," *Journal of Labor Economics* Vol. 8, No. 3, pp. 341-362.

Park, M. Jane, Tracy M. Macdonald, Elizabeth M. Ozer, Scott J. Burg, Susan G. Millstein, Claire D. Brindis, and Charles E. Irwin, Jr. 2001. *Investing in Clinical Preventive Health Services for Adolescents* (San Francisco, CA: University of California, San Francisco, Policy Information and Analysis Center for Middle Childhood and Adolescence, and National Adolescent Health Information Center).

Perkins, D.F., T. Luster, F.A. Villarruel, and S. Small. 1998. "An Ecological, Risk-Factor Examination of Adolescents' Sexual Activity in Three Ethnic Groups," *Journal of Marriage and the Family* Vol. 60, pp. 660-673.

Piccinino, Linda J., and William D. Mosher. 1998. "Trends in Contraceptive Use in the United States: 1982-1985," *Family Planning Perspectives* Vol. 30, No. 1, pp. 4-10 and 46.

Resnick, Michael D., Peter S. Bearman, Robert W. Blum, Karl E. Bauman, Kathleen M. Harris, Jo Jones, Joyce Tabor, Trisha Beuhring, Renée E. Sieving, Marcia Shew, Marjorie Ireland, Linda H. Bearinger, and J. Richard Udry. 1997. "Protecting Adolescents from Harm: Findings from the National Longitudinal Study of Adolescent Health," *Journal of the American Medical Association* Vol. 278, pp. 823-832.

Rosenbaum, E., and D.B. Kandel. 1990. "Early Onset of Adolescent Sexual Behavior and Drug Involvement," *Journal of Marriage and the Family* Vol. 52, No. 3, pp. 783-798.

Russell, Stephen T., Brian T. Franz, and Anne K. Driscoll. 2001. "Same-Sex Romantic Attraction and Experiences of Violence in Adolescence," *American Journal of Public Health* Vol. 91, No. 6, pp. 903-906.

Ryan, Caitlin C., and Donna Futterman. 1997. "Lesbian and Gay Youth: Care and Counseling," *Adolescent Medicine: State of the Art Reviews* Vol. 2, pp. 207-374.

St. Lawrence, Janet S. 1993. "African-American Adolescents' Knowledge, Health-Related Attitudes, Sexual Behavior, and Contraceptive Decisions: Implications for the Prevention of Adolescent HIV Infection," *Journal of Consulting and Clinical Psychology* Vol. 61, No. 1, pp. 104-112.

St. Lawrence, Janet S., Ted L. Brasfield, Kennis W. Jefferson, Edna Alleyne, Robert E. O'Bannon III, and Aaron Shirley. 1995. "Cognitive-Behavioral Intervention to Reduce African American Adolescents' Risk for HIV Infection," *Journal of Consulting and Clinical Psychology* Vol. 63, No. 2, pp. 221-237.

St. Lawrence, Janet S., Ted L. Brasfield, Kennis W. Jefferson, Edna Alleyne, and Aaron Shirley. 1994. "Social Support as a Factor in African-American Adolescents' Sexual Risk Behavior," *Journal of Adolescent Research* Vol. 9, No. 3, pp. 292-310.

Salts, Connie J., Byron W. Lindholm, H. Wallace Goddard, and Stephen Duncan. 1995. "Predictive Variables of Violent Behavior in Adolescent Males," *Youth and Society* Vol. 26, No. 3, pp. 377-399.

Santelli, John S., Nancy D. Brener, Richard Lowry, Amita Bhatt, and Laurie S. Zabin. 1998. "Multiple Sexual Partners Among U.S. Adolescents and Young Adults," *Family Planning Perspectives* Vol. 30, No. 6, pp. 271-275.

Santelli, John S., Anthony C. Kouzis, Donald R. Hoover, Michele Polacsek, LaWanda G. Burwell, and David D. Celentano. 1996. "Stage of Behavior Change for Condom Use:

The Influence of Partner Type Relationship and Pregnancy Factors," *Family Planning Perspectives* Vol. 28, No. 3, pp. 101-107.

Santelli, John S., Richard Lowry, Nancy D. Brener, and Leah Robin. 2000. "The Association of Sexual Behaviors With Socioeconomic Status, Family Structure, and Race/Ethnicity Among U.S. Adolescents," *American Journal of Public Health* Vol. 90, No. 10, pp. 1582-1588.

Schuster, M.A., R.M. Bell, and D.E. Kanouse. 1996. "The Sexual Practices of Adolescent Virgins: Genital Sexual Activities of High School Students Who Have Never Had Vaginal Intercourse," *American Journal of Public Health* Vol. 86, No. 11, pp. 1570-1576.

Scott, J.W., and A. Black. 1989. "Deep Structures of African American Family Life: Female and Male Kin Networks," *Western Journal of Black Studies* Vol. 13, No. 1, pp. 17-24.

Scott-Jones, Diane, and Sherry L. Turner. 1988. "Sex Education, Contraceptive and Reproductive Knowledge, and Contraceptive Use Among Black Adolescent Females," *Journal of Adolescent Research* Vol. 3, No. 2, pp. 171-187.

Scott-Jones, Diane, and Sherry L. Turner. 1990. "The Impact of Adolescent Childbearing on Educational Attainment and Income of Black Females," *Youth & Society* Vol. 22, No. 1, pp. 35-53.

Seiler, Naomi. 2001. *TANF and Teen Parents with Disabilities* (November 2001) at http://www.clasp.org

Sexually Transmitted Disease Surveillance 1998 [1999]. Atlanta, GA: Centers for Disease Control and Prevention (Division of STD Prevention).

Sexually Transmitted Disease Surveillance 2000 [2001]. Atlanta, GA: Centers for Disease Control and Prevention (Division of STD Prevention).

Shavers Vickie L., Charles F. Lynch, and Leon F. Burmeister. 2000. "Knowledge of the Tuskegee Study and Its Impact on the Willingness to Participate in Medical Research Studies," *Journal of the National Medical Association* Vol. 92, No. 12, pp. 563-572.

Siegel, David, Marilyn J. Aten, and Maisha Enaharo. 2001. "Long-Term Effects of a Middle School- and High School-Based Human Immunodeficiency Virus Sexual Risk Prevention Intervention," *Archives of Pediatrics & Adolescent Medicine* Vol. 155, No. 10, pp. 1117-1126.

Singh, Susheela, and Jacqueline E. Darroch. 1999. "Trends in Sexual Activity Among Adolescent American Women: 1982-1995," *Family Planning Perspectives* Vol. 31, No. 5, pp. 212-219.

Sonenstein, Freya L. (ed.) 2000. *Young Men's Sexual and Reproductive Health — Toward a National Strategy: Framework and Recommendations* (Washington, DC: The Urban Institute).

Sonenstein, Freya L., Leighton Ku, Laura Duberstein Lindberg, Charles F. Turner, and Joseph H. Pleck. 1998. "Changes in Sexual Behavior and Condom Use Among Teenaged Men: 1988 to 1995," *American Journal of Public Health* Vol. 88, No. 6, pp. 956-959.

Stanton, Bonita F., Xiaoming Li, Jennifer Galbraith, Susan Feigelman, and Linda Kaljee. 1996. "Sexually Transmitted Diseases, Human Immunodeficiency Virus, and Pregnancy Prevention," *Archives of Pediatrics & Adolescent Medicine* Vol. 150, No. 1, pp. 17-24.

Stanton, Bonita F., Xiaoming Li, Izabel Ricardo, Jennifer Galbraith, Susan

Feigelman, and Linda Kaljee. 1996. "A Randomized, Controlled Effectiveness Trial of an AIDS Prevention Program for Low-Income African-American Youths," *Archives of Pediatrics & Adolescent Medicine* Vol. 150, No. 4, pp. 363-372.

Stephens, Torrance, Ronald L. Braithwaite, and Sandra E. Taylor. 1998. "Model for Using Hip-Hop Music for Small Group HIV/AIDS Prevention Counseling with African American Adolescents and Young Adults," *Patient Education and Counseling* Vol. 35, pp. 127-137.

Stevens-Simon, Catherine, Lisa Kelly, and Dena Singer. 1999. "Preventing Repeat Adolescent Pregnancies with Early Adoption of the Contraceptive Implant," *Family Planning Perspectives* Vol. 31, No. 2, pp. 88-93.

Strunin, Lee. 1999. "Alcohol Use and Sexual Behavior Among 'Black' Adolescents," *Substance Use & Misuse* Vol. 34, No. 12, pp. 1665-1687.

Sugland, Barbara W., Anne K. Driscoll, Jennifer Manlove, and Angela Papillo. 2002. "Community Opportunity and Odds of a Teen Birth" (article in submission to *Social Forces*).

Sugland, Barbara W., Jennifer Manlove, and Angela D. Romano. 1997. "Perceptions of Opportunity and Adolescent Fertility: Operationalizing Across Race/Ethnicity and Social Class," Paper presented at the 1997 annual meeting of the Population Association of America, March 27-29, Washington, DC (available through Child Trends, Inc., Washington, DC).

Sugland, Barbara W., Kathleen J. Wilder, and Anita Chandra. 1997. *Sex, Pregnancy and Contraception: A Report of Focus Group Discussions with Adolescents* (Washington, DC: Child Trends, Inc.).

Surís, Joan-Carles, Michael D. Resnick, Nadav Cassuto, and Robert W. Blum. 1996. "Sexual Behavior of Adolescents with Chronic Disease and Disability," *Journal of Adolescent Health* Vol. 19, No. 2, pp. 124-131.

Tracking the Hidden Epidemics: Trends in STDs in the United States. 2000. Centers for Disease Control and Prevention at http://www.cdc.gov/nchstp/dstd/Stats_Trends/Trends2000.pdf

Trent, Katherine. 1994. "Family Context and Adolescents' Fertility Expectations," *Youth & Society* Vol. 26, No. 1, pp. 118-137.

Tucker, Sandra K. 1991. "The Sexual and Contraceptive Socialization of Black Adolescent Males (Black Adolescent Sexuality)," *Public Health Nursing* Vol. 8, No. 2, pp. 105-112.

United Nations International Conference on Population and Development (UN ICPD). 1994. Programme of Action of the UN ICPD.

Definition of reproductive health at http://www.iisd.ca/linkages/Cairo/program/p07002.html (accessed May 18, 2001).

Definition of adolescent reproductive health at http://www.iisd.ca/linkages/Cairo/program/p07014.html (accessed May 23, 2001).

Definition of reproductive health care at http://www.iisd.ca/linkages/Cairo/program/p07004.html (accessed May 23, 2001).

U.S. Census Bureau. n.d. *The Social and Economic Status of the Black Population in the United States: An Historical View, 1790-1978* Current Population Reports, Special Studies, Series P-23, No. 80.

U.S. Census Bureau. 2000a. *Statistical Abstract of the United States: 2000* (120th edition) (Washington, DC: U.S. Government Printing Office).

U.S. Census Bureau. 2000b. *Census 2000 Summary File 1 (SF-1) 100-Percent Data* at http://factfinder.census.gov (accessed August 14, 2002).

U.S. Surgeon General. 2000. *Report of the Surgeon General's Conference on Children's Mental Health: A National Action Agenda* (Washington, DC: U.S. Department of Health and Human Services) at http://www.surgeon-general.gov/cmh/childreport.htm (accessed September 19, 2001).

Upchurch, Dawn M., Carol S. Aneshensel, Clea A. Sucoff, and Lené Levy-Storms. 1999. "Neighborhood and Family Contexts of Adolescent Sexual Activity," *Journal of Marriage and the Family*, Vol. 61 No. 4, pp. 920-933.

Upchurch, Dawn M., Lené Levy-Storms, Clea A. Sucoff, and Carol S. Aneshensel. 1998. "Gender and Ethnic Differences in the Timing of First Sexual Intercourse," *Family Planning Perspectives* Vol. 30, No. 3, pp. 121-127.

Ventura, Stephanie J., T.J. Mathews, and Brady E. Hamilton. 2001. "Births to Teenagers in the United States, 1940-2000," *National Vital Statistics Reports* Vol. 49, No. 10 (Hyattsville, MD: National Center for Health Statistics).

Ventura, Stephanie J., W.D. Mosher, Sally C. Curtin, Joyce C. Abma, and Stanley Henshaw. 2001. "Trends in Pregnancy Rates for the United States, 1976-97: An Update," *National Vital Statistics Reports* Vol. 49, No. 4 (Hyattsville, MD: National Center for Health Statistics).

Walter, Heather J., Roger D. Vaughan, Bruce Armstrong, Roberta Y. Krakoff, Lisa M. Maldonado, Lorraine Tiezzi, and James F. McCarthy. 1995. "Sexual, Assaultive, and Suicidal Behaviors Among Urban Minority Junior High School Students," *Journal of American Academic Child Adolescent Psychiatry* Vol. 34, No. 1, pp. 73-80.

Weddle, Karen D., Patrick C. McKenry, and Geoffrey K. Leigh. 1988. "Adolescent Sexual Behavior: Trends and Issues in Research," *Journal of Adolescent Research* Vols. 3 and 4, pp. 245-257.

Whitehead, Barbara Dafoe, and Theodora Ooms. 1999. *Goodbye to Girlhood: What's Troubling Girls and What We Can Do About It* (Washington, DC: The National Campaign to Prevent Teen Pregnancy).

Wingood, Gina M., and Ralph J. DiClemente. 1997a. "Child Sexual Abuse, HIV Sexual Risk, and Gender Relations of African-American Women," *American Journal of Preventive Medicine* Vol. 13, No. 5, pp. 380-384.

Wingood, Gina M., and Ralph J. DiClemente. 1997b. "The Effects of an Abusive Primary Partner on the Condom Use and Sexual Negotiation Practices of Young Adult African-American Women," *American Journal of Public Health* Vol. 87, pp. 1016-1018.

Wingood, Gina M., Ralph J. DiClemente, Donna Hubbard McCree, Kathy Harrington, and Susan L. Davies. 2001. "Dating Violence and the Sexual Health of Black Adolescent Females," *Pediatrics* Vol. 107, No. 5, p. e72.

Wyatt, Gail Elizabeth. 1985. "The Sexual Abuse of Afro-American and White American Women in Childhood," *Child Abuse and Neglect* Vol. 9, pp. 507-519.

Wyatt, Gail Elizabeth. 1997. *Stolen Women: Reclaiming Our Sexuality, Taking Back Our Lives* (New York, NY: John Wiley & Sons, Inc.).

Young, Ellie Wright, Larry Cyril Jensen, Joseph A. Olsen, and Bert P. Cundick. 1991.

"The Effects of Family Structure on the Sexual Behavior of Adolescents," *Adolescence* Vol. 26, No. 104, pp. 977-986.

Youth Risk Behavior Surveillance — United States 1993 [1995]. *Morbidity and Mortality Weekly Report (CDC Surveillance Summaries)* Vol. 44, No. SS-1 (March 24).

Youth Risk Behavior Surveillance — United States 1995 [1996]. *Morbidity and Mortality Weekly Report (CDC Surveillance Summaries)* Vol. 45, No. SS-4 (September 27).

Youth Risk Behavior Surveillance — United States 1997 [1998]. *Morbidity and Mortality Weekly Report (CDC Surveillance Summaries)* Vol. 47, No. SS-3 (August 14).

Youth Risk Behavior Surveillance — United States 1999 [2000]. *Morbidity and Mortality Weekly Report (CDC Surveillance Summaries)* Vol. 49, No. SS-5 (June 9).

Youth Risk Behavior Surveillance — United States 2001 [2002]. *Morbidity and Mortality Weekly Report (CDC Surveillance Summaries)* Vol. 51, No. SS-4 (June 28).

Zavodny, Madeline. 2001. "The Effect of Partner's Characteristics on Teenage Pregnancy and Its Resolution," *Family Planning Perspectives* Vol. 33, No. 5, pp. 192-199 and 205.

Zelnik, Melvin, and John F. Kantner. 1980. "Sexual Activity, Contraceptive Use and Pregnancy Among Metropolitan-Area Teenagers: 1971-1979," *Family Planning Perspectives* Vol. 12, No. 5, pp. 230-237.

Zelnik, Melvin, and Farida K. Shah. 1983. "First Intercourse Among Young Americans," *Family Planning Perspectives* Vol. 15, No. 2, pp. 64-70.

Appendix: Advisory Work Group

Alwyn Cohall, M.D.
Mailman School of Public Health,
Columbia University

Debra Y. Delgado
The Annie E. Casey Foundation

David W. Holder, M.P.H., M.D.
Martha Eliot Health Center

Robert L. Johnson, M.D., F.A.A.P.
University of Medicine and Dentistry
of New Jersey
New Jersey Medical School

Cassandra Joubert, Sc.D.
Ruth Mott Foundation

Fayneese Miller, Ph.D.
Brown University

Julia R. Scott,
National Black Women's Health Project

Denese Shervington, M.P.H., M.D.
Louisiana Office of Mental Health

Barbara W. Sugland, M.P.H., Sc.D.
Center for Applied Research &
Technical Assistance (CARTA, Inc.)

Collaborators at University of California - San Francisco

Antonia Biggs, Ph.D.
Center for Reproductive Health
Research & Policy

Claire Brindis, Dr.P.H.
Center for Reproductive Health
Research & Policy

Anne Driscoll, Dr.P.H.
Institute for Health Policy Studies

Empowering People Through
Information and Technology

1090 Vermont Ave., N.W. Suite 1100
Washington, D.C. 20005-4928, Tel. 202-789-3500, fax 202-789-6390
www.jointcenter.org