

One Out of Every Five
Teen Mothers and Subsequent Childbearing

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August 1998

Center for Law and Social Policy
CLASP

OVERVIEW

The birth of a child to a teenager¹ puts the young family at risk for negative social and health consequences²; the birth of additional children can further impede the family's financial, academic, and social success. Though there is a national interest in reducing the teen birth rate, strategies designed to achieve this goal often insufficiently target a readily identifiable group—teens who are already mothers. Of those programs that do target teen mothers, few have been able to demonstrate success.

Teen mothers should be targeted for pregnancy prevention not only because they contribute to the teen birth rate with its attendant consequences, but also because second and higher-order births to teenaged mothers often limits life options further than having only one child.³ Compared to a teen mother with one child, a teenager with two or more children typically faces:

- lower educational attainment;
- greater likelihood of poverty; and
- impaired health for the infant.

Second and higher-order births account for more than one out of five of all births to teenagers (aged 15 to 19).⁴ Though some adolescent mothers feel that it is advantageous to complete their childbearing before moving on to further schooling and employment,⁵ a clear majority of adolescent mothers insist that they do not want to become pregnant “any time soon,” though many are inconsistent contraceptive users at best.⁶

There is now good news regarding subsequent births by teen mothers. Notably, the teen birth rate has declined 12% since 1991; nearly half of this decline is attributable to a decline in subsequent births among teenagers. In fact, while rates for second and higher-order births remained stable for the population overall, among teenagers in 1996 it fell by 2–6% on average. This decline occurred even though there has been relatively little attention to the design of programs and policies targeting subsequent births among teens.⁷

Another part of the current good news is that some interventions are showing evidence of success; the Nurse Home Visitation Program especially has demonstrated impressive results that have been replicated in diverse communities.

There is a great deal that remains to be asked and answered regarding strategies to delay subsequent pregnancy by teenage mothers. A central question is: “Why do some programs succeed while others fail?”⁸ Subsequent teen pregnancy prevention programs can differ in almost every facet, including location, cost, and approach, yet few researchers have compared programs of differing success.⁹ In examining the strengths of the Nurse Home Visitation Program (which included some teen parents along with older women), the designer and researcher, David Olds, notes that a key component rests with the relationship between the visitor and the mother. Olds explains that the program “emphasizes a close relationship...built upon the nurse's respect for the mother, the nurse's reinforcement of maternal strengths...It's a complex challenge that requires two-and-a-half years of intensive work.”¹⁰

Relationships cannot be legislated. Yet policy-makers and others can try to identify from available research those policies that enhance rather than hinder strong relationships. Ironically, a cursory understanding of the research regarding subsequent pregnancy and teens might suggest inappropriate policy responses. For example, the finding that married teens have shorter intervals between a first and second birth might lead to a policy that discourages teen marriage; the finding that teens who live with a parent are less likely to have a second birth as teenagers might lead to a policy mandating that all teens live with a parent. These potential policy responses would be short-sighted. With respect to marriage, a preferred policy would encourage healthy marriages while targeting young married couples with information regarding the value of spacing between children. With respect to living with a parent, a preferred policy would encourage such a living arrangement but not mandate it because the parental home does not always provide the healthiest environment (this flexibility exists in the 1996 welfare law for TANF participants).

In seeking appropriate policy responses and designing effective programs, the research helps frame the issues that need to be addressed. We now have some important insights into which teen mothers have more than one child. Generally, if a teenager has one baby she is more likely to have another if she is less educated, has a less educated mother, and is poorer than another teenager with a baby. These teen mothers typically are even more vulnerable than the teen mothers who delay subsequent childbearing. Since fully 20% of all teenage mothers have a second or higher order birth while a teenager, there is a tremendous need for a refined understanding of this fragile group. There is also a need to build upon successful policies and programs and to identify new initiatives that can help address this problem.

One Out of Every Five is a resource tool that consolidates information on:

- **policies** at the state and local level related to subsequent childbearing by teenagers;
- **research** regarding the characteristics of—and consequences for—young mothers who give birth more than once; and
- **programs** that address subsequent births within the teen population.

One Out of Every Five is intended to inform and provoke public discussion about the problem of, and possible solutions to, subsequent teen pregnancy.

POLICY

No federal legislation creates a distinct program exclusively designed to prevent subsequent pregnancy prevention among teenagers.¹¹ National family planning laws do not include specific provisions tailored to this task. The 1996 welfare law, the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) and its Temporary Assistance for Needy Families (TANF) block grant are also silent on the subject of subsequent teenage births. Nevertheless, like the family planning laws, it contains provisions that may influence how states address the issue of teenage pregnancy (and pregnancy prevention generally) and could encourage state emphasis on subsequent teenage pregnancy. Among the relevant PRWORA provisions are:¹²

- **“Bonus to Reward a Decrease in Illegitimacy.”** \$100 million is available each year for up to five states that demonstrate a decrease in the ratios of “out-of-wedlock” births as well as abortions. The rates must factor in the entire population in the state, not only TANF recipients and not only teens. Bonuses are to be awarded in fiscal years 1999–2002.
- **“Bonus to Reward High Performance States.”** \$200 million is available each year for states (the number of which is not specified in the legislation) that have achieved the goals and purposes of the TANF block grant: one goal is to “prevent and reduce the incidence of out-of-wedlock pregnancies and establish annual numerical goals for preventing and reducing the incidence of these pregnancies.”¹³ Bonuses are to be awarded in fiscal years 1999–2003.
- **Family Planning.** Though no TANF funds are set aside for family planning, “pre-pregnancy family planning” is mentioned as an allowable state expense under TANF.
- **Abstinence Education.** \$50 million for abstinence education is to be allocated each year to states in fiscal years 1998–2002. To receive an allocation, a state must apply through the Maternal and Child Health Block grant. A state match is required. Part of the law’s definition of abstinence education is that it “has as its exclusive purpose, teaching the social, psychological, and health gains to be realized by abstaining from sexual activity.”¹⁴
- **Minor Teen Parent Required to Live in Adult-Supervised Setting.** States are precluded from spending federal TANF funds on minor, unmarried, custodial parents who do not live in an adult supervised setting unless the state determines that an exception is appropriate.
- **Minor Teen Parent Required to Stay in School.** TANF precludes minor, unmarried, custodial teen parents (with a child 12 weeks of age or older) from receiving federal TANF funds unless they “participate” in education. (“Participate” is not defined in the statute.)

The 1996 welfare law is silent on the subject of family cap/child exclusion. Currently, however, about 20 states have implemented child exclusion policies under which a newborn child is excluded from the

family's grant calculation and does not receive the traditional incremental grant increase. States hope the family cap/child exclusion policy will cause women of all ages who receive TANF to delay subsequent pregnancy. Recent research indicates the policy may have the unintended effect of increasing abortions rather than increasing the prevention of pregnancy.¹⁵

At least one national initiative has demonstrated its potential to promote subsequent pregnancy prevention among adolescents. *Healthy People 2000*, a national cooperative effort by federal and state governments, professional organizations and local agencies seeks to reduce unintended births, among other health objectives. Targets for family planning have been set by states to reduce the incidence of adolescent pregnancy, increase the number of teenagers who delay sexual activity until they are older, and increase the use of contraception by all women at risk of unintended pregnancy, including adolescents.¹⁶ A few states have emphasized decreasing the number of subsequent teen births. Maine's Health Status Objective is to reduce the rate of subsequent adolescent pregnancies from 292 to 100 per 1,000 live births.¹⁷ Missouri has dedicated funding for mentoring programs with a focus on preventing subsequent teen pregnancy.¹⁸ Illinois allocates Title V Maternal and Child Health block funds for adolescent subsequent pregnancy projects that combine a medical and social service model to help adolescents finish high school and delay a second birth.¹⁹ Kansas offers specialized case management services for pregnant and parenting teens receiving financial assistance.

Some states have established teen pregnancy prevention task forces or commissions that may target subsequent births. For example, *Brighter Futures*, the Wisconsin plan to prevent adolescent pregnancy, targets subsequent pregnancies as a special area of concern. Among *Brighter Futures* recommendations for the prevention and reduction of subsequent pregnancies are improved access to prenatal care, family planning service, and child care for all pregnant and parenting teens.²⁰

Illustrative of some states' approach is Arkansas welfare waiver,²¹ which required minor parents under the age of 16 to participate in the *New Hope*, a component of the state's welfare reform program. Arkansas policy makers believed that a side effect of *New Hope*, which required participation in an educational activity, would be a delay in subsequent pregnancies.²²

RESEARCH

■ THE BROAD PICTURE

Teen mothers' subsequent births account for one out of every five teen births. Second (and higher) order births account for more than 20% of the 500,000 births to teens in recent years.²³

Teen mothers who are younger have fewer second and higher-order births. For girls under 15 years old, less than 3% of all births are second or higher order births; for teenagers aged 15 and 16, 8% are second or higher; for teenagers 17 through 19, 24.2% are second and higher.²⁴

Teen mothers who are younger have second children more rapidly. For girls less than 15 years old²⁵, the average interval between first and second births is about 16.4 months; for teenagers aged 15 through 19, the mean interval is 22.8 months. Thus, within 24 months of a first birth, 31% of those who became mothers at age 16 or younger have a second child compared to 24% of those who became mothers at 17–19 years old²⁶, according to data from the National Longitudinal Survey of Youth (NLSY)²⁷ [Table 1].

Teen mothers with rapid subsequent births have more births over time than other teen mothers. Young mothers who have a second child within two years of the first were almost 9 times more likely to have three or more children at the 17-year follow-up than mothers who postponed the birth of another child, according to “Adolescent Mothers and their Children in Later Life,” a longitudinal study of more than 300 primarily urban black women who gave births as teenagers in the late 1960s.²⁸

Teen mothers have more children over time than older mothers. Examining data from the 1995 National Survey of Family Growth of 1,881 women ages 40–44, Child Trends' researchers found that women who gave birth as teen mothers had an average of 2.8 children—compared with 1.7 children by women who were not teenagers at first childbirth.²⁹

Teen mothers of all races experience subsequent births as teens in significant proportions. Nineteen percent of births to white teenagers are second order or higher, and the portions for other ethnic groups are as follows: 20.7% for Asian or Pacific Islanders, 21.6% for American Indians, 23.6% for Hispanics, and 26.7% for Blacks.³⁰

■ THE KEY PREDICTORS

Teen mothers are more likely to have a subsequent pregnancy if they are poor. Among young women who had given birth to their first child before age 20, subsequent pregnancy rates for women with incomes less than 150% of the poverty level were nearly twice as high as the rates for those who had incomes above that level (21% and 11% respectively), according to an analysis of data from the National Survey of Family Growth.³¹

Teen mothers who live with a parent have a lower likelihood of a second teen birth. Teen mothers who lived with at least one of their parents after the birth of their first child were about half as likely to have a second birth during their teens as teen mothers who lived with their boyfriends, husbands, or other adult according to an analysis of 589 teen mothers in the 1988 National Education Longitudinal Study (NELS).³²

Teen mothers are more likely to have a subsequent birth if their mothers were drop-outs.

Among teen mothers who first gave birth at age 16 or younger, 28% of those whose mothers did not graduate from high school had a second child within two years of the first, compared with 19% of those whose mothers were graduates. Among those age 17–18, 22% with mothers who did not graduate—compared with 16% of those whose mothers did graduate—had a second child within two years according to a study of 1148 teen mothers from the National Longitudinal Survey of Work Experience of Youth (NLSY), which used level of parental education to represent socioeconomic background.³³ Furthermore, NLSY data indicate that teens with one or both parents who have more than 12 years of schooling are significantly less likely to have another birth within 24 months.

Teen mothers are more likely to have a subsequent birth if they drop out of school. Of the 589 teen mothers who participated in the National Educational Longitudinal Study of 1988, drop out *prior* to first pregnancy was virtually identical for those with one teen birth (24%) and those with two (22%). Drop out *after* first pregnancy was significantly different between the groups. For those with one teen birth, about 27% dropped out after the first pregnancy; for those with two teen births, the drop out rate after the first pregnancy was 43%.³⁴ [Table 2]. Thus, 50% of those who had one birth during their teens remained in school, compared to 35% of those with two births.

Teen mothers who are married have a shorter interval between first and second births. Like married women in every age group, married teens who remained married throughout the interval between the first and second births were *more* likely than unmarried mothers to have a second birth within 24 months, according to data from the National Longitudinal Survey of Youth (NLSY). The younger the teen mother, the greater the difference in closely spaced births between the married and unmarried: 28.6% of unmarried girls and 39.8% of married girls age 16 and younger had a second birth within 24 months of their first birth.³⁵ [Table 3].

Teen mothers are more likely to have a subsequent pregnancy if ignorant or unmotivated about contraception. The reason a teen mother failed to contracept prior to her first pregnancy may indicate the likelihood of continued non-use of contraception and suggest the probability of a second pregnancy. Teen mothers worried about contraceptive side effects or lacking motivation to avoid pregnancy were more likely to rapidly conceive again compared to teen mothers who cited a lack of knowledge or barriers to contraceptive services as the reasons for non-use. According to the study of 165 women in an adolescent maternity program, one year after giving birth, the latter group was significantly more likely than the former to use hormonal methods (85% vs. 62%) and less likely to become pregnant (at 18 months postpartum: 13% vs. 41%).³⁶ Similarly, a six-month postpartum survey of 359 young mothers, all less than 18 years old, found that the odds of reliable contraceptive use *more*

than doubled among minor teen mothers who never failed a grade in school, are enrolled in school six months after giving birth, and believe that pregnancy is likely if they do not practice contraception.³⁷

■ MOTHER OUTCOMES

Subsequent adolescent births can negatively affect the mother's schooling and job opportunities. A second birth was associated with a much lower likelihood (.30 times as likely) of obtaining a high school diploma by two years after expected graduation and with a reduced likelihood of completing a GED, according to Child Trends research that compares teenage mothers with one child to teenage mothers with two children.³⁸

Teenage mothers who experience a subsequent birth do not complete the same amount of schooling as those who have one birth. State analyses of Illinois birth records reveal that having a second birth is correlated with fewer years of education for white, black, and Hispanic adolescents.³⁹ [Table 4].

The study, "Adolescent Mothers and their Children in Later Life," which evaluated the effects of adolescent childbearing among a group of women over a 17-year period, found that having more than one child during adolescence constrains a mother's ability to attend school and gain job experience.⁴⁰

Subsequent births are associated with family poverty and welfare receipt. A recent study by the Department of Health and Human Services (HHS) reports that 17.9% of poverty episodes during 1986 and 1991 began due to a second (or higher order) birth to women of all ages.⁴¹

Seventeen-year follow-up data from "Adolescent Mothers and Their Children in Later Life" suggest that women who had two or more children within five years of the first birth as adolescents are 2.9 times more likely to be receiving welfare than women who do not have additional children.⁴²

■ CHILD OUTCOMES

In families with two or more children, the second or subsequent child of a teen mother is more likely to be the victim of infant homicide compared to the child of a mother age 25 or older. The study of all infant homicides over an eight-year period found that among teenage mothers with two or more children, the younger the mother, the greater the relative risk of homicide for the child. Teenage mothers under the age of 17, bearing their second or subsequent child, carried a relative risk factor of 10.9, while those ages 17-19 have a 9.3 relative risk. The mother of a child age 25 or older with two or more children as a relative risk factor of only 1.4. The study determined that the strongest risk factors were a maternal age of less than 17 years, a second or subsequent birth for a mother 19 years old or younger, and no prenatal care.⁴³

Poor health outcomes of early childbearing increase for second-order adolescent births. Premature births and low birth weight (less than 5.5 pounds) are a major problem affecting children of adolescent mothers. These factors put the newborns at greater risk of long-term disabilities such as

mental retardation, blindness, deafness, cerebral palsy, and early mortality.⁴⁴ Of all babies born to mothers under age 20 in 1995, 8.9% of first-born infants were low birthweight⁴⁵, compared to 10.7% of second born, 13.1% of third born, and 15.3% of fourth (and higher) born infants. For very low birth weight babies (less than 1500 grams), the results are similar: 1.7% of first-born infants were very low birth weight compared to 2.1% of second order, 2.4% of third-order, and 3.3% of fourth (and higher) order births.⁴⁶

Second and higher-order children are more likely to become victims of child abuse/neglect—and to be placed in foster care for longer periods of time. According to an Illinois study, the highest reports of child abuse and neglect were by women under age 18, who had 121 reports. In contrast, mothers 20–21 had 80 reports, and women who gave birth at age 22 or older had 33 reports (per 1,000 children). In addition, second and higher-order children are more than twice as likely to be victims of abuse and neglect than their first-born siblings. The Illinois study reviewed all cases of child abuse and neglect in the state over periods of six and ten years. (Even after taking into account that most births to teens are first births, adjusted incidence rates of child abuse/neglect for teen mothers tend to be even higher than unadjusted rates; these figures suggest a close relationship between rates of abuse, birth order, and maternal age.)⁴⁷

Furthermore, second and higher-order children represented 62% of children placed in foster care, according to the same Illinois study. Though this study reviewed foster care placement by mothers of all ages during the ten-year evaluation (1982 through 1992), 65% of the mothers who placed their children in foster care had their first child when they were less than 20 years old. Moreover, second or higher order children spent 255 more days in foster care than their firstborn siblings.⁴⁸

PROGRAMS

The following section describes some programs that address subsequent pregnancy among teen mothers. This list is not exhaustive. Further, some programs give higher priority than others to the goal of reducing rapid subsequent births by teenagers. Frequently, this goal is imbedded in a host of other objectives, including the reduction of public assistance, completion of high school⁴⁹, or employment. All of the listed programs offer some evaluation information regarding program impact on subsequent pregnancy.

The programs are divided into 3 groups according to their research designs: experimental, other research, and emerging evaluations. The categorization is an imperfect attempt to group findings by their level of sophistication (the categorization does not take into account other important variables such as length of the study time period or total number of study participants). Generally, the evaluations with an experimental design (a randomly assigned control group that received fewer services than the experimental group) allow greater assurance that the particular intervention targeting subsequent childbearing is what makes the difference in repeat births. The findings from non-experimental evaluations are typically less reliable; it is more likely that variables in these programs—other than the subsequent pregnancy intervention—contribute to the measured outcomes. The emerging programs are noted because they do have a substantial focus on subsequent childbearing by teens.

Of particular note are the promising results of the Nurse Home Visitation Program, an experimentally designed evaluation in which the rapid subsequent pregnancy rate of the experimental group is significantly lower than that of the control group. The program was implemented and evaluated in two different types of communities in two different states. In part, the Nurse Visitation Program stands out because so few programs to date have been able to demonstrate any impact on subsequent childbearing. The Program also is notable for three additional reasons: it has significantly delayed childbearing, this successful result has been replicated, and the finding has held over time. This program is currently being replicated. Separately, variations of the model are being tested in different parts of the country.

■ EXPERIMENTAL DESIGN

Nurse Home Visitation Programs for young women show positive effects on subsequent childbearing and employment. According to two studies, nurse-visited women had fewer subsequent pregnancies and births and waited longer before having subsequent births. Furthermore, nurse visitations decreased the number of reported cases of child abuse and neglect, helped mothers prevent injuries to children, and decreased the use of welfare and food stamps by implementing job placement strategies.

Funding. This research was supported by a Senior Research Scientist Award and grants from the Prevention Research and Behavioral Medicine Branch of the National Institute of Mental Health.

Objective. The main goals of the Nurse Home Visitation Program are promoting health-related behaviors during and after pregnancy, teaching parents how to properly care for their children, and helping mothers make decisions about their own futures.

Setting. Elmira, New York, a semi-rural community plagued by poor economic conditions and high rates of child abuse and neglect, was the original site for a program examining the long-term effects of nurse visitation. Seeing positive results from nurse visitation, researchers were eager to imitate the program in an urban minority community. A variation of the model was implemented in Memphis, Tennessee, where the county health department, rather than researchers, managed the program.

Participants. Both sites of the program targeted women who possessed at least one (Elmira) or two (Memphis) of the following risk factors: young age, unmarried, and low socioeconomic status.

Nurse Home Visitation Sites: Participant Demographics

	ELMIRA		MEMPHIS
No Previous Births	100%	No Previous Births	100%
Age < 19	47 %	Age < 18	64%
Unmarried	62%	Unmarried	98%
Low Socioeconomic Status	61%	At or below poverty level	85%
African-American	11%	African-American	92%

Intervention. Women were randomly assigned to groups that received varying degrees of services. The control groups received free transportation services for pre-natal and child care appointments and free developmental screening and referral services through the child's second birthday. Two groups received nurse visitations in addition to the free transportation and developmental screening services. Nurse visitations occurred for one group only during pregnancy, while a second group received nurse visits throughout pregnancy and until the child's second birthday.

Results. With respect to significant decreases in welfare use and subsequent pregnancies, Elmira's results held consistently over the 15-year interval since the birth of the first child. While the replication of the program in Memphis showed little difference in pre-term delivery and low-birth weights, there was a significant impact on childhood injuries and subsequent pregnancies by the program's end (24 months post-partum). In both sites, outcomes were more significant the longer the nurse visitation program

interacted with the mothers. For the group which received nurse visitation through the child's second birthday:

Subsequent Births

- Ⓒ Nurse-visited women had 1.3 subsequent births in contrast to 1.6 births to those in the control group (Elmira).
- Ⓒ Nurse-visited women had a subsequent birth after 65 months versus the 37-month delay of the women in the comparison group (Elmira).
- Ⓒ Nurse-visited women had subsequent births at a 36% rate in the two years following their original delivery compared to 47% in the comparison group (Memphis).

AFDC

- Ⓒ Nurse-visited women stopped receiving AFDC an average of 13.1 months earlier (Elmira).

Child Well-being

- Ⓒ Children of nurse-visited mothers encountered fewer injuries and problematic ingestions, leading to decreased hospital visits. Specifically, none of the nurse-visited children were hospitalized for head trauma or fractures, compared with seven from the comparison group (Memphis).
- Ⓒ By the 36th week of pregnancy, nurse-visited women were more likely to use health and community services and were more likely to be working (Memphis).
- Ⓒ Nurse-visited mothers were identified as perpetrators of child abuse and neglect less frequently (Elmira).

Replication. The Nurse Home Visitation Program is being replicated in different sites across the country. Funded by the Department of Justice, "Operation Weed and Seed sites" have been chosen to develop the home visitation program model in collaboration with a local health care partner. These sites [Fresno, Los Angeles, and Oakland (CA), Clearwater (FL), Oklahoma City (OK) and St. Louis (MO)] target individuals with numerous risk factors, including poverty and young age. While none are focusing exclusively on teens, the teen population comprises a sizeable portion of participants in each site. Sites have been functioning for varying degrees of time; the oldest began in May 1997. Each site manages its own funding, utilizing the Department of Justice "Weed and Seed" grant (of up to \$25,000) and funding available through state Maternal and Child Health, state Department of Social Services and county revenues. Another replication that has been funded by Miami Valley Hospital in Dayton, Ohio is focusing exclusively on teens. Furthermore, given the wide variety of home visitation programs that use paraprofessionals, these researchers "are now testing the relative efficacy of nurse and paraprofessional home visitors employing essentially the same program model in a trial in Denver, Colorado."⁵⁰

Evaluation. Program evaluators will focus on such factors as: subsequent pregnancy, educational completion, work force entrance, TANF receipt, job assistance, and health outcomes for mother and child. Analysis of the Denver trial is in progress; findings should be available by early 1999. A three-year evaluation of replication sites is also in progress.

- Contact David Olds, PhD, Program Director, phone: (303) 861-1715 x226, fax: (303) 861-2441.

New Chance was a voluntary demonstration project and research program, developed and implemented by the Manpower Demonstration Research Corporation (MDRC). The program, which operated from 1989 to 1992, provided comprehensive education, training, and other services intended to increase the long-term sufficiency and well-being of participating mothers and their children.

Funding. New Chance was funded autonomously through public and private sources, including the U.S. Department of Labor and more than 25 foundations and personal funders.

Objective. New Chance sought to help young mothers acquire the educational and vocational skills necessary to reduce and eliminate their need for public assistance. Furthermore, New Chance sought to help teenage parents delay a second birth and enhance the health and well-being of their children.

Setting. New Chance operated in sixteen locations in ten states: Denver (CO), Jacksonville (FL), Chicago Heights (IL), Lexington (KY), Detroit (MI), Minneapolis (MN); Chula Vista, Inglewood, and San Jose (CA); Allentown, Philadelphia, and Pittsburgh (PA); Bronx and Harlem (NY).

Participants. New Chance was directed toward young women aged 16 to 22 who had given birth as teenagers and who had dropped out of high school and who were receiving Aid to Families with Dependent Children (AFDC).

Intervention. As described in the final report of New Chance, “services included instruction in basic academic skills and subjects covered on the GED test, career exposure and employability development classes, occupational skills training, work experience, job placement assistance, health and family planning classes and services, parenting workshops, and ‘life skills’ classes on communication and decision-making skills.”⁵¹ These services were delivered to 1,400 teen mothers for up to 18 months. New Chance was administered by community service organizations, community colleges, a Job Corps site, and a private industry council. After completing the on-site phase (basic skills training, employability training, and personal development classes), participants moved to off-site vocational skills training programs, work internships, or job placement assistance.

Results. According to the MDRC final evaluation of 2,079 young mothers (in both the experimental and control groups) who responded to the three-and-a-half year survey, “the rate of pregnancies occurring after random assignment was high for both experimentals and controls, with a slightly higher rate among the experimentals at several points during the follow-up period.” [Table 5].

- See Janet C. Quint, et al., New Chance: Final Report on a Comprehensive Program for Young Mothers in Poverty and their Children, MDRC (October 1997).

LEAP (The Learning, Earning, and Parenting program), which has operated throughout Ohio since 1989, targets school participation. The program was developed by the Ohio Department of Human Services. The Manpower Demonstration and Research Corporation issued a final evaluation report on the program in 1997.

Funding. The program is funded through the welfare system.

Objective. LEAP is designed to increase school enrollment and attendance among participants. The goal is to improve the rate of high school graduation and GED receipt, thereby enhancing employability and, ultimately, economic self-sufficiency. The research examined teen subsequent fertility as a possible indirect effect of the program; the program does not seek directly to change reproductive behavior.

Setting. LEAP does not provide services; thus there is no “setting” for LEAP. Some teen parents participating in LEAP, however, receive services through an independent program called GRADS (Graduation, Reality, and Dual-Role Skills). GRADS staff work with teens in schools to help them manage their schooling and parenting roles. In Cleveland, LEAP also piloted a set of services that included child care and intensive case management .

Participants. All pregnant teenagers and custodial teen parents receiving welfare in Ohio are mandated LEAP participants. The MDRC evaluation is based on a study of about 4,200 LEAP eligible teens assigned to experimental and control groups.

Intervention. Monthly welfare grants reflect school participation. A check may be increased by \$62 for enrollment in school and by \$62 for each month in which school is regularly attended. (Failure to comply results in a \$62 monthly deduction until compliance.) Under some circumstances the grant does not increase or decrease. In 1996, the program added a \$62 bonus for completion of a grade as well as a \$200 bonus for school graduation; it also changed the treatment of those sanctioned consecutively for more than 6 months by removing the needs of the mother and child from the calculation of the grant (however, the 1996 changes were not part of the MDRC evaluation). Temporary exemptions are possible, and once the teen reaches age 20, leaves welfare or receives a high school diploma or GED, LEAP no longer applies.

Results. LEAP succeeded in increasing enrollment in school and GED programs and improved attendance and grade completion. However, with respect to the longer-term goals of graduation and GED receipt, the results were mixed. Generally, those who were in school at the time of LEAP participation showed some positive impacts, while those who had dropped out did not.

With respect to subsequent pregnancy, participation in LEAP had no effect on fertility that was statistically significant. During the three years covered by the evaluation survey, the 26.7 percent of the teens in the program group and 25.7 percent of teens in the control group indicated having given birth in the year prior to the survey; thus the LEAP intervention made no difference on repeat births.

- See Johannes M. Bos and Veronica Fellerath, *Final Report on Ohio’s Welfare Initiative to Improve School Attendance Among Teenage Parents*, Manpower Demonstration Research Corporation (August 1997).

The Teenage Parent Demonstration, a Department of Health and Human Services funded demonstration initiative operated from late 1987 through mid-1991. The multi-site demonstration showed the impact on self-sufficiency made by different sets of services offered young mothers receiving welfare.

Funding. Illinois and New Jersey operated these demonstration programs under grants from the Administration for Children and Families within the U.S. Department of Health and Human Services.

Objective. This program was primarily designed to increase self-sufficiency and reduce welfare dependency among the nearly 6,000 pregnant and parenting teen participants.

Setting. This demonstration was conducted in three sites across two states: Chicago (IL) and Newark and Camden (NJ).

Participants. All first-time teen parents who were newly eligible for welfare, or who were part of a welfare case when they gave birth and added their child to the rolls, were required to participate in the demonstration project—or be subject to a substantial reduction in benefits.⁵²

Intervention. The young mothers were randomly assigned to groups: half received regular services, including access to limited social and support services available under the AFDC program; the other half received enhanced services and were required to participate in special workshops designed to increase a young mother's prospects of self-sufficiency. Though each site required participants to attend an initial set of workshops that covered parenting and personal skills, contraception, sexually transmitted diseases, education, and training, the intensity of the workshops varied substantially in the three different sites [Table 6].

Results. The Mathematica Policy Research evaluation of the program found that it had a “disappointing pattern of impacts on pregnancy rates...the majority of the young mothers in the study sample became pregnant again during the follow-up period, and between 60 and 70% had one or more additional child.” (The follow-up surveys were conducted an average of 28 months after intake.) It should be noted, however, that the Camden site had some positive effects on subsequent teen births, including 8% fewer pregnancies and 5% fewer births. Although these results were not statistically significant, they suggest the possibility that the Camden site differed in its implementation of program goals [Table 7]. To address the special needs of teenage parents, researchers suggest “imaginative programs [which combine] academics, work experience, and intensive personal attention; schedule flexibility to deal with sick children, child care breakdowns, and other crises.”⁵³

- See Rebecca Maynard and Anu Rangarajan, “Contraceptive Use and Repeat Pregnancies Among Welfare-Dependent Teenage Mothers,” *Family Planning Perspectives* 26:5 (Sept/Oct 1994).

The Dollar-a-Day Program was an adolescent pregnancy prevention program that used two intervention strategies—financial incentives and peer-support—to prevent subsequent pregnancy among teens who first became mothers as minors.

Funding. A two-year (1991–93) study was supported by The Hewlett Foundation, the Office of Adolescent Pregnancy, and the National Institutes of Health.⁵⁴

Objective. Dollar-a-Day focused on preventing subsequent teen births through financial incentives. The project was particularly interested in whether a monetary incentive promotes peer-support group participation; and whether peer-support group participation decreases repeat adolescent pregnancies.

Setting. Denver, Colorado

Participants. The program recruited first-time mothers younger than 18 from two facilities: the postpartum ward of a Denver hospital and a hospital-based clinic of the Colorado Adolescent Maternity Program. A total of 286 girls younger than 18 years enrolled in the program.

- *Intervention.* The young mothers who volunteered and wanted to postpone another pregnancy were randomly assigned to one of four interventions: monetary incentive with peer-support group; peer-support group only; monetary incentive only; and no intervention. Participants who received financial incentives received \$1.00 a day—a weekly \$7.00 incentive.

Results. Results showed no significant differences regarding subsequent births among the four groups, with almost 40% overall having another birth within 24 months. The monetary incentive did encourage peer-support group participation: 58% of those who received monetary compensation participated in the peer-support groups compared with 9% of those who weren't offered a monetary incentive. However, the peer-support group failed to prevent subsequent births. The prevalence of subsequent childbearing at each six-month interval [6 months: 9%; 12 months: 20%; 18 months: 29%; and 24 months: 39%] did not vary across interventions. Furthermore, researchers note that in some instances the support groups may have been counterproductive because participants who discussed their inconsistent contraceptive use or the benefits of having another child seemed to validate the behavior and attitudes that the support groups were trying to change.⁵⁵ [Table 8].

- See S. Edwards, "Incentives Draw Teenage Mothers to Support Groups, But Participation Does Not Prevent Repeat Pregnancy," *Family Planning Perspectives* 29:4 (July/August 1997).

Special Care Program for adolescent mothers (17 years old or younger) and their infants is a multi-faceted program aimed at improving the life options of both mother and child.

Funding. This research was supported by a grant from the Robert Wood Johnson Foundation.

Objective. The Special Care Program sought to prevent second pregnancies, maintain attendance at the clinic so that the infant would have up-to-date immunizations, increase the number of adolescent mothers that resume schooling, and reduce the use of the emergency room for routine infant care.

Setting. A teen baby clinic in Philadelphia, PA.

Participants. Participants included 243 adolescent mothers who delivered a well baby at a large urban teaching hospital. All participants were black, unwed adolescent mothers who were Medicaid recipients.

Intervention. The mother-infant pairs were randomly assigned to one of two groups. The control group received well-baby visits periodically for 18 months, immunizations, and physical exams for the infant. The experimental group received routine care and services that included rigorous follow-up, discussions with the mother about her plans to return to school and her use of family planning methods, and additional health education. Participants in the experimental group also had the combined efforts of a pediatrician, a nurse practitioner, and a social worker.

Results. The dropout rate from the Special Care Program was significantly less after 18 months by the experimental group (60%) compared to that of the control group (82%). In spite of the high dropout rate, 91% of the mothers were located for the 18-month-follow-up interviews. With respect to school

return, there was no significant difference between the two groups. However, after 12 months the infants in the experimental group were more likely to be fully immunized (33%) than the infants in the control group (18%).

The subsequent pregnancy rate differed significantly between the two groups. After 18 months, 12% of the experimental group and 28% of the control group experienced a pregnancy.

- See A. O'Sullivan, "A Randomized Trial of a Health Care Program for First-Time Adolescent Mothers and Their Infants," *Nursing Research* 41:4 (July/August 1992).

■ OTHER RESEARCH

Multi-city sites: Project Redirection began in 1980 as a large-scale comprehensive program directed by the Manpower Demonstration Research Corporation. The demonstration phase lasted from mid-1980 through 1982, although a five-year follow-up study was conducted to assess impacts over time regarding employment, educational attainment, child well-being, and fertility.

Funding. Both the federal government, through the Department of Labor, and the private sector, through the Ford Foundation, supported the program.

Objective. The program sought to return teen mothers to school, enhance their employability and life skills, and delay subsequent pregnancy.

Setting. Project Redirection was implemented in four cities (Boston, MA; New York, NY; Phoenix, AZ; Riverside, CA) by community-based organizations. It was eventually replicated in seven other sites.

Participants. Eligibility for the program was limited to those women age 17 or younger who were pregnant or parenting, lacking a high school diploma, and either receiving or eligible to receive AFDC. Community volunteers served as adult mentors who paired with the teen mothers. The original research sample included about 780 teens from the participant and comparison groups.

Intervention. Referral to existing services within the community was a central component of the intervention. The program augmented these services with workshops, group sessions, and individual counseling at the local sites. While the sites were also expected to convey family planning information, this was a low-key component of the overall project.

Results. The quasi-experimental research provided findings for participants five years after enrolling in Project Redirection. Among the findings was that participants had better employment records, higher earnings, and less welfare receipt than a comparison group. In addition, participants did better on parenting scores and their children were faring better. However, with respect to fertility, participants had a higher rate of births.

Although the participants and the comparison group experienced a similar number of pregnancies, averaging three during the five years after the baseline interview, participants were less likely to abort pregnancies. This resulted in participants having a higher average number of live births (2.4) than the comparison group (2.0).

- See Denise F. Polit, "Effects of a Comprehensive Program for Teenage Parents: Five Years

After Project Redirection@*Family Planning Perspectives*, 21:4 (July, August 1989).

Georgia: Teen-Parent Improvement Program (TIP) is a collaborative effort between the Department of Family and Children Services (DFACS) and the Atlanta public school system. The program seeks to provide systematic parenting skills and social services for those adolescents who have become pregnant or have delivered babies.

Funding. TIP is funded by DFACS and the Atlanta public school system.

Objective. TIP is designed to assist teen mothers and fathers in completing their high school education and in dealing with the stresses of parenting while enabling them to become self-sufficient adults.

Setting. George Washington Carver Comprehensive High School (Atlanta, GA).

Participants. Entry is limited to those students who have been unable to complete or start their high school education because of the inability to secure infant care. Presently TIP averages 20 students per site, maintaining a personal environment. Without the program's free day care, most participants would face the additional expense of nearly \$65 per week, a cost that few could afford.

Intervention. Students sign a contract that specifies that they will delay having a second pregnancy and establishes that they will be terminated from the program if they have a second pregnancy. TIP provides systematic parenting skills and social services for those adolescents who have delivered and have expressed a desire to complete their high school curriculum at George Washington Carver Comprehensive High School. Parental responsibilities for the young mothers include providing care for their children during school lunch periods, volunteering at the day care center at least one hour per month, keeping a diary of steps toward their life goals, maintaining passing grades, and attending after-school sessions twice a week. These sessions address issues such as personal finance, goal setting, self-development, and conflict resolution.

In addition, DFCS provides TIP participants with subsidized subway cards for transportation. TIP strongly encourages young mothers to use birth control, a service paid for by Medicaid and accessible to most TIP participants. All of the girls receive a pregnancy test every six months. (A pregnancy test also is administered to the entire group if it is suspected that someone is pregnant.) Recently, TIP has started using teen moms as speakers for pregnancy prevention discussions with middle-school girls. TIP has many partners—including the religious community, sororities, corporations, and colleges—that help provide mentoring and cultural activities. Through a partnership with AT&T, those students who complete TIP and continue their education receive a partial scholarship for post-secondary school.

Results. Over the years, directors estimate that roughly 20% of participants exit the program before completion; many of these students are terminated for second pregnancies; some transfer to other schools or leave the state. Since its inception in 1988, 300 girls have completed TIP, remaining in the program and graduating from high school without having a second birth.

Replication. The Teen Improvement Program has since expanded to two more schools: Frank McClarin in Fulton County and Harper-Archer in Atlanta.

➤ Contact DeVerne Howell, Consultant, phone: (404) 657-3426, fax: (404) 657-4480.

Hawaii: Teen Intervention Program (TIP), which has been operating for 19 years, is directed at teens who are minors.

Funding. TIP was funded by a special Title X grant and was administered by the Department of Health Office of Family Planning under the Teen Demonstration Project to Avert Unintended Teen Pregnancies. In July 1996, the program lost its state Department of Health funding; it is currently funded through Kapiolani Medical Center for Women and Children (KMCWC).

Objective. The program aims to reduce the number of teen pregnancies through educational outreach and counseling; to provide support to youth and families who have been involved in a teen pregnancy; and to provide the necessary resources to delay a subsequent teen birth.

Participants. Teens 18 years of age and younger, their parents, and their partners.

Intervention. TIP works closely with community agencies such as public health nurses, school, other social service agencies, and physicians; TIP provides referrals, consultation, and information to the above entities and vice versa. Services include prenatal/parenting classes, counseling, parent-to-parent presentations, and “teen line,” an automated telephone information system designed to provide accurate and helpful information on topics including drugs, emotional concerns, physical health, and communicating with parents. The prenatal and parenting classes for teens cover topics such as birth control, breast feeding, childproofing a home and other safety issues, as well as information on how to handle the stress of parenthood. The prenatal and parenting classes, which are 8 weeks long—2 days a week for 2 hours a day—can be counted as high school credit if students complete both classes as well as other activities. The 12 hour Parent-to-Parent Workshop is a special component of the program.

Results. Results are only available for pregnancy rates during the first year of the client’s participation in the program. The subsequent pregnancy rates for the year are as follows:

1990–1991: 6.2% (37 of 594 participants)

1991–1992: 3.9% (20 of 516 participants)

1992–1993: 3.7% (15 of 408 participants)

1993–1994: 1.2% (4 of 336 participants)

➤ Contact Donna Tsutsumi-Ota, Program Director, phone: (808) 973-8501, fax: (808) 973-3059.

Illinois: Subsequent Pregnancy Project (SPP) is a community-based program designed to delay second pregnancies among adolescent mothers. Begun in 1990 as a two-year demonstration project, SPP is now a collaborative effort between the Illinois Department of Human Services and nine community agencies across the state. Participating agencies include public health departments, social service agencies, hospitals, and community health centers.

Funding: SPP is supported by the Adolescent Health Division of the Illinois Department of Human Services.

Objective: The SPP targets first-time adolescent mothers, ages 15–18, with the primary goals of helping them: 1) delay a second pregnancy for at least 2 years, 2) practice contraception effectively and consistently, and 3) complete high school.

Setting: Five of the participating agencies are located in inner-city Chicago neighborhoods: Cabrini, Englewood, Humboldt Park, Lawndale, and Woodlawn. Three sites are suburban: Evanston, Harvey, and Maywood; and three agencies are in smaller cities around the state: Champaign, Rockford, and Waukegan.

Participants: Last year, 309 young mothers across the state participated in SPP activities: 58% African American, 22% Mexican/Mexican American, 8% Puerto Rican, and 7% Caucasian. The mean age at program intake was 16.9 years, and the average age of participants' babies was 11 months. Close to one-third (31%) of the young mothers were receiving AFDC, and nearly half (49%) had a mother who was also a teenage mother.

Intervention: The SPP provides an integrated medical and social service model of adolescent service delivery with two primary interventions: 1) an intensive, long-term relationship with a home visitor and 2) substantive training through a peer support group. During the first year of program participation, home visitors see their young mothers four times per month, (two home visits and two group meetings), and more often when necessary. The relationship between the home visitor and the young mother provides a mechanism to meet the day-to-day needs of the young mother and her child, while the group meeting provides substantive training and peer support for the common goal of delaying pregnancy. During the second year, young mothers who are eligible (based upon meeting attendance) are intensively trained as subsequent pregnancy peer educators and work in their own communities spreading the delay message to school, church, and neighborhood groups, or one-on-one with their peers. (Young mothers who do not attend the required number of meetings may rejoin the new SPP group the following year). SPP provides continuous peer education training throughout the second year of program participation, beginning with a seven-week summer session followed by monthly peer education meetings and the individual attention required to prepare for community presentations. Overall, 70 subsequent pregnancy peer educators have been trained; this year, 18 subsequent peer educators presented their “delay” message to 700 adolescents and 200 adults in six communities.

Results: After one year:

- Two-thirds (N=211) of the young mothers remained active in the subsequent pregnancy program. Of those who left the program, 88 did so due to school and work conflicts or moves out of state; and ten did so because they became pregnant while participating in SPP.
- Home visitors reported that 93% of the young mothers had no unprotected intercourse in the last month.
- 67% reported use of a condom at last intercourse and 20% reported dual method use.
- 27% graduated from high school; of those in school at intake, 86% graduated or remained in school.

Replication: The SPP Model was developed as a two-year demonstration project in Chicago, working with young mothers and their providers from three inner-city neighborhoods. The model was then

replicated with diverse populations of adolescents in nine different communities around the state. Evaluation has been an ongoing part of SPP since its beginning: both qualitative and quantitative methods of data collection are used to assess program impacts at three levels: 1) individual participant, 2) agency, and 3) community.

- Contact Pat Mosena, Project Director, phone: (773) 288-1682, fax: (773) 288-7682; Anita Williams, Program Manager, phone: (773) 722-1178, fax: (773) 722-1291; Subsequent Pregnancy Project, 5646 Kimbark, Chicago, IL 60637.

Kansas: Teenage Pregnancy Case Management Program, a joint venture of the Kansas Department of Health and Environment/Bureau for Children, Youth & Families and the Kansas Department of Social and Rehabilitation Services/Division of Medical Services, offers case management services to pregnant and parenting teens receiving SRS assistance in an effort to improve self-sufficiency.

Funding. Teen Pregnancy Case Management Program is funded through a combination of state general fund dollars and matching monies from federal Medicaid.

Objective. Adult case managers aim to reduce the number of second pregnancies among teens and the dependence of teens on state assistance.

Setting. Communities submitted applications for funding in the summer of 1994 and the program was funded in five counties—Douglas, Montgomery, Sedgwick, Geary, and Wyandotte.

Participants. Pregnant or parenting teenagers receiving Medicaid are eligible.

Intervention. Upon entry into the program, personal plans are developed in eight life domains: daily living, education/training, employment, financial, health, key relationships, parenting, and empowerment. Personal goal plans and goal tracking sheets are continuously monitored by case managers and reported quarterly. Services are provided through a team approach coordinated by a social worker and/or registered nurse (as case managers are not authorized to provide direct services to clients); these services include family planning and specific educational curricula such as breast feeding, parenting classes, and childbirth preparation. During the program’s 22 year operation, 886 pregnant and parenting women between the ages of 13 and 20 were enrolled in the program. High attrition rates left only 354 teens in the program in 1997.⁵⁶

Results. Prohibitions from the federal government on an experimental evaluation design led researchers in the Kansas project to formulate a different method to determine the effects of the program. “An approximate expected number of second pregnancies was calculated (1) from birth tables for the United States (NCHS. Monthly Vital Statistics Report; *Advance Report of Final Natality Statistics, 1993*), and (2) by matching certificates of first birth for all Kansas teen mothers for a single year to second births occurring in subsequent years. Both estimates yielded similar results.”

Comparison of Identified Teenage Pregnancies to Expected Teenage Pregnancies

Duration of		Number of	Number of	Calculated
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Enrollment	Number of Teens	Pregnancies Identified	Pregnancies Expected	Pregnancy Reduction
0-6 months	347	21	30	30%
7-12 months	241	21	23	9%
13-24 months	194	21	23	9%
25-36 months	104	5	21	76%

Note: All pregnancies refer to second pregnancies; the higher number of pregnancies expected from the smaller number of teens who have been in the program longer represents cumulative risk (i.e., a teen is more likely to have become pregnant over two years than over six months).

- Contact Lore Naylor, Consultant; phone (785) 291-3053, fax (785) 296-4166.

North Carolina: Adolescent Parenting Program (APP) is supervised by the state's Division of Social Services. It began in 1984 as a pilot program to assist first-time teen mothers and to address the issue of subsequent births.

Funding. APP is currently funded at a total of \$1.4 million. Direct program funding is shared between Medicaid (50%: largely through case management funds), state general revenue (35%), and local match (15%).

Objective. APP is designed to reduce the potential negative consequences of teen parenting upon both the child and the mother. A clear objective of the program, which targets first-time pregnant teens, is preventing a second pregnancy.

Setting. The program is administered by 30 local agencies (school systems, health departments, and nonprofit organizations) and some county departments of social services.

Participants. Participation is voluntary. Guidelines establish that participants must be 17 years old or younger at entry and they must either be pregnant or have had only one birth. They may stay within the program until the completion of high school or its equivalent. An analysis of current participants found:

- (1) Only one-fourth of the APP clients were living with both parents. (2) About three-fourths of these clients were from households with income low enough to qualify for Medicaid. (3) A majority of the mothers of these clients had gotten pregnant as a teenager, while one in four had an older sister who had done the same. (4) A majority of these clients had a friend who was a teen mother."

Intervention. Each local program is mandated to provide social casework services and peer group activities. In addition, each participant is to be provided a mentor. The APP coordinator, typically a social worker, meets with the APP client to provide counseling, referrals, and support services. In addition, the social worker is particularly concerned with ensuring program participants gain access to such programs as WIC, food stamps, Medicaid, day care, and TANF. As school completion is a central goal, there is a focus on getting the APP client to return to her home school, or an alternative setting if

appropriate. Peer groups meet at least once a month. These sessions are meant to be both educational and supportive; participation is expected.

Results. A 1998 evaluation⁵⁷ concluded that APP participants are one-third as likely to become pregnant a second time compared to other first-time teen mothers in the state who do not participate in APP. APP participants are also half as likely to be substantiated for child neglect or abuse and one-third as likely to drop out of school. The evaluation was undertaken by the School of Social Work at East Carolina University under contract with the state Department of Health and Human Services. The General Assembly mandated the evaluation in 1997, and the study reviewed the program from July 1994 through June 1997. The researchers based their analysis on (a) a survey of a random sample of all clients served during the three-year period of the evaluation, (b) data reports from Program Coordinators, (c) a participant satisfaction survey, (d) a volunteer satisfaction survey, (e) a survey of risk factors completed by participants, and (f) an examination of the Central Registry for Child Neglect and Abuse. In addition, qualitative data were collected from site visits to 14 of the 27 local agencies. As a result of these findings, the researchers recommend that the state provide funding for more programs statewide.”

- Contact Sydney Atkinson, Adolescent Parenting Program, State Consultant; phone: (919) 715-8432.

■ EMERGING EVALUATIONS

The Home Visit Services Demonstration is a joint initiative of the Department of Health and Human Services’ Administration for Children and Families and the Henry J. Kaiser Family Foundation to improve the well-being of teen parents and their children.

Funding. To test and evaluate the initiative, the Department of Health and Human Services’ Administration for Children and Families has pledged more than \$3 million and the Kaiser Foundation has pledged nearly \$1 million.

Objective. This initiative provided teenage parents with guidance and instruction in such areas as pregnancy prevention, parenting skills, education and work skills, health care, and child support, including paternity establishment. Through weekly home visits, paraprofessionals—many of whom were themselves former public assistance recipients and/or teen parents—work closely with case managers and teenage parents to improve the family’s social, personal, health, and economic conditions. This program was targeted to teen parents on AFDC who were required to participate in the Job Opportunities and Basic Skills Training (JOBS) Program.

Setting. Sites in Dayton (OH), Chicago (IL), and Portland (OR) were launched in September 1994; the demonstration was funded through September 1997. Each site provided employment and home visiting services for at least 225 teen parents and their children.

Participants. Pregnant or parenting teens who were receiving federal assistance for the first time and teens in an existing AFDC case who give birth to their first child were eligible for the Home Visiting Services Demonstration. In each city at least 225 teen parents and their children received employment and home visiting services; another 200 received such services and no demonstration-sponsored home visits.

Intervention. Teens remained in the program for the three years of the project, unless they left welfare, in which case home visits may have been provided for a 90-day transitional period. One-hour weekly visits usually took place in the teen's home, though they may also have taken place in other locations such as schools, work sites, or public facilities. Home visitors completed a strengths-and-needs assessment, identifying specific areas to be strengthened for each teen. In addition, home visitors closely monitored perinatal health check-ups for the children, identifying any special needs.

Evaluation. Evaluation will be conducted by the University of Pennsylvania in September 1998.

- Contact Nancye Campbell, phone: (202) 401-9215, fax: (202) 205-3598.

Massachusetts: Healthy Families is a joint initiative of the Children's Trust Fund and Massachusetts Department of Public Health, which funds community-based health and human service organizations to provide comprehensive, prevention-oriented, voluntary, and universally accessible home visiting services to first-time parents under the age of 20 in Massachusetts.

Funding. The Children's Trust Fund received \$5 million in fiscal year 1998 from the Massachusetts State Legislature to implement Healthy Families; the Children's Trust Fund and the Massachusetts Department of Public Health allocated the funds in December 1997. Most sites became operational by February 1998.

Objective. The goals of the Healthy Families program are to: 1) prevent child abuse and neglect by supporting positive, effective parenting skills and nurturing home environments; 2) achieve optimal health, growth, and development in infancy and early childhood; 3) promote maximum parental educational attainment and economic self-sufficiency; and 4) prevent repeat teen pregnancies.

Setting. There are 29 community-based and regionally located programs serving every town across Massachusetts. Program areas include: Berkshire County, Blue-Hills, Brockton, Cambridge/Somerville, Cape Cod & Islands, Fall River, Fitchburg, Framingham, Franklin County, Haverhill, Holyoke, Lawrence, Lowell, Melrose/Wakefield, Milford, New Bedford, Northampton, North Shore, Plymouth, Southbridge, Springfield, Taunton, West Suburban, Worcester, and five in Boston.

Participants. 3,328 new first-time parents will be eligible to participate in Healthy Families in 1998. As of May 1998, 1,000 families are receiving services across the state.

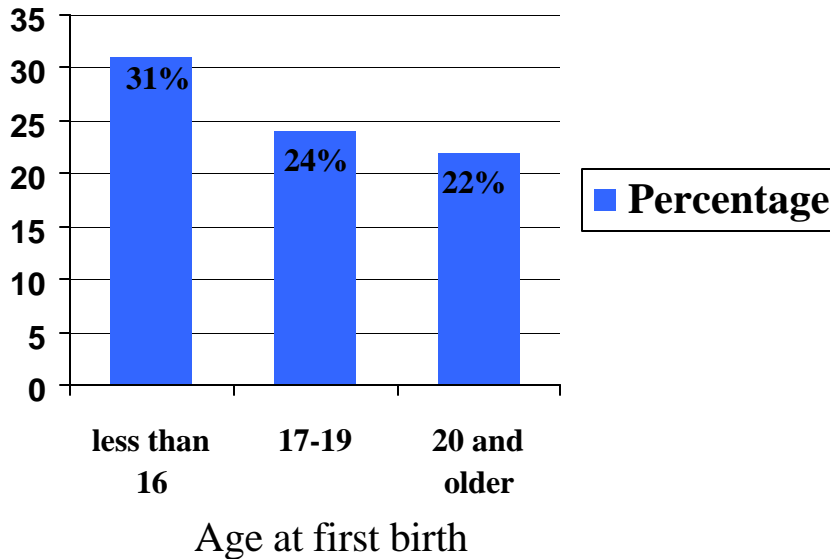
Intervention. Families enroll and begin services as early as during pregnancy, continuing until their child is three years old. Visiting as often as once a week, the trained Newborn Home Visitor provides family support by discussing questions and concerns about baby care and development. The Visitor also provides developmental screenings, helps parents with health matters such as immunization access, primary care, mental health services, etc; helps parents develop parenting and other skills (training, education, etc.); and provides referrals to resources and services within the community as needed by families. Programs also offer counseling groups and other center-based activities for families.

Evaluation. Tufts University was selected to design and implement the evaluation, which will measure the effectiveness of the program in meeting its four stated goals, monitor how programs deliver services, and examine the unique aspects of home visiting services in different communities and cultures. A complete multi-year evaluation is currently being designed.

- Contact Sarita Rogers, Program Manager, phone: (617) 727-8957, x331, fax: (617) 727-8997.

Table 1

The Percentage of Women (by Age at First Birth) Who Have a Second Birth Within 24 Months of Their First Birth; National Longitudinal Survey of Youth, 1988



Note: The association between age at first birth and a rapid second birth is statistically significant at $p < .05$.

Source: Debra Kalmuss and P.B. Namerow, “Subsequent Childbearing Among Teenage Mothers: The Determinants of a Closely Spaced Second Birth,” *Family Planning Perspectives* 26:4 (July/August 1994): p. 151, Table 1.

Table 2

Individual Characteristics of Teen Mothers after First Birth; National Educational Longitudinal Study of 1988

Educational Status After First Birth	One Teen Birth	Second Birth in Teens
Received High School Diploma	41.7%	28.6%
Received GED	16.1%	7.1%
Received Neither Diploma Nor GED	42.2%	64.3%

Source: Jennifer Manlove et al., *Postponing Second Teen Births in the 1990s: Longitudinal Analyses of National Data*, Child Trends, Inc. (1998): Table 3.

Table 3
The Percentage of Women (by Age at First Birth) Who Had a Second Birth Within 24 Months of Their First Birth According to Marital Status; National Longitudinal Survey of Youth, 1988

Age at First Birth	Marital Status	
	Unmarried	Married
#16	28.6%	39.8% ^a
17	23.3%	24.6%
18-19	22.2%	25.5%
\$20	19.6%	23.8%

Note: ^a The association between age at first birth and a rapid second birth is marginally significant at $p < .08$.

Source: Debra Kalmuss and P.B. Namerow, "Subsequent Childbearing Among Teenage Mothers: The Determinants of a Closely Spaced Second Birth," *Family Planning Perspectives* 26:4 (July/August 1994): Table 1, p. 151.

Table 4
Mean Years of Education of White, Black, and Hispanic Adolescents Having First and Second Births

Age	White			Black			Hispanic		
	National Median	First Birth	Second Birth	National Median	First Birth	Second Birth	National Median	First Birth	Second Birth
16	10.1	9.9	9.6	9.7	10.0	9.9	9.7	9.1	8.0
17	11.1	10.7	10.0 ^a	10.9	10.8	10.7	10.5	9.4	8.8
18	12.1	11.4	10.8 ^a	11.8	11.5	11.3	11.3	9.7	8.8
19	12.6	11.8	11.1 ^a	12.5	11.9	11.6	12.1	9.9	9.3

Note: ^a The difference in mean years of education for teenagers with 2 births is significant at $p < .001$ when compared to teenagers with one birth.

Source: Dianne Scott-Jones, "Educational Levels of Adolescent Childbearers at First and Second Births," *American Journal of Education* 99:4 (August 1991): Table 2, p. 468.

Table 5
Fertility-Related Impacts of New Chance

Follow-up period	Post-Baseline Pregnancy			Post-Baseline Birth		
	Experimentals (%)	Controls (%)	Difference	Experimentals (%)	Controls (%)	Difference
12 months	43.5	40.7	2.9	11.4	10.7	0.7
18 months	55.9	52.3	3.6	24.4	23.3	1.1
24 months	62.4	59.2	3.2	35.0	33.6	1.4
42 months	75.2	72.8	2.3	54.7	55.5	-0.7

Source: Janet C. Quint et al., *New Chance: Final Report on a Comprehensive Program for Young Mothers in Poverty and their Children*, MDRC (October 1997).

Table 6
Variation of Workshop Intensity and Participation Rates

Site	Workshops (duration)	Completion of 1 or more workshops	Completion of all workshops	Participation in education, training, or employment activity	Workshop #1: Family planning (duration)	Workshop #2: Parenting (duration)	Workshop #3: Life skills, family Management (duration)
Chicago (IL)	9 hours; 3 days	90%	79%	73%	1.5 hours	1.5 hours	as needed
Camden (NJ)	80-100 hours; 12-15 weeks	58%	24%	62%	(not given)	20 hours	20 hours
Newark (NJ)	80-100 hours; 12-15 weeks	39%	10%	53%	54 hours	20 hours	20 hours

Source: Rebecca Maynard and A. Rangarajan, "Contraceptive Use and Repeat Pregnancies Among Welfare-Dependent Teenage Mothers," *Family Planning Perspectives* 26:5 (September/October 1994): pp. 199-200.

Table 7
Estimated Impacts as a Percent of the Regular-Services Group Mean

	Site			Total
	Camden (NJ)	Newark (NJ)	Chicago (IL)	
Repeat pregnancies	-8.2	5.8	4.0	1.0
Births as a Result of Repeat Pregnancies	-4.8	6.8	10.0 ^a	6.6 ^b

Note: ^a Statistically significant at the 5 percent level; ^b statistically significant at the 10 percent level.

Source: Rebecca Maynard, *Building Self-Sufficiency Among Welfare-Dependent Teenage Parents: Lessons from the Teenage Parent Demonstration*, Table 6, p. 47.

Table 8
Rate of Repeat Pregnancy among the Four Intervention Groups in the Dollar-a-Day Program

Team	Group Total	Number (%) of Repeat Pregnancies by Follow-up Interval			
		6 months	12 months	18 months	24 months
Group and Incentive	97	7 (7.2%)	18 (18.6%)	27 (27.8%)	34 (35.1%)
Group	23	2 (8.7%)	7 (30.4%)	8 (34.8%)	13 (41.7%)
Incentive	84	11 (13.1%)	19 (22.6%)	29 (34.5%)	35 (41.7%)
Control	44	2 (4.6%)	5 (11.4%)	8 (18.2%)	15 (34.1%)
Total	248	22 (8.9%)	49 (19.8%)	72 (29.0%)	97 (39.0%)

Source: Catherine Stevens-Simon et al., "The Effect of Monetary Incentives and Peer Support Groups on Repeat Adolescent Pregnancy: A Randomized Trial of the Dollar-a-Day Program," *JAMA* 277:12 (March 1997): Table 3, p. 980.

NOTES

¹ In this paper, “teenager” refers to individuals aged 19 and younger. “Adolescent” is defined to include youth aged 21 and younger, or is used when reference studies do not specify the exact age range of the young study population.

² V. Joseph Hotz et al., “Impacts on Mothers and Consequences for Government,” in Rebecca Maynard, ed., *Kids Having Kids* (Washington DC: The Urban Institute Press, 1997).

³ Debra Kalmuss and P.B. Namerow, “Subsequent Childbearing Among Teenage Mothers: The Determinants of a Closely Spaced Second Birth,” *Family Planning Perspectives* 26:4 (July/August 1994), p. 149.

⁴ Stephanie Ventura et al., “Report of Final Natality Statistics, 1995,” *Monthly Vital Statistics Report* 45:11 (Supplement) (Hyattsville, MD: National Center for Health Statistics, 1997), Table 2, page 26. Stephanie Ventura et al., “Births and Deaths: United States, 1996,” *Monthly Vital Statistics Report* 46:1 (Supplement 2) (Hyattsville, MD: National Center for Health Statistics, 1997), Table 2, page 10 and 47:12 (1998), Table 7.

⁵ Janet C. Quint et al., *New Chance: Final Report on a Comprehensive Program for Young Mothers in Poverty and their Children* (MDRC: October 1997).

⁶ Catherine Stevens-Simon et al., “The Effect of Monetary Incentives and Peer Support Groups on Repeat Adolescent Pregnancies: A Randomized Trial of the Dollar-a-Day Program,” *JAMA* 277:12 (March 1997), p. 977.

⁷ The decline in the first birth rate accounted for slightly over half (54%) of the overall decline in the teen birth rate, while the decline in the rate for second and higher-order births accounted for about 46% of the total decline. The first birth rate decline accounts for more because first births account for the vast majority of teen births (78% in 1996). Ventura et al., unpublished calculation. Ventura et al., “Natality Statistics.” Ventura et al., “Births and Deaths.”

⁸ Noted researcher Frank Furstenberg has identified a set of services and approaches to the delay of subsequent births. After setting forth those components he concludes, “The most effective way of preventing a second and third birth early in life is delaying the first birth. To do so requires stimulating the conditions provided in most middle-class environments. Creating a tangible sense of opportunity and a set of skills to take advantage of education and job possibilities must begin earlier than adolescence...” *Why Pregnancy Programs Won’t Work and What to Do About It*, Paper presented at the Joint Center for Poverty Research conference, “Synthesizing the Results of Demonstration Programs for Teen Mothers,” Northwestern University, November 13–14, 1997.

⁹ Lorraine V. Klerman, “Can Intervention Programs Prevent Subsequent Births to Teenage Mothers?” presented at the Welfare Reform Academy Conference “Preventing Second Births to Teenage Mothers: Demonstration Findings,” American Enterprise Institute for Public Policy Research, March 6, 1998. This brief compared the results of the Nurse Home Visitation Program and the Teen Parent Demonstration (see pp. 10–14).

¹⁰ David Olds, Letter to the Editor published in the *Washington Post*, May 27, 1998.

¹¹ The Adolescent Family Life Act (AFLA), enacted in 1981, includes three components: research, the prevention of teen pregnancy (through the promotion of abstinence), and care for those teens who are pregnant or parenting. The legislation does not address prevention of subsequent pregnancy; rather, it instructs the Secretary to establish core

“care” services and these rules currently list counseling and referral for family planning services.

¹² For a complete list and description of relevant teen pregnancy and reproductive health provisions, see Jodie Levin-Epstein, *Teen Parent Provisions in the Personal Responsibility and Work Opportunity Reconciliation Act of 1996* (CLASP, November 1996).

¹³ Title 1, Sec. 408 (a)(6).

¹⁴ Title IX, Sec 510 (b)(2)(A).

¹⁵ Prior to TANF, a state that wanted to pursue a family cap policy needed federal approval. The terms and conditions of federal approval exempted the first-born child of minor teens who were recipients of welfare. Under TANF, most states have continued this exemption, but four states—Arkansas, California, Delaware, and Mississippi—have eliminated it. For a review of recent family cap developments see *Excluded Children: Family Cap in a New Era*, CLASP (August 1998).

¹⁶ U.S. Department of Health and Human Services Public Health Service, *Healthy People 2000: Midcourse Review and 1995 Revisions*, p. 46.

¹⁷ Statistics as of 1989 indicate 292 higher order births per 1,000 live births among adolescents in Maine. (The information stated in this brief was obtained from original survey response; the accompanying site is the compilation of state results.) David Knopf and Claire Brindis, *State Adolescent Health Coordinator 1996 Profile* (The National Adolescent Health Information Center [NAHIC], 1996).

¹⁸ Knopf and Brindis.

¹⁹ Knopf and Brindis.

²⁰ The Executive Committee on Adolescent Pregnancy Prevention and the Subcommittee on Adolescent Pregnancy Prevention, developers, *Brighter Futures: The Wisconsin Plan to Prevent Adolescent Pregnancy* (January 1998), pp. 35–36.

²¹ Under the AFDC program which preceded TANF, if a state wanted to deviate from federal rules the state submitted a waiver request to HHS for federal approval. The 1996 federal law that created TANF allows the state to continue or discontinue waivers.

²² Arkansas Reduction in AFDC Birthrates Project, 1994, p. 8.

²³ Second and higher-order births accounted for 21.4% and 21.9% of the births for teenagers aged 15–19 in 1995 and 1996, respectively. Ventura et al., “Natality Statistics,” Table 2, p. 26. Ventura et al., “Births and Deaths,” Table 2, p. 10.

²⁴ The percent of second births continues to increase as women get older. For women aged 20–24, 51.6% of all births are second or higher-order births. Ventura et al., “Natality Statistics,” Table 2, p. 26.

²⁵ Abused teen girls may be particularly vulnerable to early childbearing; further, because they may tend to have

children younger, future research may provide insight into whether abused teens have a disproportionate number of subsequent pregnancies as teenagers. According to the Washington State Survey of Adolescent Health Behaviors, girls with a history of sexual abuse are more likely than other girls to engage in intercourse before age 15, have more than one sexual partner, and not use birth control. [“Adolescent Pregnancy and Sexual-Risk Taking Among Sexually Abused Girls” *Family Planning Perspectives*, 29:200-203 and 227; 1997]. Preliminary analysis in another study indicates that girls who were sexually abused were more likely to have babies and more likely to have them at a younger age than girls who were not abused. Funded by the National Institute for Mental Health, “Sexual Activities and Attitudes of Sexually Abused and Nonabused Adolescent Girls” a 10 year study of 160 girls has found that of those who gave birth, the average age was 18 for those who had been abused and 20 for those who had not. Of the 20 girls who gave birth as teens, 14 had been abused and 4 had not. [CLASP communication with Jennie Noll, research co-author and NIMH project director].

²⁶ The interval between first and second birth continues to increase as women get older. For women aged 20 through 24, the mean interval between first and second births is 34.5 months; within 24 months of a first birth, 22% of those who begin childbearing at age 20 or older have a second child. Kalmuss and Namerow, p. 151.

²⁷ Kalmuss and Namerow, p. 151.

²⁸ Longitudinal study of over 300 primarily urban black women who gave births as adolescents in the late 1960s; Follow-up included interviews with both mother and child at five and seventeen years after initial enrollment. Frank Furstenberg, Jr., J. Brooks-Gunn, and S. Philip Morgan, “Adolescent Mothers and Their Children in Later Life,” *Family Planning Perspectives* 19:4 (July/August 1987), Table 2, p. 147.

²⁹ Unpublished Analyses of NSFG–1995 Data (Child Trends, Inc.:1998).

³⁰ Ventura et al., “Nativity Statistics,” Table 2, p. 26. In comparison to teens, the rate of closely spaced births to minority women of all ages exceed that of white women. Specifically, from 1991 through 1993, an average 27.4% of second and higher-order births to white women (of all ages) and 35.5% of second and higher-order births to black women (of all ages) occurred within 24 months of the birth of the first child. National Center for Health Statistics, Vital Statistics of the United States, Vol. 1, Natality (Washington: Public Health Service, Annual Reports).

³¹ Kathleen Ford, “Second Pregnancies Among Teenage Mothers,” *Family Planning Perspectives* 15:6 (November/December 1983), p. 268.

³² Jennifer Manlove et al., *Positive Outcomes Among School-Age Mothers: Factors Associated with Postponing a Second Teenage Birth* (Child Trends, Inc.: November 1997), p. 14 and Table 4.

³³ Frank L. Mott, “The Pace of Repeated Childbearing Among Young American Mothers,” *Family Planning Perspectives* 18:1 (January/February 1986), p. 232.

³⁴ Receipt of a diploma or a GED was a significant predictor of a subsequent pregnant teen birth, even after controlling for other background and individual factors. Manlove, et al., *Positive Outcomes Among School-Age Mothers: Factors Associated with Postponing a Second Teenage Birth* (Child Trends, Inc.: November 1997), Table 2.

³⁵ Kalmuss and Namerow, p. 152.

³⁶ Catherine Stevens-Simon et al., “Reasons for First Teen Pregnancies Predict the Rate of Subsequent Teen

Conceptions,” *Pediatrics* 101:1 (January 1998), www.pediatrics.org/cgi/content/full/101/1/e8

³⁷ This Texas survey was designed to assess the reliability of teenagers’ contraceptive use during the first six months after they had given birth—that is, their use of the pill, injectable, implant, IUD, or condoms. Participants who were aged 18 or younger and delivered between December 1993 and May 1995 at the University of Texas Medical Branch were interviewed within 48 hours after delivery. In addition, they received questionnaires in the mail approximately six months later. In all, 462 women completed the questionnaire; the analyses are based on the 359 young mothers who were sexually active and *not* trying to conceive. M.L. O’Connor, “By Six Months Postpartum, Many Teenagers Are Not Using a Method Effectively,” *Family Planning Perspectives* 29:6 (November/December 1997), pp. 289–290.

³⁸ Manlove et al., *Postponing Second Teen Births in the 1990s: Longitudinal Analyses of National Data* (Child Trends, Inc.: 1997).

³⁹ Dianne Scott-Jones, “Educational Levels of Adolescent Childbearers at First and Second Births,” *American Journal of Education* 99:4 (August 1991), Table 2, p. 468.

⁴⁰ Furstenberg, p. 142.

⁴¹ Department of Health and Human Services, “Indicators of Welfare Dependence: Annual Report to Congress” (October 1997) as found in *Welfare to Work* (Winter 1998).

⁴² Furstenberg, pp. 146–7. The Caldwell Preschool Inventory is a measure of a child’s readiness for school, designed to evaluate participants in the Head Start Program.

⁴³ Heinz W. Berendes, R. Brenner, M. Overpeck, L. B. Trifiletti, and A. Trumble, “Risk Factors for Infant Homicide in the United States,” *New England Journal of Medicine* 339:17 (October 22, 1998), pg. 1211. The study uses the relative risk factor associated with a mother age 25 or older bearing her first child as a baseline for all comparisons--that number being 1.0. Also, it should be noted that the study does not give a clear indication of who the perpetrator is in the actual homicides. The author notes that studies have shown that most infant homicides are carried out by parents, or stepparents, and a slight majority are attributable to males.

⁴⁴ Children’s Defense Fund, *CDF Reports* 18:11 (October 1997), p. 16.

⁴⁵ Older women have fewer low birth weight babies: for women aged 20–24, the percentage of low birth weight babies is 7.3%; for women aged 25–29, the figure is 6.4%.

⁴⁶ Stephanie Ventura, “Low Birthweight by Live Birth Order for Births to Teens” (Unpublished Data: June 1998), Table 1, Plane 1.

⁴⁷ Robert Goerge and Bong Joo Lee, “Abuse and Neglect of the Children,” in Maynard, ed., *Kids Having Kids* (Washington, DC: Urban Institute Press, 1997), pp. 216–217.

⁴⁸ Goerge and Lee, pp. 212–213.

⁴⁹ See Claire Brindis and Susan Philliber, “Room to Grow: Improving Services for Pregnant and Parenting Teenagers in School Settings.” The report examines sixteen studies, six of which report some impact on repeat pregnancy.

⁵⁰ David Olds, "Increasing the Policy and Program Relevance of Results from Randomized Trials of Home Visitation," *Journal of Community Psychology* 26:1 (1998), p. 87.

⁵¹ Quint, pp. ES-2.

⁵² Rebecca Maynard and Anu Rangarajan, "Contraceptive Use and Repeat Pregnancies Among Welfare-Dependent Teenage Mothers," *Family Planning Perspectives* 26:5 (Sept/Oct 1994), pp. 199-200.

⁵³ Rebecca Maynard, ed., *Building Self-Sufficiency Among Welfare-Dependent Teenage Parents: Lessons from the Teenage Parent Demonstration* (Mathematica Policy Research, Inc., June 1993), pp. 46 and 67.

⁵⁴ Grant APH0001 66-5, and NIH Grant 5 M01 RR00069 General Clinical Research Centers Program, National Center for Research Resources.

⁵⁵ S. Edwards, "Incentives Draw Teenage Mothers to Support Groups, But Participation Does Not Prevent Repeat Pregnancy," *Family Planning Perspectives* 29:4 (July/August 1997), p. 191.

⁵⁶ 125 teens were released from the program due to completion of program goals or becoming 21; the remaining 429 left the program for various reasons, including loss to follow-up (case worker cannot locate teen), withdrawal (typically because of loss of Medicaid, change of residence, and second pregnancy). Stephen Pickard, "Has the Teen Pregnancy Case Management Program Been Effective?" Teen Pregnancy Prevention Program, Bureau of Children, Youth, and Families (December 1997), p. 2.

⁵⁷ Reginald O. York et al., *Evaluation Report: North Carolina Adolescent Parenting Program, March 1998*.