PURPOSE

This report is the annual update of information about pregnancies among females under age 20. The data for 2021 is placed in a temporal context by comparing it with the data from the preceding years. Earlier reports are available online at http://pub.azdhs.gov/health-stats/report/tp/index.php.

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.

The population denominators for Arizona's resident females used to calculate rates for 2003-2009 and 2011-2021 are population estimates of Arizona resident females aged 10-19 years. The 2010 denominators are the actual census enumerations from the U.S. Census Bureau. Detailed information about the assumptions and specific data sources is available online at http://pub.azdhs.gov/health-stats/menu/info/pop/index.php. The 2020 denominators from the actual census enumerations from the U.S. Census Bureau were not used due to Arizona ExecutiveOrder2011-04. Executive Order 2011-04. Executive Order 2011-04. Executive Order 2011-04 requires state agencies to use the official population estimates from the State Demographer within the Office of Economic Opportunity.

The 2021 Teenage Pregnancy report suppresses information in tables with small cell sizes. To protect the anonymity of the individuals included in this report, cells in tables with five or fewer observations are denoted by an asterisk (*), cells containing rates based on counts of five or fewer are denoted by a double-asterisk (**), and cells containing sums based on addends of five or fewer are rounded to the nearest tens-unit and denoted by a dagger (†).

DATA ORGANIZATION

Tables 1-14 present annual numbers and rates of pregnancy, fertility, and abortion by year from 2011 to 2021 for Arizona teens. Information is presented for specific age groups and by race/ethnicity. 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 2011 to 2021. 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 2011 to 2021 in Table 12.

Table 14 presents teen pregnancy rates by race/ethnicity and age group by year from 2011 to 2021. Table 15 provides information about the incidence of sexually transmitted infections among females 10-14 and 15-19 years old in Arizona in 2011-2021. Table 16 shows the incidence rates by year from 2011 to 2021.

Frequency counts, proportions, and rates in Tables 17-32 all apply to the 2021 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 source of payment for labor and delivery, previous pregnancies, marital status, education, trimester of entry into prenatal care, number of prenatal visits, tobacco use during pregnancy, and risk for low-birthweight by selected characteristics. The 2021 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 2011-2021.

COMPARATIVE NATIONAL AND STATE DATA

Timely, comparable, and reliable teen pregnancy statistics for other States and the Nation provide meaningful comparisons to place Arizona's teenage birth experiences in context. The Center for Disease Control (CDC) provides a useful source of information on national pregnancy outcomes. The most recent national abortion data provided by the CDC available is for 2021¹ and the most recent fetal death report published by the CDC presents statistics from 2020 through 2021². Another source of national data on reproductive health is the Guttmacher Institute. The latest report³, published by the Institute in March 2021 covers statistics available on the incidence of teen pregnancy, birth and abortion in the United States for 2017, with trend analysis since 1973. The authors present the complete count of births provided by every state to the NCHS in combination with the estimated numbers of abortions, early miscarriages, and fetal deaths. The number of abortions is estimated from surveys the Alan Guttmacher Institute conducts of known abortion providers (i.e. these data are by the place of occurrence and not by the woman's place of residence). The fetal loss estimates – including early miscarriages before 20 weeks of gestation (and estimated as 20% of live births plus 10% of abortions) - are from pregnancy history information collected by the National Survey of Family Growth (NSFG). Unlike vital statistics reports of fetal losses occurring at gestations of 20 weeks or more, NSFG include all gestations. Since the majority of fetal losses occur early in pregnancy before the reporting requirements for fetal deaths are in effect, their inclusion dramatically raises both the fetal loss rate and the pregnancy rate. The National Survey of Family Growth data are not state-specific. Arizona teen pregnancy rates cannot be compared with the rates of their peers nationally. No comparable state-by-state teen pregnancy data for 2011 - 2021 are available at this time.

KEY FINDINGS

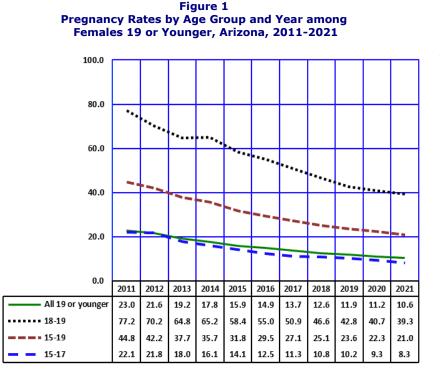
The following section presents some illustrative findings contained in the figures and tables of the report. It is not intended to be an exhaustive analysis of the tabulated data.

- In 2021, the pregnancy rate of 10.6 pregnancies per 1,000 females 19 years or younger was 53.9 percent lower than the rate of 23.0 per 1,000 in 2011. The teen pregnancy rate of 10.6 per 1,000 females 19 years or younger was the lowest teen pregnancy rate since at least 1990.
- It is only since 2011 that the reduction in the number of teen pregnancies was accompanied by an equally impressive decline in pregnancy rates.
- Historically, the declines in teenage pregnancy have been steeper for younger teenagers than for their older counterparts, but recently are becoming more closely aligned. The rate for teenagers 15-17 years dropped steeply by 62.4 percent from 22.1 per 1,000 in 2011 to 8.3 in 2021. The rate for older teenagers (aged 18-19 years) fell by 49.1 percent from 77.2 per 1,000 in 2011 to 39.3 per 1,000 in 2021.
- The 2021 teen pregnancy rate of 10.6 per 1,000 was based on 4,912 pregnancies occurring among 461,472 females aged 10-19 years. The number of 4,912 teen pregnancies in 2021 was 5.2 percent lower than 2020 and was the lowest number of teen pregnancies since at least 1990.
- In 2021, the rate of teenage pregnancies was highest in American Indian or Alaska Native females (16.3 per 1,000 pregnancies), followed by Hispanic or Latino (14.4 per 1,000 pregnancies), Black or African American (12.6 per 1,000 pregnancies), White Non-Hispanic (6.0 per 1,000 pregnancies), and smallest in Asian (3.4 per 1,000 pregnancies).
- The <u>first birth rate</u> for childless teenagers has dropped 57.4 percent from 31.2 first-time births per 1,000 females 15-19 years old in 2011 to 13.3 per 1,000 in 2021.
- The <u>repeat birth rates</u> for teenagers who had already had a child decreased by 4.8 percent from 142.7 in 2011 to 135.8 per 1,000 females 15-19 years old in 2021, who had a previous birth.
- Unwed mothers have accounted for an increasing annual proportion of births since the 2000s. In 2021, non-marital births accounted for 92.7 percent of births to mothers 19 years or younger.
- The total number of births to mothers 19 years or younger decreased by 57.6 percent from 8,435 in 2011 to 3,580 in 2021.The proportional share of births paid for by the Arizona Health Care Cost Containment System (AHCCCS, the State's Medicaid program) decreased slightly from 83.6 percent in 2011 to 82.3 percent in 2021.

¹https://www.cdc.gov/mmwr/volumes/72/ss/ss7209a1.htm

² https://www.cdc.gov/nchs/data/databriefs/db489.pdf

³ https://www.guttmacher.org/report/pregnancies-births-abortions-in-united-states-1973-2017

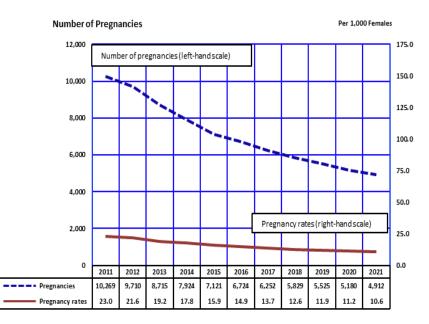


Teenage pregnancy rates dropped 53.9 percent overall from 2011 to 2021. (**Figure 1, Table 2**). The declines in teenage pregnancy have been much steeper for younger than for older teenagers. The rate for teenagers 15-17 years dropped steeply by 62.4 percent from 22.1 per 1,000 in 2011 to 8.3 in 2021. The rate for older teenagers (aged 18-19 years) fell by 49.1 percent from 77.2 per 1,000 in 2011 to 39.3 per 1,000 in 2021.

From 2011 to 2021, the birth rate of teenagers 19 years old or younger declined; fetal losses remained stable at 0.1 per 1,000 females. The abortion rate was 4.0 in 2011, gradually decreasing to 2.5 per 1,000 females in both 2018 and 2019. Subsequently, it increased to 2.6 in 2020 and further rose to 2.8 in 2021. Any comparisons with previous years should consider the change in abortion reporting requirements in 2011 (**Table 2**).

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





Trends in the number of pregnancies to teenage women do not always parallel the pregnancy rate. 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, however, also determined by the size of the population "*at risk*,", or in this case by the number of teenage females in the population.

The 2021 teen pregnancy rate of 10.6 per 1,000 was based on 4,912 pregnancies occurring among 461,472 females aged 10-19 years. The number of 4,912 teen pregnancies in 2021 was 5.2 percent lower than 2020 and was the lowest number of teen pregnancies since at least 1990 (**Figure 2, Table 1**).

Note: Pregnancy rate = the number of pregnancies per 1,000 females in specified group.

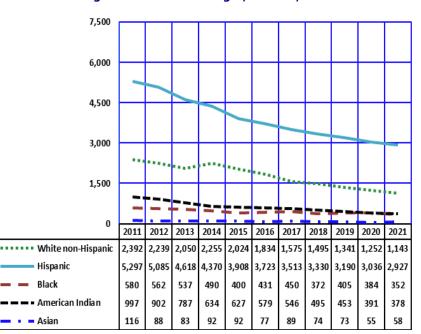


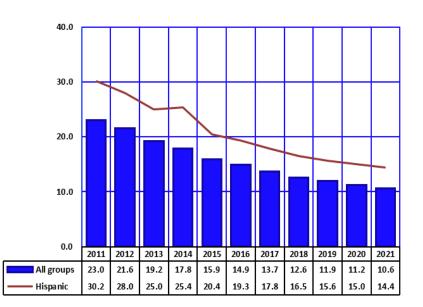
Figure 3 Trends in the Number of Pregnancies* by Race/Ethnicity among Females 19 or Younger, Arizona, 2011-2021

Among the total of 4,912 teenage pregnancies in 2021, 4,858 had racial/ethnic information. Hispanic or Latino females accounted for the highest percent of all pregnancies in this age group (59.6 percent), followed by White non-Hispanics (23.3 percent), American Indian females (7.7 percent), Black or African Americans (7.2 percent), and Asian or Pacific Islanders (1.2 percent).

From 2011 to 2021, the number of teen pregnancies declined particularly steeply for American Indians (62.1 percent) and White non-Hispanic (52.2 percent).

Note: The sum of live births + induced abortions + spontaneous fetal deaths.





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

The teen pregnancy rates for all race and ethnic groups were lower in 2021 than in 2011 (**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 2011-2021.

From 2011 to 2021, the teenage pregnancy rate for Hispanic or Latino women declined 52.3 percent (**Figure 4**).

In each year from 2011 to 2021, 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 2021, the Hispanic rate exceeded the average rate for all groups by 35.8 percent.

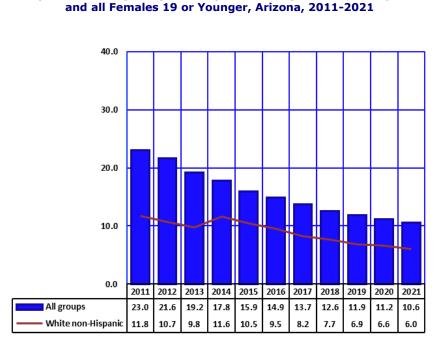
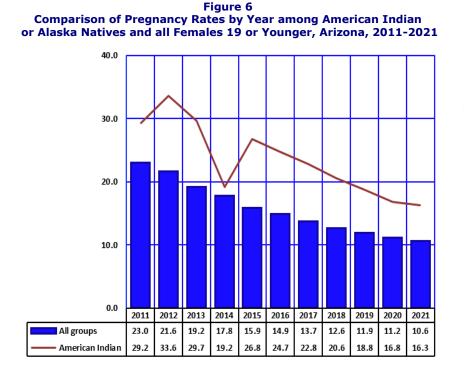


Figure 5 Comparison of Pregnancy Rates by Year among White non-Hispanics

> The pregnancy rate for White non-Hispanics has gradually declined from 2011 to 2021 (49.2 percent), with the exception of slight increases in 2014 and 2015 (**Figure 5**). In each year from 2011 to 2021, 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.

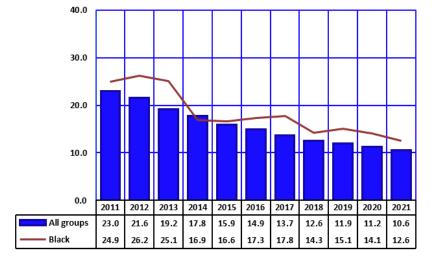


The pregnancy rate among American Indian females 19 years or younger varied somewhat erratically from 2011 to 2021, showing a 15.1 percent increase from 2011 to 2012, followed by an 11.6 percent decrease from 2012 to 2013, a 35.4 percent decline from 2013 to 2014, an increase in 2015 by 39.6 percent, and then a decline afterwards (**Figure 6**). Overall, there is a declining trend from 2011 to 2021 for American Indian teenage pregnancies, but the rate was higher than the average for all groups.

Note: Pregnancy rate = the number of pregnancies per 1,000 females in specified group.



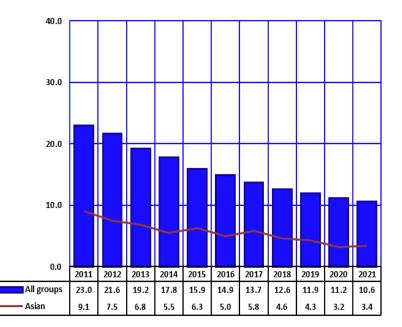
Pregnancy rates for Black or African American females 19 years or younger decreased from 24.9 per 1,000 in 2011 to 12.6 per 1,000 in 2021 (**Figure 7**). Excluding 2014, the pregnancy rates for Black or African American teenagers exceeded the pregnancy rate for all groups.



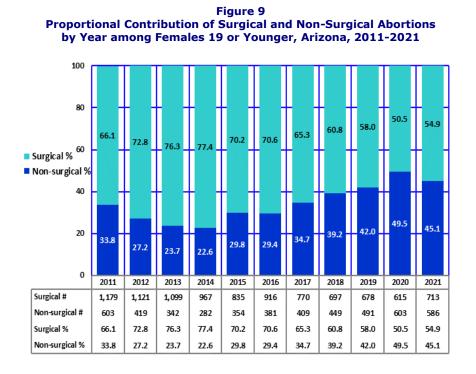
Note: All rates are per 1,000 females in specified group.



In each year from 2011 to 2021, 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 2021, the rate for Asian females (3.4 per 1,000) was 67.9 percent lower than the rate for all groups (10.6 per 1,000).



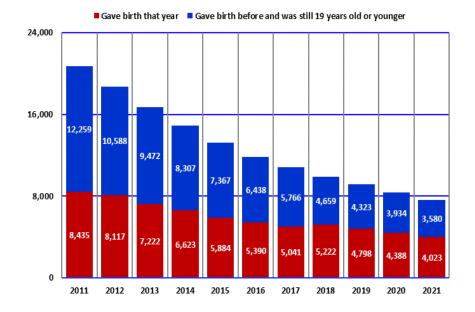
Note: All rates are per 1,000 females in specified group.



The proportion of non-surgical abortions to females 19 years or younger increased 33.4 percent from 2011 (33.8 percent) to (45.1 percent) in 2021, while the proportion of surgical abortions decreased 16.9 percent over that period (**Figure 9**).

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





There were approximately 7,603 mothers under the age of 20 in Arizona in 2021. Among them there were the 4,023 who gave birth in 2021 and the 3,580 who gave birth prior to 2021 and were still 19 years old or younger in 2021 (**Figure 10**, **Table 13**). The cumulative number of mothers who were 19 years or younger in Arizona in 2021 decreased by 63.3 percent from 20,694 in 2011.

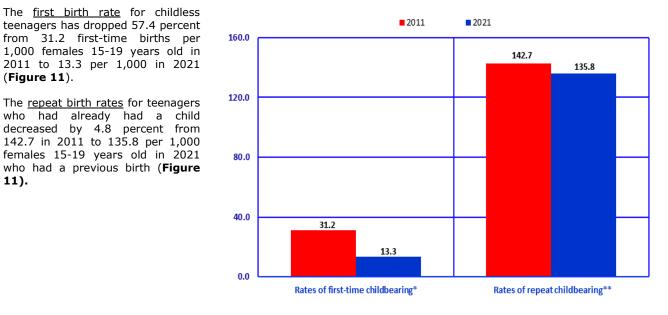
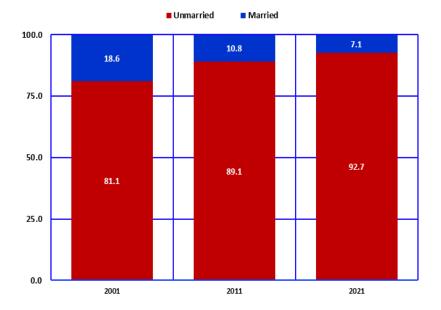


Figure 11 Rates of First and Repeat Births to Females 15-19 Years, Arizona, 2011 and 2021

Notes: * 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 previous birth; See Appendix "How to compute rates of first and repeat childbearing."

Figure 12 Births to Mothers 19 or Younger by Marital Status, Arizona, 2001, 2011, and 2021



Unwed mothers have accounted for an increasing annual proportion of births since the year 2001. Two decades ago, more than 8 out of 10 teenage mothers were unmarried (Figure 12). In 2021, non-marital births accounted for 92.7 percent of births to mothers 19 years or younger.

The first birth rate for childless

2011 to 13.3 per 1,000 in 2021

The repeat birth rates for teenagers who had already had a child

females 15-19 years old in 2021

who had a previous birth (Figure

(**Figure 11**).

11).

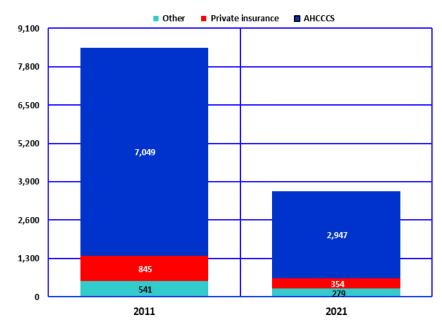


Figure 13 Number of Births to Mothers 19 or Younger by Payer, Arizona, 2011 and 2021

> The total number of births to mothers 19 years or younger decreased by 57.6 percent from 8,435 in 2011 to 3,580 in 2021 (**Table 1**). In contrast, the proportional share of births paid for by the Arizona Health Care Cost Containment System (AHCCCS, the State's Medicaid program) decreased from 83.6 percent in 2011 to 82.3 percent in 2021 (**Figure 13**).

Figure 14 Trends in the Incidence of Sexually Transmitted Infections* among Females 15-19 Years, Arizona, 2011-2021



Note: * The sum of annually reported cases of gonorrhea, chlamydia, and early syphilis. Source: Bureau of Infectious Disease and Services.

In each year from 2011-2021, except for 2013-2015, the total number of sexually transmitted infections (STI) among females aged 19 or younger exceeded 7,200 infections. The number decreased to the lowest number in the time period at 6,564 in 2014. In 2019 the number increased to 8,324, the highest of the time period, then dropped to 7,416 in 2020, but again increased in 2021 to 7,721 (Table 15). Similarly, among females 15-19 years, the incidence rate per 100,000 females 15-19 years old decreased from 3,584.8 in 2019 to 3,219.5 in 2020 but again had an increase in 2021 to 3,336.7. The 2021 incidence rate was also 3.7 percent lower than the rate of 2011 (Figure 14).

These STIs are a significant public health concern. *Chlamydia* can cause sterility in the affected mother as well as eye infections and pneumonia in the newborn. The complications of *Syphilis* are not to be underestimated as the disease can lead to blindness and maternal and/or infant death.

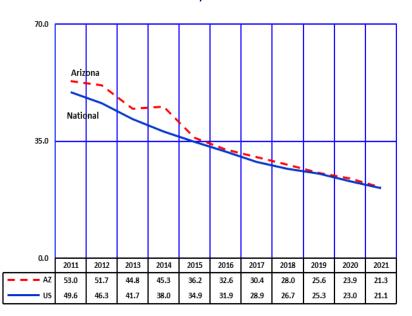


Figure 15 Birth Rates for Teenagers 15-19 Years, Nationally and in Arizona, 2011-2021

In each year from 2011 to 2021, birth rates for Arizona teenagers 15-19 years old exceeded the rates of their national peers (**Figure 15**, **Table 11**). Both the Arizona and national teenage pregnancy rates have decreased from 2011 to 2021. The distance between Arizona and national teenage pregnancy rates has also decreased from 2011 to 2021. In 2011, Arizona's rate of 37.2 was 18.8% higher than the national rate, 31.3. By 2021, this difference reduced to 10.1%.

Note: The number of births per 1,000 females 15-19 years old.

Figure 16 Birth Rates for Hispanic or Latino Teenagers 15-19 Years, Nationally, and in Arizona, 2011-2021



In the Arizona 2021 population of females aged 15-19, 43.8% identified as Hispanic or Latino. Within this age group, Hispanic or Latino females accounted for 61.1% of births in 2021, totaling 2,162 out of 3,537 (see **Table 6** and **Table 7**).

Birth rates among Hispanic or Latino teenage females have been higher in Arizona than nationally from 2011-2021, but the distance between these rates has shrunk. Birth rates among Hispanic or Latino teenage females were 6% higher in Arizona than the nation in 2011, and <1% higher than the national rate in 2021.

Notes: The number of births per 1,000 females 15-19 years old