

CHANGING DIRECTION:

AN UPDATE ON
**TEEN PREGNANCY AND BIRTH
IN KING COUNTY**

a special report prepared by the
Epidemiology Planning and Evaluation Unit
Seattle-King County Department of Public Health

James Krieger, MD, MPH
Senior Epidemiologist

Caren Adams, MA
Health Educator

Claire Talltree, MSW
Research Associate

Laurie Stewart, MSPH
Research Associate



City of Seattle
Norman B. Rice, Mayor



King County
Gary Locke, Executive

Seattle-King County Department of Public Health
Alonzo Plough PhD, MPH, Director

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Alonzo Plough, Seattle-King County Department of Public Health
David Solet, Seattle-King County Department of Public Health

For additional copies of this report, please write:

Byron Fellstrom
Epidemiology, Planning and Evaluation Unit
Seattle-King County Department of Public Health
110 Prefontaine Place S., 6th Floor
Seattle, WA 98104

or

call (206)296-6817

or

fax (206) 205-5314

or

email: fellsb01@health.metrokc.gov

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EXECUTIVE SUMMARY

Births to adolescents continue as an issue of public concern because of their detrimental effects to mothers and their children. These adverse outcomes include poverty, unemployment, and poor educational opportunities. This report describes the occurrence of pregnancies, births and abortions among adolescents age 15 to 17 in King County. It is an update to our previous report, *Lost Youth: Teen Pregnancy and Birth in King County*, released in October, 1994, which included data through 1992.

FINDINGS

ADOLESCENT PREGNANCY

The adolescent pregnancy rate in King County has declined by 21 percent since its peak in 1988 and reached its lowest rate since 1980. One in 20 adolescent females became pregnant in 1994, leading to a total of 1359 pregnancies.

The pregnancy rate for adolescents residing in King County outside of Seattle decreased 20 percent since reaching a high point in 1986 and also reached its lowest level since 1980. About one in 26 adolescents in King County outside of Seattle became pregnant in 1994.

The City of Seattle's adolescent pregnancy rate decreased 24 percent after reaching its peak in 1988. Almost one in 11 adolescents in Seattle became pregnant in 1994. The pregnancy rate in Seattle was 2.4 times that of the County outside of Seattle.

Pregnant adolescents in King County were more likely to end their pregnancies in a birth in 1994 than in the early 1980s: in 1994, 44 percent of teen pregnancies resulted in a live birth compared to 29 percent in 1980. Since 1992, the proportion of pregnancies ending in live birth has stabilized. The trend towards choosing birth rather than abortion was most marked in the County outside of Seattle: the proportion of pregnancies ending in delivery rose from 27 percent to 48 percent between 1981 and 1994.

Pregnancies among younger teens age 10 to 14 are uncommon, averaging 89 per year during the 1985-1994 period, and accounting for only six percent of all pregnancies among 10 to 17 year olds. A significant decrease in the pregnancy rate among young teens occurred between 1980 and 1994.

ADOLESCENT BIRTHS

The adolescent birth rate in King County rose steadily until 1992, and then began what may be a trend towards lower rates. A total of 597 adolescents gave birth in 1994.

While the adolescent birth rate increased among all racial and ethnic groups except Asians through the early 1990s, it now appears that the rates may have leveled off in all groups. Latinas may be an exception; their birth rate appears to be steadily rising, although limitations with the data preclude a definitive conclusion. Birth rates remain highest among African and Native Americans, who were more than four times as likely to give birth as white adolescents in 1994.

The birth rate varied significantly across different Regions of the County. The highest rate was found in the Central/South Seattle Region, where it had increased steadily until 1988 and then began a significant decline. The South County Region was also higher than the King County average, but followed its pattern by rising rapidly around 1987 and then declining significantly since 1992. The North Seattle/North County Region and the East County Region both had lower rates than King County, although these rates have been increasing significantly over the past 15 years.

Adolescents living in areas with high rates of poverty were far more likely than those in wealthier areas to have babies. In 1994, 15 to 17 year olds in poor areas had a birth rate more than five times that of adolescents from the wealthier areas of King County.

Births to younger teens age 10 to 14 were relatively uncommon. Over the ten year period from 1985-1994, an average of 27 births per year occurred among this age group in King County, accounting for less than five percent of all births among 10 to 17 year olds.

ADOLESCENT ABORTIONS

The abortion rate among adolescents has continued to decline since the late 1980s. The decline was most apparent in the County outside Seattle, where the rate dropped by 42 percent between 1986 and 1994. It decreased by 29 percent in Seattle between 1988 and 1994.

CONCLUSIONS

The adolescent pregnancy rate in King County has decreased in recent years. During the same time period, the abortion rate also decreased. The birth rate rose steadily until 1992, after which it began to decrease. A large proportion of pregnant adolescents are continuing to give birth rather than terminate their pregnancies. These trends are similar to state and national patterns.

The recent trends in teen pregnancy and births give rise to optimism. High levels of teen pregnancy and birth are not inevitable: they are shaped by social and political influences and influenced to some extent by the availability of services and education, including more effective and intensive sexuality education, teen health centers associated with schools and Health Department clinics. Concerns about youth violence have spawned an array of community efforts to connect with teens and engage them with adults and community activities.

More work remains. The United States still has the highest teen pregnancy and birth rates among the industrialized nations of the world. Most pregnancies among teens are unintended. All women, including teens, need to have access to confidential reproductive health services. Women *and* their partners can and should become more responsible in their choices regarding sexual activity

Future efforts might address the nature of pregnancy among teens: it is almost always unintended. The unintendedness of many pregnancies is shared by teens and older women. This point of commonality can serve as a basis for efforts to help women and their partners of all ages choose when to conceive a pregnancy.

CHAPTER I. INTRODUCTION

Adolescent pregnancy continues to be a major factor affecting the health and social status of young women and children in King County. Women who become mothers at an early age are less likely to continue their education (Upchurch and McCarthy, 1989), are less likely to be married at the birth of their child, have higher rates of poor birth outcomes such as low birthweight, and are much more likely to raise their children in poverty than are women who delay childbearing (Moore and Burt, 1982). These problems are especially pronounced among school-aged mothers, nearly all of whom are age 15 to 17. This group is therefore the subject of this report. We use "adolescent" here to mean age 15 to 17.

The Seattle-King County Department of Public Health issued a report in October 1994, *Lost Youth: Teen Pregnancy and Birth in King County*, addressing the issue of adolescent birth and pregnancy. This report updates our earlier publication, which contained data through 1992, by adding data through 1994. Data from 1995 will not be available until summer of 1996. The reader is referred to the previous report for a more in-depth discussion of the social and health context of teen pregnancy and of interventions for prevention of teen pregnancy and parenting.

HOW TO READ THIS REPORT

This report uses a number of epidemiological techniques to analyze data on teen births and pregnancies. The following paragraphs provide brief explanations of these methods:

1. **Rate Per 1,000:** This is the total number of births, abortions, or pregnancies occurring within a population during a specified time period (usually a year), divided by the total population (such as all adolescent females in King County), and then multiplied by 1,000. It is the number of events occurring in a group of 1,000 members of the population being described.
2. **Rolling Averages:** For populations of small size, small changes in the number of events can cause large fluctuations in rates, making year-to-year changes difficult to observe. To help stabilize the rate and observe the overall time trend of an event, the rates are aggregated into "rolled" averages, such as in 3 or 5 year intervals, across the total observed period. For example, if there is a highly fluctuating rate caused by low numbers of events for years 1987 through 1992, the rates are instead reported as three-year rolling averages: 1987-1989, 1988-1990, 1989-1991, 1990-1992. Each set of three year averages successively advances by one year, includes a higher number of cases than a single year, and thus smoothes out random year-to-year fluctuations.

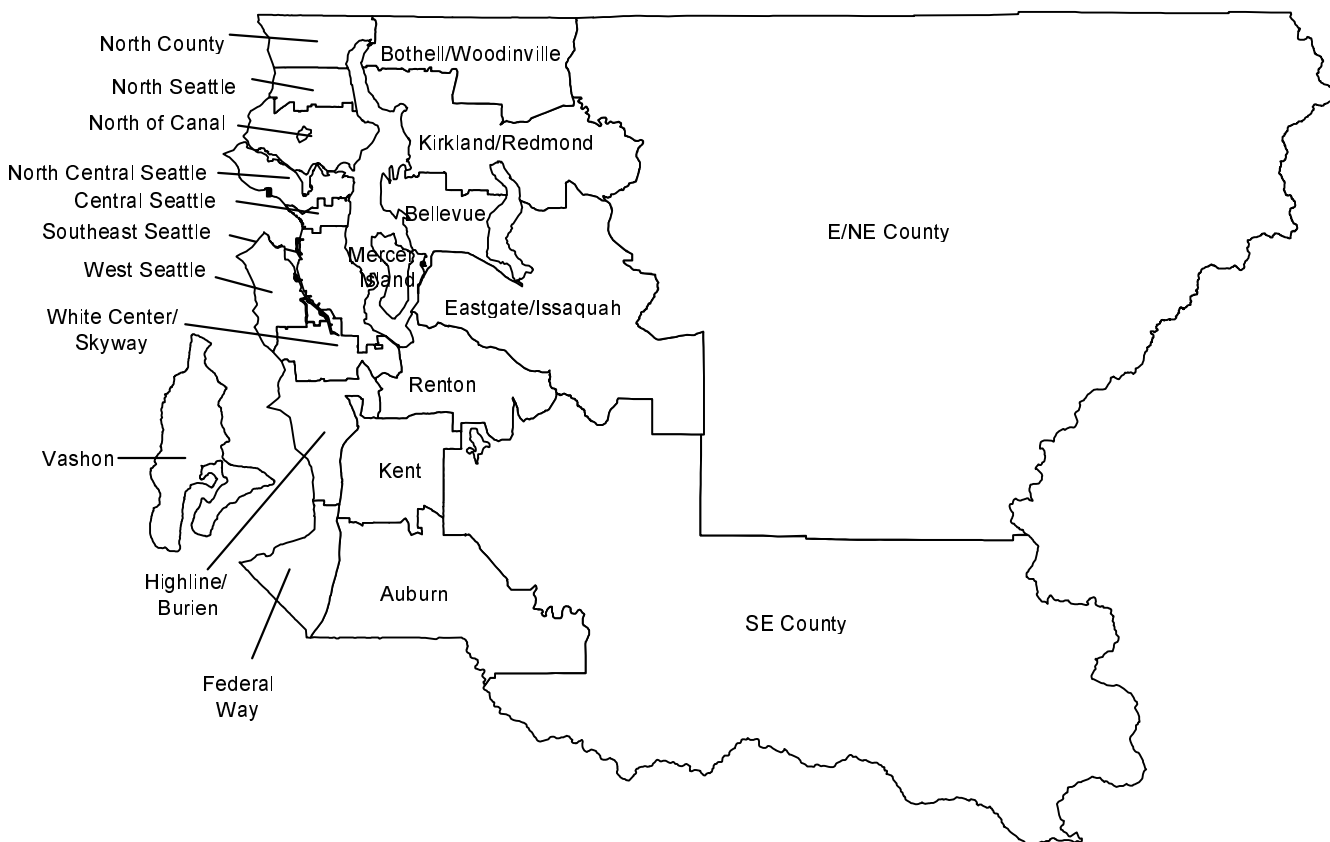
A disadvantage of rolling averages is that they can mask the beginning of recent trends. We always look at year-by-year trends before computing rolling averages to ensure they accurately reflect the data.
3. **Significant Trend:** Epidemiologists use a statistical test called the chi-square test for trend to see whether a change in a rate is statistically significant. A significant trend indicates that the change in a rate is not random and that an increase or decrease is likely to be occurring in a population. Trend tests are always applied to year-by-year trends, not rolling averages. The significance level used for a significant trend is $p < 0.05$.
4. **Relative Risk:** This is the ratio of rates for two different groups. For example, if the pregnancy rate for group A is 20 and that for group B is 10, then members of group A are 2.0 times as likely as those in

group B to become pregnant. (The relative risk is $20/10 = 2.0$.) A confidence interval for the relative risk or "95% CI for RR" is included.

5. Confidence Interval: When comparing adolescent birth, abortion, or pregnancy rates between different groups in King County, the "95 percent confidence interval" or margin of error is given for each relative risk to assess how much the risk is likely to vary due to chance. The confidence interval provides a range in which the true relative risk would be expected to fall. We expect the true relative risk to fall within the 95 percent confidence interval 95 percent of the time. The larger the population under consideration, the smaller the confidence interval, and thus the more stable the estimate of the relative risk.

6. Health Planning Areas: Because birth rates vary across different areas within King County, information about rates in each community can help facilitate local community planning around this issue. Thus, we often present data for each of the county's 21 health planning areas used by the health department. The appendix provides a listing of the census tracts included in each area. The following map shows the boundaries of the Health Planning Areas.

**FIGURE 1:
KING COUNTY HEALTH PLANNING AREAS**



7. Regions: For describing time trends of birth rates, we have also broken King County into four major regions because of important differences in birth rates across these regions. Analysis of trends by Health Planning Area becomes cumbersome because of the large number of areas and the relatively small number of births in any one area. The region definitions are contained in the appendix. *Unfortunately, the way in which abortion data are collected make it impossible to compute area or region-level rates.*

CHAPTER II. ADOLESCENT PREGNANCY TRENDS IN KING COUNTY, 1980-1994

Adolescent pregnancy rates began to decline in the late 1980s, after several years of sustained increases. Between 1988 and 1994, the adolescent pregnancy rate declined by 20 percent in King County. In the County outside of Seattle, adolescent pregnancies also decreased by 20 percent between 1986 and 1994. In Seattle they began to decline later, decreasing by 24 percent between 1988 and 1994.

The adolescent pregnancy rate was 49.8 per 1,000 adolescent females in King County, 91.2 in Seattle, and 38.0 in King County outside of Seattle in 1994. These rates indicate that almost one in eleven adolescents age 15 to 17 in Seattle became pregnant in 1994, compared to about one in 26 in King County outside of Seattle. There were 1,359 pregnancies among adolescents in King County, including 540 in Seattle, 810 in King County outside of Seattle, and 9 among residents of unknown location. While the adolescent pregnancy rate was higher in Seattle than outside the city, more pregnancies occurred among adolescents living outside of Seattle.

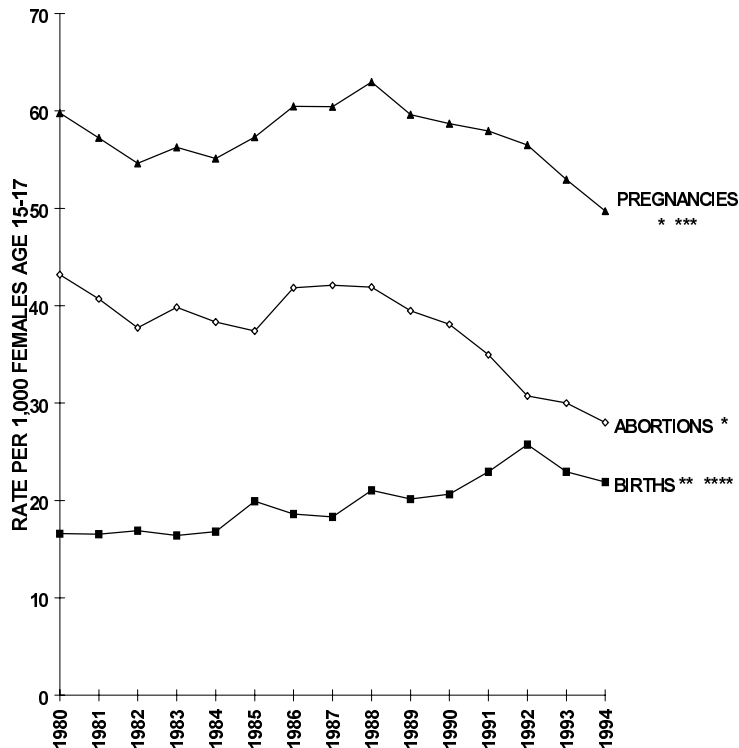
**TABLE 1:
ADOLESCENT PREGNANCY, BIRTH, AND ABORTION RATES
UNITED STATES, WASHINGTON, AND KING COUNTY
1994**

RATES OF:	SEATTLE	KING COUNTY OUTSIDE SEATTLE	KING COUNTY	WASH. STATE	UNITED STATES *	U.S. YEAR 2000 GOAL
PREGNANCY	91.2	38.0	49.8	52.2	73.2	50.0
BIRTH	34.1	18.1	21.9	29.6	38.7	N/A
ABORTION	57.1	19.9	28.0	22.6	24.3	N/A
* 1991 DATA. RATES ARE PER 1,000 FEMALES AGE 15 TO 17. SOURCE: BIRTH AND ABORTION CERTIFICATES.						

In this report, the pregnancy rate is computed by adding together the rates of two major pregnancy outcomes: delivery of a live birth and abortions. Early miscarriages, while common, are not reported and thus cannot be counted. Fetal deaths (stillbirths) are rare and unreliably reported and are therefore not included in the pregnancy rate. Another important pregnancy outcome measure is the proportion of teens delivering live infants who choose to keep the child rather than place the child for adoption. Unfortunately, there are no local data available to track this measure.

The declining pregnancy rates are related to important changes in adolescent birth and abortion rates. In Seattle, the abortion rate has dropped dramatically (and slightly faster than the pregnancy rate) while the previously rising birth rate may have leveled off. In the County outside of Seattle, the previously declining abortion rate has leveled off and the previously rising birth rate has begun to decline. Data from subsequent years will be necessary to determine if these are truly the beginnings of significant trends.

**FIGURE 2:
ADOLESCENT PREGNANCY, BIRTH, AND ABORTION RATES
KING COUNTY
1980-1994**



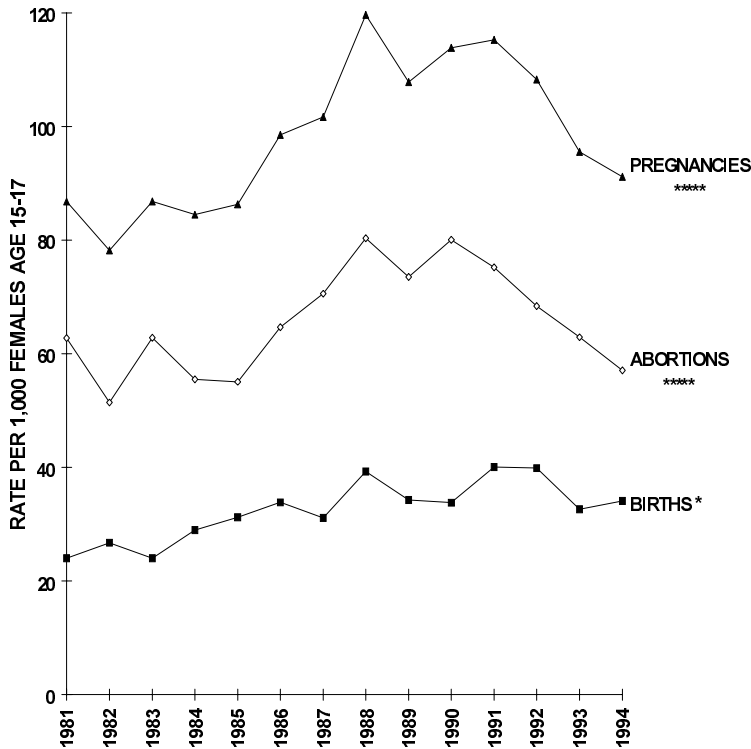
* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 ** THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.
 *** THE TREND FROM 1988-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 **** THE TREND FROM 1992-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 SOURCE: BIRTH AND ABORTION CERTIFICATES.

This chart shows pregnancy, abortion, and birth rates for 15 to 17 year old adolescents in King County from 1980 to 1994.

The adolescent pregnancy rate in King County increased slowly between 1982 and 1988, and then began a significant decline in 1989. The birth rate has generally been rising among King County adolescents since 1981, although it may be possible that a trend towards lower rates began in 1993. The birth rate decreased significantly between 1992 and 1994. The abortion rate has continued its significant decline, although more slowly in recent years.

Birth rates are discussed in Chapter III. and abortion rates in Chapter IV. in greater detail.

**FIGURE 3:
 ADOLESCENT PREGNANCY, BIRTH, AND ABORTION RATES
 SEATTLE
 1981-1994**

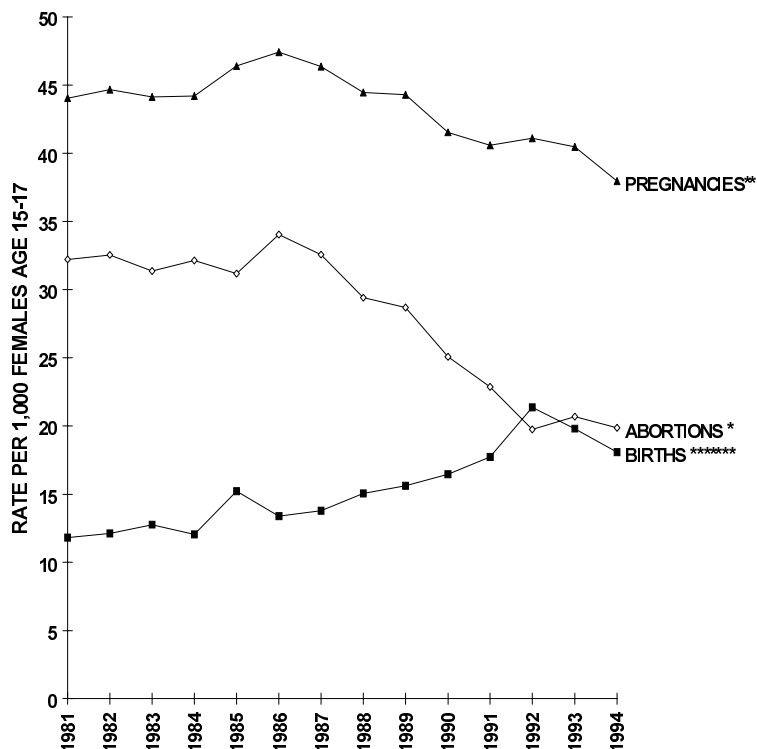


* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.
 ** THE TREND FROM 1988-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 SOURCE: BIRTH AND ABORTION CERTIFICATES.

Among adolescents in Seattle, the rates of pregnancy, abortion, and birth climbed during the 1980s. The increase was particularly pronounced from about 1982 to 1991. Since then, the pregnancy and abortion rates have begun a significant decline, while the birth rate may have leveled off.

In 1994, the adolescent pregnancy rate in Seattle was 2.4 times as high as the rate in King County outside Seattle (95% CI for RR = 2.1, 2.7). This represents a slight decline in the ratio of the rates between the two parts of the County since 1992.

**FIGURE 4:
 ADOLESCENT PREGNANCY, BIRTH, AND ABORTION RATES
 KING COUNTY OUTSIDE OF SEATTLE
 1981-1994**



* THE TREND FROM 1981-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

** THE TREND FROM 1981-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.

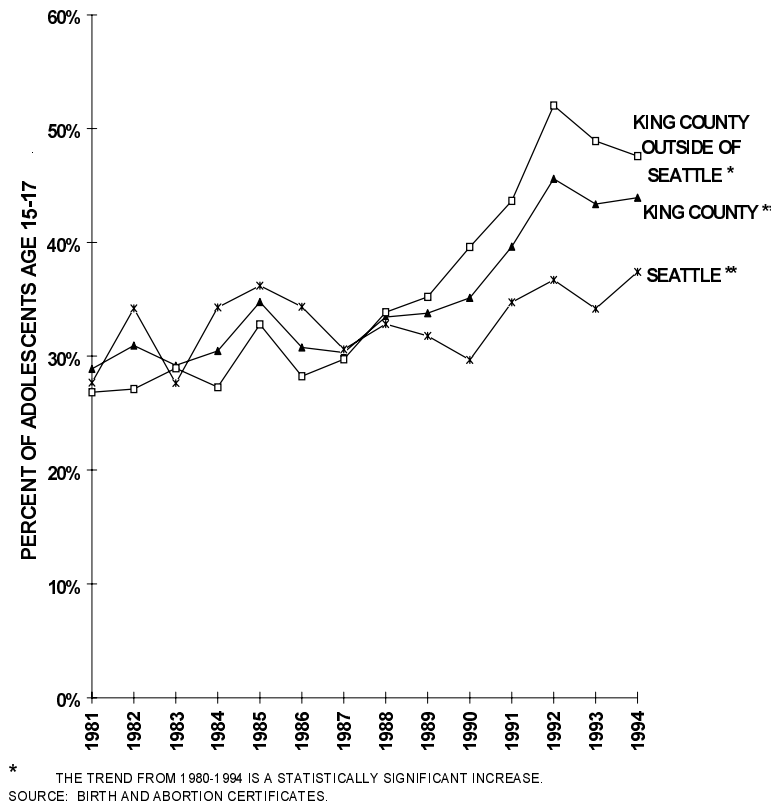
*** THE TREND FROM 1992-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

SOURCE: BIRTH AND ABORTION CERTIFICATES.

In King County outside of Seattle, while trends were similar, they began earlier. The pregnancy and abortion rates among adolescents have declined since their peaks in 1986. The decline in abortions may have begun leveling off in 1992. Meanwhile, the adolescent birth rate increased consistently until 1992, after which a decreasing trend appears to have started. The drop in birth rate between 1992 and 1994 was significant.

These trends indicate that in recent years, pregnant adolescents in King County are choosing more often than in the past to keep their babies rather than to terminate their pregnancies. In 1994, 44 percent of teen pregnancies ended in a live birth compared to 29 percent in 1981. This tendency towards electing delivery rather than abortion is most noticeable in the County outside of Seattle.

**FIGURE 5:
PERCENT OF ADOLESCENT PREGNANCIES ENDING IN BIRTH
KING COUNTY, SEATTLE, KING COUNTY OUTSIDE OF SEATTLE
1981-1994**



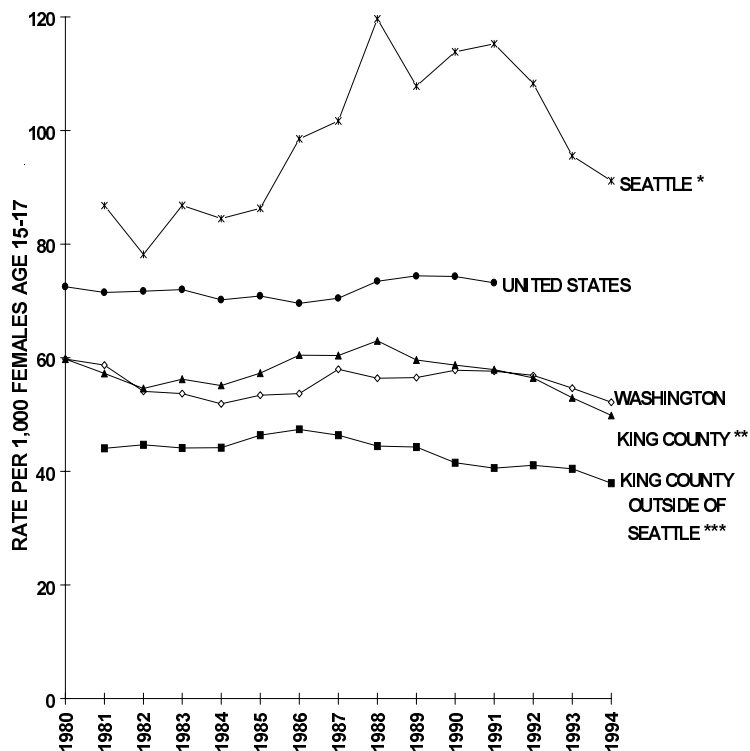
In King County outside of Seattle, the proportion of pregnancies ending in live births has increased markedly between 1981 and 1994, rising from 27 percent to 48 percent. Nearly all of this increase occurred between 1988 and 1992. By 1992, there were approximately equal numbers of births and abortions among adolescent women in King County outside of Seattle. Since 1992, the proportion has remained stable.

In contrast, the proportion of pregnancies ending in live births in Seattle has increased more slowly, growing from approximately 30 percent to 37 percent between 1981 and 1994.

Among 15 to 17 year olds residing in Seattle in 1994, there were 1.6 abortions for every birth, while in King County outside of Seattle, the corresponding ratio was 1.1.

The U.S. Public Health Service, in conjunction with the Centers for Disease Control and Prevention and the National Institutes of Health, created health goals for the year 2000 to attempt to stabilize or decrease rates of disease and unhealthy behavior in the United States. The year 2000 goal for adolescent pregnancy in the U.S. is a rate of 50 pregnancies per 1,000 females age 15 to 17. King County outside of Seattle has clearly met the goal. If Seattle's rate continues to decline as it has since 1988, it will stand at 70 per 1000 in the year 2000 and reach the goal of 50 per 1000 in the year 2005.

**FIGURE 6:
ADOLESCENT PREGNANCY RATES
UNITED STATES, WASHINGTON, AND KING COUNTY
1980-1994**



* THE TREND FROM 1981-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.
 ** THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 *** THE TREND FROM 1981-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 SOURCE: BIRTH AND ABORTION CERTIFICATES.

Adolescent pregnancy rates were generally stable in Washington State, although they may have begun to decline in 1992. The pregnancy rate in the U.S. was level between 1980 and 1991, the last year for which data were available. The King County adolescent pregnancy rate was similar to Washington State's and lower than that of the nation as a whole.

Other data also indicate that pregnancy is a fairly common occurrence among Seattle adolescents. The 1993 Seattle Schools Teen Health Risk Survey found that 15 percent of female 12th graders and 24 percent of those who were sexually active said they had been pregnant at least once. Overall, one-fifth of female students who had ever had sex had become pregnant. These figures might represent an underestimate, as pregnancy rate statistics indicate that the proportions may actually be higher. The Health Survey was repeated in 1995 and when analysis is completed, will provide information useful for understanding the trends described in this report. In particular, the Survey will describe trends in sexual activity and use of contraception which might explain a portion of the decrease in the pregnancy rate. Preliminary data from the 1995 survey indicates little change in the proportion of high school seniors who have been pregnant. Unfortunately, similar surveys are not available for other schools in King County. The lack of such longitudinal data limits our understanding of teen pregnancy and what our communities can do about it.

Younger adolescents ages 10 to 14 years experienced a much lower pregnancy rate than 15 to 17 year olds. Chapter V. contains more details on pregnancies in this age group.

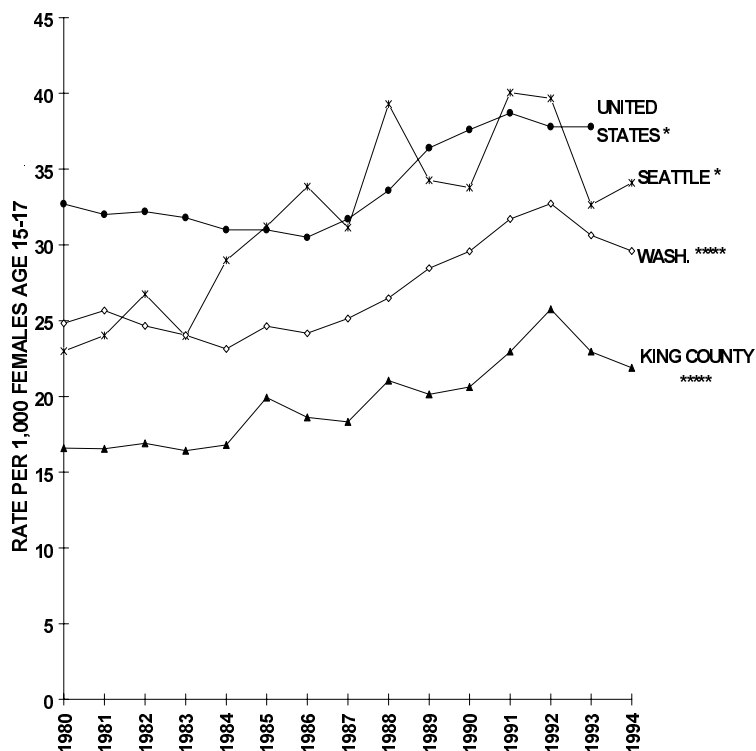
Pregnancy rates are not available by race because race data are so often missing on the abortion certificate. They are also not available for small areas and jurisdictions within the County because abortion certificates lack sufficient information about residence to perform such an analysis.

CHAPTER III. ADOLESCENT BIRTH TRENDS IN KING COUNTY, 1980-1994

The increasing birth rate trend among adolescents noted in the our report, *Lost Youth: Teen Pregnancy and Birth in King County*, appears to have halted. The birth rate seems to have peaked in 1992 and may have begun to decline since then. Data from subsequent years will be necessary to determine if indeed a sustained downward trend has begun.

In 1994, 597 births occurred among King County adolescents, down from a high of 615 in 1992. The rate declined from 25.8 per 1000 in 1992 to 21.9 per 1000 in 1994, representing a 15 percent decrease. The Seattle rate appears to have leveled off at 34.1 per 1000.

**FIGURE 7:
ADOLESCENT BIRTH RATES
UNITED STATES, WASHINGTON, AND KING COUNTY
1980-1994**



King County's adolescent birth rate remained lower than the rate for the U.S. as a whole, and was also lower than the Washington State and Seattle rates. The Washington rate also began to decline in 1993.

* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.

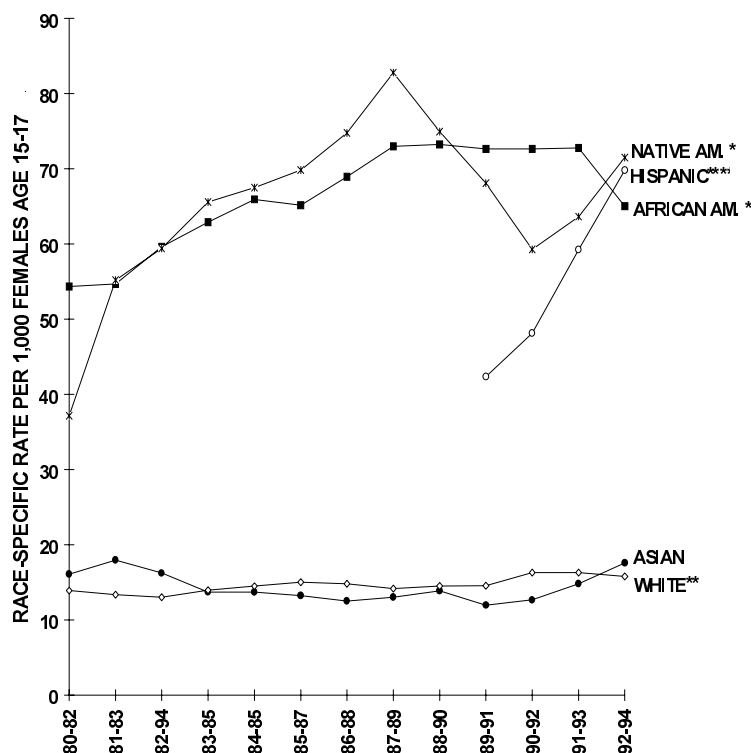
** THE TREND FROM 1992-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

SOURCE: BIRTH CERTIFICATES.

ADOLESCENT BIRTH RATES BY MOTHER'S RACE AND ETHNICITY

The largest number of adolescent births in King County occurred among white adolescents, who are the largest racial group in the population. Adolescent birth rates were highest among African Americans (65.0 per 1,000), Native Americans (71.5) and Latinas (69.8) and lowest among whites (15.8) and Asians (17.6). Native Americans 15 to 17 years old had a fertility rate 4.5 times the white rate during the 1992-1994 period (95% CI for RR = 3.7,5.6). There were 52 births to Asian adolescent mothers, 99 to African American, 83 to Hispanic, 32 to Native American, and 319 to white adolescent mothers in King County in 1994.

**FIGURE 8:
ADOLESCENT BIRTH RATES BY RACE AND ETHNICITY
KING COUNTY
THREE YEAR ROLLING AVERAGES, 1980-1994**



* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.

** THE TREND FROM 1989-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.

SOURCE: BIRTH CERTIFICATES.

Both African American and Native American adolescents have experienced highly significant increases in their birth rates since 1980, although the rates may have stabilized since 1987. The rate among African Americans showed its first decline in many years in 1994; data from subsequent years will show whether this is the beginning of a trend. The white and Asian rates have not changed substantially since 1980.

The collected data show that the number of Hispanic births in King County has been increasing very rapidly over the past several years (information on Hispanic ethnicity was not collected reliably on the birth certificate before 1989). The birth rate among Hispanic adolescents in 1992-94 of 69.8 per 1000 was significantly higher than the county average.

It must be noted, however, that limitations with the data make interpretation of the Hispanic rate (and the apparent increase in rate) somewhat problematic. It is possible that the *estimated* number of Hispanic adolescents in the county, the number used in the denominator of the calculated rate, is not growing as quickly as the *true* number. This would create an erroneously inflated rate. (Since the census is done only every 10 years, all county population figures between these years are estimates.) In addition, because collection of birth certificate information on Hispanic ethnicity is relatively new, the numerator of the rate (the number of Hispanic births) may be artificially growing as more birth certificate reporters adjust to collecting information on ethnicity on the certificate. Latino health and social service providers have indicated that this increase may indicate a true trend, influenced in part by the growing number of Mexican and Central American immigrants settling in King County, among whom early childbearing is more of a cultural norm.

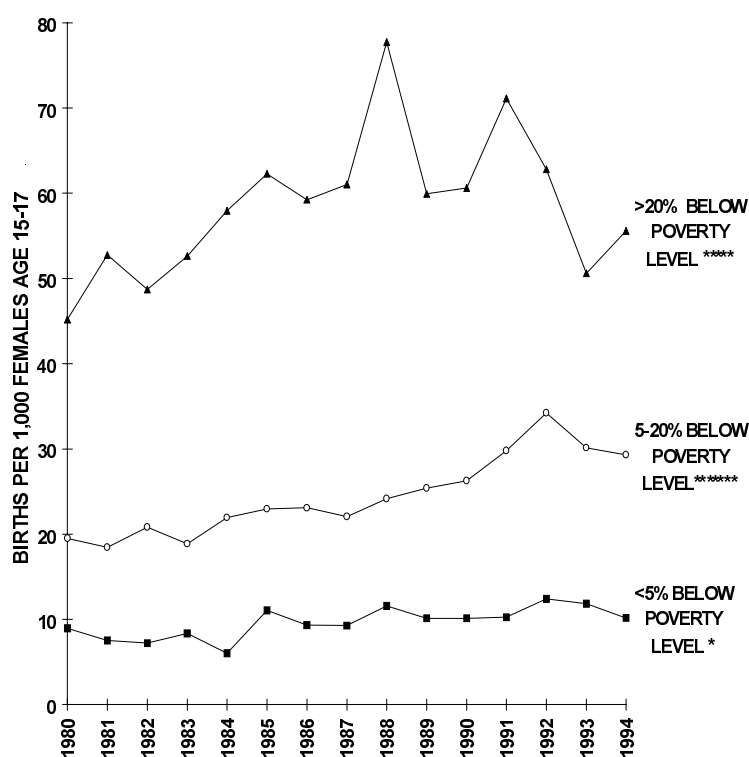
THE EFFECT OF POVERTY ON BIRTH RATES

Previous research has shown that increasing poverty is associated with higher rates of adolescent birth. The recent data in this report confirm the continued association of poverty with higher birth rates. The data also show that the decline in birth rates observed for King County appears to have occurred across all income groups, with the largest decrease observed in areas with the highest concentration of poverty.

In Seattle in 1990, 15.9 percent of youth age 12 to 17 were below the poverty line, while 6.5 percent of those in the County outside of Seattle were below poverty.

No information on mother's income is available on the birth certificate. Therefore, to examine the effects of poverty on the adolescent birth rate, we examined the birth rate by poverty level of the area in which the mother resided. The 1990 U.S. Census provides data on the proportion of the population age 12-17 for each census tract (a tract is a geographic area containing approximately 4000 people) living in families with incomes below the poverty level (\$13,359 for a family of four in 1990). The Census defines a poverty area as one with more than 20 percent of the population living below the poverty line.

**FIGURE 9:
ADOLESCENT BIRTH RATES BY POVERTY LEVEL
KING COUNTY
1980-1994**



* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.
 ** THE TREND FROM 1988-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 *** THE TREND FROM 1992-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

SOURCE: BIRTH CERTIFICATES.

We combined census tracts into three groups according to the percent below poverty in each tract: tracts with less than 5 percent of residents living below the poverty line, those with 5 to 20 percent of residents below poverty, and tracts with more than 20 percent living below poverty. The trends in adolescent birth rates varied across the different income groups. (As abortion data are not collected by census tract of residence, we were unable to examine the pregnancy or abortion rate by percent below poverty in the areas.)

In 1994, adolescents living in the poorest areas were 5.5 times as likely to give birth as those in the most affluent areas (95% CI for RR = 4.1-7.2).

In the high poverty tracts, the birth rate increased throughout the 1980s and then began to decline. In the medium poverty tracts, the rate rose until 1992 before beginning to decline.

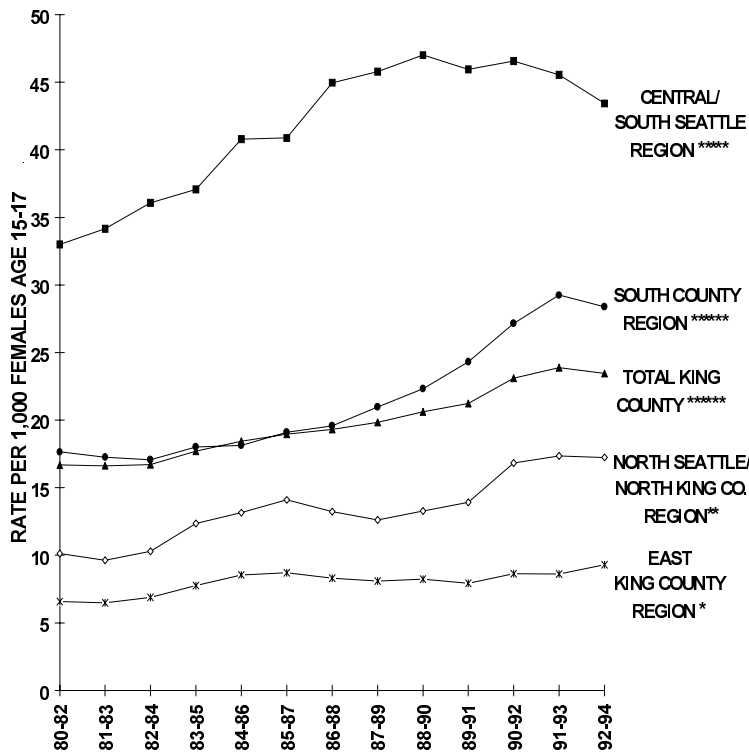
In the low poverty tracts, the rate has drifted slowly upwards and has not shown any significant decrease.

ADOLESCENT BIRTH RATES IN FOUR REGIONS OF KING COUNTY

The trends in birth rates differed across the four regions of King County (the regions are defined in Appendix IV). The highest rate occurred in the Central/South Seattle Region. In this area, adolescent births rose rapidly until 1988, increasing by 78 percent since 1980. Subsequently, the rate began a slow but significant decline, dropping 17 percent by 1994. The net increase between the 1980/82 period and the 1992/94 period was 32 percent. In 1992-1994, the average rate in the Central/South Seattle Region was 1.85 (95% CI = 1.68-2.04) times higher than the County average.

The rate in the South County Region in 1992-1994 was also higher than the County average (relative risk = 1.21, 95% CI = 1.12-1.31). Births grew slowly throughout the early 1980s, began to rise more rapidly in 1987, and then began to decline in 1993. These trends produced a net increase of 61 percent between 1980/82 and 1992/94 in this Region.

**FIGURE 10:
ADOLESCENT BIRTH RATES BY REGION
KING COUNTY
THREE YEAR ROLLING AVERAGES, 1980-1994**



In 1992-1994, the North Seattle/North County Region and the East County Region had lower than average birth rates: 0.74 (95% CI = 0.63-0.86) and 0.40 (95% CI = 0.35-0.46) times the County average, respectively. Both showed significant increases in adolescent births between 1980/82 and 1992/94, the former increasing by 70 percent and the latter by 42 percent.

* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.

** THE TREND FROM 1988-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

*** THE TREND FROM 1992-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

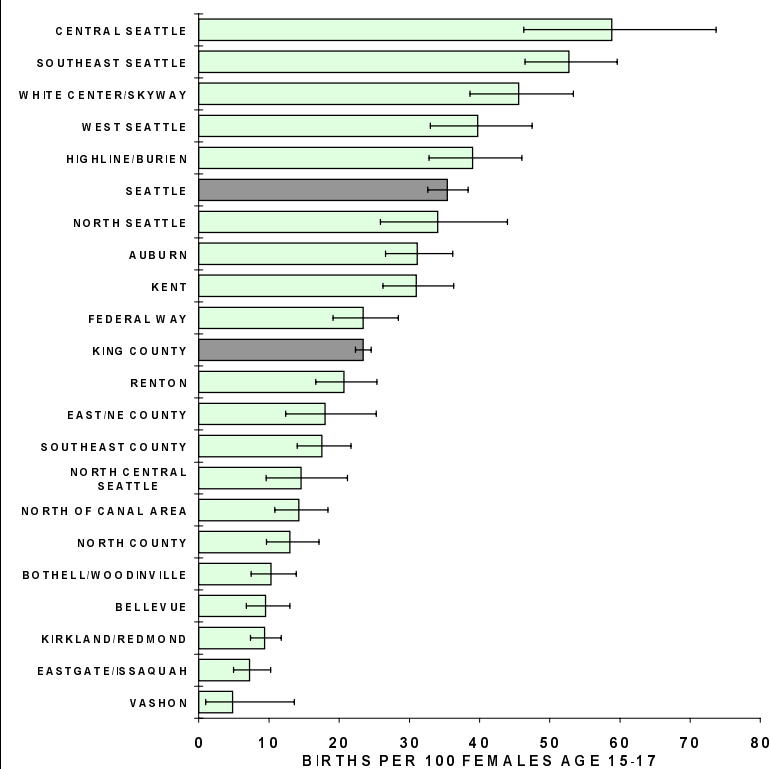
SOURCE: BIRTH AND ABORTION CERTIFICATES.

ADOLESCENT BIRTH RATES IN THE HEALTH PLANNING AREAS OF KING COUNTY

By looking at the Health Planning Areas, which are subdivisions of regions, we can examine the geographic pattern of teen births in more detail. Within King County, the adolescent birth rate varied dramatically by area.

Adolescents in Central and Southeast Seattle experienced the highest birth rates in the 1992-1994 period, as they have in the past. The following chart shows the adolescent birth rates in each of the 21 Health Planning Areas of King County. In this chart, 95 percent confidence intervals are indicated by the thin lines extending across the end of each bar. If the confidence intervals of two rates overlap each other, then statistically there is no significant difference between the two rates.

**FIGURE 11:
ADOLESCENT BIRTH RATES BY HEALTH PLANNING AREA
KING COUNTY
THREE YEAR AVERAGE, 1992-1994**



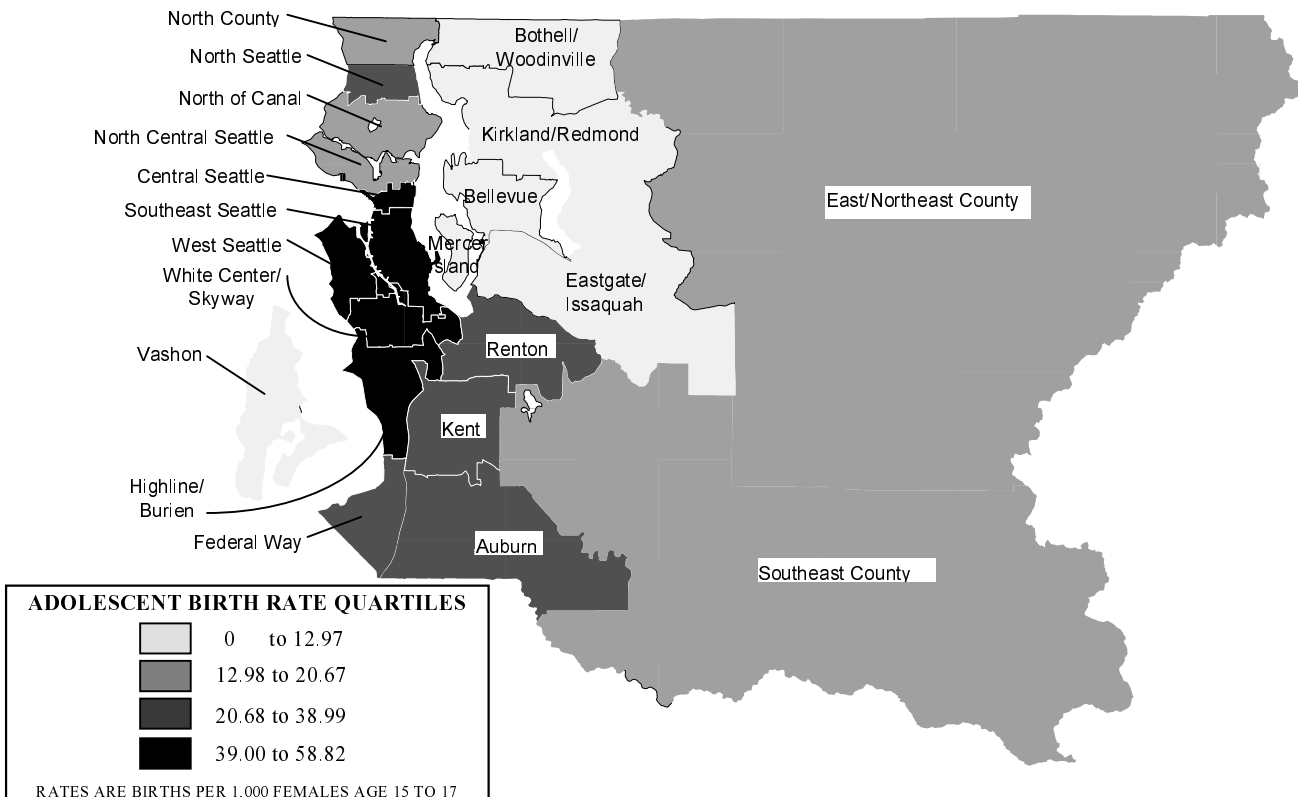
NOTE: MERCER ISLAND IS OMITTED, BECAUSE THE LOW NUMBER OF ADOLESCENT BIRTHS PRECLUDED CALCULATION OF AN ACCURATE RATE.
SOURCE: BIRTH CERTIFICATES.

During this period, the Health Planning Areas with adolescent birth rates which were significantly higher than the county as a whole were clustered in Seattle and the South County. Central and Southeast Seattle, White Center/Skyway, West Seattle, Highline/Burien, North Seattle, Auburn and Kent Health Planning Areas had adolescent birth rates significantly higher than the county average.

Meanwhile, the areas with lower rates tended to be on the Eastside. Eastgate/Issaquah, Vashon Island, Kirkland/Redmond, Bellevue, Bothell/Woodinville, North County, North of Canal Seattle and North Central Seattle all had rates significantly lower than the county average. Mercer Island had the fewest adolescent births of any area, too few to calculate a stable rate.

Below is a map of the birth rates for 15 to 17 year olds by Health Planning Area from 1990 to 1992. They are grouped by quartiles, that is the darkest areas are those areas which comprise the five highest areas, the medium dark areas rank sixth to tenth, the medium light areas rank eleventh to fifteenth and the lightest areas rank sixteenth to twenty-first.

**FIGURE 12:
MAP OF ADOLESCENT BIRTH RATES BY HEALTH PLANNING AREA
KING COUNTY
THREE YEAR AVERAGE, 1992-1994**



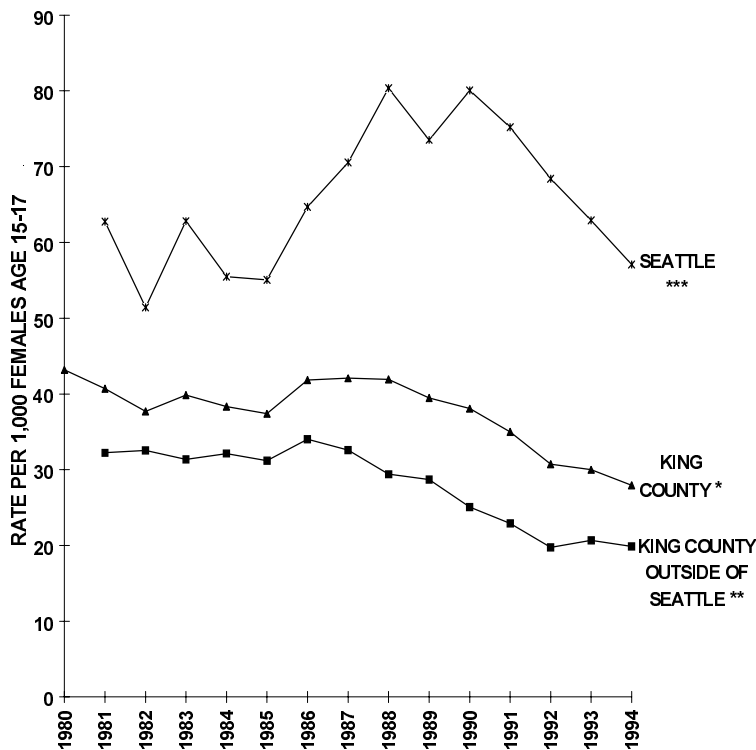
SOURCE: BIRTH CERTIFICATES.

CHAPTER IV. ADOLESCENT ABORTION TRENDS IN KING COUNTY, 1980-1992

Abortion is a common pregnancy outcome for adolescents in King County, with 44 percent of all pregnancies ending in a termination in 1994. An unintended pregnancy is responsible for most abortions. The great majority (82 percent) of pregnancies to teenagers are unintended (Henshaw and Van Vort, 1992), while overall, 56 percent of all pregnancies are unintended (Healthy People 2000).

The abortion rate varies with the demographic characteristics of the mother, such as her age and location of residence. National data show that various racial and ethnic groups have differing abortion rates. However, race is not collected on enough of the King County abortion certificates to permit local analysis of racial variation in rates. Abortion certificates also lack data to permit geographic variation analysis except for distinguishing between Seattle and the County outside Seattle.

**FIGURE 13:
ADOLESCENT ABORTION RATES
SEATTLE, KING COUNTY, KING CO. OUTSIDE OF SEATTLE
1980-1994**



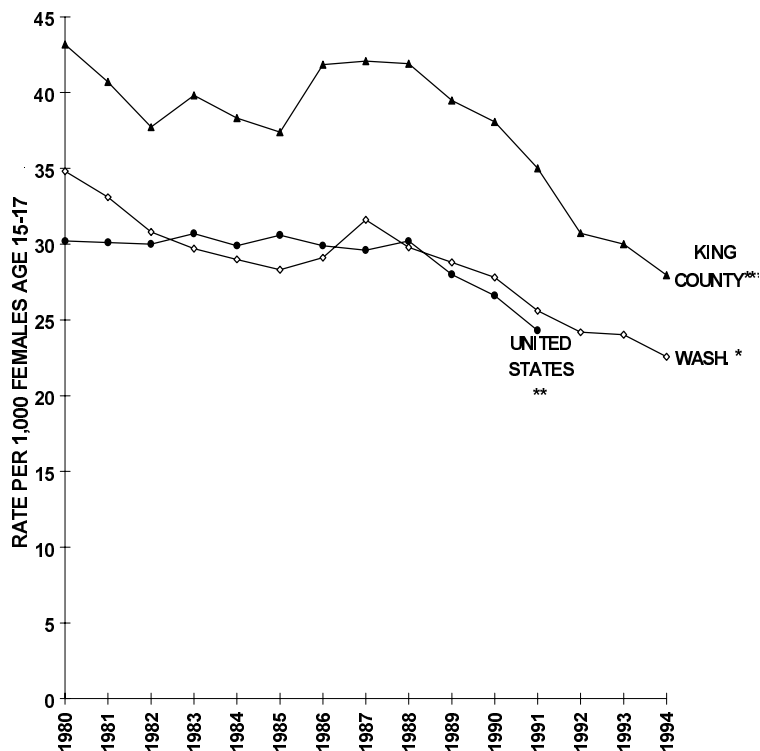
* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 ** THE TREND FROM 1981-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 *** THE TREND FROM 1988-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

SOURCE: ABORTION CERTIFICATES.

In King County the abortion rate among 15 to 17 year olds declined dramatically since the mid 1980s. The rate decreased by 34 percent between 1987 and 1994.

The decline in abortions was larger in the County outside of Seattle than in the city. In Seattle, the rate dropped by 29 percent from a high point of 80.4 per 1000 in 1988, while in the balance of the County, the rate decreased by 42 percent from a high of 34.0 per 1000 in 1986. While the decline in the abortion rate among Seattle adolescents continued unabated through 1994, the decline in the balance of the County seems to have ended in 1992, with abortion rates remaining stable since then.

**FIGURE 14:
ADOLESCENT ABORTION RATES
UNITED STATES, WASHINGTON, AND KING COUNTY
1980-1994**



* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

** THE TREND FROM 1980-1991 IS A STATISTICALLY SIGNIFICANT DECREASE.

SOURCE: ABORTION CERTIFICATES.

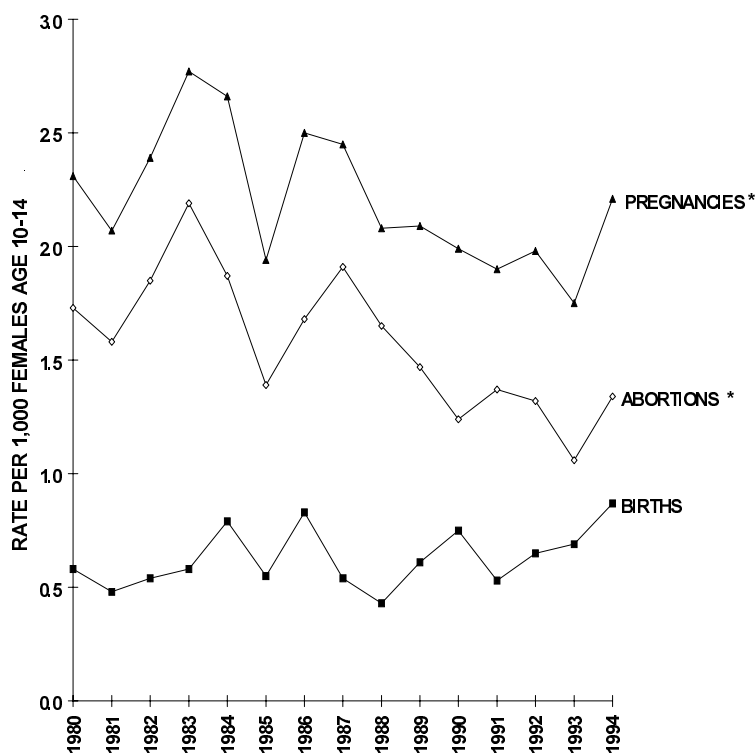
Adolescent abortions have been decreasing in Washington State and the nation as a whole since 1988. Although 1991 is the last year for which data on the U.S. rate is available, a recent report from the Centers for Disease Control and Prevention (Division of Reproductive Health, 1996) indicated that abortions among women less than 19 years of age constitute a continually decreasing proportion of all abortions through 1993. This suggests that the teen abortion rate is declining nationwide.

CHAPTER V. PREGNANCY, BIRTH, ABORTION AMONG YOUNGER AND OLDER TEENS

In recent years, concerns have been raised that teens are becoming pregnant and giving birth at younger and younger ages and that older teens age 18 to 19 are at increasing risk of unwanted births. The data from King County do not support these conclusions.

Births to younger teens are relatively uncommon. Over the ten year period from 1985-1994, an average of 27 births per year occurred among this age group in King County, accounting for less than five percent of all births among 10 to 17 year olds. The average birth rate in this time period was 0.65 births per 1000 girls age 10 to 14. There has been no significant change in the 10 to 14 year old birth rate since 1980.

**FIGURE 15:
PREGNANCY, BIRTH, AND ABORTION RATES
FOR YOUNGER TEENS (AGE 10 TO 14)
KING COUNTY
1980-1994**



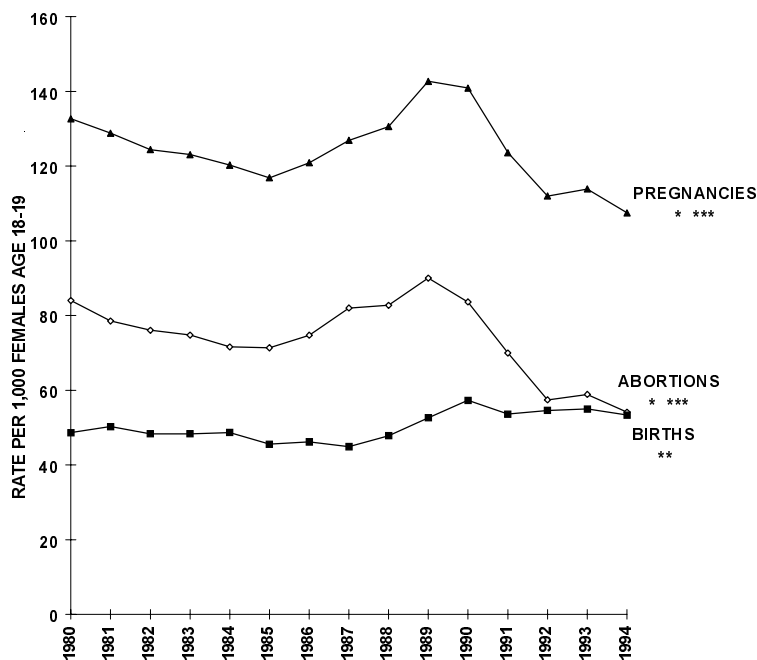
* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

SOURCE: BIRTH AND ABORTION CERTIFICATES.

Pregnancies among 10 to 14 year olds are also uncommon, averaging 89 per year during the 1985-1994 period. These pregnancies accounted for only six percent of all pregnancies among 10 to 17 year olds. The average pregnancy rate among 10 to 14 year olds was 2.1 per 1000. A significant decrease in the pregnancy rate occurred between 1980 and 1994.

Although it appears that the birth and pregnancy rates may have increased in 1994, this change is well within the range of random yearly fluctuation and is not statistically significant.

**FIGURE 16:
PREGNANCY, BIRTH, AND ABORTION RATES
FOR OLDER TEENS (AGE 18 TO 19)
KING COUNTY
1980-1994**



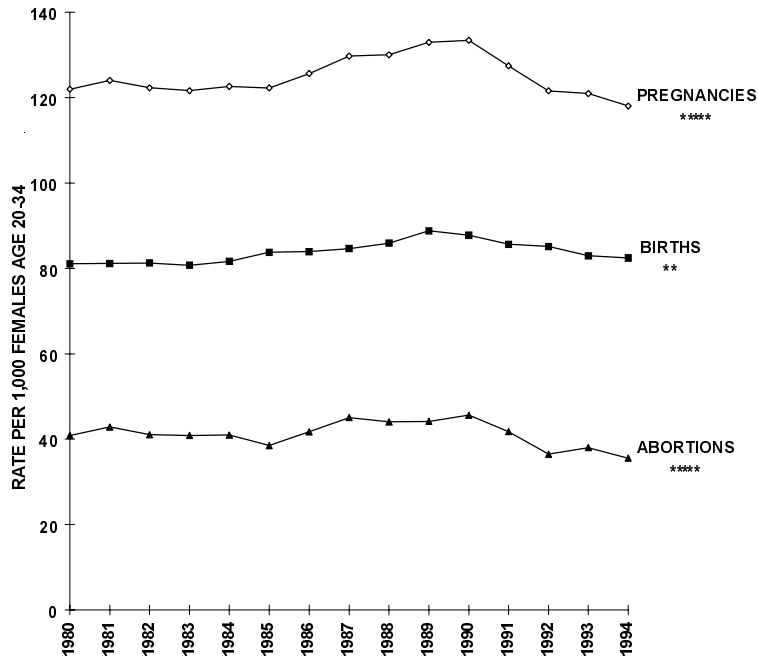
* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
 ** THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT INCREASE.
 *** THE TREND FROM 1989-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

SOURCE: BIRTH AND ABORTION CERTIFICATES.

The pregnancy and abortion rates have dropped significantly among the 18 to 19 year old population in King County since reaching a peak in 1989. The birth rate has risen slightly since 1987, but has stabilized since 1991. The result of these trends is that an increasing proportion of pregnancies are ending in live births. In 1980, 37 percent of pregnancies resulted in live births whereas by 1994, 50 percent did.

The 18 to 19 year old teens show trends similar to those among the 15 to 17 year olds, but delayed by one to two years. This implies that the attitudes and choices adopted by the younger teens remain with them as they move into the older teen age group.

**FIGURE 17:
PREGNANCY, BIRTH, AND ABORTION RATES
FOR YOUNG ADULTS (AGE 20 TO 34)
KING COUNTY
1980-1994**



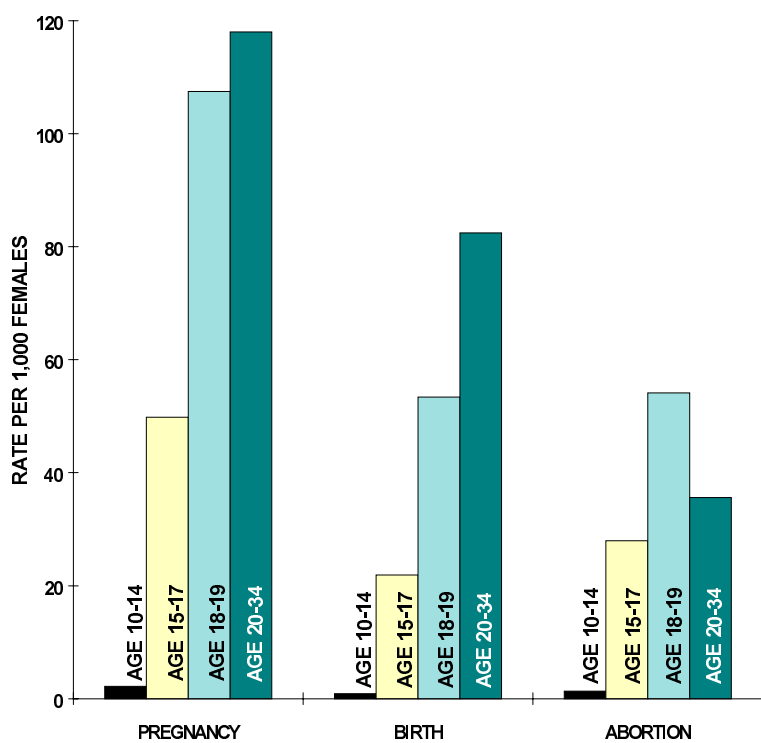
* THE TREND FROM 1980-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.
** THE TREND FROM 1989-1994 IS A STATISTICALLY SIGNIFICANT DECREASE.

SOURCE: BIRTH AND ABORTION CERTIFICATES.

The reproductive trends among women in their prime childbearing years (ages 20 to 34) help place the patterns observed among teenagers in a broader context. Among this older group, pregnancies increased slightly in the mid 1980s and then declined back to the 1980 baseline. The birth rate followed a similar pattern. The abortion rate increased slightly in the mid 1980s, began to decline in 1991 and then stabilized at a level slightly below the 1980 baseline. Throughout the 1980-1994 time period, two-thirds of pregnancies have resulted in live births.

The patterns seen in teens are therefore distinct from those seen in this older group. The teens are distinguished by their more rapidly declining pregnancy and abortion rates and increasing proportion of pregnancies resulting in live births.

**FIGURE 18:
PREGNANCY, BIRTH, AND ABORTION RATES
BY AGE GROUP
KING COUNTY
1994**



SOURCE: BIRTH AND ABORTION CERTIFICATES.

In summary, relative to schoolage teens (age 15 to 17), younger teens are much less likely to become pregnant or give birth. Older teens are about twice as likely to do so, while women age 20-34 are approximately twice as likely to become pregnant but nearly four times as likely to give birth.

CHAPTER VI. CONCLUSIONS: CONTINUING CHANGE IN ADOLESCENT PREGNANCY RATES

The adolescent pregnancy rate in King County has decreased in recent years. During the same time period, the abortion rate also decreased and the birth rate increased. The birth rate may now be starting to decline as well. A large proportion of pregnant adolescents are continuing to give birth rather than terminate their pregnancies. These trends are similar to state and national patterns. The factors that shape these trends are therefore in part general values, beliefs and behaviors that are present throughout the nation as well as specific local circumstances.

The reasons behind the changing patterns of adolescent pregnancy and its outcome are complex and cannot readily be understood solely through examination of the vital records data used for this report. Interpretation is limited because we lack comprehensive, reliable longitudinal survey data describing teens' attitudes and behaviors regarding sexual activity. In our attempts to understand these trends, we have consulted with professionals who work with youth and, though focus groups¹, with youth themselves. As a result of these discussions, and a review of the scientific literature, we have arrived at some preliminary conclusions about what is driving the trends noted in this report. However, these are only our suggestions and we hope that the findings of this report will stimulate the reader and other community members to seek explanations and share them with us.

The recent decline in the teen pregnancy rate may be due to:

- Increased use of contraception. The national Youth Risk Behavior Survey (YRBS) reported that condom use increased slightly among high school students between 1991 and 1993, as did the use of birth control pills (Division of Adolescent and School Health, 1995).
- Stabilizing levels of sexual activity. The YRBS showed no change in the proportion of sexually experienced youth between 1990 and 1993 at the national level. The proportion increased steadily in the 1980s.
- Fear of HIV and sexually transmitted diseases and efforts by public health and other agencies and community efforts to reduce the risk of transmission may have contributed to these changes in sexual activity and condom use.

The rising birth rate in the 1980s may have been fueled by several factors:

- Concerns about the appropriateness of abortion (see below)
- Growing parental and community acceptance and support of teen parenthood and single parenthood
- Teens' perception of a lack of economic and educational opportunities
- Erosion of a supportive family environment for growing teens
- Increasing alienation of teens from community
- An attempt to replace social support from family and community with love and support from a new family and infant
- Becoming a parent as a means to increase self-esteem.

¹ In 1995, Seattle-King County Health Department conducted seven focus groups with teenage girls between the ages of 13-19 throughout King County to learn more about what teen think about pregnancy and options for pregnant teen. A total of 92 teens participated in the sessions.

What then underlies the recent decline in adolescent births? The declining pregnancy rate has certainly contributed to the recent turnaround. In addition, the birth rate may have begun dropping in the early 1990s as teenagers became increasingly aware of the difficulties in obtaining a job and supporting a family as jobs paying a living wage disappeared and the debate about welfare reform heated up. Most of the teen focus group participants felt that they were not ready mentally, emotionally or financially to become mothers. They saw that freedom, dreams of college and plans for the future “melt away” when teens have babies.

The decline in the abortion rate may be due to many factors, including:

- The perception that abortion is the “wrong” thing to do for oneself, even if it is an acceptable choice for others.
- The increasing presence of anti-abortion advocates at abortion clinics, which threatens the anonymity of women seeking abortion and generates fear of physical and psychological harm.
- The lack of adequate education regarding confidentiality issues, how to obtain an abortion, and availability of Medicaid funding for those who cannot afford medical care.

While most focus group participants believed that abortion was a personal choice and that each woman should be able to choose what is best for herself, many seemed to share the assumption that no one really wants to have an abortion and saw abortion as more than a simple medical procedure. They disapproved of using abortion as a method of birth control. The strongest influences on a girl’s attitude towards abortion seemed to be the attitudes of her family and, secondarily, her boyfriend.

The recent trends in teen pregnancy and births, even if we cannot explain them with complete certainty, give rise to optimism. High levels of teen pregnancy and birth are not inevitable: they are shaped by social and political influences and to some extent by the availability of services and education. Teens in our focus groups were united in calling for more effective and intensive sexuality education at school. Teens are served by an expanding array of teen health centers associated with schools and Health Department clinics. Concerns about youth violence have spawned an array of community efforts to connect with teens and engage them with adults and community activities.

More work remains. The United States still has the highest teen pregnancy and birth rates among the industrialized nations of the world. Most pregnancies among teens are unintended. All women, including teens, need to have access to confidential reproductive health services. Women *and* their partners can become more responsible in their choices regarding sexual activity

Future efforts might address the nature of pregnancy among teens: it is almost always unintended. The unintendedness of many pregnancies is shared by teens and older women. An unintended pregnancy can have a major impact on all involved: the pregnant women, her partner, their family and children. This point of commonality can serve as a basis for efforts to help women of all ages choose when to become pregnant. The Health Department will release a report and sponsor a conference on pregnancy intendedness later this year to help create discussion and action regarding this important issue in women’s lives.

The recommendations contained in our previous report continue to suggest actions we can take to prevent unwanted pregnancies and births:

1. Community partnerships to ensure that young people receive age-appropriate, skill-based sexuality education that addresses abstinence are important means of primary prevention of pregnancy. These coalitions should also seek to ensure that all women of reproductive ages have ready access to reproductive health services from multiple sources, including parents, schools, church, and community agencies.
2. Continued work to ensure timely access to family planning services for adolescents and all women of reproductive age is critical. Seattle's school-based clinics are an important resource. Special clinic hours in Health Department sites are another. Additional resources are needed to ensure that vulnerable adolescents receive adequate services. Confidentiality is clearly an important issue for teenagers accessing health services. It is essential that as the organization of health services changes with the growth of managed care, teens continue to have access to confidential family planning services, including the option to receive these services outside of their health plan. Assuring access to follow-up services after a negative pregnancy test is also a priority, for these teens are at risk for subsequently becoming pregnant.
3. Communities need to ensure that young people have meaningful opportunities for community services and employment and that those opportunities are visible to young people. Many public-private partnerships are needed.
4. Interventions are needed for adolescents who were sexually abused as children. Some of these adolescents attend family planning services, but they are not necessarily protecting themselves. Resources within the community for these young women and men are limited.
5. Continued investigation of methods to involve men in family planning, pregnancy prevention, and responsible child bearing are needed. Current methods include targeted materials, group educational sessions, and inclusion in clinic visits.

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APPENDICES

I. DATA SOURCES AND DEFINITIONS

Births. Information on births to adolescents and older mothers is collected through birth certificates by the Washington State Department of Health Vital Statistics section at the Center for Health Statistics. Birth certificates include information on mother's age and race, as well as a variety of other subjects, varying by year of the birth, such as birthweight, mother's smoking status, method of delivery, method of payment for the delivery, census tract of mother's residence, and others. Birth rates are calculated through the combination of birth certificate and population estimates.

Abortions. A great proportion of adolescent pregnancies end in induced abortion. King County abortion statistics are also collected by the state's Center for Health Statistics. Detailed geographic and race information are not available.

Miscarriages. Information on miscarriages (also known as spontaneous abortions) are not collected by any source on a regular basis. Thus, miscarriages are not included in the pregnancy rate figures. Fetal deaths (spontaneous abortions after 20 weeks, also called stillbirths) are collected but due to their very small numbers and unreliable reporting are not included in the pregnancy rates calculated in this report.

Pregnancy. Pregnancy rates are the sum of birth and abortion rates. For the reasons indicated above regarding abortion, pregnancy rates are not available for most small areas within King County. The standard definition of the pregnancy rate is the sum of the birth rate, the abortion rate, and the fetal death rate. However, the number of fetal deaths each year is small and reporting of fetal deaths is considered unreliable, so they are not included in these pregnancy figures. For example, there were 3 reported fetal deaths among adolescents age 15 to 17 in King County in 1991.

Population data. Estimates of numbers of women for use in calculating birth rates are taken from the 1980 and 1990 U.S. Census for King County, from the state Office of Financial Management county-level intercensal estimates, and from subcounty population estimates prepared by Seattle-King County Department of Public Health. Details of the estimation techniques are available in the Seattle-King County Department of Public Health publication, "Note on Intercensal Population Estimation for Small Areas."

Socioeconomic status. Information on percent below poverty in census tracts is drawn from the 1990 U.S. Census.

Race/Ethnicity. We use the Federal Office of Management and Budget Directive 15 to define race and ethnicity. A person may belong to one of four racial groups: white, African American, Asian American, or Native American. In addition, a person of any race may be identified as Hispanic.

II. SUPPLEMENTAL TABLES

Pregnancy rates are combined birth and abortion rates. As noted above, abortion information is collected reliably only for Seattle and outside of Seattle.

TABLE 2:
ADOLESCENT PREGNANCY RATES
SEATTLE, KING COUNTY, KING CO. OUTSIDE OF SEATTLE
1994

AREA	1994 PREGNANCIES	1994 RATE	CONFIDENCE INTERVAL	
			LOWER	UPPER
KING COUNTY	1,359	49.84	47.23	52.56
SEATTLE	540	91.15	83.63	99.18
KING COUNTY OUTSIDE OF SEATTLE	810	37.95	35.38	40.66

RATES ARE PREGNANCIES PER 1,000 FEMALES AGE 15 TO 17.
 SOURCE: BIRTH AND ABORTION CERTIFICATES.

TABLE 3:
ADOLESCENT BIRTH RATES
SEATTLE, KING COUNTY, KING CO. OUTSIDE OF SEATTLE
1994

AREA	1994 BIRTHS	1994 RATE	CONFIDENCE INTERVAL	
			LOWER	UPPER
KING COUNTY	597	21.89	20.17	23.72
SEATTLE	202	34.10	29.57	39.14
KING COUNTY OUTSIDE OF SEATTLE	300	14.06	12.51	15.74

RATES ARE LIVE BIRTHS PER 1,000 FEMALES AGE 15 TO 17.
 SOURCE: BIRTH CERTIFICATES.

TABLE 4:
ADOLESCENT ABORTION RATES
SEATTLE, KING COUNTY, KING CO. OUTSIDE OF SEATTLE
1994

AREA	1994 ABORTIONS	1994 RATE	CONFIDENCE INTERVAL	
			LOWER	UPPER
KING COUNTY	762	27.95	26.00	30.00
SEATTLE	338	57.06	51.14	63.48
KING COUNTY OUTSIDE OF SEATTLE	424	19.87	18.02	21.85

RATES ARE ABORTIONS PER 1,000 FEMALES AGE 15 TO 17.
 SOURCE: ABORTION CERTIFICATES.

**TABLE 5:
 ADOLESCENT PREGNANCY, BIRTH, AND ABORTION RATES
 SEATTLE, KING COUNTY, KING CO. OUTSIDE OF SEATTLE
 1981-1994**

AREA	YEAR	PREGNANCIES:		BIRTHS:		ABORTIONS:	
		RATE	NO.	RATE	NO.	RATE	NO.
KING COUNTY:							
	1981	57.23	1,682	16.54	486	40.70	1,196
	1982	54.61	1,545	16.90	478	37.72	1,067
	1983	56.25	1,507	16.42	440	39.83	1,067
	1984	55.12	1,437	16.80	438	38.32	999
	1985	57.32	1,487	19.93	517	37.39	970
	1986	60.47	1,582	18.61	487	41.85	1,095
	1987	60.41	1,566	18.32	475	42.08	1,091
	1988	62.96	1,612	21.05	539	41.91	1,073
	1989	59.62	1,489	20.14	503	39.48	986
	1990	58.70	1,434	20.63	504	38.07	930
	1991	57.92	1,390	22.96	551	34.96	839
	1992	56.48	1,349	25.75	615	30.73	734
	1993	52.94	1,317	22.95	571	29.99	746
	1994	49.84	1,359	21.89	597	27.95	762
SEATTLE:							
	1981	86.78	708	24.02	196	62.75	512
	1982	78.19	605	26.75	207	51.43	398
	1983	86.81	626	23.99	173	62.82	453
	1984	84.47	583	28.98	200	55.49	383
	1985	86.29	583	31.23	211	55.06	372
	1986	98.53	658	33.84	226	64.69	432
	1987	101.71	660	31.13	202	70.58	458
	1988	119.65	752	39.30	247	80.35	505
	1989	107.80	648	34.27	206	73.53	442
	1990	113.85	657	33.79	195	80.06	462
	1991	115.26	639	40.04	222	75.22	417
	1992	108.08	583	39.67	214	68.41	369
	1993	95.57	524	32.65	179	62.92	345
	1994	91.15	540	34.10	202	57.06	338
KING COUNTY OUTSIDE OF SEATTLE:							
	1981	44.04	935	11.82	251	32.22	684
	1982	44.67	918	12.12	249	32.55	669
	1983	44.13	864	12.77	250	31.36	614
	1984	44.19	847	12.05	231	32.14	616
	1985	46.39	890	15.22	292	31.17	598
	1986	47.42	924	13.39	261	34.03	663
	1987	46.36	901	13.79	268	32.57	633
	1988	44.46	859	15.06	291	29.40	568
	1989	44.29	840	15.61	296	28.69	544
	1990	41.53	775	16.45	307	25.08	468
	1991	40.59	749	17.72	327	22.87	422
	1992	41.16	761	21.42	396	19.74	365
	1993	40.47	785	19.80	384	20.68	401
	1994	37.95	810	18.09	386	19.87	424
<small>RATES ARE PER 1,000 FEMALES AGE 15 TO 17. SOURCE: BIRTH AND ABORTION CERTIFICATES.</small>							

**TABLE 6:
 ADOLESCENT BIRTH RATES BY REGION
 KING COUNTY
 1980-1994**

YEAR	N. SEATTLE/N. COUNTY		CENTRAL/S. SEATTLE		SOUTH COUNTY		EAST COUNTY	
	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE	NUMBER	RATE
1980	66	12.59	150	29.31	216	18.86	56	6.50
1981	40	8.05	165	33.41	186	16.75	56	6.69
1982	45	9.58	172	36.54	186	17.29	53	6.52
1983	50	11.47	143	32.44	182	17.74	48	6.18
1984	41	9.87	167	39.30	162	16.12	61	8.01
1985	64	15.83	166	39.67	203	20.16	70	9.16
1986	55	13.84	181	43.43	185	18.08	66	8.48
1987	48	12.50	161	39.48	195	19.09	66	8.47
1988	49	13.29	208	52.16	219	21.56	62	7.98
1989	42	12.04	177	45.88	223	22.34	60	7.84
1990	48	14.54	160	42.68	227	23.09	67	8.88
1991	48	15.32	180	49.38	268	27.53	53	7.08
1992	63	20.87	171	47.74	301	30.84	75	9.97
1993	51	16.01	141	39.43	302	29.37	69	8.81
1994	52	15.18	167	43.15	291	25.41	78	9.15

RATES ARE LIVE BIRTHS PER 1,000 FEMALES AGE 15 TO 17.
 SOURCE: BIRTH CERTIFICATES.

Below are rates and numbers of adolescent births for each Health Planning Area. Please refer to the introduction, "How to Read This Report" (p. 1), for information on rates and confidence intervals. If the two intervals overlap, such as Renton and the King County total, there is no significant difference among those areas.

**TABLE 7: ADOLESCENT BIRTH RATES BY HEALTH PLANNING AREA
KING COUNTY
1992-1994**

HEALTH PLANNING AREA	1992-94 BIRTHS	1994 BIRTHS	1992-94 RATE	CONFIDENCE INTERVAL	
				LOWER	UPPER
KING COUNTY (TOTAL)	1,783	597	23.45	22.38	24.57
SEATTLE (TOTAL)	595	202	35.41	32.63	38.38
NORTH SEATTLE	58	21	34.04	25.86	43.97
NORTH OF CANAL AREA	58	14	14.25	10.83	18.41
NORTH CENTRAL SEATTLE	27	9	14.56	9.60	21.18
CENTRAL SEATTLE	75	27	58.82	46.29	73.71
WEST SEATTLE	121	50	39.75	33.00	47.79
SOUTHEAST SEATTLE	256	81	52.74	46.49	59.61
VASHON	<5	<5	*	*	*
WHITE CENTER/SKYWAY	153	48	45.56	38.64	53.38
HIGHLINE/BURIEN	139	46	38.99	32.79	46.03
FEDERAL WAY	103	29	23.43	19.13	28.41
RENTON	91	30	20.67	16.65	25.37
KENT	151	53	30.97	26.24	36.33
AUBURN	169	55	31.12	26.62	36.18
NORTH COUNTY	50	17	12.97	9.63	17.11
BOTHELL/WOODINVILLE	43	14	10.29	7.45	13.86
KIRKLAND/REDMOND	75	25	9.39	7.39	11.76
BELLEVUE	39	15	9.49	6.76	12.98
MERCER ISLAND	<5	<5	*	*	*
EASTGATE/ISSAQUAH	32	10	7.25	4.97	10.24
EAST/NORTHEAST COUNTY	33	14	18.00	12.41	25.29
SOUTHEAST COUNTY	85	30	17.54	14.02	21.68

* NO RATE CALCULATED WHERE NUMBER IS LESS THAN 5.
RATES ARE LIVE BIRTHS PER 1,000 FEMALES AGE 15 TO 17.
SOURCE: BIRTH CERTIFICATES.

III. INCONSISTENCIES IN ABORTION REPORTING

Each time an abortion is performed in Washington State, the provider is required to fill out a certificate with data on the facility performing the termination, the woman's age, city, county, and state of residence, race, ethnicity, trimester of pregnancy, method used to perform the abortion, any complications and their treatment, any prenatal diagnosis for fetal abnormalities, and the method and location of the diagnosis. This information is used to calculate abortion and pregnancy statistics for King County and other areas in Washington State.

However, there is another abortion reporting method used by the Alan Guttmacher Institute (AGI), based in New York. This agency is the research arm of Planned Parenthood. They monitor abortions in the United States by performing their own survey, which they send to their list of abortion providers in the United States, asking how many abortions the providers performed, in which trimester of pregnancy, and to which age groups. This form of data collection garners a larger number of abortions performed in Washington State and nationally than does the passive reporting system the state uses.

In 1992, AGI found that there were 21,750 abortions performed in King County among women of all age groups, while the state health department received notice of 16,285 abortions. In addition, the state found that there was a decline of 2,475 abortions since 1991, while AGI found an increase of 600 abortions. Thus, abortions among adolescents and older women are probably undercounted in King County using state abortion data, and it is possible that the reported abortions may not reflect the true trend of abortion rates. The AGI estimates of national and state rates are inflated compared with the state's reported figures.

IV. AREA DEFINITIONS

Health Planning Areas of King County: Health Planning Areas as defined by the Seattle-King County Health Department are used for small-area analysis in this report. Below is a list of the census tracts that are aggregated into each Health Planning Area:

Auburn:	296.00, 298.02, 299.00, 304.00 - 312.02
Bellevue:	230.00 - 242.00
Bothell/Woodinville:	217.00 - 219.01, 220.01, 221.00, 323.01, 323.02
Central Seattle:	75.00, 77.00 - 92.00
East/Northeast County:	324.00 - 330.00
Eastgate/Issaquah:	247.00 - 250.00, 321.01 - 322.02
Federal Way:	300.01 - 303.04
Highline/Burien:	262.00, 276.00, 278.00 - 282.00, 284.01 - 290.00
Kent:	283.00, 291.00 - 295.00, 297.00, 298.01
Kirkland/Redmond:	219.02, 220.02, 222.00 - 229.00, 323.03 - 323.05
Mercer Island:	243.00 - 246.00
North Central Seattle:	55.00 - 74.00, 76.00
North County:	201.00 - 216.00
North of Canal Area:	15.00 - 54.00

North Seattle:	1.00 - 14.00
Renton:	251.00 - 259.00, 319.01, 319.02
Southeast County:	313.00 - 318.00, 320.01 - 320.03, 331.00
Southeast Seattle:	89.00, 90.00, 93.00 - 95.00, 100.00 - 104.00, 109.00 - 112.00, 117.00 - 119.00
Vashon Island:	277.01, 277.02
West Seattle:	96.00 - 99.00, 105.00 - 108.00, 113.00 - 116.00, 120.00, 121.00
White Center/Skyway:	260.01 - 261.00, 263.00 - 275.00

Four Regions of King County: The Health Planning Areas of King County can be aggregated into four major groups. These regions consist of the following areas:

North Seattle/North County Region:	North Seattle, North of Canal Area, North County
Central/South Seattle Region:	North Central Seattle, Central Seattle, West Seattle, Southeast Seattle
South County Region:	Vashon, White Center/Skyway, Highline/Burien, Federal Way, Renton, Kent, Auburn, Southeast King County
East County Region:	Bothell/Woodinville, Kirkland/Redmond, Bellevue, Eastgate/Issaquah, East/Northeast County, Mercer Island

School Districts of King County: The Seattle-King County Health Department has the capability to calculate adolescent birth rates based on any aggregated census tract level area, including school districts. For information on the rates by school district or other area, please contact the EPE Unit.