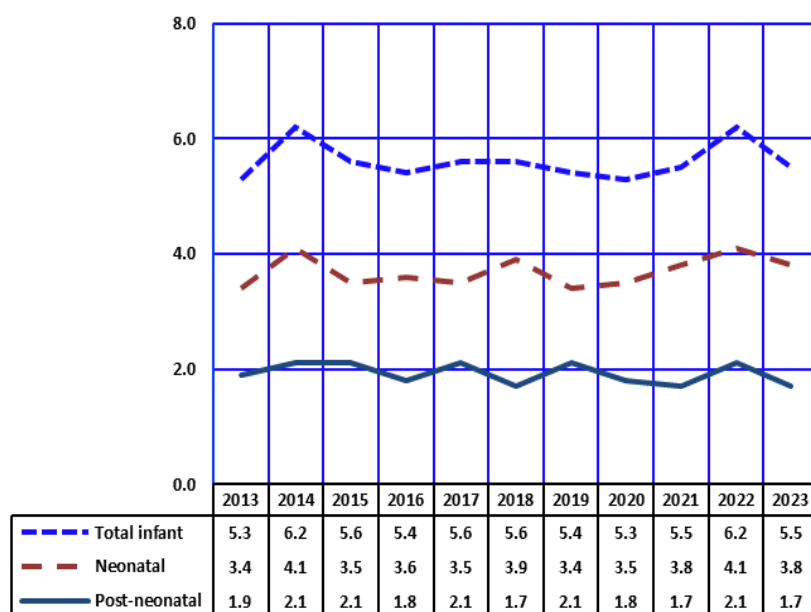


2C.AGE-SPECIFIC MORTALITY

Infant mortality

Figure 2C-1
Infant Mortality Rates by Neonatal/Postneonatal Age and Year,
Arizona, 2013-2023



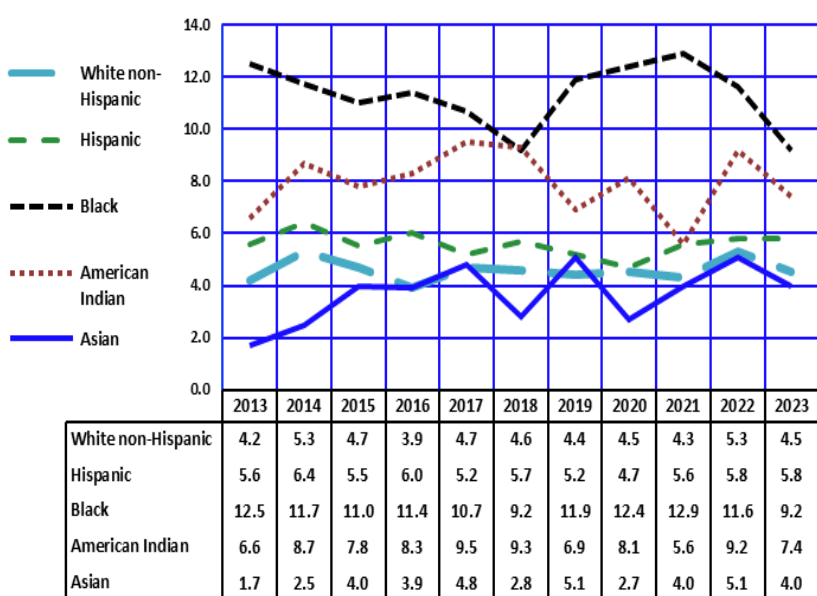
Notes: Neonatal deaths are those deaths affecting infants age 0-27 days; Post-neonatal deaths are deaths to infants aged 28 days-1 year.

Infant mortality is defined as the number of deaths within the first year of life. The infant mortality rate is computed as the number of infant deaths in a calendar year per 1,000 live births recorded for the same period.

In 2023, 430 Arizona infants died before reaching their first birthday, 105 fewer than the latest peak of 535 infant deaths in 2014, with a decrease of 53 deaths in comparison to 2022 (**Table 2C-2**).

Based on the actual number of infant deaths and live births in 2023, the infant mortality rate was slightly lower at 5.5 infant deaths per 1,000 live births in 2023 than in 2022 which had 6.2 infant deaths per 1,000 live births (**Figure 2C-1**).

Figure 2C-2
Infant Mortality Rates^a by Race/Ethnicity and Year,
Arizona, 2013-2023



Note: ^a Number of infant deaths per 1,000 live births in specified group.

In 2023, 94.4 percent (406/430)* 100 of all infant death records were successfully matched to their corresponding birth records.

The mortality risk for infants varies by race/ethnicity. During the 11-year period (2013-2023), infants born to Asian or Pacific Islander mothers witnessed the lowest mortality rates among all racial/ethnic groups for the most part (**Figure 2C-2, Table 2C-2**). The exception being 2017 and 2019, as the infant mortality for Whites was the lowest of all racial/ethnic groups.

In parallel, in each year from 2013 to 2023, Black or African American and American Indian infants had the worst survival chances among the racial/ethnic groups (**Figure 2C-2**).

*Infant death records that were not linked to their corresponding birth certificates include unrecorded home births (i.e., no birth certificates were issued) and out-of-State births (i.e., the State issuing the certificate of birth did not send a copy to Arizona).

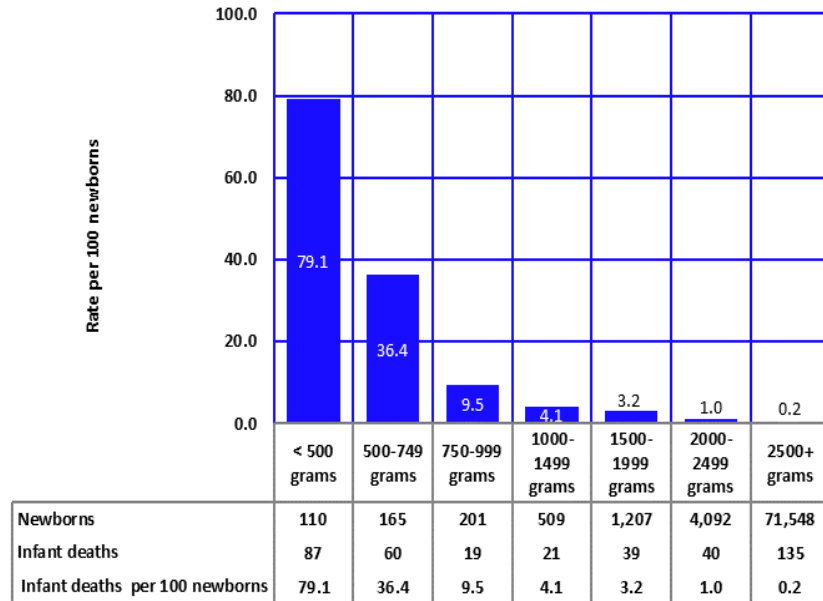
2C.AGE-SPECIFIC MORTALITY

Infant mortality

Figure 2C-3
Proportion of Infant Deaths by Birthweight, Arizona, 2023

Newborn weight at birth is one of the most important predictors of an infant's survival chances. In 2023, the mortality rate of very low birth weight babies (birthweight less than 500 grams) was 79.1 per 100 live births (**Figure 2C-3**). The rate of infant deaths per 100 newborns increased as weight decreased. The infant death rate of babies born <500 grams was almost 400 times higher compared to the rate of babies born at 2,500 grams or more.

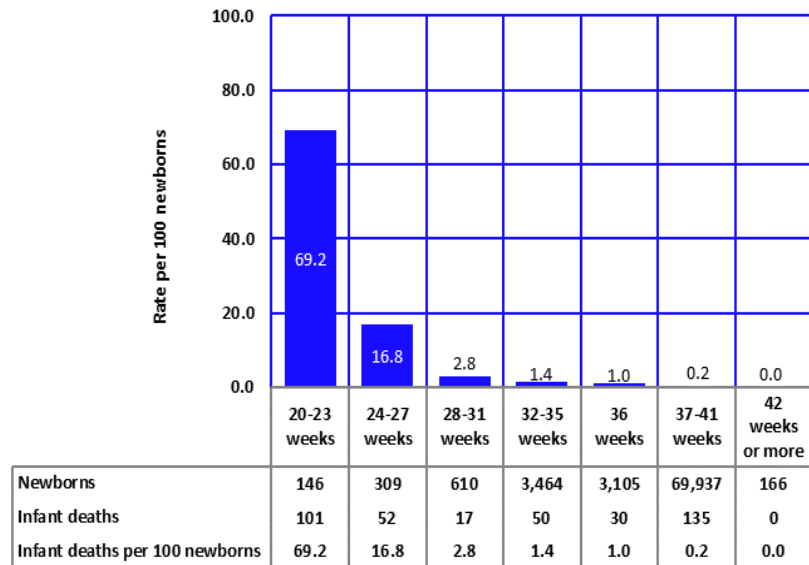
The absolute number of low birthweight births increased in 2023 to 6,284 from 6,113 in 2022, making it the highest since 2009 (n=6,573).



Note: 49 cases in the complete 2023 birth file had missing birthweight estimates.

Figure 2C-4.1
Proportion of Infant Deaths by Gestational Age, Arizona, 2023

Similar to low birthweight infants, preterm and very preterm babies contribute greatly to the total infant mortality rate because of their higher risk of mortality. For example, in 2023 births occurring between 20-27 weeks of gestation accounted for only 0.6 percent of all births but 35.6 percent of infant deaths with a matching death record. Births at 20-23 weeks of gestation have a very high infant mortality rate of 69.2 per 100 live births (**Figure 2C-4**). Overall, in 2023 preterm infants (those born before 37 weeks of gestation) accounted for 9.9 percent of all births (**Table 1B-2**) and 61.6 percent of all infant deaths (only those with matching death records).

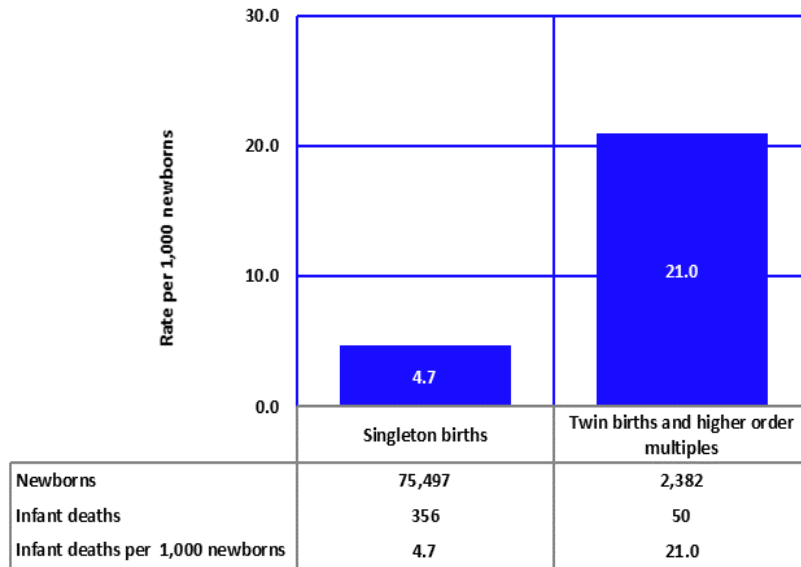


Note: 94 cases in the complete 2023 birth file had missing gestational age; one of which were missing in the linked infant death file.

2C.AGE-SPECIFIC MORTALITY

Infant mortality

Figure 2C-4.2
Infant Mortality Rates for Single and Multiple Births, Arizona, 2023

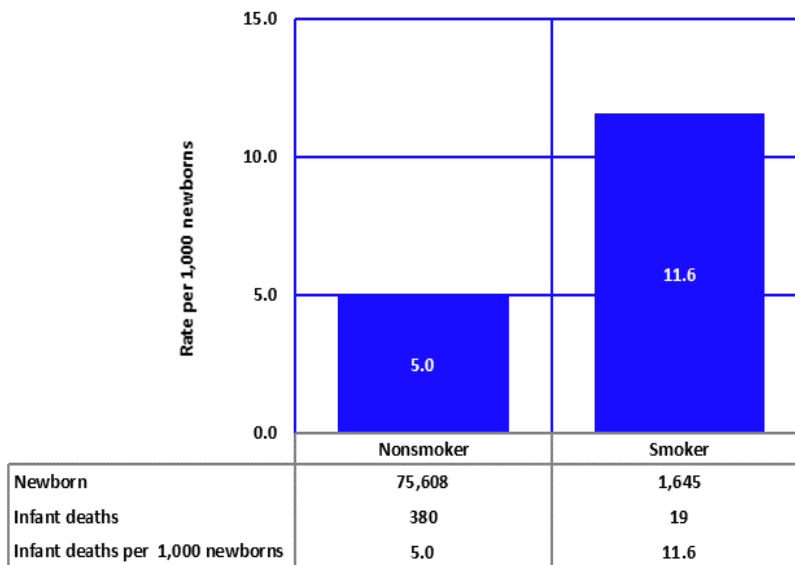


The infant mortality rate for single births was 4.7/1,000 live births in 2023 (**Figure 2C-4.2**). The infant mortality rate for twin births or higher order multiples (21.0/1,000 live births) was 4.5 times higher than the infant mortality for singleton births.

Babies born in multiple deliveries accounted for 3.1 percent of births (**Table 1B-16**), but 12.3 percent of all infant deaths in Arizona in 2023 (only those with matching birth and death records).

Note: 2 cases in the complete 2023 birth file was missing plurality.

Figure 2C-4.3
Infant Mortality Rates by Mother's Smoking Status during Pregnancy, Arizona, 2023



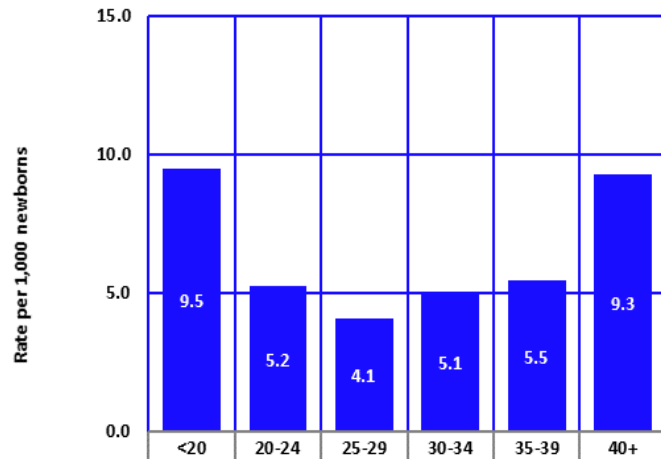
Smoking during pregnancy has been shown to increase the risk of preterm delivery, low birth weight and infant mortality. In 2023, among the 1,645 mothers who smoked during pregnancy, the risk of infant mortality was 2.3 times higher than among nonsmoker mothers (**Figure 2C-4.3**).

Note: 628 cases in the complete 2023 birth file were missing mothers' smoking status.

2C.AGE-SPECIFIC MORTALITY

Infant mortality

Figure 2C-4.4
Infant Mortality Rates by Mother's Age Group, Arizona, 2023

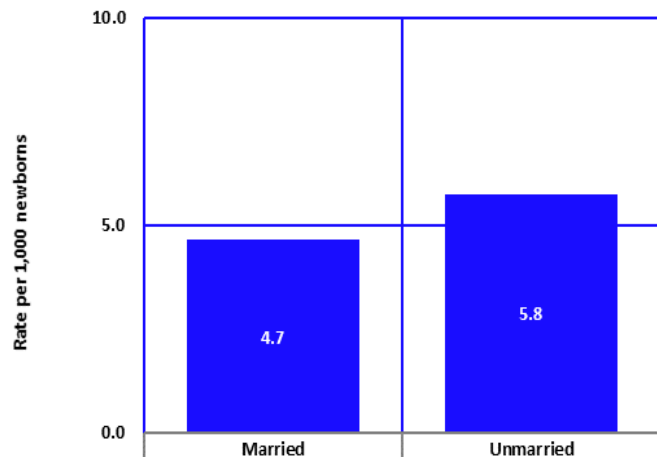


Infant mortality rates vary with maternal age. In 2023, infants born to younger mothers (less than 20 years), and older mothers (40+ years) had the highest infant mortality rates of all age groups, 9.5/1,000, and 9.3/1,000 respectively (**Figure 2C-4.4**). For mothers aged 20 through 39 years, the infant mortality rates were lower than 6 deaths/1,000.

	<20	20-24	25-29	30-34	35-39	40+
Newborns	3,473	14,878	23,138	22,326	11,373	2,691
Infant deaths	33	78	95	113	62	25
Infant deaths per 1,000 newborns	9.5	5.2	4.1	5.1	5.5	9.3

Note: 2 cases in the complete 2023 birth file were missing mother's age.

Figure 2C-4.5
Infant Mortality Rates by Mother's Marital Status, Arizona, 2023



Infants born to unmarried mothers accounted for the absolute majority of infant deaths in 2023 (204 infant deaths) compared to married mothers (195 infant deaths). In 2023, more children were born to married women (41,796) than their unmarried counterparts (35,407; **Table 1B-25**). Infants of unmarried mothers had an infant mortality rate of 5.8 deaths per 1,000 live births, 1.2 times higher than the rate for infants of married mothers (4.7 infant deaths per 1,000 live births; **Figure 2C-4.5**). The effect of marital status on infant mortality suggests that marital status is a proxy measure of factors traditionally related to infant mortality such as poverty conditions, access to health care and social support. Mother's marital status may signify the presence or absence of emotional, social, and financial resources.

	Married	Unmarried
Newborns	41,796	35,407
Infant deaths	195	204
Infant deaths per 1,000 newborns	4.7	5.8

Note: 678 cases in the complete 2023 birth file were missing mother's marital status.