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Prepared at the Request of Senator Dede Alpert with Funding Provided by The David and Lucile Packard Foundation

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Contents

Introduction

Teen pregnancy is not a new issue. There have always been young women, their partners, and their families facing difficult life decisions because of an unintended pregnancy. Until recently, the problem of teen pregnancy and childbearing was considered a private matter, taken care of within the immediate family. Over the past few decades, however, this issue has become a public concern, generating a great deal of attention in California and across the United States. Increasing awareness of the social and economic consequences of teen pregnancy has led to consensus among policymakers, researchers, advocates, and the public that teen pregnancy and childbearing is a significant social problem. It has become linked to an array of other critical social concerns, including welfare dependency, child health and well-being, out-of-wedlock births, responsible fatherhood, child abuse and neglect, school failure, and workforce development (National Campaign to Prevent Teen Pregnancy 2002). Despite the promising trends of the 1990s, there is strong agreement that teen pregnancy rates are still too high and that reducing the number of births to teens remains an important policy goal.

This report provides an overview of teen pregnancy and childbearing based on the current research literature and focus groups with youth throughout California. Specifically, it addresses the following questions:

- What are the current trends in adolescent sexual behavior, pregnancy, and childbearing in the United States and in California?
- What are the causes of adolescent sexual activity, pregnancy, and childbearing?
- What are the consequences of teen childbearing for the mother, father, and infant? What are the economic costs to society?
- What efforts have been made in California to address this issue?
- What do California youth think about adolescent sexuality and teen pregnancy?

Finally, the report offers a variety of potential policy directions for consideration by state policymakers and other stakeholders.

An Introduction to California's Teens

The adolescent population is growing across the United States, and the greatest growth will take place in the West. California is experiencing what some have called a "youthquake," as the number of teens ages 10 to 19 is increasing from approximately 4.4 to 6 million, a remarkable 34% over ten years (1995-2005) (Clayton, Brindis et al. 2000). This demographic shift has numerous policy implications, particularly since much of the growth is occurring in communities where need is the greatest.

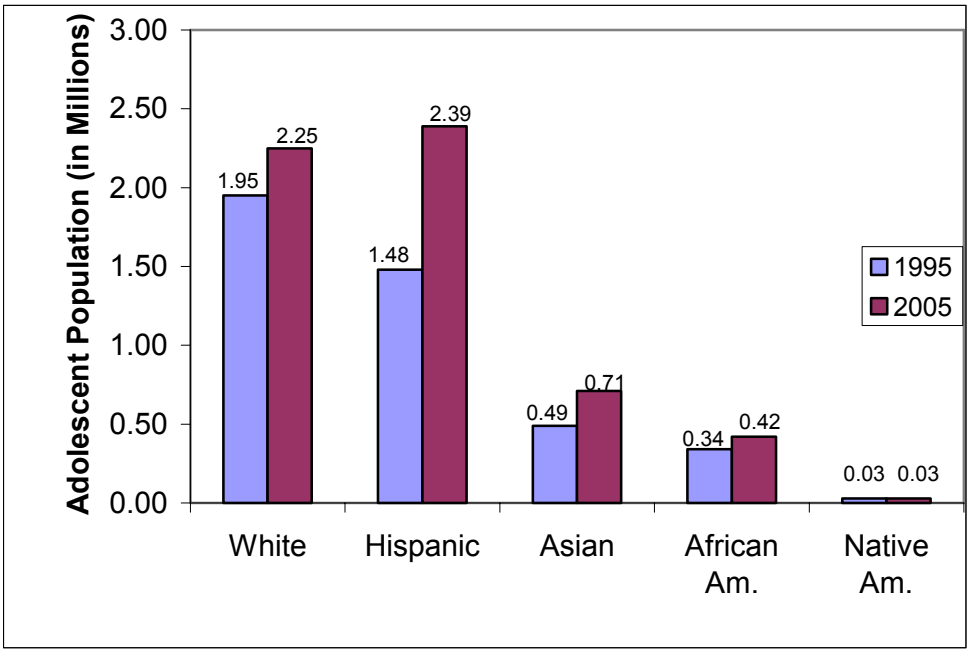
Figure 1. Estimated population growth among adolescents, ages 10-19

	1995	2005	Increase
California	4,400,000	6,000,000	34%
U.S.	36,962,406	41,822,401	13%

Source: Clayton, Brindis, et al., *Investing in adolescent health: A social imperative for California's future*, 2000.

Differences in growth by race and ethnicity will result in a new, increasingly diverse portrait of the adolescent population. Across the United States, whites currently comprise 64% of the adolescent population; however, the growth in minority populations is occurring at much faster rates. By 2040, there will be no majority – less than 50% of the adolescent population will be non-Hispanic white (Clayton, Brindis et al. 2000). California's adolescent population, already among the most diverse in the nation, will become even more so. By 2005, the number of Hispanic youth will grow by 61%, Asian youth by 45%, African American youth by 22%, white youth by 16%, and Native American youth by 2% (Clayton, Brindis et al. 2000).

Figure 2. Growth of California's adolescent population, ages 10-19, by race/ethnicity



Source: Clayton, Brindis, et al. *Investing in adolescent health: A social imperative for California's future*, 2000.

These demographic changes, and the social and economic changes that will accompany them, will place new demands on the state's service systems. Although the health behaviors of adolescence – smoking, alcohol use, physical inactivity, poor diet, and sexual activity – have long-term consequences, they are largely preventable. Adolescence offers an opportunity to prevent health and social problems that, during adolescence and later in adulthood, result in significant societal costs. Sheer numbers make it clear that now is the time to give attention to the needs of California's adolescents. Even at the current (2001) teen birth rate, this growth could translate to 59,504 annual births to teens in 2005, an 11% increase over the 53,776 births in 2001, due solely to demographic change.

Trends in Adolescent Sexual Behavior, Pregnancy and Childbearing

The recent data on adolescent pregnancy and childbearing are encouraging. During the 1990s, the teen pregnancy and birth rate declined across the country, in all states, and among all age and racial and ethnic groups. In many cases, these declines have been quite dramatic. Teen pregnancy and abortion rates, for example, are at the lowest point since they were first measured in the early 1970s (Darroch and Singh 1999). In 2001, the teen birth rate reached its lowest point in more than six decades (Martin, Park et al. 2002). While the trends are moving in the positive direction, teen pregnancy and birth rates in the U.S. remain disturbingly high, especially compared to other industrialized countries. Currently, teen pregnancy rates in the U.S. are *twice* as high as in England and Canada, *four* times as high as in France, and *nine* times as high as in the Netherlands and Japan (Alan Guttmacher Institute 1999). Moreover, teen pregnancy rates are not consistent across the United States; some communities continue to experience greater problems than others. This section reviews current trends in adolescent sexual behavior, teen pregnancy, and childbearing in the United States and in California.

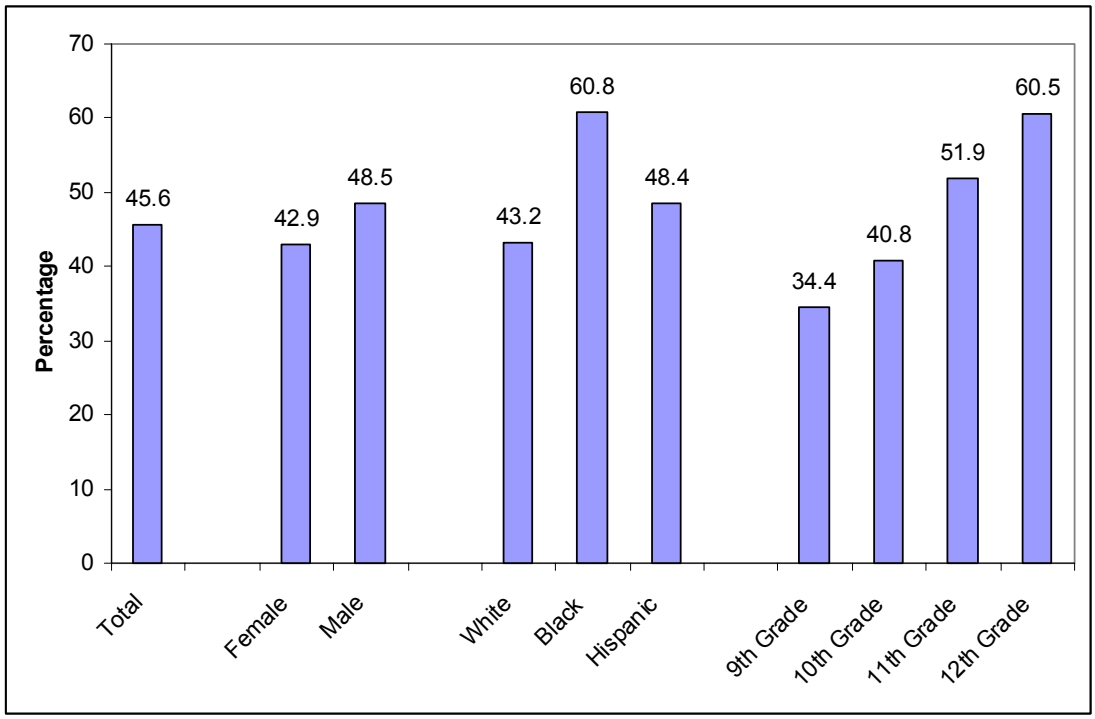
Adolescent Sexual Behavior in the U.S….

Most adolescents in the United States first have sex in their mid to late teens. Today, just over 45% of high school students have ever had sexual intercourse (Centers for Disease Control and Prevention 2002).[1] The likelihood of having sex increases with age. In 2001, approximately one-third of 9th grade students reported having had sex at least once, compared with more than 60% of 12th grade students (Centers for Disease Control and Prevention 2002). Over all, 6.6% of students had initiated sexual intercourse before age 13. At all ages, a greater proportion of males than females report being sexually experienced (Centers for Disease Control and Prevention 2002). Sexual activity also varies by race and ethnicity, with African American teens more likely to have had sex (61%) than Hispanic (48%) and white (43%) teens (Centers for Disease Control and Prevention 2002). The proportion of sexually active teens has been declining in recent years, among both males and females (Terry and Manlove 2000).

Despite recent decreases in the number of teens who have had sex, there has been an alarming increase in the number of girls having sex at an early age. In 1995, nearly one in five females were sexually active by age 15, compared to 11% in 1988; the proportion of males having sex by age 15 has remained constant, at 21% (Child Trends 2000).

[1] Data are taken from the Youth Risk Behavior Surveillance System (YRBSS), which measures self-reported prevalence of health risk behaviors among students in grades 9 – 12. Students who were not in school were not surveyed; as a result, many of the aforementioned proportions may represent an undercount. Data from the YRBSS are used to monitor progress toward achieving the 2010 national health objective to increase the proportion of adolescents in grades 9 – 12 who have never had sexual intercourse, have had intercourse but not in the past three months, or used a condom the last time they had sexual intercourse during the preceding three months. For the purposes of this objective, any of these three options is defined as "responsible sexual behavior."

Figure 3. Percentage of high school students who ever had sexual intercourse, by sex, race/ethnicity, and grade, 2001



Source: Centers for Disease Control and Prevention, *Youth risk behavior surveillance -- United States, 2001*, 2002.

Most sexually active teens do not have sex on a regular basis. In 2001, nearly half of high school students reported ever having had sexual intercourse, but only one-third had been sexually active during the previous three months (Centers for Disease Control and Prevention 2002). However, 17% of males and 11% of females had four or more partners during their lifetime (defined as the period between their first intercourse and the time of the survey response) (Centers for Disease Control and Prevention 2002).

Most sexually active teens use contraception to avoid sexually transmitted diseases and pregnancy. Compared to older women, teens are less likely to practice contraception effectively over the course of a year, and are more likely to practice contraception sporadically or not all (Alan Guttmacher Institute 1999). Still, teens are less likely to experience a contraceptive failure than young women in their twenties, likely reflecting their patterns of sexual relationships (Alan Guttmacher Institute 1995). Compared to their peers in other western industrialized countries, teens in the U.S. are less likely to use contraception and are less likely to use the long-acting hormonal methods – such as Depo Provera (injection) or Norplant (implant) – that have the highest effectiveness rates (Alan Guttmacher Institute 2001). About one in six adolescent women using contraception also use condoms to protect themselves against sexually transmitted diseases (Alan Guttmacher Institute 1999). There are about 750,000 to 1.25 million pregnancies in the U.S. averted on an annual basis by sexually active adolescents who use contraceptives (Kahn, Brindis et al. 1999). These findings demonstrate that many American youth take action to avoid unintended pregnancies and, therefore, their peers are capable of doing the same. With the anticipated growth in the adolescent population – particularly those in low-income families

who are at greater risk for unintended pregnancy – adults need to determine how best to support teenagers in their decision to abstain from sex or to use birth control consistently.

Over the past few decades, there has been a dramatic increase in the percentage of females – of all ethnic groups – using contraception *the first time they have sex* (Terry and Manlove 2000). In 1982, only 48% used birth control at first sex, compared to 76% by 1995 (Child Trends 2000). However, in 1995, Hispanic females were less likely to use birth control at first sex (58%) than black (68%) and white (82%) females. Nearly 60% of low-income and approximately 75% of higher income teens use some method of contraception the first time they have sex (Alan Guttmacher Institute 1995). The majority of the increase in contraceptive use at first sex is a result of increased use of condoms.

In contrast, teens' use of contraception *the most recent time they had sex* has been declining. In 1995, 69% of females reported using a method of contraception the last time they had intercourse, compared to 77% in 1988. This decrease occurred among both white and Hispanic teens, whereas African American females slightly increased their use of contraception at most recent sex (Terry and Manlove 2000). In those seven years, contraceptive use increased from 68% to 70% among sexually active African American females, compared to decreases of nine and 16 percentage points among their white and Hispanic counterparts, respectively.

Over all, most students engage in "responsible sexual behavior," with 86.1% of students nationwide reporting not having ever had sexual intercourse (54.4% of all teens), having sexual intercourse but not during the previous three months (12.2%), or using a condom the last time they had sexual intercourse during the previous three months (19.5%) (Centers for Disease Control and Prevention 2002). Male students were significantly more likely than female students to report having engaged in responsible sexual behavior (88.5% vs. 83.9%). Younger students were significantly more likely to engage in responsible sexual behavior than older students (92.8% of 9th graders, 88.3% of 10th graders, 84.5% of 11th graders, and 75.8% of 12th graders).

…and in California

In 1999, 40% of high school students – 44% of boys and 36% of girls – reported on the California Youth Risk Behavior Survey[2] that they were sexually active (California Department of Education n.d.). Not surprisingly, the proportion increases with age. Approximately one-quarter of 9th grade students reported ever having had sexual intercourse, compared to 58% of

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[2] The California Youth Risk Behavior Survey was designed as part of the Centers for Disease Control and Prevention's (CDC) surveillance system to monitor health-related behaviors of high school students in California and across the nation. The 1999 results are based upon responses from 3,206 survey participants from 29 regular public high schools in California. Parent permission was required before students could complete the survey. Furthermore, a relatively small number of school districts included this module as part of the California survey. For additional information, see http://www.cde.ca.gov/cyfsbranch/lsp/health/yrbs.htm.

[3] The number of pregnancies is estimated by adding the number of live births, legal induced abortions, and estimated fetal losses (miscarriages and stillbirths) for the given age group. According to the National Center for Health Statistics, in 1997, there were an estimated 896,000 pregnancies among females under 20 years old in the United States (Ventura, Mosher et al. 2001).

12th grade students (California Department of Education n.d.). Sexual behavior varied by race and ethnicity, with 52% of African American, 46% of Hispanic, 37% of white, and 22% of Asian students reporting sexual activity (California Department of Education n.d.). Six percent had sexual intercourse for the first time before age 13 (California Department of Education n.d.). Slightly more than one in ten (12%) high school students had four or more sexual partners in their lifetime, with males being more likely to report having multiple partners than females (California Department of Education n.d.). Fifty-six percent of sexually active students reported using a condom the last time they had sex to protect themselves against unintended pregnancy and sexually transmitted diseases (California Department of Education n.d.). Nearly one-third of sexually active students reported that they drank alcohol or used drugs the last time they had sexual intercourse (California Department of Education n.d.).

The fact that national statistics have indicated that low-income and minority youth are less likely to use contraception the first time they have sexual intercourse has particular implications for California. As noted in the previous section, the greatest growth in the adolescent population is anticipated to be among minority youth, who are more likely to live in poverty than their white peers. The strong link between poverty and unintended teen pregnancy demonstrates the need to consider the alleviation of poverty as an important means to prevent teen pregnancy. To the extent that poverty is alleviated through social programs that create jobs, enhance educational opportunities or provide financial assistance, teen pregnancy may be reduced.

Adolescent Pregnancy in the U.S.…

In 1997, there were nearly 900,000[3] pregnancies to females under age 20 in the United States, nearly 80% of which were not intended or planned (Alan Guttmacher Institute 1999; Ventura, Mosher et al. 2001). Most of these pregnancies (872,000 of 896,000) were to adolescents ages 15 to 19, equivalent to a rate of 94 pregnancies per 1,000 teens (Ventura, Mosher et al. 2001). In other words, nearly one in ten (9.4%) adolescent girls became pregnant in that one year. Four in ten teenage girls will have experienced at least one pregnancy before age 20 (National Campaign to Prevent Teen Pregnancy 1997). The teen pregnancy rate varies with age, with a rate more than twice as high for older teens, ages 18 to 19, than for younger teens, ages 15 to 17 (Ventura, Mosher et al. 2001). The rate also disproportionately affects some racial/ethnic groups more than others. In 1997, the teen pregnancy rate among non-Hispanic white adolescents was 65 pregnancies per 1,000 girls, compared to 170 per 1,000 among African Americans and 149 per 1,000 among Hispanics (Ventura, Mosher et al. 2001).

…and in California

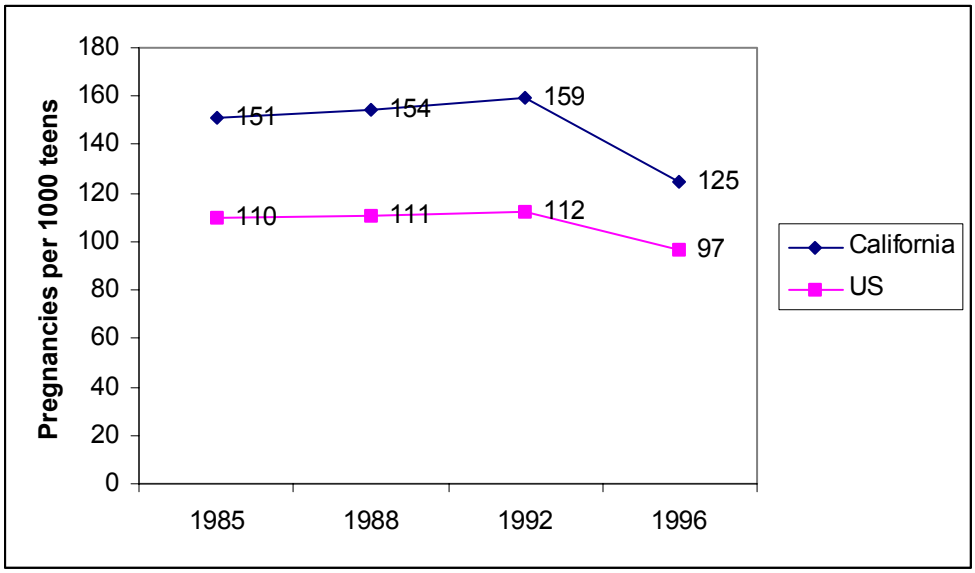
It is not surprising that California, as the most populous state in the country, ranks first in the number of pregnancies among adolescents. In 1996 alone, there were an estimated 126,300 pregnancies among California teens (Henshaw and Feivelson 2000).[4] Approximately 61% of

[4] California does not currently collect data on the characteristics of women having abortions. To calculate teen pregnancy rates for the state, Henshaw and Feivelson developed an estimate based on states with similar racial distribution and degree of urbanization. These calculations provide estimated teen pregnancy rates for females ages 15-17 and 18-19. Rates are not available for those ages 14 and younger, or by race/ethnicity (Henshaw and Feivelson 2000).

these pregnancies were to females ages 18 and 19, and 39% to females between the ages of 15 and 17 (Henshaw and Feivelson 2000). Data are not currently available for pregnancies to adolescents ages 14 and younger, or by race/ethnicity.

During the 1990s, California experienced trends similar to that of the nation. From its peak in 1991 to 1996, the state teen pregnancy rate declined 21%, from 159 to 125 pregnancies per 1000 teens, compared to a 19% decline in the United States (Henshaw and Feivelson 2000; Ventura, Mosher et al. 2001). Even with such promising trends, California's teen pregnancy rate continues to be the second highest in the nation (Henshaw and Feivelson 2000).

Figure 4. Teen pregnancy rates in the US and California, 1985-1996

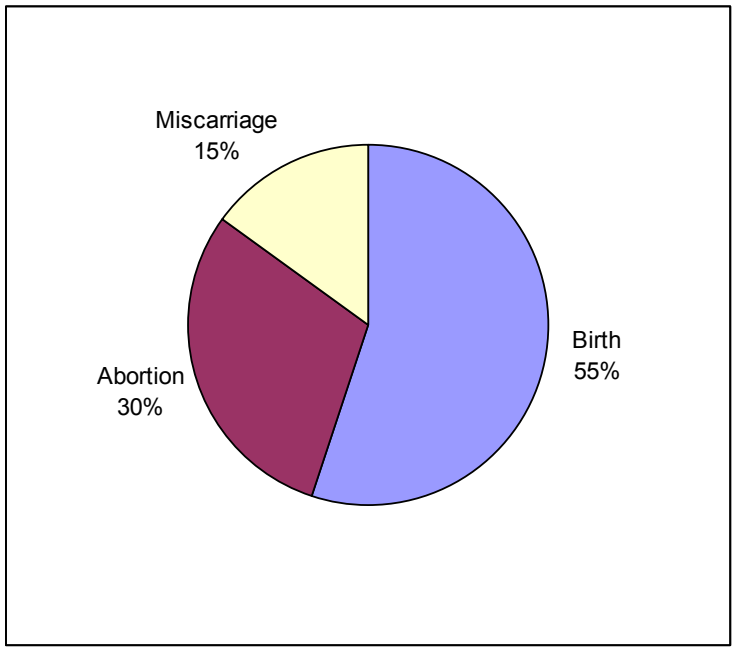


Source: Frost and Oslak, *Teenagers' pregnancy intentions and decisions: A study of young women in California choosing to give birth*, 1999.

Resolution of Teen Pregnancies

Understandably, the decisions that teens make regarding their pregnancies affect the number and rates of teen births. In 1997, 55% of the nearly 900,000 teen pregnancies in the U.S. ended in births, 30% in abortion, and 15% in miscarriage (Ventura, Mosher et al. 2001). Teens who do decide to give birth rarely place the infant up for adoption, instead choosing to raise the child themselves (Alan Guttmacher Institute 1995).

Figure 5. Outcomes of teen pregnancies in the United States, 1997



Source: Ventura, Mosher, et al. *Trends in Pregnancy Rates for the United States, 1976-97: An Update*, 2001.

The use of abortion to resolve unintended teen pregnancies has declined steadily since the early 1980s. In 1996, 35% of teen pregnancies in the United States were terminated by abortion, compared with 55% in 1981 (Frost and Oslak 1999). In California, the estimated proportion of teen pregnancies ending in abortion declined from 52% in 1985 to 42% in 1996 (Frost and Oslak 1999).

Socioeconomic status is a significant factor affecting how teen pregnancies are resolved. Seventy percent of higher income teens who become pregnant choose to postpone childbearing, whereas lower income teens are more likely to give birth. Poor and low income teens – who make up approximately 40% of the adolescent population – account for 83% of teens who give birth and 85% of those who become an unmarried parent (Alan Guttmacher Institute 1995). There are also marked racial and ethnic differences in the ways that teen pregnancies are resolved, perhaps the result of differences in family structure, age at first conception, and family size (Cooksey 1990). For example, among whites, being raised in a single-parent family was found to significantly enhance the likelihood of a teen choosing to have a child outside of marriage. This evidence suggests that individuals who experience less traditional family structures during childhood are less likely to embark on a traditional family course themselves.

Adolescent Childbearing in the U.S…

In 2000, there were nearly half a million[5] births to teens in the United States, accounting for approximately 11% of all of the births that year (Martin, Park et al. 2002). Nearly 80% of teen births occurred outside of marriage in 2001, compared to only 15% in the early 1960s (Ventura and Bachrach 2000; Martin, Park et al. 2002). Although a substantial proportion of teen births are out-of-wedlock, less than 27% of all out-of-wedlock births in the U.S. are to teens – the result of a rapidly increasing number of out-of-wedlock births among older women (Martin, Park et al. 2002). The likelihood of giving birth is much higher for older teens than younger teens: In 2001, the teen birth rate was 76 births per 1,000 for those ages 18-19, compared to 25 per 1,000 for those ages 15-17 (Martin, Park et al. 2002). The rate for the youngest adolescents, ages 10-14, is 0.8 births per 1,000 (Martin, Park et al. 2002). Similar to the trends in teen pregnancies, teen births declined in the 1990s. The teen birth rate decreased 26% between 1991 and 2001 (Martin, Park et al. 2002). This trend was most pronounced for African American teens, who experienced a 37% decline, and less so for non-Hispanic Whites (30%) and Hispanics (13%) (Martin, Park et al. 2002). Without this decline, more than 125,000 more babies would have been born to teen mothers (National Campaign to Prevent Teen Pregnancy 2002).

…and in California

In 2001, there were nearly 55,000 births[6] to California mothers under age 20 (California Department of Health Services n.d.). Of all the births in California that year, approximately one in ten were to teen mothers (California Department of Health Services n.d.). Teen birth rates in California vary by age, race/ethnicity, and geography. The birth rate is higher for teens ages 18 to 19 (at 76.6 births per 1000) than for teens ages 15 to 17 (24.4 births per 1000) (California Department of Health Services n.d.). The rate is disproportionately higher for Hispanic (86.2 births per 1,000 teens) and African American (53.3) teens than for white (20.2) or Asian/Pacific Islander (12.6) teens, ages 15 to 19 (California Department of Health Services n.d.). Teen birth rates are also particularly high in the major population centers of the state, including Los Angeles county, San Diego county, the San Francisco Bay Area, and the Central Valley (Clayton, Brindis et al. 2000).

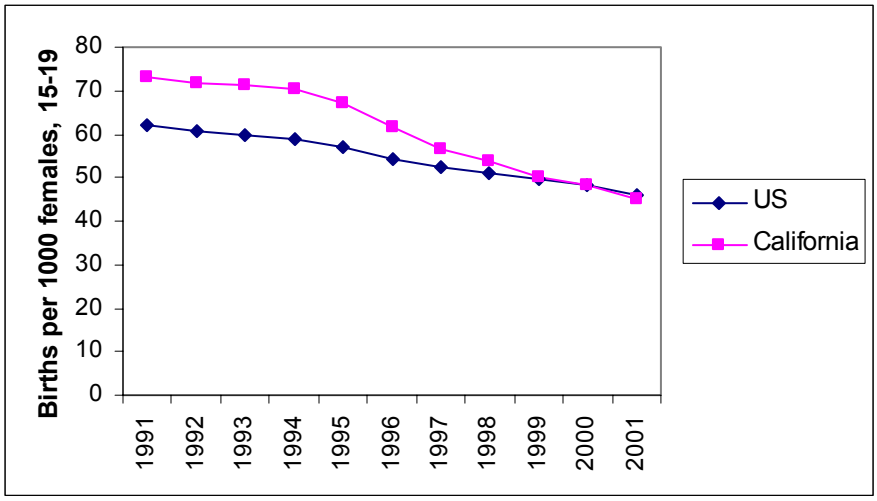
Over the past two decades, teen childbearing trends in California have largely mirrored those across the United States. After following similar patterns in the early 1980s, the state teen birth rate began to increase faster than the U.S. average (Frost and Oslak 1999). Both peaked in 1991, at 72.9 births per 1000 in California and 62.1 nationwide (Martin, Park et al. 2002; California Department of Health Services n.d.). In the 1990s, the teen birth rate in California dropped 38% from 1991 to 2001, the third greatest change of all the states (Frost and Oslak 1999; California Department of Health Services n.d.). The magnitude of the decline was so great that, by 2001,

[5] According to the National Center for Health Statistics, in 2001, there were 455,158 births to females under 20 years old in the United States. This number includes 7,791 births to females 10-14 years, 145,646 to females 15-17 years, and 301,721 to females 18-19 years (Martin, Park et al. 2002).

[6] According to the California Department of Health Services, Center for Health Statistics, there were 53,776 births to females under 20 years old in the state in 2001. This number includes 810 births to females less than 15 years, 17,307 to females 15-17 years, and 35,659 to females 18-19 years (California Department of Health Services n.d.).

the state teen birth rate was lower than that of the nation as a whole (45.1 and 45.9 births per 1,000, respectively) (Martin, Park et al. 2002; California Department of Health Services n.d.).

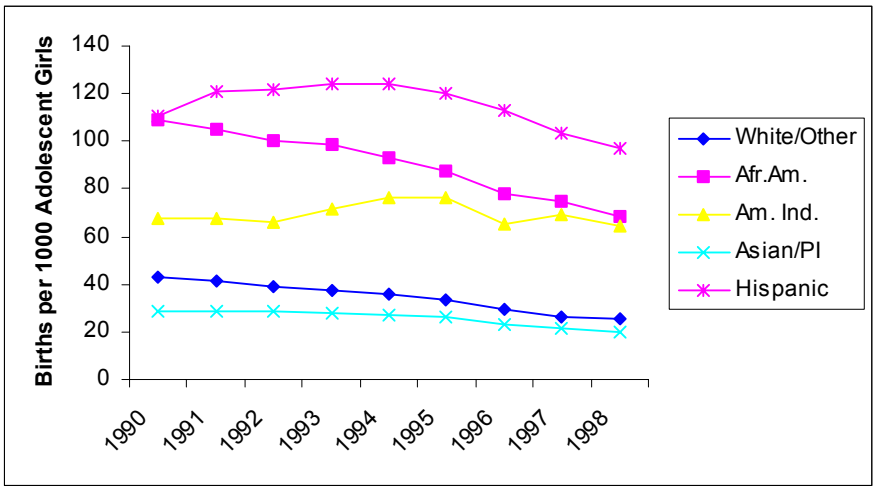
Figure 6. Teen birth rates in the US and California, 1991-2001



Sources: Martin, *Births: Preliminary data for 2001*, 2002; California Department of Health Services, *Vital statistics data tables, 2001: Natality*, n.d.

The rise and fall in teen births in California is largely attributable to childbearing patterns among young Hispanic and African American women. Teen birth rates dramatically rose among both groups in the 1980s and then fell in the 1990s, currently reaching the levels of two decades ago. For example, the teen birth rate among African American teens rose from 79 births per 1,000 in 1980 to 109 in 1990 – an increase of 37% – but has since declined to 68 births per 1,000 in 1998. For Hispanics, the rate rose 35% from 1980 to its peak in 1993, and now rests at 99 births per 1,000 (Frost and Oslak 1999; California Department of Health Services 2000). While birth rates among non-Hispanic white teens are substantially lower, the trends are similar, with declines from 43 births per 1,000 in 1990 to 25 per 1,000 in 1998 (California Department of Health Services 2000). Adolescent Asian/Pacific Islander females in California have experienced little change in their teen birth rates in recent years, hovering around 20 births per 1,000 with minor fluctuations (California Department of Health Services 2000).

Figure 7. California teen birth rates vary by race and ethnicity, 1990-1998



Source: California Department of Health Services, *Teen birth rates: 1990-98*, 2000.

Causes of Teen Pregnancy and Childbearing

In his thorough review of the literature, Kirby identified more than 100 different antecedents associated with adolescent sexual activity, contraceptive use, pregnancy, and childbearing (Kirby 2001). Many are related to economic and social disadvantage, such as poverty, low education, membership in a minority group, family structure, residential instability, and unemployment. (Frost and Oslak 1999). The mechanisms by which these antecedents might result in teen pregnancy and childbearing are less than clear. The pathways may be direct or indirect, and the strength of the connection may be weak or strong. What is clear is that the causes of teen pregnancy and childbearing "are deeply rooted in the social fabric of our society" (National Adolescent Health Information Center 1995). To have a lasting impact on the incidence of pregnancy and childbearing among youth, we must continue to study the individual, as well as the environment – family, friends, school, and community – in which he or she lives.

Individual Factors

Biology. Not surprisingly, the older teens become, the more likely they are to become sexually active and, consequently, to become pregnant. This age effect is due to both the physical and social changes of adolescence. Both pubertal development and testosterone levels – markers of the physical maturity that comes with age – have been found to be significantly associated with transition to sexual activity (Halpern, Udry et al. 1993). Age also brings with it new social expectations that influence a teen's likelihood of sexual activity, including increased pressure to have sex, perceived norms about sexual behavior, and increased opportunity because of freedom (Kirby 2001).

Sexual activity and risk of pregnancy vary by race and ethnicity. African American and Hispanic youth have sex at an earlier age, are more likely to become pregnant and are more likely to give birth than their white peers (Mott, Fondell et al. 1996; Upchurch, Levy-Storms et al. 1998; Santelli, Lowry et al. 2000). This increased risk is less likely due to race or ethnicity per se, but rather a result of socioeconomic differences between groups, such as poverty (Santelli, Lowry et al. 2000). However, even when these background characteristics are held constant, a small but statistically significant association remains. This residual effect of race and ethnicity on adolescent sexual behavior may be a result of cultural differences (Kirby 2001).

Attachment to School. Youth who are academically successful, feel connected to their school and community, and have expectations for the future are more likely to delay sexual intercourse or, if they decide to have sex, to use contraception. Young women who become teen parents tend to have lower grade point averages, more school absences, and more difficulties with school work – even before they become pregnant – than their peers (Manlove 1998; Moore, Manlove et al. 1998; Kirby 2001).

Most studies demonstrate a positive correlation between academic involvement and sexual abstinence, although the reasons are not clear. One theory is that education investment provides an alternative reward structure or alternative activities for teens (Ohannessian and Crockett 1993). Positive feelings about school motivate adolescents to avoid risky behaviors such as sexual activity, and structured activities in the school settings keep them from the opportunity to

have sex. Another theory suggests that teens who initiate sex at an early age have poorer academic performance because sexual activity draws them into activities that take time away from academics.

History of Sexual Abuse. Many studies have indicated that young women who become pregnant during adolescence report that they were victims of childhood sexual abuse. An estimated 50% to 60% of parenting teens have been abused, a figure twice the national rate for never-pregnant teens (Stevens-Simon and Boyle 1995). However, the effect of sexual abuse history varies by race; it is a much more common antecedent of teen pregnancy among white young women, than African American and Hispanic women (Stevens-Simon and Boyle 1995).

Sexual Beliefs and Skills. The "psychosocial" antecedents of sex are more strongly related to sexual and contraceptive behaviors than most of the other antecedents (Kirby 2001). The idea that the individual adolescent's own attitudes toward sex would impact his or her sexual behavior is logical and well-supported by sociopsychological theory. Thus, it is not surprising that teens who have permissive attitudes about premarital sex, perceive personal and social benefits and few costs to having sex, and do not care if their friends know they are having sex, are more likely to become sexually active. Beliefs about the consequences of sexual activity also play a role in a teen's decision-making. Teens who have less concern about pregnancy and STDs are more likely to have sex. Similarly, among sexually active teens, those that do not think they are likely to become pregnant or cause their partner to become pregnant, do not believe a pregnancy would have negative consequences, and have negative attitudes toward contraception are less likely to use contraception regularly and effectively.

While the vast majority of teen pregnancies are unintended, there are a substantial minority that are not. It may not be that adolescents plan their pregnancies similar to an adult married couple beginning their family, but rather that they are ambivalent about the consequences of their own sexual behavior. Ambivalence about pregnancy and childbearing has been found to be greater among teens from disadvantaged backgrounds and among those who have limited expectations for their futures. For these girls, the benefits of childbearing – including maturity, love, responsibility, and the perception that it will lead to a better relationship with the baby's father – outweigh any possible risks (Frost and Oslak 1999). For ambivalent teens, the desire to avoid pregnancy is not strong enough to motivate action. Therefore, it is not surprising that teens who are ambivalent about pregnancy and childbearing are less motivated to use contraception and, accordingly, are more likely to become pregnant (Zabin, Astone et al. 1993; Kirby 2001).

Multiple Risks. Many teens participate in risk behaviors that jeopardize their current and future health. Unprotected sex is one of these; others include substance use, carrying weapons, physical fighting, and suicidal thoughts and attempts. Participating in one risk behavior is often associated with participation in others (Lindberg, Boggess et al. 2000; Lindberg, Boggess et al. 2000). For example, using alcohol or drugs increases a teen's chances of having unprotected sex and becoming pregnant (Mott, Fondell et al. 1996; Kowaleski-Jones and Mott 1998). While this behavior may occur because substance use diminishes inhibitions and leads to poor decision-making, it may also be a result of the teen's general inclinations to take risks (Kirby 2001). The factors that influence sexual behavior are "not confined to any one part of the teen's world"

(Small and Luster 1994). These clusters of risk behaviors share similar causes and, therefore, ought to be considered together as programs are developed.

Family

The family surrounding an adolescent – parents, siblings, and other close relatives – exerts considerable influence over his or her sexual behavior. Many aspects of family life influence a teen's decision to become sexually active, use contraception, or continue with a pregnancy. Socioeconomic status, family structure, parental attitudes, and parent communication and support all play an important role in a teen's decision-making.

Socioeconomic Status and Family Structure. Children of parents with low educational attainment, occupation and income are more likely to have sex at an early age, not use contraception consistently, and become pregnant or cause a pregnancy (Billy, Brewster et al. 1994; Moore, Morrison et al. 1995; Santelli, Lowry et al. 2000; Kirby 2001). The causes of this finding are unclear; however, it may be a result of parents of higher socioeconomic status placing a greater emphasis on and having more resources to support their children's long-term educational and career goals, efforts which would be restricted by early childbearing. Teens who live with both parents are less likely to become sexually active, more likely to use contraception, and less likely to become pregnant or cause a pregnancy than teens living with one or neither parent (Billy, Brewster et al. 1994; Moore, Morrison et al. 1995; Upchurch, Levy-Storms et al. 1998; Santelli, Lowry et al. 2000; Kirby 2001). Adolescents who are raised in large families tend to initiate sex earlier than their peers. This may be a result of teen's imitating the sexual behavior of siblings or because parental attention is spread too thin when more children live in the home (Brindis and Jeremy 1988).

Values and Role Modeling. The values and behavior demonstrated by family members regarding sexual risk-taking and early childbearing influence the teen's own attitudes and behavior. Parents with permissive attitudes about teen sex or premarital sex, or negative attitudes about contraception have children who are more likely to have unprotected sex and become pregnant (Jensen, de Gaston et al. 1994; Resnick, Bearman et al. 1997; Dittus and Jaccard 2000; Jaccard, Dittus et al. 2000). Teens look to their parents as role models and very often reproduce their behavior. Therefore, it is not surprising that teens are more likely to initiate sex and become pregnant if their parents are having sex outside of marriage, are cohabitating with a romantic or sexual partner, have had a child outside of marriage, or gave birth as an adolescent (Whitbeck, Simons et al. 1994; Kirby 2001).

Similar influence is seen with siblings, particularly older siblings, who play a central role in the onset of sexual activity. Younger sisters of parenting teens, in particular, have higher rates of sexual activity, younger age of sexual initiation, and birth rates two to six times higher than girls of the same age, race, and socioeconomic status (East and Kiernan 2001). This disproportionate risk may result from attitudinal changes after watching an older sister become pregnant and raise a child. Early childbearing becomes a normative behavior, losing its stigma. Girls may see their older sisters gain attention from the family and adult status in the community through parenthood. Thus, it is not surprising that the younger sisters of teen mothers are more accepting of early nonmarital childbearing, perceive younger ages as appropriate for marriage and birth,

are pessimistic about school and career, and have higher rates of school truancy, suspension and cigarette use than their peers (East 1996).

Parental Support and Communication. Most parents disapprove of sexual activity among early adolescents, and make efforts to prevent it among their own children. This may be done through controlling opportunities for sex by restricting social activities, hours away from home at night, and friendship associations (Newcomer and Udry 1984). It is also accomplished through giving advice and imparting values that would lead their children to delay sexual activity and postpone parenthood. Consistent parental values and support have been identified as important factors in delaying the initiation of sexual activity and reducing the risk of unintended pregnancies. Teens who are close to their parents, feel that they have parental support, and are closely supervised by their parents are less likely to be sexually active than their peers (Jensen, de Gaston et al. 1994; Resnick, Bearman et al. 1997; Dittus and Jaccard 2000; Jaccard, Dittus et al. 2000).

The studies about the effect of parent-teen communication on issues of sexual behavior and childbearing show mixed results. Many have indicated that children whose parents talk to them about these sensitive topics are more likely to postpone sexual activity and, when they do become sexually active, are more likely to use contraception (Resnick, Bearman et al. 1997; Dittus and Jaccard 2000; Karofsky, Zeng et al. 2000; Blake, Simkin et al. 2001). Other studies have shown no effect (Kirby 2001). Whether or not parent-child communication influences adolescent behavior may depend on mediating factors, including the frequency of the communications, the quality and nature of the exchanges, parental knowledge and beliefs about sex, parental comfort talking about sex, and the content and timing of the discussion (Whitaker, Miller et al. 1999; Jaccard, Dittus et al. 2000; Blake, Simkin et al. 2001). Other research has suggested that the strength of the relationship between parent-child communication and sexual risk-taking by the teen may depend on the gender of the teen, gender of the parent, the closeness of their relationship, and the parent's values (Resnick, Bearman et al. 1997; Miller, Kotchick et al. 1998; Blake, Simkin et al. 2001). Mothers, for example, seem more likely to share information and their values regarding sexual activity with their daughters than their sons (Miller, Kotchick et al. 1998). Because of the considerable numbers of young men who are raised in families headed solely by women, there is some concern whether boys are receiving enough information about sexual and reproductive health.

Friends and Peers

Like siblings, friends are "socializing agents," who set standards of conduct and serve as role models, thus shaping the development of sexual attitudes and norms (East, Felice et al. 1993). A study of minority adolescents found that the number of sexually active girlfriends was positively associated with permissive sexual attitudes, intentions for future sexual activity, and nonmarital childbearing (East, Felice et al. 1993). Other risk behaviors have an impact as well. When a teen's friends are not attached to school, have poor grades, abuse drugs or engage in delinquent behaviors, there is a greater likelihood that the teen will become sexually active at an early age (East, Felice et al. 1993; Brewster 1994; Bearman, Bruckner et al. 1999; Kirby 2001).

It is interesting to note that it is not only the actual behavior of peers, but the assumption of certain behaviors by peers, that influence adolescent sexual activity. The perception of

normative sexual attitudes and behavior is closely associated to the teen's own attitudes and behavior. When teens believe – correctly or not – that their peers are having sex, they are more likely to have sex. When teens believe their peers support contraceptive use, they are more likely to use contraception (Whitaker and Miller 2000; Kirby 2001). The effect of peer influence may depend on the teen's other sources of information on sexual and reproductive health. A study of Hispanic and African American youth determined that peer norms were a great influence on sexual behavior among those who had not discussed condoms with their parents (Whitaker and Miller 2000).

Romantic and Sexual Partners

Not surprisingly, being in a romantic relationship increases the chance of early sexual activity among adolescents. Teens who date early, date more frequently, have more romantic partners, and "go steady" early are more likely to have sexual intercourse earlier than their peers. This is probably because relationships provide both greater opportunity and greater pressure to have sex. The attitudes of the partner are another important influence on sexual behavior. Partner support for contraceptive use significantly increases the chances that a contraceptive method will be used.

The age of a girl's partner, particularly the age difference between the couple, greatly influences the likelihood she will become pregnant and have a child. More than 60% of sexually active adolescent women have partners within two years of their age; 29% are three to five years older (Alan Guttmacher Institute 1999). Most males who father children by teen mothers are two to three years older than their partners (Nord, Moore et al. 1992). In 1993 in California, two-thirds of the births to school-age mothers (younger than age 18) were to older male partners. The men were an average of 4.2 years older than mothers in high school, and 6.7 years older than mothers in junior high school. More than half were three or more years older than the mother, and 13% were at least 25 years old (Males and Chew 1996).

Community

Initially, much of the research on the causes of adolescent sexual activity focused on the individual level, the influence of the teens' own physical and psychological characteristics. More recently there has been growing interest in contextual variables, aspects of the teens' environments, such as the community and school. These studies have consistently found that the community where teens live influences their sexual behavior. Adolescents who live in communities with more social disorganization and fewer economic resources are more likely to engage in sex at an early age and become pregnant. The level of education, unemployment rate, and income level of the adults in the community are all associated with the sexual behavior of teens (Billy, Brewster et al. 1994; Brewster 1994; Kirby 2001). In addition to these measures of socioeconomic status, other community characteristics – including religiosity, female labor force participation, population composition, and family planning service availability – also shape the likelihood of first intercourse and subsequent sexual behavior (Billy, Brewster et al. 1994).

Media

The extent to which the media influences adolescent sexual behavior is a topic of contentious debate. Many feel that images portrayed in television, movies, song lyrics, videos, and advertising skew teens' understanding of normative sexual behavior for young people and do not present the consequences of sexual activity.

According to a 1996 Kaiser Family Foundation survey, teens are most likely to learn about sex and birth control from their parents (72%), school (69%), and friends (60%). Still, a large proportion of youth report that they rely on TV shows and movies (53%) and magazines (39%) (Kaiser Family Foundation 1996). A 2002 national survey indicates that nearly three-quarters of 15-17 year olds believe that the sexual content on TV and in music videos influences the behavior of their peers "somewhat" or "a lot." However, less than one-quarter think it influences their own behavior to this degree (Kaiser Family Foundation 2002). Teens also report that they have learned positive lessons from television, such as how to say no to an uncomfortable sexual situation (60%) and how to talk to a boyfriend or girlfriend about safer sex (43%). In addition, one-third of teens reported having a conversation about sex with a parent due to a scene they saw on TV (Kaiser Family Foundation 2002).

While it is difficult to document the effect of the media on behavior, it seems likely that the content of television, movies, and magazines in some way shapes the sexual beliefs, attitudes and behaviors of adolescents. Most of the teens who participated in the survey said that the portrayal of sex, particularly teen sex, in the media is one of several potential factors affecting adolescent sexual activity. Other studies have found that sexually active teens watch more media programming containing sexual content than teens who are not sexually active (Jensen, de Gaston et al. 1994).

Government

Government policies influence teen pregnancy and its resolution, as well. Some government actions have direct effects, such as laws and appropriations regarding the availability of birth control and family planning services; policies on sex education in public schools; government-funded media campaigns; programs to improve parent-child communication; and laws that restrict public funding and availability of abortion. Other policies, with objectives that target different social concerns, have indirect consequences on teen pregnancy and childbearing. For example, it has been argued that programs that provide income support to single parents – welfare, Medicaid and food stamps, in particular – make out-of-wedlock childbearing an attractive economic opportunity for young women (Lundberg and Plotnick 1990).

This theory led to some of the policy changes included in the 1996 federal welfare reform, and some of the state waivers that preceded it. These include restrictions on benefits to unmarried teen parents, bonuses to states that decreased out-of-wedlock births, a new federally-funded abstinence education program, and a requirement that state governments outline how they intend to prevent and reduce teen and out-of-wedlock pregnancies (O'Dell 2001). While teen pregnancy and childbearing have dramatically declined since the 1990s, it is near impossible to find a causal

relationship between welfare reform and teen pregnancy. The era of welfare reform was also marked by a strong economy, new long-acting contraceptive methods, increased public education about HIV/AIDS, a focus on males in prevention programs, a rise in conservative attitudes toward premarital sex, and an emphasis on child support enforcement (Wertheimer, Jager et al. 2000).

In the mid-1990s, prompted by statistics showing that the majority of babies born to teen mothers are fathered by older males, several states took steps to enforce statutory rape laws as a strategy to reduce teen childbearing and subsequent welfare costs (Donovan 1997). Advocates of these laws propose that adult men will avoid becoming involved with adolescent girls if they believe they will be prosecuted and punished. However, analyses have shown that the laws in most states would apply to only a fraction of teen births, because the law specifies either a minimum age of the male partner or minimum age difference between the partners that often do not apply.

It has often been noted that the teen pregnancy and birth rates in the United States are considerably higher than in similar industrialized countries. A recent cross-national study of teen sexual and reproductive behavior in Sweden, France, Great Britain, Canada, and U.S. from 1998 to 2001 examined the reasons behind these differences, with a particular focus on government policies and societal attitudes (Alan Guttmacher Institute 2001). Some similarities emerged. For example, growing up in social or economic disadvantage was found to be a strong predictor of early childbearing in all five countries. The fact that a greater proportion of teens in the U.S. live in disadvantaged circumstances accounts, in part, for the higher pregnancy and birth rates in this country. However, at all socioeconomic levels, U.S. teens are less likely to use contraceptives and more likely to have a child than youth in other countries. The authors attribute the continued differences to two factors. First, the other four countries provide greater public support as youth transition to adulthood, including education assistance, employment assistance and support for working families. Programs such as these provide youth with greater incentives and the means to delay childbearing. There is societal consensus that childbearing is a part of adulthood, after youth are employed and are living independently from their parents. Second, societal acceptance of sexual activity among young people has resulted in clearer and more consistent messages about sexual behavior. Access to comprehensive sexuality education and reproductive health services in other countries contributes to better contraceptive use and lower teen pregnancy rates compared to the United States (Alan Guttmacher Institute 2001).

Consequences and Costs of Adolescent Childbearing

The negative consequences of early childbearing on teen parents and their children have been well-documented in the research literature. And yet, it is difficult to determine the extent to which these outcomes are caused by teen parenthood per se, or whether they are a result of pre-existing disadvantaged circumstances. Poverty "can be both the consequences and the causes of teen pregnancy and childbearing" (Kirby 2001). Poor teens are more likely to become pregnant and have children, and teens who have children are more likely to be poor.

There is emerging consensus among researchers that the adverse outcomes of teen parents and their children are the result of myriad factors, including – but not limited to – adolescent childbearing (Nord, Moore et al. 1992; Hoffman, Foster et al. 1993; Klepinger, Lundberg et al. 1995). Some suggest that at least half of the poor outcomes are attributable to factors other than childbearing, and that these factors may have contributed to the teen becoming a parent (Maynard 1997). This question is an important one for policymakers; its answer affects whether public policies to reduce teen pregnancy and childbearing will, in fact, improve the life circumstances of teen mothers and their families.

Consequences for the Mother

Future Childbearing. Women who begin childbearing in their teen years have more children and have them over a shorter time span than those who wait until their twenties or later (Maynard 1997). One-quarter of teen mothers have another child within two years of the first (National Campaign to Prevent Teen Pregnancy 2002). A second pregnancy is more likely for teens living apart from their parents, being below grade level, having dropped out of school, or growing up in a disadvantaged neighborhood where early parenting gives adult status rather than lost opportunity.

Having larger families and rapid succession of births has profound consequences for a teen mother. It increases her income needs to support her children and decreases the likelihood that she will have the resources to do so. The number of children born to a woman is a powerful predictor of whether she will complete high school, her earning potential, labor force participation, duration on welfare, and poverty status, as well as the development of her children (Nord, Moore et al. 1992; Stevens-Simon, Kelly et al. 1996).

Marriage and Single Parenthood. Early pregnancy increases the probability of marriage. That is, teens who are pregnant are more likely to marry than teens who are not. However, in recent decades, nonmarital childbearing among teens has lost much of its stigma and, consequently, has increased. Today, nearly 80% of fathers of children born to teen mothers do not marry the mothers, up from 15% in 1960 (National Campaign to Prevent Teen Pregnancy 2002). Over all, fewer than half of teen parents who give birth out-of-wedlock marry within the next ten years (Maynard 1997).

Teen marriages are twice as likely to end in divorce as marriages in which the woman is at least 25 years old (National Campaign to Prevent Teen Pregnancy 2002). Consequently, teen mothers spend more years as single parents, and are more likely to be the sole providers for their children,

than women who delay childbearing until adulthood (National Campaign to Prevent Teen Pregnancy 2002). Teen marriage is also associated with lower educational attainment for the teen mother. If the marriage dissolves, having less education places her at greater disadvantage in the labor market. While teen marriage has a strong short-term effect of reducing poverty, this effect diminishes over time due to the high probability that the marriage will end.

Educational Attainment. Early childbearing substantially lowers the educational attainment of young women. Seventy percent of teen mothers drop out of high school, making pregnancy the primary reason young women drop out early (Alan Guttmacher Institute 1999). Only 30% of teen mothers complete high school by age 30, compared to 76% of women who delay parenthood until age 21 or older (National Campaign to Prevent Teen Pregnancy n.d.). Teen mothers are also less likely to attend college than women who delay childbearing. However, the proportion of young mothers who continue to attend school after childbirth has increased. Since 1958, the proportion of teen mothers who completed high school by age 30 has increased by 58%.

Whether the effect of early childbearing on educational attainment is causal is not fully known. It is not clear that the adolescent girl would have completed high school if she had not given birth. The causes of school dropout – such as poor school performance – are also predictors of teen childbearing. Young women who become teen parents tend to have lower grade point averages, more school absences, and more difficulties with school work – even before they become pregnant. Most studies that have controlled for family characteristics have concluded that early childbearing does reduce schooling below what it would have been had she delayed giving birth. What is clear is that the reduced educational attainment of teen mothers has an impact on workforce participation and subsequent earnings. In today's job market, the lack of a high school diploma places young mothers at a substantial disadvantage economically.

Labor Force Participation. Teen mothers have different patterns of labor force participation than those who delay childbearing until adulthood. Women who give birth as teens are less likely to be employed when young, but are more likely to be working in their twenties than other mothers (Nord, Moore et al. 1992). Teen mothers also tend to have larger families, which has a strong negative effect on women's labor force participation. These mothers work as much as women who delay childbearing, but the earnings must provide for a larger number of children (Maynard 1997).

The current labor market has made supporting a family challenging for young parents. Teen mothers have fewer years of education and less work experience prior to parenthood, which makes them less competitive job applicants (Nord, Moore et al. 1992). Their need for flexible working hours, jobs close to home, and affordable child care are other obstacles to young mothers' progress in the labor market. Other research has shown that teen parents have lower career aspirations, lower occupational prestige, less satisfaction with their job and the progress of their career, and less time spent on the job compared to their peers – even after controlling for family structure, educational attainment and other factors.

Poverty Status and Welfare Dependence. Women who have their first child during adolescence are more likely to live in poverty than those who delayed childbearing until young adulthood.

More than a quarter of teen mothers live in poverty while in their twenties and early thirties, compared to only 7% of women who postpone childbearing (Alan Guttmacher Institute 1999). Almost two-thirds of African American teen mothers, half of Hispanics, and one-quarter of whites are still living in poverty by their late twenties (Maynard 1997). The younger the teen mother was when she had her first child, the more likely it is that she will be living in poverty. The poverty rate is particularly high among the more than 60% of teen mothers who live on their own and are not employed. Even among teen mothers in the best circumstances – those who are employed, living with a spouse, or living with a relative – the poverty rate exceeds the national average (Maynard 1997). Accordingly, teen mothers are more likely to be living in poor, racially segregated communities that are characterized by inferior housing, high crime, poor schools, and limited health services (Maynard 1997).

Adolescent mothers are more likely to be dependent on welfare, compared to women of similar socioeconomic status who delay childbearing (National Campaign to Prevent Teen Pregnancy 2002). Approximately three-quarters of unmarried teen mothers – half of all teen mothers – begin receiving welfare within five years of having their first child (National Campaign to Prevent Teen Pregnancy 2002). When they do go on welfare, they tend to do so for long periods of time, more than five of the ten years following the birth of their child (Maynard 1997). Nonetheless, historically, teen mothers make up only a small proportion of the welfare caseload (although this may change under welfare reform). Only 5% of mothers receiving public assistance are teens, and just 1% are under age 18. However, the majority of welfare recipients began their families as teen mothers (National Campaign to Prevent Teen Pregnancy 2002).

Consequences for the Father

Until recently, most of the research on the consequences of teen childbearing focused on teen mothers. Many of the fathers of children born to teens do not financially support their children; therefore, it was generally assumed that the direct consequences of teen childbearing were less for fathers than for mothers. However, recent studies have demonstrated educational and financial effects of early childbearing on young men.

Educational Attainment and Earnings. Men who have a child with a teen mother tend to complete fewer years of education than other men (Nord, Moore et al. 1992). These fathers are less likely to receive a traditional high school diploma or a GED equivalency. If they do complete high school, they are less likely to do so at the typical age. Young men who become fathers while in high school complete an average of one semester less of school, compared with those who do not have children until after age 21. This one semester can be the difference between earning a high school diploma or not, which is a significant disadvantage in the job market. The annual earnings of teen fathers have been found to be 10-15% less than for men who do not have children during their teen years (National Campaign to Prevent Teen Pregnancy 2002).

Marriage and Support. Teen fathers are less likely to marry the mother of their child than older men (Nord, Moore et al. 1992). Children who do not live with their father are five times more likely to be poor than children with both parents at home (National Campaign to Prevent Teen Pregnancy 2002). Only one out of five teen mothers receive any financial support from their

child's father (Sawhill 2001). This puts their children – many of whom are living in poverty – at additional disadvantage. However, many teen fathers keep in regular contact with their children, even if they do not marry the mother. This is an important factor in children's future well-being. Fathers participate in their children's lives in a multitude of ways beyond the traditional roles of "economic provider" and "playmate" (Halle 1999). They serve as caregivers, teachers, role models, disciplinarians, protectors and advocates. This is especially important because children whose fathers are not involved in their lives are more likely to drop out of school, abuse alcohol or drugs, go to jail, and seek help for emotional problems.

Consequences for the Children

"The children of teenaged mothers may bear the greatest brunt of the mothers' young age" (Kirby 2001). Most studies have found that the children of teen parents are at greater risk for poor health outcomes, cognitive development, and educational attainment and for behavior problems. This is not fully surprising, since teen parents face social and economic disadvantages compared to their peers.

Health Outcomes. Teen childbearing is associated with poor birth outcomes for the infant, including prematurity and low birthweight (Fraser, Brockert et al. 1995; National Campaign to Prevent Teen Pregnancy n.d.). The proportion of low birthweight babies born to teens is 28% higher than for those born to mothers ages 20 to 24 (National Campaign to Prevent Teen Pregnancy n.d.). Second births are at even greater risk, especially if the births are less than a year apart (Nord, Moore et al. 1992). Access to prenatal care is a critical factor in birth outcomes. Only one-third of teen mothers receive adequate care during their pregnancies (Alan Guttmacher Institute 1999). This puts them at increased risk of antepartum and postpartum complications, such as preeclampsia, anemia and obesity. These complications increase the risk of poor birth outcomes for their infants (Amini, Catalano et al. 1996; Alan Guttmacher Institute 1999). Pregnant teens also experience greater emotional stress and are more frequent users of tobacco, alcohol, and other drugs compared to other pregnant women, behaviors which are associated with low birthweight.

These early problems have long-term consequences. Low birthweight raises the risk of other health problems for the child, including blindness, deafness, chronic respiratory problems, mental retardation, cerebral palsy, mental illness, and infant death (National Campaign to Prevent Teen Pregnancy 2002). When they grow older, children born to teen mothers are more likely to be diagnosed with dyslexia, hyperactivity or another disability (National Campaign to Prevent Teen Pregnancy 2002). Despite the fact that they have more health problems, the children of teen parents receive less medical care than the children of older mothers (National Campaign to Prevent Teen Pregnancy n.d.). Their care is also covered by different payment sources. The health care visits of children of teen mothers are less likely to be paid for directly by their families (38% vs. 47%) or by private insurance (16% vs. 32%), and are more likely to be paid for by public insurance (49% vs. 20%) (Maynard 1997).

Cognitive, Educational, and Behavioral Outcomes. The children of teen parents score lower on cognitive development tests and are less successful in school than other children. Youth born to teen mothers are more likely to repeat a grade, are more likely to be doing remedial work, and

have poorer performance on standardized tests (National Campaign to Prevent Teen Pregnancy 2002). They score lower on standard intelligence tests and achievement evaluations (Nord, Moore et al. 1992; Hofferth and Reid 2002). They are less likely to finish high school and have lower education expectations than other youth.

The children of teen mothers also have displayed more social and behavior problems than children born to older parents; these problems may in fact worsen as they grow older (Hofferth and Reid 2002). Other studies have found increased problems with social and emotional development, such as misbehavior, delinquency, and school suspensions. The sons of teen mothers are more than three times as likely to be incarcerated during their adolescence or twenties as those born to older mothers (Maynard 1997). After controlling for background factors, the connection still exists, although it is greatly reduced.

Abuse and Neglect. Children of teen parents are more likely to be abused and neglected than children of older mothers (Maynard 1997; National Campaign to Prevent Teen Pregnancy 2002). One study found more than twice as many incidents of abuse and neglect reported to authorities for families headed by a teen mother (National Campaign to Prevent Teen Pregnancy n.d.). Birth order also seems to play a role. Subsequent children of mothers who had their first child as a young teen are significantly more likely to be victims of abuse or neglect than the first child in the family (Maynard 1997). Even after controlling for sociodemographic characteristics, the children of young teens are considerably more likely to be victims of abuse and neglect and to be placed in foster care (Maynard 1997).

Teen Pregnancy. One frequently cited consequence of teen childbearing is the repetition of early births across generations, creating "a growing and self-perpetuating underclass" due to the cycle of disadvantage (Furstenberg, Levine et al. 1990). The daughters of teen mothers are 22% more likely to become teen mothers themselves than those born to women who postponed childbearing (Terry and Manlove 2000). A national study during the 1950s through 1970s found that the daughters of both non-Hispanic white and African American adolescent mothers face significantly higher risks of early childbearing than the children of older mothers. The patterns of teenage family formation were repeated each generation, with teen births to whites occurring more frequently within marriage and teen births to blacks occurring outside of marriage (Kahn and Anderson 1992).

Two possible mechanisms have been proposed to explain this cycle (Kahn and Anderson 1992). One possible direct pathway is a biological predisposition passed down from one generation to the next, such as timing of puberty and fertility. Another is the intergenerational transmission of attitudes, values and preferences regarding childbearing. The indirect path is connected to the socioeconomic context in which the children of teen mothers are raised. The mother's early childbearing is associated with poverty, lower socioeconomic status, and family instability, all of which place the child at higher risk for early childbearing herself.

Economic Consequences

In addition to the consequences to teen parents, their children and their families, adolescent pregnancy and childbearing have important economic costs. These costs provide a sense of the

savings that could be achieved if adolescents postponed their childbearing until their twenties, when they would be better able to emotionally, socially, and financially support their children.

Each year taxpayers spend an estimated $7 billion for births to women ages 15-17 – or $3,200 a year for each birth (Maynard 1997). This is a conservative estimate of the direct costs associated with lost tax revenues, health care, public assistance, foster care, and criminal justice. The annual savings in foster care alone would be approximately $1 billion, if the women who were bearing children at age 17 or younger delayed childbearing until their twenties (Maynard 1997). Avoiding the cost of investigating reports of abuse and neglect could decrease another $100 million annually (Maynard 1997). Similarly, if a young woman delayed her first birth until age 20 or 21, her child's risk of incarceration would fall by 12%. The public costs of incarceration would decline by more than $900 million (Maynard 1997). These savings are conservative, a probable underestimate of the crime-related costs of early childbearing. Others have noted the additional costs to mothers ages 18 and 19. While the costs tend to be lower for older teens, it should be noted that there are many more mothers in the 18 to 19 age range, than 15 to 17 (Kirby 2001). Therefore, the total cost of teen pregnancy is likely to be that much higher than the above estimate.

Advocates for Youth calculated that, in fiscal year 1996, the federal government spent more than $38 billion on behalf of the families that began with a birth to a teen; this includes families headed by adult females who were teenagers when they had their first child (Feijoo 1999). This includes appropriate costs spent on Medicaid, Aid to Families with Dependent Children (AFDC), food stamps, the Special Supplementary Nutrition Program for Women, Infants and Children (WIC), the Social Services Block Grant, the Maternal and Child Health Services Block Grant, and the Adolescent Family Life Program. In that same year, the federal government invested approximately $138 million to support adolescent pregnancy prevention initiatives through programs such as Medicaid, Title X family planning clinics, community health centers, and others. Thus, the amount spent on prevention is over 275 times *less* than amount spent supporting families begun with a teen birth.

Programs and Policies to Prevent Adolescent Pregnancy

Traditionally, adolescent health was defined by the absence of problems, such as pregnancy, violent behavior, gang involvement, or drug use. Programs and services that aimed to improve the health of teens focused on eliminating these problems, often using approaches that were too narrow in scope and failing to address the root causes of these issues (Clayton, Brindis et al. 2000). For many years, the field of adolescent pregnancy prevention adopted this view and relied on a problem-based model of youth when developing interventions for "youth at risk" of unintended pregnancy. Programs often blamed teens for their risky sexual behaviors, "without fully acknowledging that adolescent behavior mirrors that of adults and is shaped by their social and cultural environments, including families, communities, schools, media, popular culture, and public opinion" (Clayton, Brindis et al. 2000).

Over the past decade, there has been a fundamental shift in the development of adolescent pregnancy prevention programs. Professionals began to realize that this emphasis solely on negative behaviors kept them from looking at youth as *resources* in the prevention of teen pregnancy. Increasingly, education and services that focus on sexuality and reproductive health are now being linked to efforts to strengthening resiliency, the ability of youth to overcome obstacles and build the competencies needed to succeed as adults (Clayton, Brindis et al. 2000). Prevention programs now have broader scopes and set goals for improving academic, social and vocational skills and prospects. These multifaceted efforts encourage youth to develop connections with their community and have high expectations for their futures so that they are motivated to delay pregnancy and childbearing until adulthood.

Family planning clinics continue to play an important role in the prevention of adolescent pregnancy and childbearing. Title X of the Public Health Service Act provides federal funding to support the operation of family planning clinics and provision of subsidized contraceptive services to low-income adolescent girls and women. Each year, publicly funded family planning clinics help to prevent 1.3 million unintended pregnancies in the United States, including 376,000 to teens (Forrest and Samara 1996). If publicly funded services were not available, federal and state governments would spend an additional $1.2 billion annually in their Medicaid program to cover costs associated with unplanned births and abortions, compared to only $412 million spent on family planning services. Therefore, every public dollar spent on family planning services saved $3.00 in Medicaid costs for pregnancy-related and newborn medical care (Forrest and Samara 1996).

A cost-benefit analysis of California's Family PACT Program, which provides access to family planning services for low-income women, men, and adolescents, found that every dollar spent on services saved an estimated $4.48 in medical and social service costs (Brindis and Darney 2000). The program saved over $512 million in public expenditures that would have been spent on medical care, income support, and social services for the mother and for the child born as a result of unintended pregnancy. Since this initial analysis, the number of Family PACT clients has increased considerably, indicating that the program continues to avert unintended pregnancies and save public sector costs.

Many federal and state policies have also been established to discourage adolescent pregnancy and childbearing, particularly in recent years. The 1996 federal welfare reform law, for example, included several provisions with this goal in mind, including placing restrictions on benefits to unmarried teen parents, providing bonuses to states that decrease nonmarital births without increasing abortions, creating a federally-funded abstinence program, and mandating that states develop plans to reduce the incidence of teen pregnancies (Wertheimer, Jager et al. 2000). Across the country, states have enacted their own policies in an effort to reduce teen pregnancy and childbearing rates. A Child Trends survey of current state policies found:

- 28 states had an official policy requiring or encouraging pregnancy prevention programs in public schools;
- 23 states provided contraceptive education in public schools statewide, 26 states provided abstinence education, and 15 states provided both contraceptive and abstinence education;
- 44 states provided family planning services to adolescents, with 30 using federal TANF funds, and 44 using state or local funds.
- 36 states conducted media campaigns to discourage teen pregnancy; and,
- 37 states formed coalitions with nongovernmental organizations, including foundations, nonprofit organizations, religious institutions and corporations, to reduce adolescent pregnancy (Wertheimer, Jager et al. 2000).

While policies differ from state-to-state, there seems to be clear evidence of increasing public and private efforts to reduce adolescent childbearing.

California's Efforts to Reduce Adolescent Pregnancy and Childbearing

Over the years, California has been at the forefront of efforts to reduce adolescent pregnancy and childbearing. The state's innovative programs have often been held up as models for other states. Some target specific populations, such as young men, pregnant and parenting teens, or the siblings of pregnant and parenting teens; others focus on "hot spots," regions with above average teen birth rates; still others provide services to all youth in a specific community, school district, or school. Recent[7] efforts include:

Health Education and Youth Development Programs

- For nearly thirty years, the Department of Health Services' **Information and Education (I&E)** projects have been a major component of the state's teen pregnancy prevention efforts. Service to youth and adults is accomplished through a variety of settings and utilizes various strategies appropriate to the diverse needs of the state. Youth Intervention Projects target youth in school, community, juvenile justice, foster care and other settings where youth can be reached to provide family life education and teen pregnancy prevention strategies. Parents and other caregivers are supported through health education programs that recognize that they are the primary sex educators of their

[7] The programs described in this section reflect state-funded efforts as of early 2003. With state budgetary restrictions, these programs may have undergone some reductions.

children. Health education programs also target adults who work with youth in a variety of settings, so that they can return to their jobs and provide youth with correct information, decision-making skills, and access to needed support and guidance.

- The **Community Challenge Grant (CCG)** Program promotes community-based partnerships that aim to reduce teen and unintended pregnancy and absentee fatherhood, promote responsible parenting, and increase the involvement of fathers in the economic, social, and emotional development of their children. Its fundamental premise is that community-driven approaches to teen pregnancy increase community ownership of solutions. With an annual budget of $20 million per year, the Department of Health Services funds more than 130 community-based organizations, school districts, public health agencies, social service agencies, and local government agencies that utilize a wide-range of strategies to change individual attitudes and behavior, as well as community norms. These strategies include: family life education; career and job skills development; father involvement; male responsibility; abstinence education; community mobilization; mentoring; education and support for parents of teens; parenting education for pregnant and parenting teens; and youth development.

- California's **Male Involvement Program (MIP)** provides local assistance funds to increase the involvement of adolescent and young males in the prevention of teen pregnancy and unintended fatherhood. The intent of the program is to increase community and individual awareness of the importance of the roles and responsibilities males have in the reduction of teen pregnancies, and to increase the knowledge, skills, and motivation of males to assume leadership roles in their communities. The community-based strategies used by the twenty-five MIP programs differ based on each program's knowledge of the young men it serves and the context in which they live. Interventions include: educational sessions, group discussions, youth leadership development, teen theater, conferences and retreats, job training and placement, rites of passage, and peer outreach.

- The **Teen Pregnancy Prevention Grant Program (TPPGP)** was the first effort by the California Department of Education (CDE) to support students in delaying the onset of sexual activity and to reduce teenage pregnancy. For five years (1996-2001), CDE funded school-community partnerships to develop and implement comprehensive prevention programs, particularly focused on areas of the state with the greatest need. Thirty-seven school districts and county offices of education provided family life education, youth development, after-school activities, academic support, and case management services to students in elementary, middle, and high schools. CDE saw the reduction of teen pregnancy as consistent with its mission to ensure that all students achieve their full academic potential, to promote students' healthy physical and emotional growth and development, and to reduce the dropout rate in California schools.

Clinic Programs and Services

- The **Family PACT (Planning, Access, Care, and Treatment)** Program provides universal access to pregnancy prevention services for eligible women, men, and

adolescents whose incomes are at or below 200% of the federal poverty level. In December 1999, the Family PACT Program became a five-year Medicaid 1115 Waiver Demonstration Project to bring federal matching funds; reimbursement by federal waiver dollars for family planning services is projected to total about $900 million over the five-year period. Family PACT services include client counseling, contraceptive methods, sexually transmitted infection (STI) testing and treatment, HIV testing, and cervical cancer screening. Family PACT providers include private physicians and physicians groups, community clinics, rural health clinics, hospital outpatient departments, and Federally Qualified Health Centers.

- At many Family PACT clinics, **TeenSMART** funding helps to reduce teen pregnancies and sexually transmitted diseases by providing enhanced counseling sessions to teens enrolled in Family PACT. The purpose of TeenSMART is to help adolescents make and sustain "smart" decisions related to their sexual behavior and use of family planning services. The enhanced education and counseling services, where teens have an opportunity to discuss their values and behaviors with a family planning counselor, are reimbursed through a fee-for-service system and paid in addition to regular office visits for reproductive health care. Twenty-five of the TeenSMART programs receive additional funds to provide outreach in their communities. Through formal group presentations, small group counseling, one-on-one sessions, and referral networks, the **TeenSMART Outreach** agencies help teens who are at high risk of unintended pregnancy access family planning services. These teens include those who may already be parenting, are homeless, live in foster care, have been victims of abuse, and/or are school dropouts. Outreach strategies include community information campaigns, establishing linkages between youth-serving organizations and Family PACT providers, and individual and group presentations to youth outside of clinic settings.

Support for Pregnant and Parenting Teens

- Through the Department of Health Services, the **Adolescent Family Life Program (AFLP)** funds 47 programs in county health departments, schools, hospitals, and community-based organizations to help pregnant and parenting teens have healthy babies, graduate from high school, and not have subsequent children until adulthood. Case management services referred enrolled teens to necessary medical care, school support, social services, mental health, substance abuse, and parenting education. Nearly all of the grantees also implement the **Adolescent Sibling Pregnancy Prevention Program (ASPPP),** which provides services and outreach to the siblings of pregnant and parenting teens to reduce their risk of unintended teen pregnancy.

- The **California School Age Families Education (Cal-SAFE)** program is designed to help pregnant and parenting teens by improving their academic achievement, building their parenting skills, and providing quality child care and development opportunities for their children. This school-based program replaced previous efforts of the Department of Education, such as the Pregnant Minors Program and the School Age Parenting and Infant Development (SAPID) program. Cal-SAFE requires its grantees, school districts

and county offices of education, to connect with existing program strategies and work with local collaboratives to better integrate services for children and families.

- Through the Department of Social Services, the **Cal-Learn** program works to reduce teen pregnancy rates and long-term welfare dependency by helping pregnant and parenting teens attend and graduate from high school. The program provides intensive case management to help the teen obtain education, health, and social services; payments for child care, transportation and educational expenses that enable the teen to attend school; and bonuses and sanctions to encourage school attendance and good grades. Enrollment in Cal-Learn is required of all pregnant and parenting teens who receive CalWORKS assistance, are under the age of 19, and have not graduated from high school.

Statutory Rape Laws

- Beginning in 1995, the Office of Criminal Justice Planning was allocated more than $8 million in State General Funds to support the aggressive prosecution of statutory rape cases through the **Statutory Rape Vertical Prosecution** (SRVP) program. The program provides grants to more than 50 District Attorney's Offices to establish specialized units to prosecute adults who are engaged in unlawful sexual intercourse with a minor. Funding for these projects is used to hire experienced prosecutors, investigators, and victim advocates; provide community outreach and education; and collaborate with other organizations serving statutory rape victims.

Media Efforts

- Through the Office of Family Planning's **Teen Pregnancy Prevention Media Campaign ("It's Up to Me")**, the California Department of Health Services aims to involve communities and organizations in teen pregnancy prevention. Its predominant message – as shown through public service announcements, billboards, a toll-free referral hotline, and a web site – is that all Californians share responsibility in reducing teen pregnancy. The campaign aims to mobilize teens, parents, young men, and the general public, to help reduce teen pregnancies. It also encourages male involvement in preventing unintended pregnancies and improving their children's lives, promotes the availability of Family PACT clinical services, and encourages adult-to-teen communication. Public relations activities involving grassroots community agencies complement the advertising efforts throughout the state.

In addition, there are numerous projects throughout California that are funded through private foundations, such as The California Wellness Foundation's Teen Pregnancy Prevention Initiative. Throughout the state are myriad local efforts organized by businesses, city and county governments, faith community, schools, and community organizations that support adolescents' transition to adulthood, many focused on youth development. While describing each of these complementary strategies is beyond the scope of this review, clearly the value of these efforts is important to recognize in helping young people avoid pregnancy. The challenge is how to coordinate these programs, which operate side-by-side, but rarely cross paths. Without communication among programs, efforts may be duplicated and gaps not identified.

As shown in this review, adolescent pregnancy is a complex social issue. Significant inroads have been made by California's adoption of a multiple-strategy approach. Still, there are a variety of steps and investments that need to be made to assure that the problem does not get worse, particularly given current demographic changes across the state. In the following sections, we share the perspectives of California youth and present potential policy options for key stakeholders.

Teens and Parents Speak Out: The Results of Focus Groups with California's Youth and Families

At the request of California State Senator Dede Alpert, the California Research Bureau (CRB) of the California State Library organized and conducted focus groups in six geographically and ethnically diverse communities throughout California to assess ways of improving the quality of family life education provided to adolescents and their parents. The need to identify California-specific information builds on a May 2001 report released by the Kaiser Family Foundation entitled "Sexual Health Care and Counsel" which summarized key findings of a national survey researching adolescent pregnancy prevention and sexual behavior. The survey asked teens and parents about the quantity, quality, and sources of their family life education. According to the survey findings, even in situations that would be considered optimal (comprehensive sex education in schools and open communication with parents), teens stated that they still wanted additional information.

Thus, based on these findings, CRB developed a California-focused research tool to address policy and programmatic obstacles and solutions. CRB organized and facilitated 18 focus groups where male and female adolescents and their parents were convened separately to talk about their knowledge, behaviors, and attitudes regarding sexuality and ways to improve the quality of family life education available in the state.

In an attempt to understand the policy and program issues involved in providing better access to information about safe sexual behavior, CRB asked youth and parents:

- Who should teach the information?
- Where and when should the information be taught?
- What information should be taught?

Focus Group Participants

The participating teens and parents were recruited by CRB's community partners (Project LEAN, the California Center for Civic Participation and Youth Development, and Joan Rupp and Associates) in Fresno, San Diego, Modesto, Los Angeles, Richmond, and Fontana. Community leaders and consultants who work in ethnically diverse communities conducted the recruitment and arranged the facilities where the focus groups were conducted. Recruiting priorities for teens included a mix of age, race/ethnicity, income, and sexual experience. Parent groups were similarly diverse. Each of the focus groups lasted between an hour and an hour and a half. All of the participants received a gift certificate of twenty dollars in recognition of their contribution to this project.

Focus Group Measures and Procedures

A structured Focus Group Guide, consisting of age-appropriate questions and probes was developed after consultation with researchers who have expertise in qualitative research methods and adolescent pregnancy. All of the questions were open-ended and worded in neutral terms to minimize the extent to which the focus group facilitator might bias participant responses. The

focus group questions touched on a number of issues related to sex education and sexual behaviors. Parents were asked similar questions regarding their own attitudes and beliefs, as well as that of their teen.

Teen facilitators, who were recruited and extensively trained by the California Center for Civic Participation and Youth Development, were present at many of the focus groups. The teen facilitators provided an important bridge between the adult facilitator and the participants.

Focus group participants were informed that the discussions would be audio-taped, but that confidentiality would be assured. Only the facilitators would have access to the tapes, which were stored in a safe prior to data analyses and later destroyed. Parents signed consent forms to participate, and adolescents supplied parental permission slips.

The focus group transcripts and audiotapes were analyzed by considering common themes and issues that were agreed upon through consensus. In reporting the themes, where one type of participant (for example, adolescent males) reported a theme, it was written as such. Where responses are varied they are compared and contrasted.

Focus Group Findings

In this section, we summarize the key findings for each of the major guiding questions for this focus group study. A total of 248 people (19 adult men, 62 adult women, 85 adolescent males and 82 adolescent females) participated in one of the 18 focus groups held in community centers and schools. Participants in each focus group reflected the diversity of the community and included Latino, African American, and White participants.

Who should teach the information? Across all racial/ethnic groups, parents and teens expressed hesitation and embarrassment about discussing sexual activity and pregnancy prevention with each other. However, parents stated that more frequent discussion on the issue might remove the obstacles and allow parents to have more in-depth conversations with their teenage children. Both teens and parents agreed that parents should be more open with their children about sexual attitudes and behavior.

Without parental communication, teens are left with a void to fill and rely on other teens, the media, and school to teach them about sexual behavior and its consequences. Parents feared that teens might rely on misinformation or myths from other teens. One Los Angeles parent described the situation as "the blind leading the blind." Teens, in turn, stated that they had to decipher and glean the information from an array of sources. While teens were able to rule out the realistic information behind certain myths (for instance, if one condom is a good contraceptive method, then two must be better), other myths left teens uncertain about their validity (for instance, the withdrawal method is a reliable form of contraception).

Teens stated they learned about sex from various types of media, including movies, television, magazines, and literature. They noted that characters in television programs and mainstream movies often do not have responsible "safe sex" and failed to show the consequences of

irresponsible sex. When male actors do not wear condoms, this sends a message of acceptability of this practice to the teens who watch the movies.

Regarding television, teens and parents stated that this media had the potential to provide a sensible and realistic view of sex and pregnancy prevention. Instead, it intentionally "fails to identify responsibility and consequences to actions," according to a Fontana parent. Parents stated that mainstream magazines (such as YM, Elle, GQ, Men's Health) push for teens to have sex. These magazines profess each month that a "perfect sex life" is essential to having great relationship with a romantic partner. Teens reported that the articles add stress and frustration to their lives.

Teens reported that sex education taught by teachers in their schools often feels "mechanized," and that curricula are primarily focused on lessons related to anatomy, biology, and sexually transmitted infections (STIs). Parents reported not knowing exactly what is taught in the classes that their children attend. For some parents, this may reflect that the information is perceived as not readily available from schools and teachers. For other parents, there did not appear to be any awareness that they could examine such materials. Teens and parents agreed that the school-based education might be improved if people closer in age to the teens taught the classes. Young adults, such as students from nearby community colleges, may be more sympathetic to the issues that teens face and, therefore, may be more acceptable to teens.

In addition, both parents and teens wanted to hear personal experiences directly from teen parents and people living with HIV/AIDS. Specifically, they would like to have "real" people – those who were not stellar academic scholars or star athletes – teach teens about sex. Those who may have "muddled through" high school, attended a two-year college, got a job, married, had children, and mostly succeeded in achieving a happy life would be more effective and realistic teachers. Some focus group participants supported a "scared straight" tactic to prevent teens from making irreversible mistakes. One Richmond student said, "You may know what you are doing, but things can go wrong and you may regret it." A Los Angeles parent stated that teen parents "may as well kiss their dreams goodbye."

Teens and parents agreed that as important as it is for teens to be informed about sex, parents also need education and support so that they can feel comfortable discussing sensitive topics with their children. Teens realize that the information their parents share with them could be out-of-date or, even, incorrect. Some teens thought contraceptive practices had changed so much in recent decades that their parents might not be able to provide them with good information. For example, while teens knew that two condoms are not better than one, about half the parents could not correctly answer this question. Parents also stated, incorrectly, the withdrawal method might be an effective means of contraception. One San Diego girl stated that her mom thought that the birth control pill should only be taken right before sex rather than on a daily routine. The girl felt torn between listening to the medical recommendation from her doctor and the advice from her mother.

Teens and parents stated that using outside experts, such as professional health educators or community workers, to deliver information could be an effective way to deliver unbiased and nonjudgmental sex education to both groups. Resources for educators who could deliver

messages about healthy sexual behavior included churches, community groups, health care providers, clinics, and hospitals.

Where and when should the information be taught? Teens stated that they often are exposed to formal sex education for the first time through a course in 5th or 6th grades. The format is usually a single-sex group from one class in a classroom, or a combination of classes where the curriculum is taught in the auditorium. Teens commented that the subjects covered (primarily, anatomy and sexually transmitted infections) are taught on a single day with no advance warning. This style does not permit them to consider the issues and develop questions prior to the class they are attending. The auditorium-style class, teens complained, is also a mechanized, faceless way of teaching and lacks the discussion of other important issues young people face. In addition, teens stated they were embarrassed to ask questions during an auditorium setting and, even if they wanted to, there was not enough time allocated to do so. Some of the teens decided not to attend or "bailed out" on the auditorium style class because they did not believe they would learn anything useful. The academic style made "kids wiggle in their seats, but did not stir panic," stated a Stockton parent.

Teens and parents agreed that sex education for youth should be done in small groups of approximately ten to 15 teens. Teens suggested that sex education should start as early as the 2nd grade and that classes should be held every year, up through 10th grade. Classes should be taught on multiple days, even if the lectures are for a short period of time, to give students time to process the information and form questions. Flyers should be sent home to parents to inform them about the curriculum and its objectives, and teens should be encouraged to discuss what they learned with their parents.

Parents stated that they would like to attend evening classes on sex education sponsored by their local school district or another community-based organization. Parents remarked that using a person's home as the setting may be better than using an institution, such as a school. Here, too, they agreed that smaller groups, of ten to 15 people, would be more effective. Parents also stated that the instructor should try to promote an opportunity for an open forum, rather than "preach" a certain philosophy or doctrine about sex education and sexual behavior.

What information should be taught? Teens and parents stated that, prior to having sexual intercourse, teens cannot fully understand the impact it may have on their lives without proper education. Some of the teens shared regrets at becoming sexually active. One teen from Los Angeles stated, "Once you take the leap, there is no going back. But what was the rush to jump?"

Some high schools provide a family life education program focused on domestic economics, family living, and running a household. As part of the curriculum, teens are required to take care of a simulated baby – a computerized doll that is programmed to cry at different time intervals – to allow the student to get an introduction to what actual childcare responsibilities might entail. However, teens pointed out that the school's good intentions might not go far enough. Schools rarely have enough dolls for all the students in a class to participate, so teachers improvise by offering teens eggs, sacks of flour, and non-mechanized dolls. Both parents and teens see these alternatives as "silly." Teens stated that the mechanized dolls are effective, but the length of

time for the exercise was generally not long enough to fully experience what is like to care for a new baby.

Teens and parents stated that a curriculum should begin with abstinence. Teens and parents agreed that one of the best ways to "protect teens and young children from pregnancy and STIs is through abstinence." In order to properly teach about abstinence in schools, many teens and parents stated that scenarios described in television programs, magazines, and romance novels need to be addressed and dispelled. The most serious issues, teens and parents agreed, are the consequences a teen faces by having sex. Both groups agreed that this topic is not taught effectively in schools. For example, teen parents are well accepted on school campuses. Schools provide childcare and counseling, and community programs provide diapers, rent, furniture, and food coupons. However, what is often not provided is training for new parents to take care of the baby, keep a house, and manage personal finances.

Policy Options

The aim of this report has been to illustrate the continued relevance of adolescent pregnancy as a health and social issue in California, and to highlight the many efforts that policymakers and program officials have made toward reducing the incidence of pregnancy and childbearing among California's youth. We should take pride in the declines in the rates of teen pregnancies and births over the past decade, but we must also keep ourselves from becoming complacent. There is still work to be done.

Clearly, one of the most effective strategies adopted by California has been the allocation of scarce resources to reach young people and their families in the highest need areas of the state. Furthermore, the state has supported local communities' adopting and shaping strategies that are most responsive to their own needs and values, while supporting technical assistance and evaluation activities to help strengthen those local efforts. As documented in a recent analysis, there is wide variability in the numbers and the rates of teen births that occur throughout the state (Constantine and Nevarez 2003). As a result, continued inroads in meeting the challenges of adolescent pregnancy and childbearing require a variety of tailored strategies and policy options. This section presents policy options derived from input received at the CRB focus groups, analysis of the most current research literature, and lessons learned from the field. We are cognizant of the current contraction of governmental revenues at all levels and aware of the constraints this places on the funding of all government-supported programs, regardless of their merit. In spite of this, we believe it is important to provide policymakers with information on those interventions that appear to be effective in preventing teen pregnancy to guide both current and future planning and decision-making.

The policy options presented below are divided into two sections. The first section includes suggested strategies for enhancing family life education that youth receive in schools and from their families. The second section suggests strategies for addressing additional factors that are linked to teen decisions about pregnancy prevention: promoting youth success, expanding youth development opportunities, increasing access to reproductive health care, and supporting community development.

Enhancing Family Life Education Capacity of Schools and Families

The focus groups conducted as a component of this effort revealed a number of opportunities for improving the quality of education youth receive concerning relationships and sexual behavior.

Family Life Education in California Schools

Educational interventions have always been an important aspect of adolescent pregnancy prevention. Because of the sheer number of hours youth spend there and the learning environment they promote, schools are a great way to reach most youth. Increased knowledge and skills are important ingredients in preparing young people to make more effective decisions. Family life, or sex, education is not a required element of California school curricula, but it is taught in many elementary, middle, and high schools. The content of these education programs is determined at the local level. State guidance is provided in statute through the California

Education Code and in policy statements and guidelines issued by the California Department of Education. Input received from participants in the CRB focus groups leads to a number of options for improving the quality of current family life education instruction.

Identify and disseminate model family life curricula. There is a dearth of information about the content, quality, and scope of existing family life education programs in California's schools. Focus group participants indicated that current approaches to teaching might not be effective in reaching students and responding to their questions and concerns.

- The State should undertake an effort to identify examples of family life curricula currently taught in California schools and nationally that could serve as models for school districts that are interested in developing or enhancing existing curricula in this area. Particular attention should be paid to models that reflect the suggestions of focus group participants. Specifically, these would include such elements as:

  - Classes taught in small group settings;
  - Teaching approaches that emphasize interaction with students rather than "mechanized" lectures;
  - Instructional time that is spread out over a sufficient period of time to allow students to develop and get answers to their questions;
  - Instruction by persons other than classroom teachers, such as teen parents, persons living with HIV/AIDS, and/or health educators;
  - Classes that include discussion of the information and values concerning sexuality, sexual behavior, and gender roles that students receive from television, radio, movies, music videos, magazines, and the Internet.

  Attention should also be given to curricula that combine family life education with discussion of other risk behaviors among youth. These would include early sexual activity, alcohol and drug use, carrying weapons, physical fighting, and others that have similar causes. As an example, a model curriculum might be one that teaches youth about pregnancy prevention and sexually transmitted diseases (including HIV/AIDS) in coordination with other school-based efforts, such as drug and alcohol education.

  Once identified, model curricula should be made widely available to California teachers and administrators. Funding for this effort could come from existing funding for teen pregnancy prevention programs, foundation or other grants, or a new appropriation.

Monitor educational efforts. There is a great need for a statewide mechanism to monitor family life education efforts in the schools and to ascertain the type of family life education students receive through California's schools. State law requires that information provided to students be medically accurate and free of gender, racial, or ethnic bias. However, at this time, there is no mechanism to monitor program content.

- The Department of Education should undertake a statewide assessment of family life education programs in schools. Such a study would clarify the needs, assets, availability, length, content, and quality of current school programs. Based on these findings, the

Department of Education could assess what additional course materials and teacher training are necessary to improve local programs and to adopt model programs, as discussed above.

- The State could then consider allocating adequate funding for monitoring the effective implementation of family life education programs, training health educators, and evaluating school-based prevention education programs.

Enhance teacher training. The content of family life education classes in schools has been found to range widely depending on who is providing the information. Even if future family life education were to include instruction by resource persons from outside of the school, classroom teachers will still have primary responsibility for the content and quality of these classes. Teachers need training and support to provide high-quality comprehensive education for their students. One model for conducting this teacher training was created in the 1980s at the California Department of Health Services' Office of Family Planning (OFP). Under this model, an OFP contractor was funded to provide school districts with training for their personnel, parents and community leaders. These trainings covered program development, parent involvement, basic teaching training for elementary and secondary school teachers, and trainer trainings, which prepared qualified family life education teachers to go back to their districts and train additional personnel. The districts trained through this program reported low levels of parental and community opposition to instituting FLE programs in the schools, with three-quarters reporting no opposition at all. These school districts also offered substantially greater numbers of family life education hours to students than those without an approved curriculum (Brindis and Jeremy 1988).

- The Legislature could restore state-level funding for consistent training for teachers, parents, and community members. Alternatively, training programs could be established through the Department of Education via the County Offices of Education. This method promotes county leadership, which may give teacher and community training additional legitimacy among schools, and provides supports needed for regional professional development activities.

Institute mandatory family life education in schools. State law requires that students be taught about sexually transmitted infections, including HIV/AIDS, but does not require that schools teach family life education. Accordingly, current school-based health education efforts are limited and inconsistent. Previous surveys and findings from the CRB focus groups indicate both student and parent support for comprehensive family life education in schools, although not all people agree on the specific content of this instruction.

- The Legislature could agree upon and mandate core curriculum requirements for family life education courses for grades K-12. Senate Bill 71, which was introduced in 2003, is an example of this approach. Implementation of such a mandate would require a number of steps including, but not limited to, review by the Curriculum Development and Supplemental Materials Commission, development and adoption of age-appropriate instructional materials, and decisions by local school boards as to which materials would be used in their classrooms.

Strengthening parental communication skills

Parents are the primary influence on their children's attitudes, behaviors and values. Teens and parents who participated in the focus groups expressed the belief that there should be more open discussion between them on sexual attitudes and behaviors. Both groups also agreed that embarrassment and uncertainty about the appropriate content of these discussions are barriers to making them happen. School and community-based programs can help remove these barriers. Specifically, programs need to be developed for parents of young children, to engage parents and make them comfortable when their children first begin to ask questions. These educational opportunities could be further reinforced as their children enter adolescence, when a variety of effective parenting styles could help provide the nurturing and support adolescents need to reduce their risk-taking behaviors.

- California Children and Families (Prop 10) Commission was created to plan for and fund state and local approaches to enhance the lives of children ages 0 to 5. One of its goals is to ensure that all children are, by age 5, physically and emotionally healthy and learning, and ready to reach their potential. The Legislature and the Administration, through their representatives on the State Commission, could encourage the inclusion of a component on healthy relationships and sexual behavior as a part of this goal. The Commission has recently developed a kit for parents on bonding, communication, safety, literacy, nutrition, health, and discipline. Materials like these could be expanded to include tools to help parents develop knowledge and build communication skills for discussing age-appropriate behavior with their children.

- The existing network of local childcare planning councils and local Prop 10 Commissions could support professional interactions between the fields of family life and early childhood education by distributing information and resources to parents regarding age-appropriate behavior and discussions.

- Parents and organizations interested in teen pregnancy prevention could work with school district adult education staff, local Community Colleges, health maintenance organizations, and other sources of parent education to increase the availability and quality of child development educational opportunities for parents of children from birth through 18.

- Components that enhance parents' awareness of messages that their children receive from television, movies, the Internet, and other media, and increase their ability to communicate with their child about values, should be included in all materials and curricula covering family life education.

Other Factors that Influence Teen Decision-making

Promoting Youth Success in School and the Community

Youth who are academically successful and feel connected to their school are less likely to engage in risky sexual behaviors than their peers with low grade point averages and erratic attendance. In its efforts to promote academic achievement and create a supportive learning environment for all California youth, the education system can play a substantial role in reducing adolescent pregnancy and childbearing. Because academic failure is both an antecedent and a consequence of adolescent pregnancy, strong collaboration between school personnel and public health professionals is essential. California has developed and tested a number of programs that link enhanced academic success to teen pregnancy prevention. Several programs merit continued or expanded support from the State or other funding agencies. Strategies include:

- Restoring the California Department of Education's Teenage Pregnancy Prevention Grant Program (TPPGP), which supported a range of school-based efforts that explicitly linked academic achievement and pregnancy prevention. State funding for this pilot program expired in 2002.

- Continuing current learning support efforts such as Cal-SAFE, Healthy Start, after-school activities, and school-community partnerships, which improve the academic achievement of those California youth who are able to participate.

Continuing the Expansion of Youth Development Opportunities

Responding to programmatic research and experiences, experts in adolescent health and teen pregnancy prevention are increasingly emphasizing the importance of youth development and leadership opportunities. Youth development programs are located throughout the state, in school and community settings, and are funded through a variety of public and private sources. They provide youth with caring relationships, high expectations, and opportunities for meaningful contributions to their communities. Still, many youth do not have access to these programs, and those that do are often touched only for brief periods of time. Educational and economic opportunities should be available for all youth, through academic support, job training and placement, mentoring, organized recreation, and service-learning activities. While state requirements for community service as part of graduation requirements is a positive step, additional efforts are needed to provide young people with meaningful alternatives to early childbearing. Strategies for supporting youth development include:

- Create a position in each County Office of Education to support schools and districts in implementing and coordinating youth development programs. This person could be a point of contact between the State and local districts and schools, as well as the state Departments of Health and Social Services.

- Increase the target population of the Department of Education's After School Education and Safety Program (ASESP) to include high school students. The program currently

covers students in kindergarten through 9th grade. These programs should be available for older teens who are often most at risk of poor grades, truancy, substance use, and sexual risk-taking behaviors. Engaging young people in helping to create additional learning opportunities for younger students is just one example of the way that additional youth development opportunities could be build into California's schools. Currently, only about one out of every 20 California high schools receives federal after-school funding; state, local, or private funding mechanisms could be sought to support this vulnerable age group.

- Expand funding for youth employment and apprenticeship opportunities for young people. Create incentives for businesses that offer internship, job shadowing, and employment opportunities to adolescents and young adults, particularly those from low-income communities.

- Support community-based mentoring programs to build resiliency in youth and support them in making responsible decisions regarding pregnancy prevention, as well as the reduction of other risk-taking behaviors.

Increasing Access to Reproductive Health Care

Questions as to under what circumstances adolescents should have access to reproductive health services continue to be raised when teen pregnancy prevention is discussed in policymaking settings. Some parents and Legislators believe that adolescents should only access these services with parental permission and that reproductive health services should not be made available in school-based health centers. On the other hand, public health and medical professionals, as well as other parents and Legislators, tend to believe that ensuring access to reproductive health services is one of the most effective strategies for preventing unintended pregnancies among teens (Philliber Research Associates, et al. 2003). Ensuring that adolescents have access to confidential health services and counseling is an important component of a comprehensive approach to pregnancy prevention. Although a variety of programs are in place in California to provide reproductive health services to teens, personal and psychological, as well as system, barriers prevent many adolescents from receiving services that would help them prevent an unintended pregnancy.

Build upon Family PACT. The innovative Family PACT Program, under the auspices of the Department of Health Services, Office of Family Planning, has helped California make great strides in increasing adolescents' access to family planning and reproductive health services. Still, many California youth remain unaware of the free, confidential services that may be available to them through Family PACT. Specific state and local outreach efforts could be further enhanced to publicize the types of services available to California teens through Family PACT, Medi-Cal, Healthy Families, and other sources. There is also a continued need to reduce other barriers to care – cost, confidentiality, lack of information about location and services – that prevent youth from visiting a health care provider. One strategy would be to:

- Promote the enrollment of new public and private health care providers, particularly those with training in adolescent health. A provider study could highlight barriers to enrollment

(such as program misconceptions and reimbursement issues), clarify their importance, and help to determine solutions. Additional media campaigns and educational seminars could be developed for current and potential providers.

Promote teen-friendly reproductive health services. Adolescents often feel alienated from the services available to them. They may fear that providers will be judgmental and untrustworthy. Teen-friendly clinics and providers recognize these issues and, accordingly, have made innovations in their provision of care. These include convenient clinic hours (e.g., after-school or on weekends), drop-in appointments, separate waiting areas for young clients, and trained peer health educators in a number of sites. Several existing programs could serve as models for meeting this need.

- One example is the Adolescent Health Working Group in San Francisco that developed a report card for community health clinics through its Healthy Realities Project. Teens, trained as evaluators, make appointments at local clinics and use an established protocol to rate the clinics' support for teen clients. Clinics are then given the report card with suggestions for improvement, which are generally well received and implemented. Efforts such as this could be implemented and reported on a larger scale.

- School-based health centers are another example. These centers, which are located on middle and high school campuses, provide care for the physical and mental health needs of youth through education and counseling. They enhance well-being, academic success, and have wide parental and student support. While reproductive health services represent an important aspect of many of the programs located in high schools, the integration of reproductive health within a more comprehensive array of physical and mental health services represents a responsive approach to adolescent health care. Currently, there are 135 school-based health centers, serving 671 schools, in California. (California Assembly on School-Based Health Care 2002).

Increase the role of males in pregnancy prevention. In recent years, there has been increasing attention paid to the role of young men in preventing unintended pregnancies and the spread of sexually transmitted infections. A holistic, grassroots approach has emerged to incorporate messages of male involvement and responsible fatherhood into community programs and activities. California's Male Involvement Program (MIP), discussed earlier in this report, is at the forefront of these efforts. Using this program as a model, strategies could be developed to:

- Fortify California programs that engage young men in adolescent pregnancy prevention and promote responsible fatherhood.

- Support outreach efforts that focus specifically on connecting young men to available reproductive health services in their communities, as well as helping them to connect to academic, job preparation, cultural, and recreational resources.

Supporting Community Development

Growing up in economic and social disadvantage is a powerful predictor of adolescent childbearing. Poverty and its manifestations – low family income, low levels of education, residential instability, unemployment, crime rates, and community stress – all contribute to the ongoing cycle of teen pregnancy. Faced by a lack of economic resources, social disorganization and racial segregation, youth have little motivation to avoid the potential consequences of risky sexual behavior. Efforts to promote community development have widespread effects, including a reduction in the teen pregnancy and birth rates. Community development efforts that could be particularly effective include:

- Expand family resource centers and other care coordination strategies that help connect families to needed health and social services in their communities.

- Strengthen adult education, family literacy, job training, housing assistance and childcare services that are necessary to increase economic security for teens and their families.

- Expand the supply of community opportunities for youth in areas of greatest need. Efforts could include: designating funding to expand service-learning programs, creating internships within city and county departments, establishing and renovating youth centers, and providing incentives to businesses to hire youth from low-income neighborhoods.

- Support Enterprise Zones, and similar programs to revitalize community development, that aim to improve conditions in economically depressed areas by encouraging businesses to locate in these areas and hire local workers.

Conclusion

Even with the success of the past few years, demographic trends assure that the state will see a greater number of births to teen parents in the upcoming years unless we continue to make the types of community and health investments shown to have a positive effect in reducing teenage childbearing. By studying the most current research literature and lessons learned from the field, as well as recognizing California's success in implementing a multi-pronged approach to the issue of teenage pregnancy prevention, we can make more informed decisions with regard to policy and program development.

There is a clear need for a coordinated, comprehensive approach that encompasses all that has been learned through research and practice. The larger context in which children and adolescents are raised, including their friends, family, school and community, needs to become a part of a unified approach to teen pregnancy prevention. Efforts should address not only the sexual behavior of teens, but also the political, economic, medical, educational, and religious systems that influence the underlying conditions that lead to adolescent pregnancy. It is a complex problem. There cannot be one solution.

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