Beginning Too Soon: Adolescent Sexual Behavior, Pregnancy, and Parenthood

Executive Summary

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Preface

This is an overview of two related reports that describe, respectively, recent research findings regarding adolescent sexual and fertility behavior and intervention programs aimed at reducing adolescent pregnancy and parenthood in the United States. The reports were commissioned by the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. The reports emphasize original studies conducted in the late 1980s and 1990s that have high research standards with respect to study design, sampling, and measurement, and that employ multivariate analyses. Detailed explanations and elaborations which can not be included here because of space limitations are provided in the individual reports: "Adolescent Sex, Contraception and Childbearing: A Review of Recent Research" and "Adolescent Pregnancy Programs: Interventions and Evaluations." Copies of the reports are available from Child Trends, Inc.

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Introduction

Infants and young children are totally dependent on nurturance from their parents and/or other caregivers. Parenting is demanding because meeting the needs of children, let alone maximizing their potential, requires personal, social, and economic resources. Thus, becoming a parent too soon, before adult abilities are attained and before the necessary resources are acquired, usually poses problems for children and their young parents. Because of their need for assistance from others, early parenthood represents a drain on the resources of their extended families and the larger society.

For several decades, concerns have been mounting in the United States about adolescent sexual behavior, pregnancy, and parenthood. These concerns have been intensified by several realizations. First, rates of adolescent births in the United States are much higher--from two to ten times higher--than in other industrialized societies. Second, although teen birth rates are lower now than they were after World War II, there have been increases in rates of adolescent childbearing in the U.S. since the mid 1980's; birth rates among teens currently are nearly one-quarter higher than they were in 1986. Third, adolescent childbearing outside of marriage has been increasing for several decades and at a very rapid pace. Of all births to young women under age 20, only 15 percent were nonmarital in 1960, compared to 30 percent in 1970, 48 percent in 1980, and 71 percent in 1992. Another reason for attention to the issue of adolescent pregnancy and birth is that the overwhelming majority of adolescents do not want to become parents this soon. Among all pregnancies to females under age 20, the proportion that were unintended was 84 percent in 1990. Moreover, there is increasing concern about adolescent sexual intercourse per se, not only because it leads to unintended pregnancy and parenthood, but also because sexually active adolescents have extremely high rates of sexually transmitted infections and are at risk of exposure to the human immunodeficiency virus (HIV). Finally, initial sexual experiences are often coercive. Indeed, before age 15, a majority of first intercourse experiences among females are reported to be non-voluntary. Coercion is not only a problem in its own right, but is presumed to be associated with poor protection from pregnancy and sexually transmitted infections.

Review of Recent Research

The process leading to teenage pregnancy involves a sequence of turning points or events. Our review of research evidence in the full research report is organized around these turning points and events, including sexual intercourse, use of contraception, pregnancy, and pregnancy resolution. The flow chart shown in Figure 1 presents these transitions graphically. Interventions can be implemented at any or all of these stages. The initial and primary risk behavior for adolescent pregnancy and parenthood is having sexual intercourse, including the frequency with which adolescents have sex. Among sexually active adolescents, the degree of pregnancy risk depends largely on their frequency of intercourse and consistent use of effective contraceptives. As shown in Figure 1, sexually active adolescents who do not consistently use contraceptives will usually become pregnant and have to face potentially life altering decisions about resolving their pregnancy

through abortion, adoption, or parenthood. A summary of recent research about each of these issues is provided below.

Sexual Intercourse

Most young people in the United States begin having sexual intercourse during their teenage years. Current data suggest that slightly more than half of females and nearly two-thirds of males have had intercourse by their 18th birthday. In the last several decades there have been substantial increases in the proportion of adolescents who report sexual activity at each year of age. Increases have been greatest among females, especially among young females. Thus, more than twice as many females ages 14, 15, and 16 are sexually active now, compared with young women of the same ages just 15 years ago. Moreover, on average, there are seven years for women and ten years for men between first intercourse and first marriage. This creates a substantial interval of risk for non-marital pregnancy.

Initial sexual intercourse experiences are usually important (and sometimes defining) events in the lives of young people. Early timing of sexual initiation is important for two reasons. First, the younger the age of first sexual intercourse, the more likely that the experience was coercive, and forced sexual intercourse is related to long lasting negative effects. Secondly, the younger the age of first sexual intercourse, the greater the risk of unwanted pregnancy and sexually transmitted infections. This is because those who begin having sex at young ages are generally exposed to risk for a longer time, are less likely to use contraception, generally have more sexual partners, and tend to engage in higher risk sexual behaviors such as alcohol or drug use prior to sexual intercourse and having multiple concurrent sexual partners. It must be recognized as well that early intercourse is frequently not voluntary. Among females, as noted above, the majority of initial sexual experiences that occur at age 14 or younger are non-voluntary.

Many variables are related to the timing of first sexual intercourse. On average, males begin having sex at younger ages than females, and blacks begin at younger ages than whites or Hispanics. There are also strong effects of developmental characteristics, such as early puberty and high levels of androgen hormones (i.e., testosterone), which are associated with increased adolescent sexual behavior. Dating, and especially early steady dating, provides a context for many adolescent sexual experiences. Unconventional psychosocial attitudes and behaviors--as reflected by early use of alcohol, tobacco and other drugs, school problems, delinquency, and physical aggression--are associated with earlier onset of adolescent sexual intercourse. Parents' marital disruption and living with a single parent have been found to be associated with earlier onset of adolescent sexual behavior. This finding probably reflects a variety of factors, including lower family incomes, disadvantaged neighborhoods, lesser supervision, parental modeling, and more permissive attitudes in single parent families. Similarly, having sexually active siblings and friends is strongly related to a younger age at the onset of sexual activity. On the other hand, having better educated parents, supportive family relationships, parental supervision, sexually abstinent friends, good school grades and attending church frequently are all related to later onset of sexual intercourse.

In addition to families and schools, neighborhoods provide an environment within which adolescents make decisions related to sexual activity. The effects of the neighborhood environment, such as the community economic base and labor market conditions for women, account for a substantial portion of the racial differences among blacks and whites in the timing of first sexual intercourse. Thus, in one study, the overall risk of non-marital first intercourse was reported to be 50 percent higher for black teens than white teens, even controlling for individual and family level factors such as mothers' education and marital status and respondents' education and religious affiliation. The addition of contextual variables such as median family income, female unemployment, and female full-time employment reduced the racial difference in risk of first non-marital intercourse to 36 percent. Net of individual and family level factors, the only contextual variable found to be significant was female full-time employment in the community, which was related to a greater risk of first sex.

Contraception

Effective contraceptive use generally requires planning and preparation prior to having sexual intercourse. This is often a problem for adolescents because young people usually report that their first sexual intercourse "just happened" and that they were not planning to have sex at the time. Consequently, condoms, which require the least amount of advance planning, are used more than any other method of contraception at first sexual intercourse, but about 35 percent of first intercourse experiences take place without the use of any contraception at all.

Avoiding pregnancy after the first (often unplanned) sexual intercourse experience requires consistent use of an effective contraceptive method. This can be additionally problematic for adolescents because young adolescents tend to be less deliberative and rational about sexual decisions than older persons, and they also tend to have sexual intercourse more sporadically. Consequently, approximately one-fifth of adolescents report that they did not use any effective contraceptive at their last intercourse experience. Seven in ten pregnancies to adolescent teens occur to teens who were not using any method of contraception when they became pregnant.

A major challenge to preventing pregnancies is the fact that so many adolescents delay seeking contraceptive services until some months after they have become sexually active. The delay between first intercourse and obtaining contraceptive services has been found to average almost one year in some studies. Procrastination, not thinking that they could get pregnant or being ambivalent about sex, contraception and pregnancy, and worrying about confidentiality are the reasons sexually active adolescents most often give for not seeking contraceptive services sooner. The year after the initiation of sexual intercourse is a time of high risk for unintended pregnancy, and in one study about one-third of adolescents made their first visit to a clinic because they suspected that they already were pregnant. Thus, helping adolescents to plan for effective contraception (preferably before, but at least soon after initiating sex) could be an important strategy for reducing unintended pregnancy.

There are developmental patterns such that the older adolescents are when they first have intercourse, the more likely they are to use contraception. Stronger preferences to avoid pregnancy

and higher educational aspirations and achievement are related to earlier and more consistent contraceptive use. Over time, sexually active adolescents, especially those in longer-term couple relationships, increasingly use the pill.

Pregnancy Resolution

When adolescents become unintentionally pregnant they face several difficult choices. About equal proportions of pregnant adolescents have unintended births (37 percent) or induced abortions (35 percent), with smaller percentages of adolescent pregnancies ending in miscarriages or intended births (about 14 percent each). Given their young age and the future implications of these choices, relatives, partners, and friends would be expected to play an important role in adolescents' pregnancy resolution decisions. Studies confirm that parents (especially mothers), and to a lesser extent friends and sexual partners, have significant influences on what pregnant adolescents decide to do. Abortion is a more likely outcome when a pregnant adolescent has a poor relationship with the male who impregnated her. Research findings are inconsistent about whether adoption is influenced by the relationship with the baby's father. Although data on adoption among teens is not available, among never-married women of all ages who have a birth, adoption is a relatively uncommon outcome. Currently, only about two percent of premarital births are relinquished for adoption.

Decisions about abortion, adoption, and parenthood are influenced not only by adolescents' perceptions of what their parents and peers think about their actions, but also by opportunities in their communities. For example, better employment opportunities have been found to be associated with a lower probability of childbearing. While research is inconsistent regarding an hypothesized association between welfare benefit levels at the state level and adolescent birth rates, higher state-level funding for family planning services is associated with lower state-level birth rates. Adolescents who terminate their pregnancies or relinquish their babies for adoption tend to come from higher socioeconomic backgrounds, to have done well in school, and to have higher educational aspirations. In general, adolescents from more advantaged families and communities are less likely to have a birth. In other words, parenthood tends to be avoided by pregnant adolescents who have more concrete and attainable future plans.

With respect to characteristics that differentiate women according to their pregnancy resolution choices, researchers find that those who choose adoption are more likely to be younger, expect to have fewer children, and are less likely to have received AFDC prior to pregnancy. The strongest predictor of choosing to abort is a woman's attitude about abortion. Also, teen females with higher self-esteem have been found to be more likely to terminate their pregnancy, as are teens in states where there is greater access to abortion services. Given pregnancy, the likelihood of marriage versus other alternatives (i.e., abortion or single parenthood) is lower for teens who are Jewish and those with highly educated mothers. Among those with premarital conceptions who gave birth to their first child, young teens and teens with less than a high school education were less likely to marry prior to the birth. However, teen females who live in an intact family are more likely to marry prior to the birth. In general, the fathers tend to be older than the teen mothers. Indeed, two-thirds of the fathers of babies born to teen mothers under age 20 are themselves age 20 or older.

In summary, recent trends in teen pregnancy and childbirth are the results of many factors. Increasing teen birth rates are not due to higher pregnancy rates among sexually active teens, but to increasing levels of sexual activity and decreasing rates of abortion. Once higher levels of sexual activity are taken into account, pregnancy rates are actually declining. Moreover, the propensity to marry is less common. Also, few teens place their babies up for adoption and the proportion who do choose adoption has declined sharply over recent decades.

Review of Prevention Programs

Many concerned parties, including policy makers, tax payers, parents, scholars and program providers, want to identify programs that could bring about large reductions in unintended adolescent pregnancy and parenthood. For at least two decades now, varied approaches to prevention and intervention have been tried in the United States. As suggested by the conceptual model in Figure 1, there are several points at which prevention programs can be targeted. Interventions have been attempted to delay the initiation of sexual activity, to improve contraceptive use among sexually active adolescents, to (in some cases) influence pregnancy resolution decisions among those who become pregnant, and to reduce or delay subsequent births. Some programs are less direct, focusing on issues like life options, in the belief that adolescents who perceive better educational, occupational, and economic opportunities for themselves will seek to postpone parenthood. Prevention programs are often school-based because students are an accessible and somewhat captive audience; however, programs are also based in clinics and agencies, and sometimes they are based in churches, provided directly to families, or embedded in a community wide intervention context that includes all of the above.

Unfortunately, no evaluations point to remarkably successful adolescent pregnancy prevention programs that stand out as having large, sustained and clearly documented impacts. Most of the programs have been small, short-term projects implemented without a theoretical basis or even a clear operational model, without a design based on prior scientific studies, and without rigorous evaluations. Because there usually is not a scientifically rigorous evaluation plan, it is unclear whether many programs are effective. Some programs appear to be effective, but more often no effects have been shown.

Family life or sex education in the public schools, which traditionally has consisted largely of providing factual information at the secondary school level, is the most general or pervasive approach to preventing pregnancy among adolescents. The effects of sex education as offered in the public schools continue to be widely debated, however. Recent perspectives range from the view that school sex education is wrong or has simply failed, to the view that too little is being provided too late. The evidence shows that traditional sex education, as it has been offered in the United States, increases sexual knowledge, but it has little or no effect on whether or not teens initiate sex or use contraception. Consequently, traditional school sex education usually is found to be unrelated to adolescent pregnancy or births. The most consistent and clear finding is that sex education does not cause adolescents to initiate sex when they would not otherwise have done so.

School-based clinics, which typically provide comprehensive adolescent health services but not necessarily contraceptive services, have not shown convincing evidence of success at reducing adolescent pregnancies or births. One apparent exception, the *Self Center* in Baltimore, Maryland, linked school-based sex education with the provision of contraceptive services at a nearby facility. However, school-based programs do not reach older non-teen partners or school drop-outs.

Studies show a relationship between the presence and use of contraceptive services by adolescents, and lower pregnancies and birth rates. Family planning services reduce unwanted births by preventing pregnancy and, in some instances, by providing access to abortion.

Compared with traditional knowledge-based sex education, more focused behavioral-skills types of sex education have recently shown more promising results, for example, *Postponing Sexual Involvement* and *Reducing the Risk*. Based on social learning theory, skills-oriented prevention programs combine the traditional informational approach with skill building activities. These are active rather than passive strategies, that help adolescents to personalize sexual issues and develop specific negotiation and refusal skills needed in sexual relations. Activities are used that teach about social and media pressures, modeling, and communication/negotiation with respect to both sexual behavior and contraceptive use. Such programs have been shown to result in short delays in onset of sexual intercourse among some groups, and to have moderate effects on improving contraceptive protection among those who are sexually active.

Programs that focus on educational and employment outcomes do not generally examine sexual and fertility outcomes. Several studies, however, provide evidence suggesting that such approaches may be helpful in preventing adolescent pregnancy or childbearing. Specifically, children who attended the enriched *Perry Pre-School Program* were found to have lower birth rates more than a dozen years later; and high school youth in the intensive Philadelphia site of the *Quantum Opportunities Program* experienced lower birth rates. Finally, evidence from the *School/Community Program for Sexual Risk Reduction Among Teens* in Denmark, South Carolina indicates that a community-wide education, services, and media campaign can reduce adolescent fertility.

Conclusions

Adolescence is usually too young an age to become a parent in the contemporary United States. This is largely because raising a child takes patience and resources that are acquired in advanced societies gradually with age, education, and experience. Moreover, among adolescents, it is those who are least well prepared to nurture and raise a child who are most likely to become parents. That is, adolescents who have substance abuse and behavior problems, who are not doing well in school, who have low aspirations for their own educational attainment, and who live in economically disadvantaged families and communities tend to initiate sexual intercourse at younger ages, contracept less effectively, and have unintended pregnancies. When pregnancy occurs, higher risk adolescents are also the most likely to bear children, particularly outside of marriage.

Research in the 1990s has recognized the complexity of the problem of adolescent pregnancy and the multiplicity of factors that place adolescents at risk. Recent studies have highlighted several related issues in particular. One of the most noted changes in research emphasis in the 1990s is that there is greater concern about higher risk sexual behaviors. Current research also tends to focus on studying virgin/nonvirgin status, to consider the early age of onset of sexual intercourse, non-voluntary sex, the number and characteristics of sexual partners, the frequency of sex, and the use of alcohol and other drugs that increase risky sexual behavior. While earlier studies tended only to examine the use or non-use of condoms, current research regarding contraceptive use has sharpened the question, examining the use of contraception at first and most recent intercourse, as well as on consistent contraceptive use. Given the high incidence of sexually transmitted infections, research has focussed on strategies to prevent both pregnancy and sexually transmitted infections.

The long-term effects of early interventions designed to enhance school readiness and academic achievement only rarely have been assessed for their impact on early childbearing. The *Perry Pre-School Program* is one of few studies to examine long-term impacts. Such research is costly, but addresses an important question about which we currently know very little.

Current research also has made use of more diverse and representative samples. This is most evident with longitudinal national surveys of adolescent males' sexual and fertility-related behaviors, begun in 1988, which have added substantially to our understanding. Increasing attention is being paid to Hispanic youth, who also need to be studied as a unique group. Additional studies are needed on Hispanic subgroups (e.g. Mexicans and Puerto Ricans), as well as other immigrant subgroups.

Further research is needed to add to our understanding of key antecedents of the timing of first sexual intercourse and adolescents' early and consistent use of effective contraception. For example, media messages about adolescent sexual behavior are pervasive whereas contraceptive media messages are rare; both types of media messages are potentially influential. Media effects on teens' sexual behavior are poorly understood, however, partly because little rigorous research has been conducted on this topic.

Many kinds of adolescent pregnancy prevention programs have been implemented in recent years. Unfortunately, many of them have had very limited evaluations or, if evaluated credibly, they tend to show only slight or moderate effects. There is a great need for prevention programs that have clear, concrete, and attainable objectives, such as delaying sexual involvement and increasing contraceptive use. Programs need to be established on the foundation of previous research and theory, and promising approaches should incorporate a scientifically rigorous evaluation plan.

For example, recent evidence from behavioral skills-oriented sex education programs suggest the practical utility of emphasizing two fundamental and specific messages in a social learning theory paradigm. First, adolescents should delay sexual intercourse and, second, when adolescents become sexually active they should consistently use an effective method of contraception. Research evidence has also shown that the dual message encouraging adolescents to delay intercourse, but to

use contraception if and when they have sex, is more effective than approaches that focus solely on abstinence or solely on contraception. The younger adolescents are when they begin having sex, the greater their risks of negative consequences, and early sexual intercourse experiences often are psychologically or physically coercive. Evidence suggests that by learning more about social pressures, negotiation, and refusal skills, many adolescents will be capable of postponing their sexual involvement.

Adolescents who begin having sexual intercourse need to understand the importance of using an effective contraceptive every time they have sex. This requires convincing sexually active teens who have never used contraception to do so. In addition, sexually active teens who sometimes use contraceptives need to use them more consistently (every time they have sex) and use them correctly. Finally, sexually active teens need to take actions to prevent sexually transmitted infections, as well as unintended pregnancy.

Another body of mostly consistent evidence and theory shows that family disadvantage, poverty, low educational aspirations, and limited economic opportunities are related to earlier unprotected sexual intercourse, unintended pregnancy, and unmarried adolescent parenthood. At the contextual or social level, these factors often reflect limited future opportunities or life options. Life options (or opportunity cost) theory suggests that adolescents engage in risky sexual behaviors because they believe that they have little to lose. Adolescents who experience educational and job success and perceive positive future opportunities for themselves should have stronger motivation for avoiding early pregnancy and parenthood. To some extent interventions that focus on enhancing educational achievement and providing apprenticeships and employment appear to be effective, though the research base available to assess causality is fairly thin. More long-term rigorous studies of these types of interventions should be a high priority.

Another limit of current interventions is their lack of attention to males. The majority of interventions are female-focussed, and either fail to include males in the intervention, or fail to consider the role of males in teen pregnancy at all. In addition, sexual coercion has been linked with early sexual activity among females; however, few programs take this into account in designing interventions. It is difficult to prevent pregnancy by increasing a female's knowledge and motivation to prevent pregnancy if the female is becoming pregnant as a result of a non-voluntary sexual experience.

Major reductions in adolescent pregnancy and childbearing at the national level are not likely to occur without more systematic, sustained, and coordinated approaches to program design and implementation. While small-scale, short-term, *ad hoc* interventions can be helpful for identifying and developing improved strategies, carefully documented demonstration projects accompanied by rigorous evaluations are greatly needed. The strongest possible evidence of the effectiveness of pregnancy prevention programs will come from randomized experimental designs. In some instances, quasi-experimental designs, without random assignment, might be justified. Whenever possible, evaluation designs should allow for the comparison of the relative effects of various program components. National programmatic efforts need to be based on the most promising

theoretical models, including the life options and social learning theories outlined above. Evidence from existing program evaluations suggests that prevention models should build on these theories, employ intervention strategies consistent with them, and use systematic and scientifically rigorous evaluation designs to assess their effectiveness.

There is no shortage of opinions as to what will reduce adolescent pregnancy, nor is there a shortage of program models or model programs. What is in short supply is objective, empirical evidence identifying programs and policies that reduce pregnancy and childbearing among teenagers, the components of the program or policy that are effective, and the populations among whom particular approaches have impacts.

Figure 1