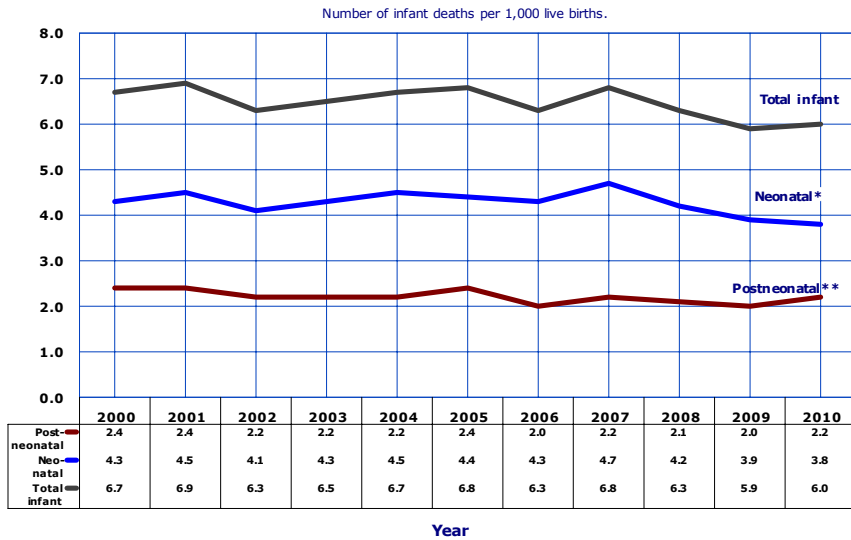


2C. AGE-SPECIFIC MORTALITY
Infant mortality

Figure 2C-1
Infant Mortality Rates by Neonatal/Postneonatal Age and Year,
Arizona, 2000-2010



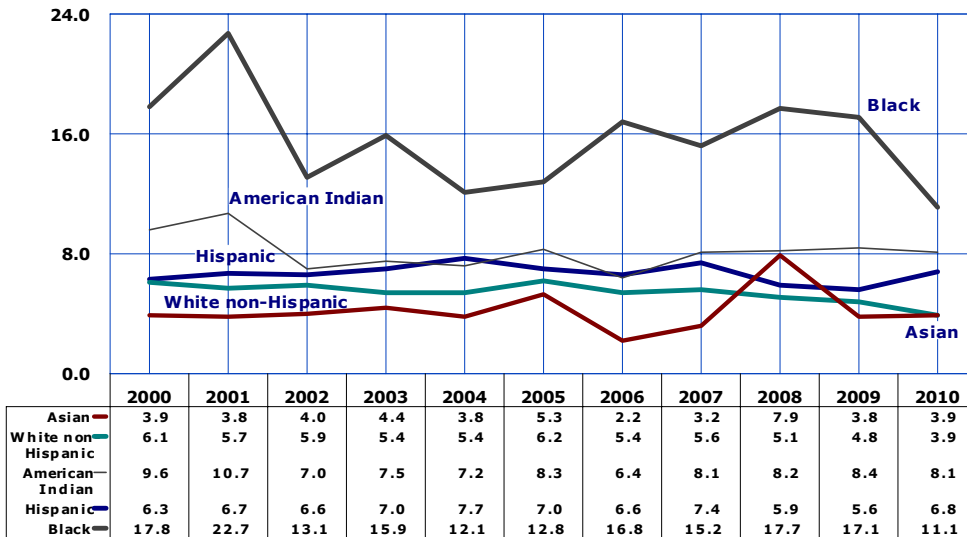
Deaths to infants age 0-27 days.
 **Deaths to infants age 28 days-1 year.

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

In 2010, 519 Arizona infants died before reaching their first birthday, 182 fewer than the latest peak of 701 infant deaths in 2007 (**Table 2C-2**). Even if the risk of infant mortality remained the same as it was in 2007, 106 fewer infant deaths can be attributed to the absolute reduction in the number births by 15,634 from 2007 to 2010 ($(15,634 \times 6.8)/1,000 = 106$).

Based on the actual number of infant deaths and live births in 2010, the infant mortality rate of 6.0/1,000 was the second lowest IMR ever recorded in the State's history (**Figure 2C-1**).

Figure 2C-2
Infant Mortality Rates^a by Race/Ethnicity and Year,
Arizona, 2000-2010



Number of infant deaths per 1,000 live births in specified group.

In 2010, 94 percent* of all infant death records were successfully matched to their corresponding birth records. Among the 519 infants who died in 2010, 69 were born in 2009.

The mortality risk for infants varies by race/ethnicity. Infants of Asian or Pacific Islander mother, followed by babies of White non-Hispanic and Hispanic or Latino mothers had the lowest infant mortality rates among the race/ethnic groups in 2010 (**Figure 2C-2, Table 2C-2**).

In 2010, Black infants continued to have the worst survival chances among the ethnic groups (**Figure 2C-2**). The Black IMR decreased from 17.1/1,000 in 2009 to 11.1/1,000 in 2010.

*Infant death records that were not linked to their corresponding birth certificates include unrecorded home births (i.e., no birth certificates was 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, 2010

Newborn weight at birth is one of the most important predictors of an infant's survival chances. In 2010, the mortality rate among babies weighing less than 500 grams at birth was 89.9 percent (**Figure 2C-3**).

The absolute number of low birthweight births actually declined for the third consecutive year from 7,285 in 2007 to 6,155 in 2010. In 2010 the proportion of babies whose weight at birth was less than 1,000 grams also decreased from 8.0 percent of all low birthweight births in 2009 to 7.1 percent in 2010 (**Table 1B-3**).

Together, births of infants weighing less than 1,000 grams accounted for 0.5 percent of births, and 38.5 percent of all infant deaths

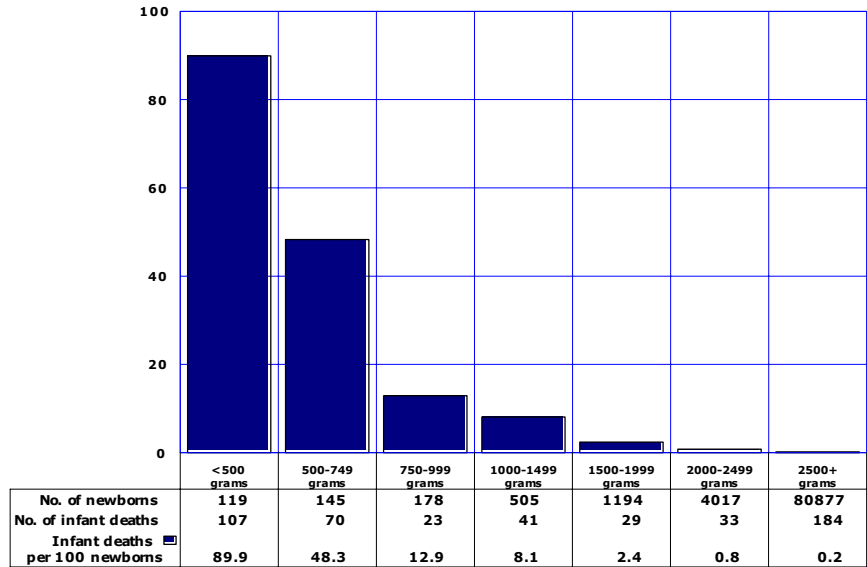
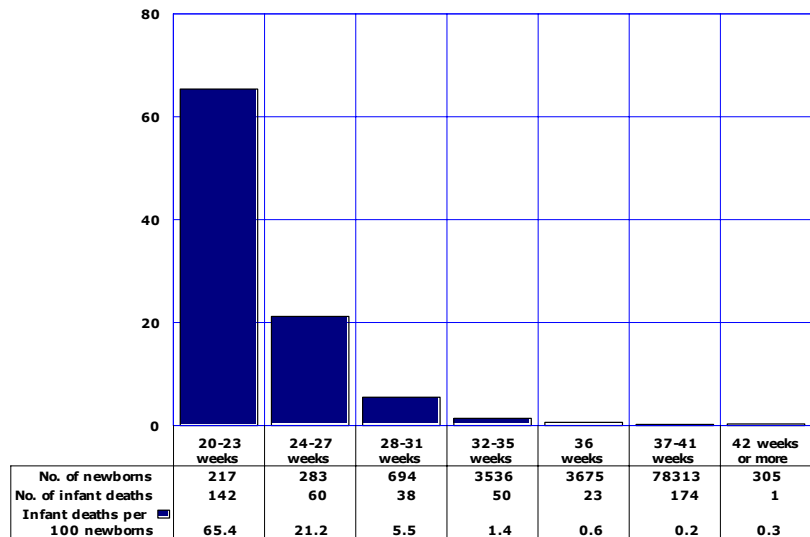


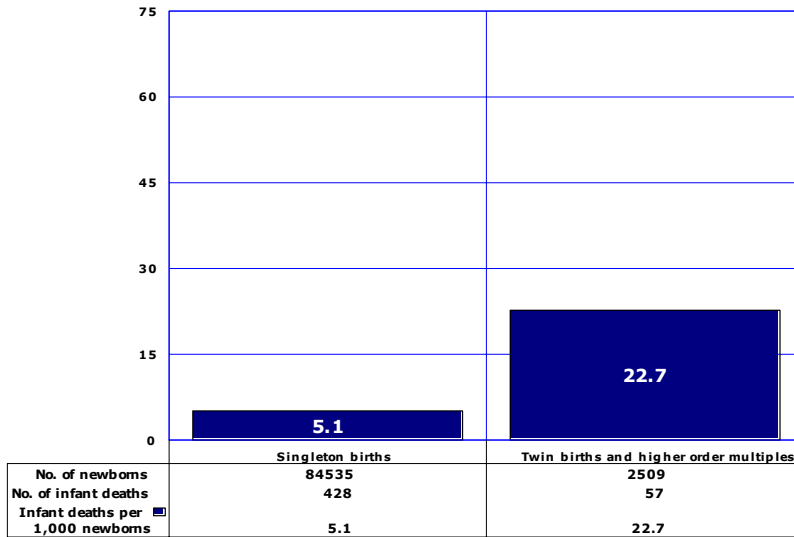
Figure 2C-4
Proportion of Infant Deaths by Gestational Age, Arizona, 2010

As with low birthweight, preterm and very preterm infants have a large impact on the total infant mortality rate because of their much higher risk of infant mortality. For example, births at less than 27 weeks of gestation accounted for only 0.6 percent of all births but 38.9 percent of infant deaths in Arizona in 2010. Births at less than 24 weeks of gestation have a very high infant mortality rate of 65.4 percent (**Figure 2C-4**). Overall, preterm infants (those born at less than 37 weeks of gestation) accounted for 9.6 percent of births (**Table 1B-2**) and 60.3 percent of all infant deaths.



2C. AGE-SPECIFIC MORTALITY
Infant mortality

Figure 2C-4.2
Infant Mortality Rates for Single and Multiple Births, Arizona, 2010

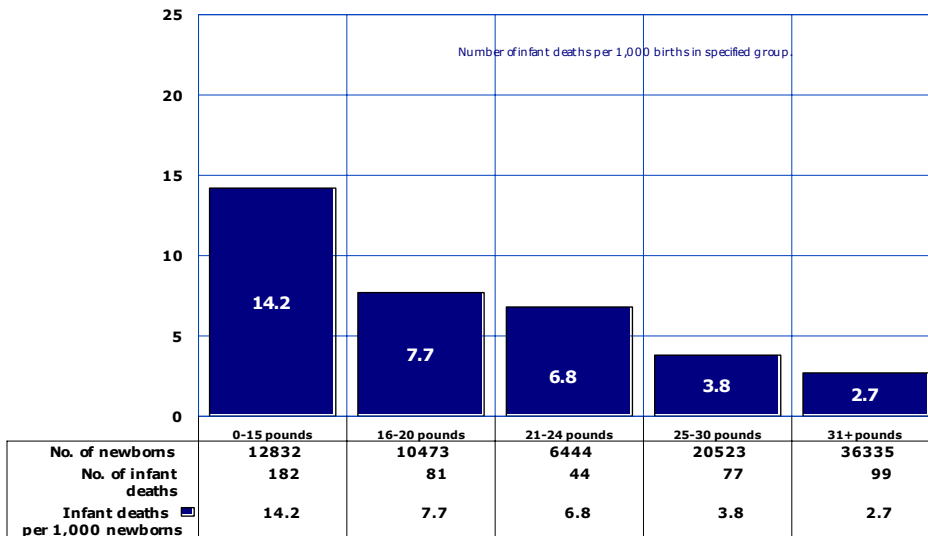


As already noted in Section 1B, infants born in multiple deliveries tend to be born at shorter gestations and smaller than those in singleton deliveries. In 2010, infants born in multiple deliveries were 12.8 times more likely (47.2 vs. 3.7 percent) to be born earlier than expected (at less than 37 completed weeks of gestation) and smaller (at less than 2,500 grams) than singleton births (Figure 1B-10).

The infant mortality rate for single births was 5.1 in 2010 (Figure 2C-4.2). The infant mortality rate for twin births or higher order multiples was 22.7.

Babies born in multiple deliveries accounted for 2.9 percent of births (Table 1B-2), but 11.0 percent of all infant deaths in Arizona in 2010.

Figure 2C-4.3
Infant Mortality Rates by Maternal Weight Gain during Pregnancy, Arizona, 2010



Infant mortality rates vary with maternal weight gain during pregnancy. Insufficient or excessive weight gain during pregnancy can negatively impact both maternal and pregnancy outcome. In 2010, as in previous years, the risk of infant death decreased with increasing maternal weight gain, including maternal weight gain of 31 or more pounds (Figure 2C-4.3). Among the 36,335 women giving birth in 2010 who gained 31 or more pounds, the risk of infant mortality was 2.7/1,000.

There is no coincidence that mother's weight gain has been shown to have a positive correlation with infant birthweight (Figure 1B-22).

2C. AGE-SPECIFIC MORTALITY
Infant mortality

Figure 2C-4.4
Infant Mortality Rates by Mother's Age Group, Arizona, 2010

Infant mortality rates vary with maternal age. In 2010, infant mortality decreased with increasing maternal age through 35-39 years of age but increased for infants born to women 40 years of age or older. (**Figure 2C-4.4**).

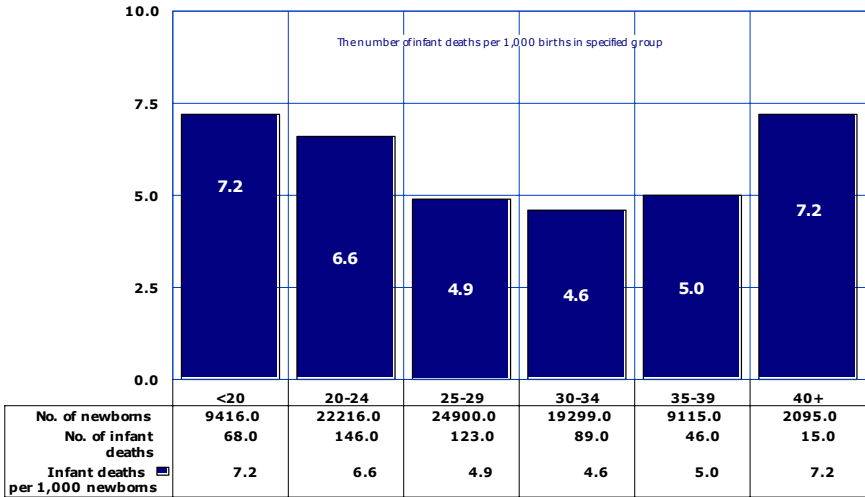
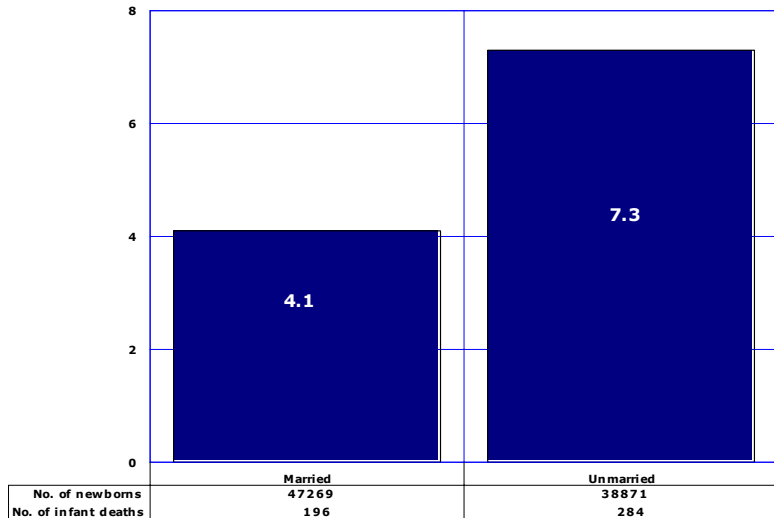


Figure 2C-4.5
Infant Mortality Rates by Mother's Marital Status, Arizona, 2010

Infants born to unmarried mothers accounted for the absolute majority of infant deaths in 2010 (284 vs. 196); while the number of births to married mothers exceeded by 21.6 percent the number of births to unmarried mothers (47,269 vs. 38,871; **Table 1B-26**). In 2010, infants of married mothers had an infant mortality rate of 4.1 deaths per 1,000 live births, 43.2 percent lower than the rate for infants of unmarried mothers (7.3 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 or social support. Mother's marital status may signify the presence or absence of emotional, social, and financial resources.



Additional information is available in our special report on "Marital Status and Health, Arizona Residents, 2006" at www.azdhs.gov/plan/report/ms/ms06/index.htm