

## PURPOSE

This report is the twenty-first annual update of information about pregnancies among females under age 20. The data for 2006 is placed in a temporal context by comparing it with the data from the preceding years.

## METHODS AND SOURCES

In this report, pregnancies are measured as the sum of three components: live births, fetal deaths (or stillbirths) and reported abortions to Arizona resident women, unless otherwise specified. Not included are spontaneous fetal losses that occur at less than 20 weeks of gestation. Induced terminations of pregnancy do not include those performed out-of-state to Arizona residents, since they are not reported in Arizona. Pregnancy statistics for Arizona are not available on a sub-county level.

Teens are defined as 10-14 year old preadolescents and adolescents 15-19 years of age. Where possible, the data presented distinguishes 18-19 year old teenagers from those aged 15-17 and girls less than 15 years of age.

The primary source documents for the data are the certificates of live births, certificates of fetal deaths and reports of induced terminations of pregnancy filed with the Arizona Department of Health Services.

Several data sources were utilized in producing the population denominators for Arizona's resident females, used to calculate rates. The denominators for 2000 are the actual census enumerations from the U.S. Census Bureau. In order to obtain the population denominators for 2001-2005, the 2000 percentages of population breakdowns (or census shares) by age group, gender and race/ethnicity were applied to total state and total county annual population estimates released by the Department of Economic Security (DES).

The longer the time after the census, the less likely it is that the 2000 census shares continue to reflect the "true" proportions of population breakdowns. Beginning with the 2006 population estimates we no longer use the year 2000 census shares. For 2006, the totals for the State and each of its counties agree with the projections released by the DES on March 31, 2006 (<http://www.workforce.az.gov/?PAGEID=67&SUBID=138>). The percentages of population breakdowns by single-year of age, gender and race/ethnicity were derived from the "Bridged-Race Vintage 2005 Postcensal Population Estimates for Calculating Vital Rates", available from the National Center for Health Statistics (NCHS: <http://www.cdc.gov/nchs/about/major/dvs/popbridge/datadoc.htm#vintage2005>). These percentages were then applied to total state and county population projections for 2006 from DES. The 2006 population estimates by race/ethnicity should not be compared with the previously published estimates for 2001-2005, which used the year 2000 census shares.

The pregnancy rates for 1996-1999 were revised in this report using the population denominators that are consistent with the 2000 census. The population projected previously from the 1990 census underestimated the growth of the Hispanic population during the 1990s. According to the 2000 census, there were 118,490 Hispanic females 19 years or younger in Arizona, 37.5 percent more than the estimated by the Census Bureau number of 86,203 in 1999. The revised denominators for 1996-1999 were derived from the "Bridged-race intercensal population estimates for July 1, 1990-July 1, 1999, by year, county, single-year of age, Hispanic origin, and sex" provided by NCHS.

## DATA ORGANIZATION

Tables 1-16 present annual numbers and rates of pregnancy, fertility and abortion by year from 1996 to 2006, age group and race/ethnicity for Arizona teens. Temporal trends and changes may be assessed from this data. Proportional contribution of teen births to all births is shown in Table 10 by area of residence and race/ethnic group in Arizona from 1996 to 2006. Table 11 compares birth rates in Arizona to those in the United States. The annual numbers of repeat pregnancies among teenage mothers are shown by age and year from 1996 to 2006 in Table 12.

Three new data tables were added to the current edition of the report. Table 14 presents teen pregnancy rates by race/ethnicity and age group by year from 1996 to 2006. It includes revised pregnancy rates for 1996-1999. Table 15 provides information about the incidence of sexually transmitted infections among females 10-14 and 15-19 years old in Arizona in 1996-2006. Table 16 shows the incidence rates by year from 1996 to 2006.

Frequency counts, proportions and rates in tables 17-32 all apply to the 2006 data. Tables 17-18 and 20-22 provide data by county of residence. Table 19 presents pregnancy rates by single year of age among females 19 and younger. Live births to teenage mothers are also reported in Tables 23-30 by marital status, education, previous pregnancies, trimester of entry into prenatal care, source of payment for labor and delivery and tobacco and alcohol use during pregnancy. The 2006 population denominators for Arizona resident females by age group and race/ethnicity, as well as by age group and county of residence are presented in Table 31 and Table 32. The *Appendix* demonstrates "How to compute the rates of first and repeat childbearing" using the annual data for 2000-2006.

## COMPARATIVE NATIONAL AND STATE DATA

Timely and reliable teen pregnancy statistics for other States and the Nation are not easily available. *“Health, United States, 2005”*, the premier annual publication of The Department of Health and Human Services, contains no information about pregnancies. The latest available national teenage birth rates for 2004 were published in September, 2006. No national abortion data have been available since the 2002 calendar data year, and no fetal death data have been available since 2004. The most recent data on teen pregnancy rates were published using year 2000 data by The National Center for Health Statistics (NCHS), the principal health statistics agency.

*Data on abortions and pregnancies are published by the Guttmacher Institute (formerly Alan Guttmacher Institute).* Its latest report, *“U.S. Teenage Pregnancy Statistics. National and State Trends and Trends by Race/Ethnicity”* was updated in September 2006. It includes pregnancy estimates by outcome for 1972-2003. The Guttmacher Institute uses the NCHS data for the number of births and its own estimates of abortions and miscarriages. The number of abortions is calculated from surveys the Institute conducts of known abortion providers. However, the number of abortions by state of residence, woman’s age or Hispanic origin is not available from these surveys. The Institute calculates these numbers by applying the distributions of characteristics compiled by the CDC Division of Reproductive Health (which receives the data from State health departments) to the results of its Abortion Provider Survey. For instance, abortion estimates by age group and state are “based on proportion of abortions obtained by women of the same age in neighboring and similar states”.<sup>1</sup> Unfortunately, the above approach does little to reveal the actual state-specific patterns of abortion practices, particularly when the states differ with respect to the accessibility of abortion providers or the prevalence of minorities among resident women in the childbearing ages (15-44 years).

In addition and unlike other data sources, the Guttmacher Institute includes in its estimated number of pregnancies, the estimated numbers of miscarriages: “The number of miscarriages was estimated as 20 percent of births plus 10 percent of abortions”.<sup>2</sup> Again, this approach does little to reveal the actual differences in the miscarriage risks by age group, race/ethnicity or area of residence.

No comparable state-by-state data for 2005 or 2006 are available at this time.

## KEY FINDINGS

The following section presents some illustrative findings contained in the figures and tables of the report. It is not intended to be an exhaustive analysis of the tabulated data.

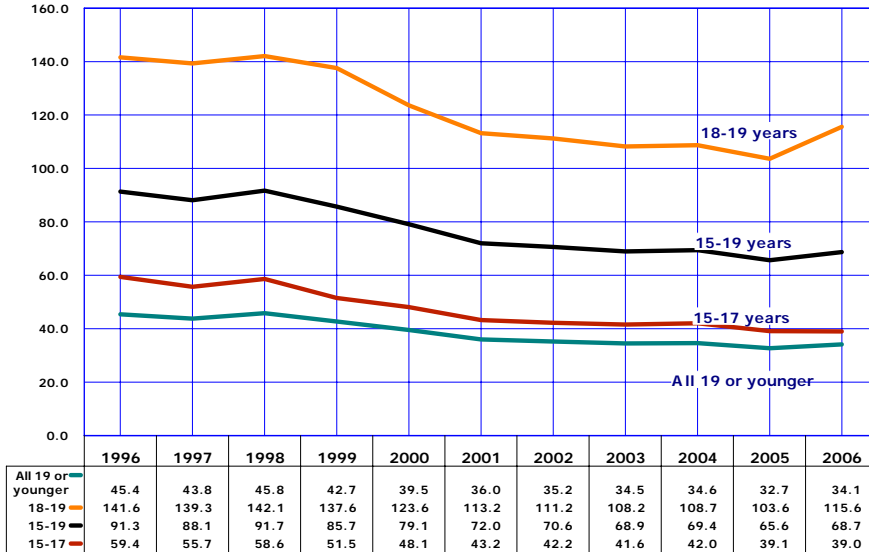
- **From 1996 to 2006, the teen pregnancy rate overall fell by 31 percent.**
- **However, the absolute number of teen pregnancies increased by 10.3 percent from 13,521 in 1996 to 14,918 in 2006. The latter is the highest number of teen pregnancies ever recorded in the State.**
- **The increase is partially explained by fact that the birth rate for 18-19 year olds increased by an unprecedented 13.3 percent.**
- **In addition, the number of pregnancies among White non-Hispanic females 19 years or younger sharply increased by 14.2 percent and for Hispanic or Latino females 19 years or younger by 8.4 percent.**
- **While the teen pregnancy rate has fallen in Arizona, the drop in the rate has not been enough to offset the growth in the female teenage population.**
- **Both first and repeat birth rates increased between 2005 and 2006.**
- **In 2006, the Arizona Health Care Cost Containment System (AHCCCS) paid for 79.9 percent of the deliveries to mothers 19 or younger.**
- **The total number of sexually transmitted infections among females 19 or younger exceeded 7,400 compared to 4,200 reported in 1996.**

<sup>1</sup>*Abortion Factbook 1992 Edition. Readings, Trends and State and Local Data to 1988.* Stanley K. Henshaw and Jennifer Van Vort, Eds. New York: The Alan Guttmacher Institute 1992.

<sup>2</sup> *U.S. Teenage Pregnancy Statistics. National and State Trends and Trends by Race/Ethnicity.* New York: Guttmacher Institute. Updated September 2006.

## KEY FINDINGS

**Figure 1**  
**Pregnancy Rates by Age Group and Year Among Females 19 or Younger, Arizona, 1996-2006**

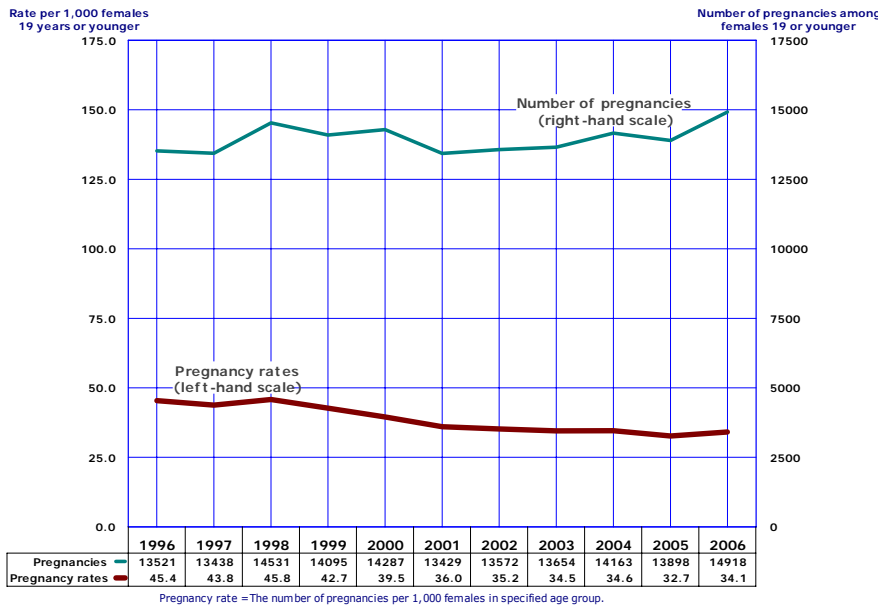


Note: All rates are per 1,000 females in specified age group.

The pregnancy rate for Arizona teenagers 15-19 years old in 2006 was 68.7 pregnancies per 1,000 females (Figure 1, Table 2), 4.7 percent greater than in 2005. The pregnancy rate for younger teenagers 15-17 years old remained essentially unchanged at 39.0/1,000 (compared to 39.1 in 2005; Figure 1, Table 2). In contrast, the pregnancy rate for older teenagers 18-19 years old increased by 11.6 percent from 103.6/1,000 in 2005 to 115.6/1,000 in 2006 (Figure 1, Table 2).

The number of pregnancies among all females aged 19 years or younger increased by 1,020 from 13,898 in 2005 to 14,918 in 2006 (Table 1). Among the three pregnancy outcomes, the number of teen birth increased by 983 (from 11,933 to 12,916), the number of reported abortions increased by 27 (from 1,892 to 1,919), and the number of fetal losses increased by 10 (from 73 to 83).

**Figure 2**  
**Trends in the Number of Pregnancies and Pregnancy Rates Among Females 19 or Younger, Arizona, 1996-2006**



Pregnancy rate = The number of pregnancies per 1,000 females in specified age group.

There is a difference between pregnancy rates and the absolute number of pregnancies. The teen pregnancy rate measures the proportion of teenagers becoming pregnant in a given year; in other words, the relative "risk for pregnancy" in a population "at risk". The number of pregnancies is also determined by the size of the population "at risk": or in this case by the number of teenage females in the population.

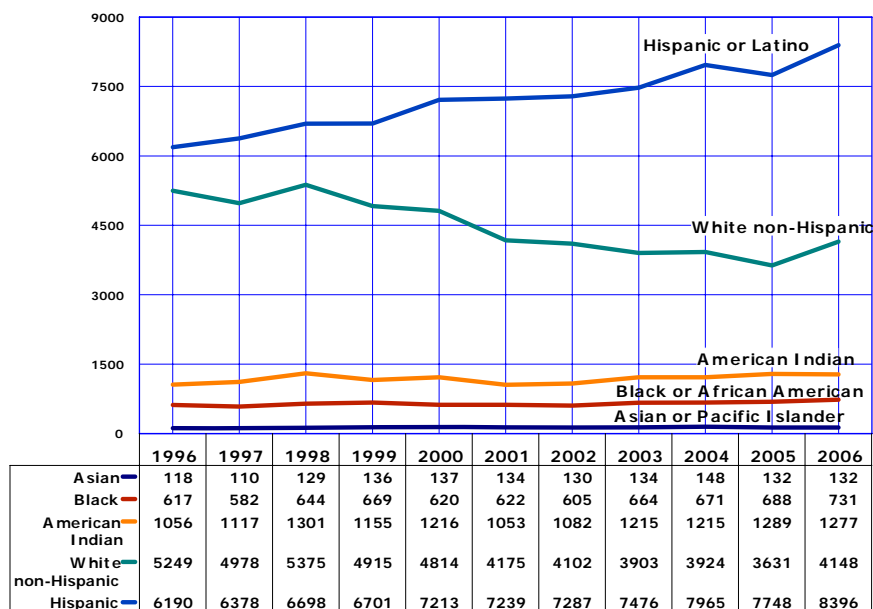
The number of teen pregnancies increased by 10.3 percent from 13,521 in 1996 to 14,918 in 2006 (Figure 2, Table 1). However, the proportional increase in the number of females 19 years old or younger was 3.8 times greater at 39.1 percent from 314,203 in 1996 to 436,998 in 2006. While the teen pregnancy rate has fallen in Arizona, the drop in the rate has not been enough to offset the growth in the female teenage population (Figure 2). In fact, the number of 14,918 pregnancies to females 19 years old or younger in Arizona in 2006 was the highest number ever recorded in the State.

## KEY FINDINGS

The number of pregnancies to Hispanic females aged 19 years or younger exceeded the number of pregnancies among white non-Hispanic peers in every year since 1994 (**Figure 3** and **Table 8** in this report show only the data for 1996-2006). In 2006, Hispanic or Latino mothers accounted for 56.3 percent of all pregnancies in this age group, followed by White non-Hispanics (27.8 percent). Black or African American, Asian or Pacific Islander and American Indian females aged 19 years or younger accounted for a smaller share of pregnancies in 2006 (14.3 percent) than they did in 2005 (15.2 percent).

After a substantial decrease between 1998 and 2005, the number of pregnancies among White non-Hispanic females aged 19 years or younger sharply increased by 14.2 percent from 3,631 in 2005 to 4,148 in 2006 (**Figure 3**). The number of pregnancies among Hispanic or Latino females 19 years or younger also increased by 8.4 percent from 7,748 in 2005 to 8,396 in 2006.

**Figure 3**  
**Trends in the Number of Pregnancies\* by Race/Ethnicity Among Females 19 or Younger, Arizona, 1996-2006**



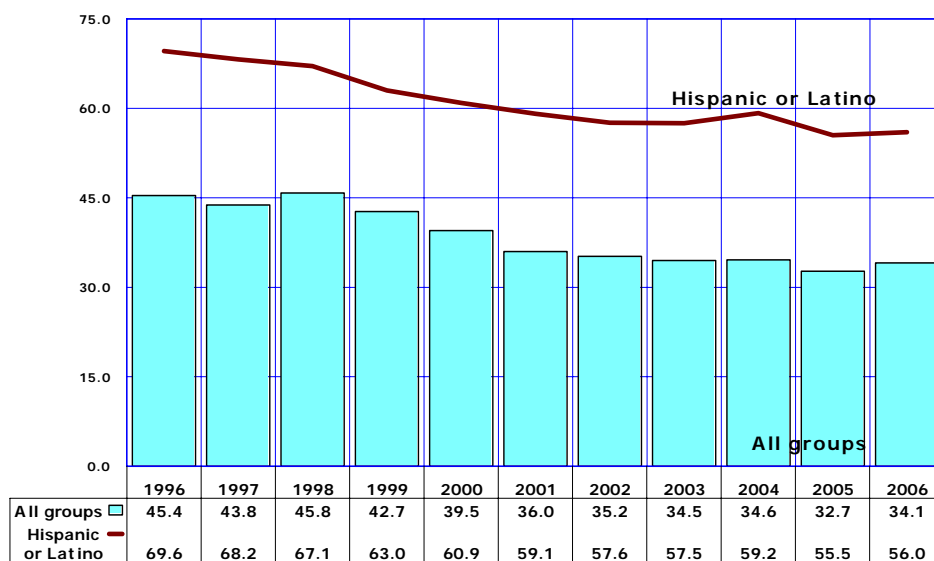
\*The sum of live births+induced abortions+spontaneous fetal deaths.

The teen pregnancy rates for all race and ethnic groups were lower in 2006 than in 1996 (**Figure 1**). However, the temporal trends in annual teen pregnancy rates differed considerably by race/ethnicity.

**Figures 4, 5, 6, 7** and **8** reveal race/ethnicity-specific trends in teen pregnancy rates in Arizona in 1996-2006.

The pregnancy rate fell 17.4 percent for Hispanic or Latino females 19 years or younger in 1996-2003 and then increased in 2004 and 2006. (**Figure 4**). In each year from 1996 to 2006, the pregnancy rates of Hispanic or Latino females were consistently greater than the average rates for all females 19 years or younger in Arizona. In 2006, the Hispanic rate exceeded the average rate for all groups by 64.2 percent.

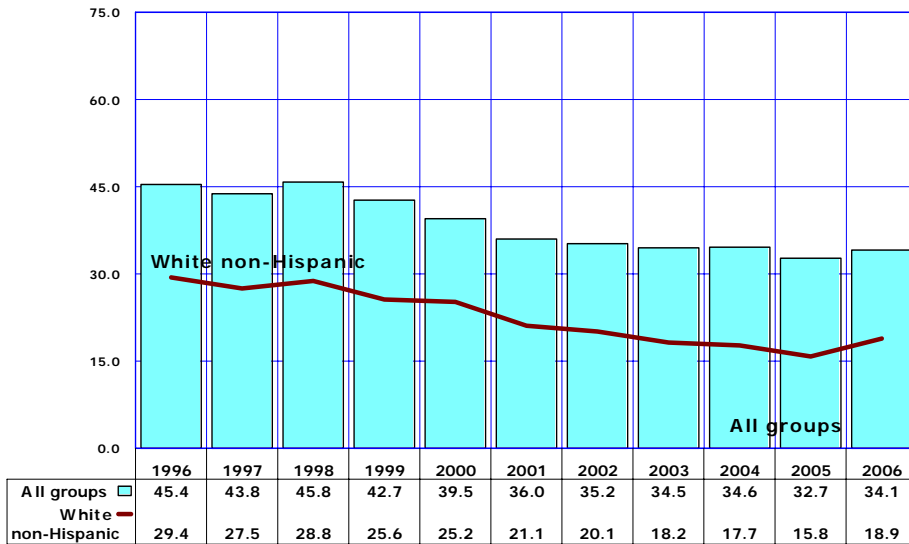
**Figure 4**  
**Comparison of Pregnancy Rates by Year Among Hispanics or Latinos and All Females 19 or Younger, Arizona, 1996-2006**



Note: all rates are per 1,000 females in specified group.

## KEY FINDINGS

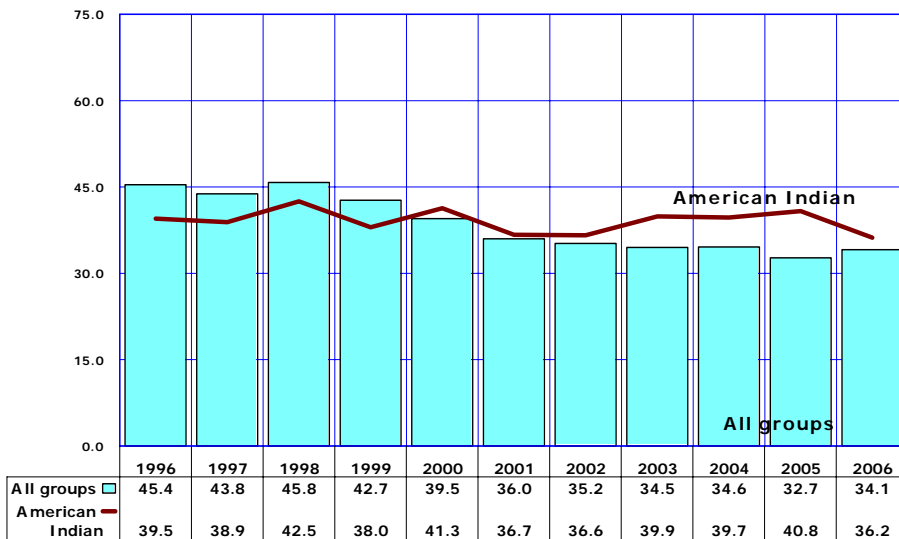
**Figure 5**  
**Comparison of Pregnancy Rates by Year Among White non-Hispanics**  
**and All Females 19 or Younger, Arizona, 1996-2006**



After a substantial decrease of 46.3 percent between 1996 and 2005, the pregnancy rate for White non-Hispanic sharply increased by 19.6 percent in 2006 (Figure 5). In each year from 1996 to 2006, the pregnancy rates for White non-Hispanic females were lower than the average rates for all females 19 years or younger in Arizona.

Note: all rates are per 1,000 females in specified group.

**Figure 6**  
**Comparison of Pregnancy Rates by Year Among American Indians or**  
**Alaska Natives and All Females 19 or Younger, Arizona, 1996-2006**



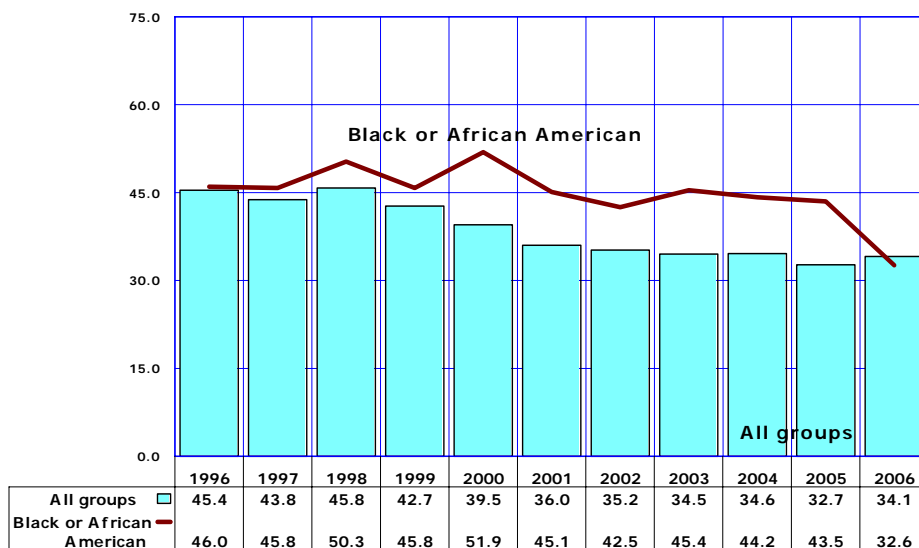
Despite some of the decreases noted between 1996 and 2006, the annual pregnancy rates among American Indian females 19 years or younger erratically varied from year to year (Figure 6). The American Indian rates were lower than the average in each year from 1996 to 1999, but higher in 2000-2006.

Note: all rates are per 1,000 females in specified group.

## KEY FINDINGS

**Figure 7**  
**Comparison of Pregnancy Rates by Year Among Blacks or African Americans and All Females 19 or Younger, Arizona, 1996-2006**

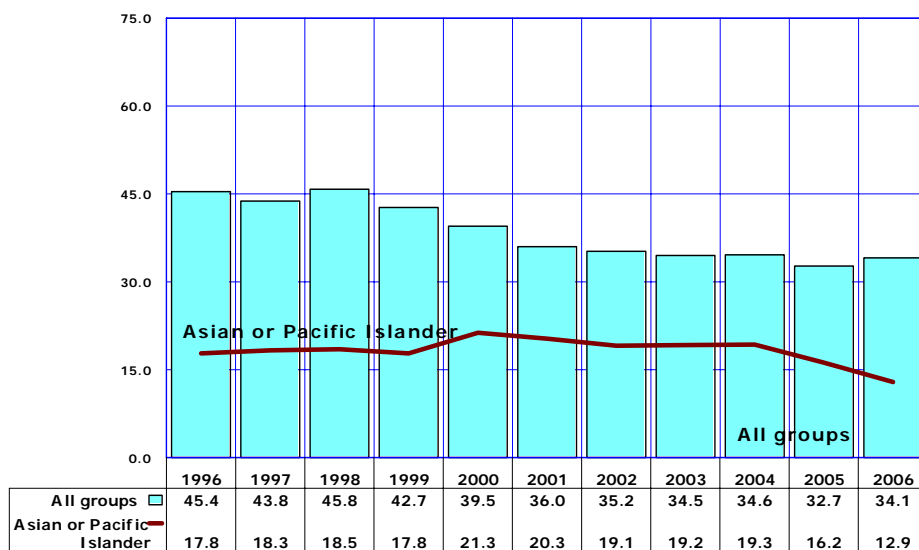
The pregnancy rates for Black or African American females 19 years or younger declined for the 3<sup>rd</sup> consecutive year from 45.4/1,000 in 2003 to 32.6/1,000 in 2006 (Figure 7). Unlike the annual pregnancy rates for 1996-2005, the 2006 pregnancy rate for Black or African American teenagers was lower than the pregnancy rate for all groups.



Note: all rates are per 1,000 females in specified group.

**Figure 8**  
**Comparison of Pregnancy Rates by Year Among Asians or Pacific Islanders and All Females 19 or Younger, Arizona, 1996-2006**

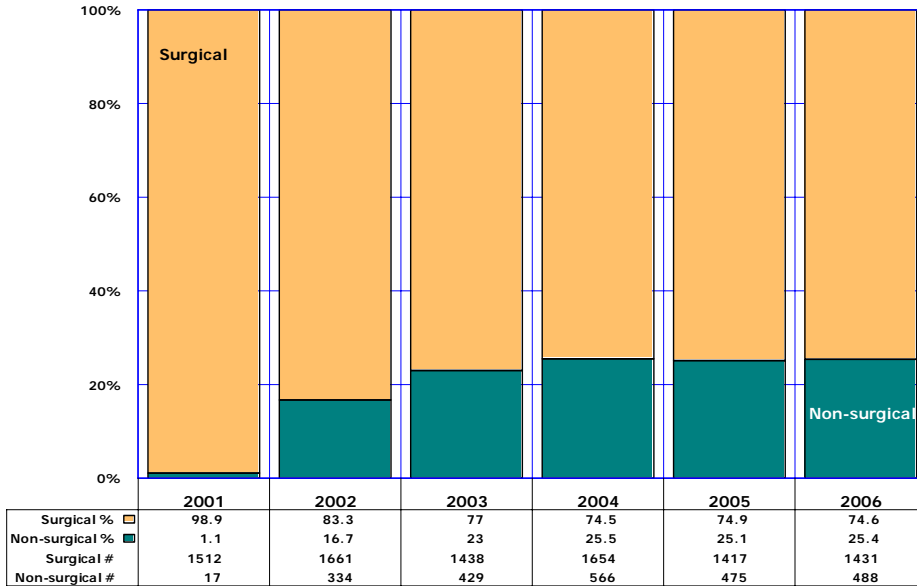
In each year from 1996 to 2006, the pregnancy rates for Asian or Pacific Islander females 19 years or younger were substantially lower than the average rates among all females 19 years or younger in Arizona (Figure 8). In 2006, the Asian rate (12.9/1,000) was 62.2 percent lower than the rate for all groups (34.1/1,000).



Note: all rates are per 1,000 females in specified group.

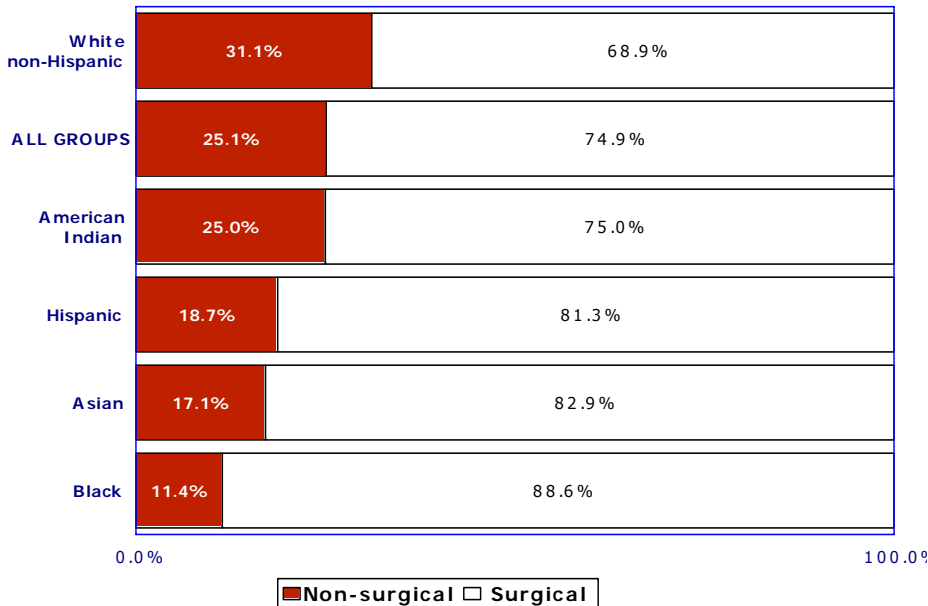
KEY FINDINGS

**Figure 9**  
**Proportional Contribution of Surgical and Non-Surgical Abortions**  
**by Year Among Females 19 or Younger, Arizona, 2001-2006**



The number of reported abortions to females 19 years or younger slightly increased from 1,892 in 2005 to 1,919 in 2006 (Table 1). In 2006, as in 2005, non-surgical abortions accounted for approximately 25 percent of all procedures reported in Arizona for females 19 years old or younger.

**Figure 10**  
**Proportional Contribution of Non-Surgical and Surgical Abortions by**  
**Race/Ethnicity Among Females 19 or Younger, Arizona, 2006**



Only among White non-Hispanic teens the proportion of non-surgical abortions exceeded the average for all groups (Figure 10). The ratios of reported non-surgical abortions among Black and Asian females were the lowest among ethnic groups.

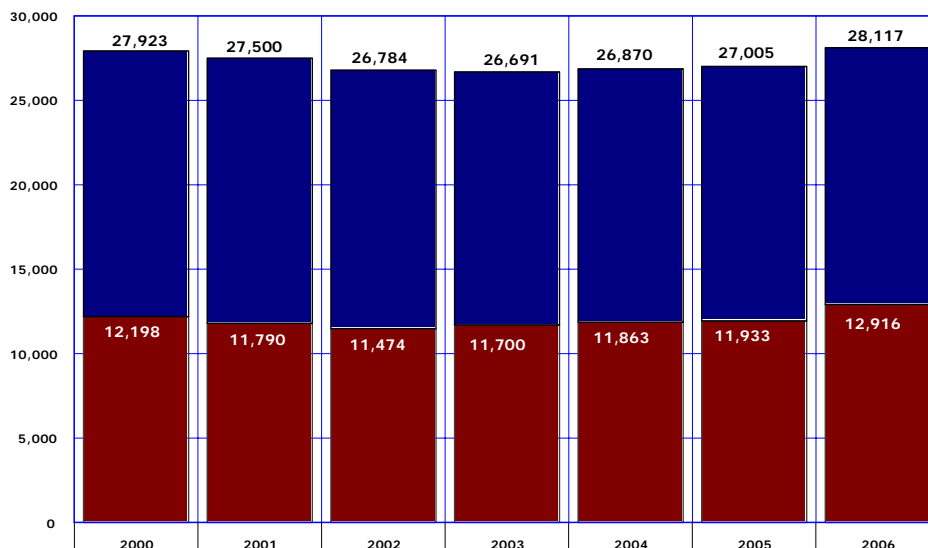
Non-surgical: Mifepristone, Methotrexate, RU486, etc.

## KEY FINDINGS

**Figure 11**  
**Cumulative Number of Mothers Who Were 19 or Younger**  
**in Arizona by Year, 2000-2006**

■ Gave birth that year   ■ Gave birth before and was still 19 years old or younger

There were approximately 28,117 mothers under age 20 in Arizona in 2006, the highest number ever reported in the State. Among them there were the 12,916 who gave birth that year and the 15,921 who gave birth prior to 2006 and were still 19 years old or younger (Figure 11, Table 13). The cumulative number of mothers who were 19 years or younger in Arizona increased by 5.3 percent from 26,691 in 2003 to 28,117 in 2006.

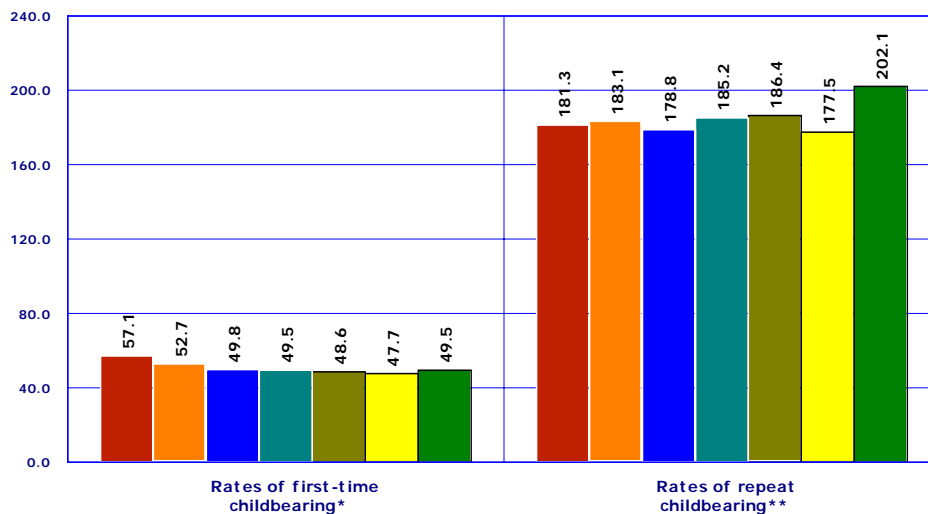


\* See Table 26 for more details.

**Figure 12**  
**Rates of First and Repeat Births to Females**  
**15-19 Years, Arizona, 2000-2006**

■ 2000 ■ 2001 ■ 2002 ■ 2003 ■ 2004 ■ 2005 ■ 2006

The first birth rate for childless teenagers has dropped 16.5 percent from 57.1 first-time births per 1,000 females 15-19 years old in 2000, to 47.7/1,000 in 2005. The first birth rate increased by 3.8 percent in 2006 to 49.5/1,000 (Figure 12). The repeat birth rates for teenagers who had already had a child sharply increased by 13.9 percent from 177.5 in 2005 to 202.1 in 2006 (Figure 7). Twenty percent of teenagers (202.1/1,000) who already had one child gave birth again in 2006, compared to eighteen percent (177.5 /1,000) in 2005.

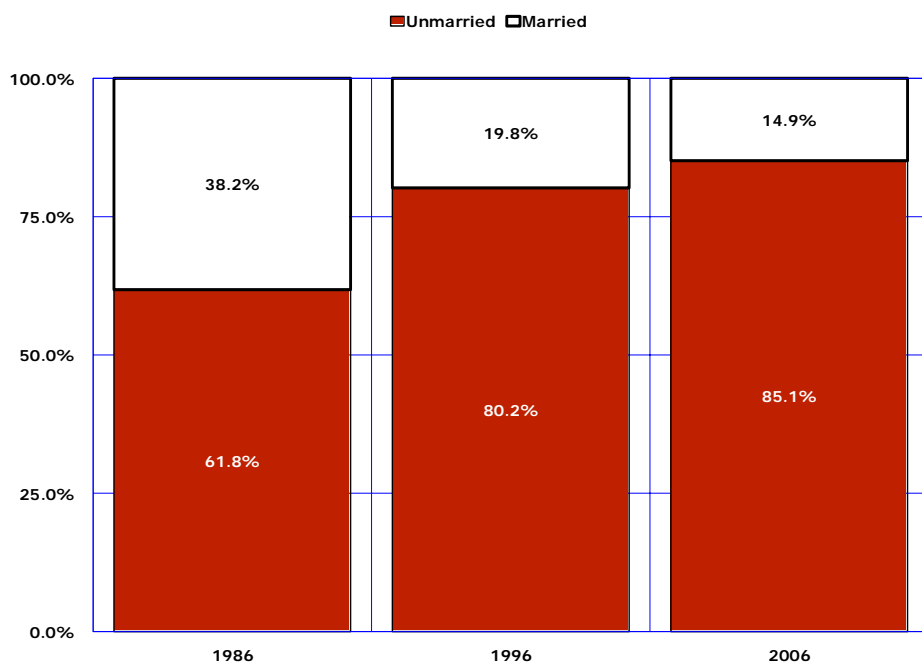


\* Number of first births per 1,000 females 15-19 years old who have not had a birth.  
 \*\* Number of repeat births per 1,000 females 15-19 years old who have had a birth previously.  
 See Appendix "How to compute the rates of first and repeat childbearing?"



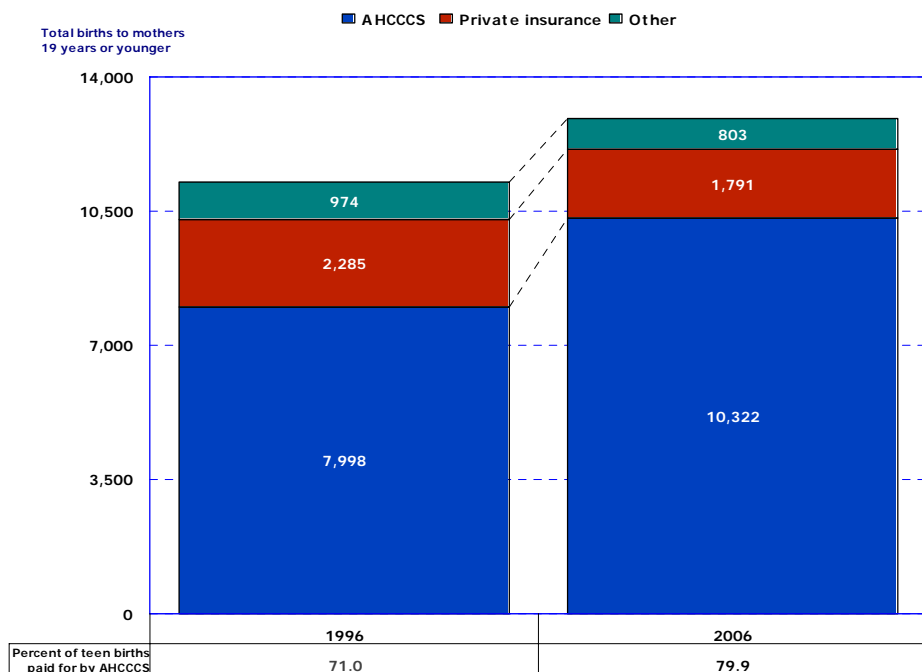
## KEY FINDINGS

**Figure 13**  
**Births to Mothers 19 or Younger by Marital Status,**  
**Arizona, 1986, 1996 and 2006**



Unwed mothers have accounted for an increasing annual proportion of births throughout the 1980s and 1990s. Two decades ago, the proportion of nonmarital births among teenagers 19 years old or younger was still around 60 percent (**Figure 13**). In 2006, nonmarital births accounted for 85.1 percent of births to mothers 19 years or younger.

**Figure 14**  
**Number of Births to Mothers 19 or Younger by Payee,**  
**Arizona, 1996 and 2006**

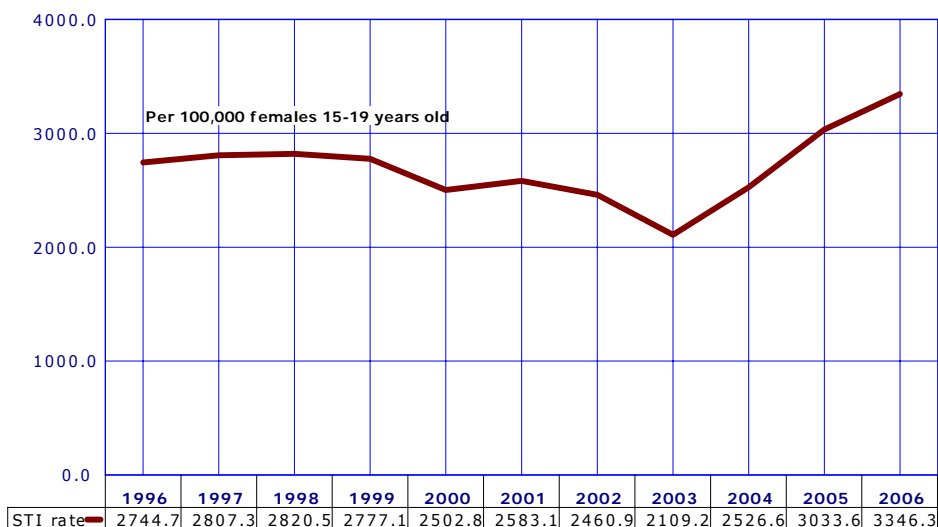


The total number of births to mothers 19 years or younger increased by 14.8 percent from 11,247 in 1996 to 12,916 in 2006 (**Table 1**). In contrast, the number of teen births paid for by the Arizona Health Care Cost Containment System (AHCCCS, the State's Medicaid program) increased by 29.1 percent from 7,998 in 1996 to 10,322 in 2006.

In 2006, the Arizona Health Care Cost Containment System paid for 79.9 percent of the deliveries to mothers 19 or younger (**Table 23**), compared to 71.0 percent in 1996 (**Figure 14**). Only one in seven (13.9 percent) teenage mothers in 2006 had private health insurance to pay the costs of labor and delivery, compared to one in five (20.3 percent) in 1996.

## KEY FINDINGS

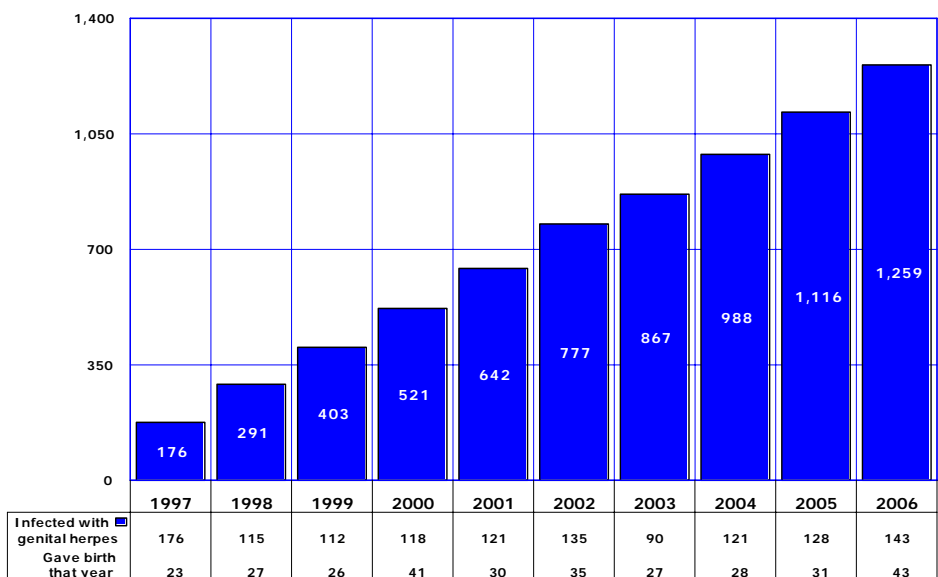
**Figure 15**  
Trends In the Incidence of Sexually Transmitted Infections\*  
Among Females 15-19 Years, Arizona, 1996-2006



In 2006, the total number of sexually transmitted infections (STI) among females aged 19 or younger exceeded 7,400 (Table 15) compared to almost 4,200 reported in 1996. The increase in the number of STI was substantially greater (76.2 percent) than the 46.8 percent increase in the number of females 19 years old or younger from 297,594 in 1996 to 436,998 in 2006.

\* The sum of annually reported cases of gonorrhea, chlamydia, genital herpes and early syphilis.  
Source: Bureau of Epidemiology and Disease Control Services, Office of Infectious Disease Services.

**Figure 16**  
Cumulative Number of Cases of Genital Herpes Among  
Females 15-19 Years, Arizona, 1997-2006



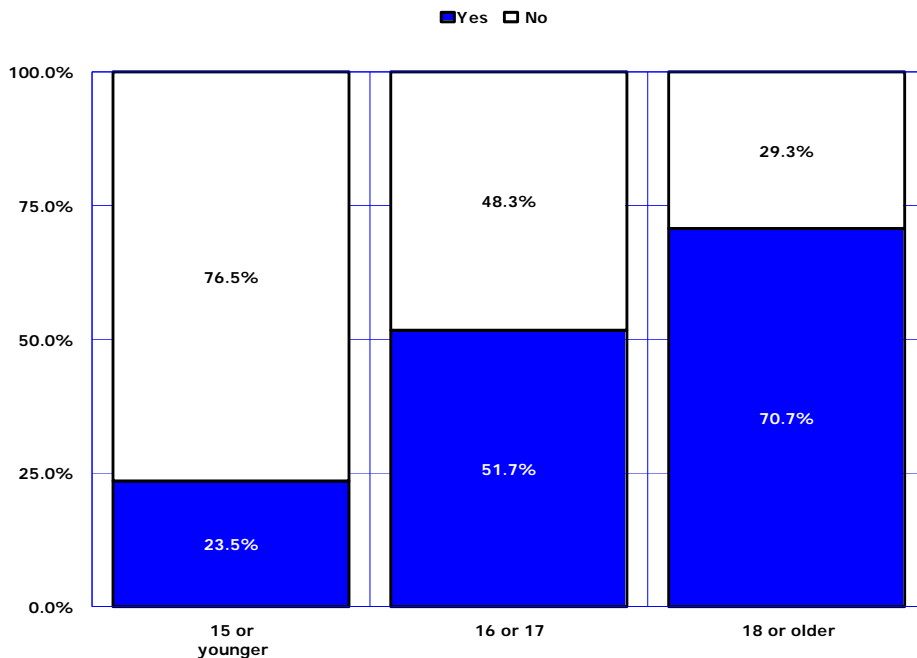
Unlike gonorrhea or chlamydia, genital herpes cannot be cured. Since genital herpes is not a fatal disease, new cases arising each year may add to the pool of people infected with the disease who can then transmit the disease to others.

Assuming that females 15-19 years old reported with genital herpes since 1997 have not died or left the State, the 2006 prevalence of this disease based on 1,259 cases (Figure 16) would be 589.1/100,000. In other words, one in every 165 females aged 15-19 years may be infected.

Genital herpes also is a threat to newborns. Out of 143 females aged 15-19 years who were diagnosed with genital herpes in 2006, 43 (or 30.1 percent) also gave birth that year (Figure 16).

## KEY FINDINGS

**Figure 17**  
**Percentage of Female High School Students, Who Ever Had Sexual Intercourse, Arizona, 2005**

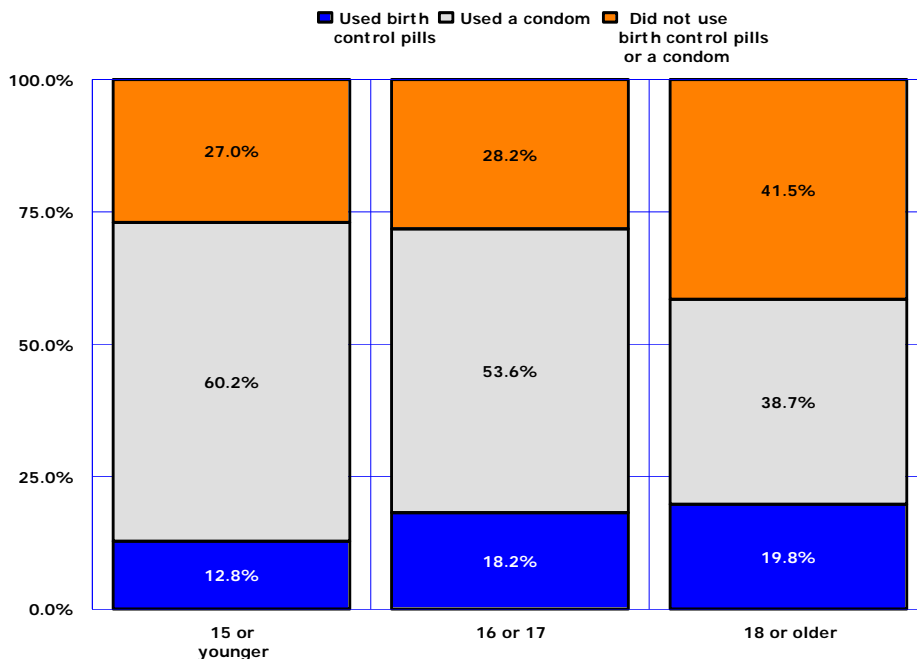


Patterns in sexual activity such as the age at first intercourse and the frequency of intercourse are among the factors accounting for both pregnancy rates and the incidence of sexually transmitted infections.

Nationally, more than one-half (51 percent) of 15-17-year-old females have had sexual contact with another person. At age 18-19, 83 percent of females have had a sexual experience with another person.<sup>1</sup>

The age-specific proportions of female high school students who ever had sexual intercourse in **Figure 17** are from the latest Arizona Youth Risk Behavior Survey conducted in 2005<sup>2</sup>.

**Figure 18**  
**Percentage of Female High School Students, Who Used Birth Control Pills Or Condoms to Prevent Pregnancy, Arizona, 2005**



According to the National Survey of Family Growth, the oral contraceptive pill is the leading method of contraception in the United States.<sup>3</sup> The survey provides no state-specific data.

The 2005 Arizona Youth Risk Behavior Survey results for "students who had sexual intercourse during the past three months"<sup>4</sup> reveal that compared to younger teens, older teens were less likely to use birth control pills before or a condom during, the last intercourse (**Figure 18**). It is quite unlikely that over 41 percent of sexually active females 18-19 years old in 2005 have used other methods instead (such as female sterilization or a 3-month injectable contraceptive Depo-Provera). From 2005 to 2006, the birth rate per 1,000 females 18-19 years old increased by an unprecedented 13.3 percent. Perhaps, not a small fraction of those who were sexually active but not using contraception in 2005 were not so much placing themselves at a risk of unintended pregnancy but intentionally trying to have a baby?

<sup>1</sup> Mosher WD, Chandra A, Jones J. Sexual behavior and selected health measures: Men and women 15-44 years of age, United States, 2002. Advance data from vital and health statistics; no 362. Hyattsville, MD: National Center for Health Statistics, 2005.

<sup>2</sup> Percentage of students who ever had sexual intercourse. See the Arizona YRBS results at <http://www.azed.gov/sa/health/matrix/YRBS2005Results.asp>

<sup>3</sup> Mosher WD, Martinez GM, Chandra A, Abma JC, Wilson SJ. Use of contraception and use of family planning services in the United States, 1982-2002. Advance data from vital and health statistics; no 350. Hyattsville, Maryland: National Center for Health Statistics, 2004

<sup>4</sup> Percentage of students who used a condom during or birth control pills before last sexual intercourse. See the Arizona Youth Risk Behavior Survey results at <http://www.azed.gov/sa/health/matrix/YRBS2005Results.asp>

