

2C. AGE-SPECIFIC MORTALITY

INFANT MORTALITY

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.

The infant mortality rate declined by 23 percent from 8.7/1,000 in 1990 to 6.7/1,000 in 2000 (**Figure 2C-1, Table 2C-1**). The 2000 IMR was not only the lowest Arizona rate in fifty years (**Table 8C-2**), but it was 4.3 percent lower than the year 2000 target rate of 7.0/1,000.

Arizona's 1999 to 2000 decline in infant mortality was due to a decreased rate of deaths in the neonatal period (from birth to 28 days of age, NMR), while the rate of postneonatal deaths (between 28 days and 365 days after birth, PNMR) rose slightly (**Figure 2C-1, Table 2C-3**). Forty-nine out of every 100 infant deaths in Arizona in 2000 occurred during the first week of life (**Table 5E-15**).

Mortality by infant gender and ethnic group

The 2000 mortality risk was not equal for infants of different sexes or ethnic groups. In 2000 male infants died at a rate 23.3 percent higher than female infants. Asian infants, followed by Hispanic and White non-Hispanic babies had the lowest infant mortality rates among the ethnic groups in 2000 (**Figure 2C-2**).

The IMR for Hispanic infants declined by 19.4 percent from 7.2/1,000 in 1999 to 5.8/1,000 in 2000. The IMR for Black babies declined by 9.4 percent, from 13.8 in 2000

to 12.5 in 2000. Black infants continued to have in 2000 the worst survival chances among the ethnic groups, followed by American Indians (**Figure 2C-1**). The risk of dying for Black infants was 2.2 times greater than the risk for Hispanics and 3.2 times greater than the risk for Asians. American Indian infants were 2.3 times more likely to die before their first birthday (8.9 infant deaths per 1,000 live births) in 2000 than Asian infants, the group with lowest IMR of 3.9/1,000.

Causes of infant death

Both the number of deaths and mortality rates for four of the five leading causes of infant mortality (*disorders related to short gestation and low birth weight, sudden infant death syndrome, influenza and pneumonia and maternal complications*) declined in 2000 (**Table 2C-5, Table 2C-6**). The mortality rate for congenital malformations, deformations and chromosomal abnormalities remained unchanged since 1999. In contrast, the number of deaths due to *intrauterine hypoxia and birth asphyxia* among infants increased from 4 in 1999 to 15 in 2000 (**Table 2C-5**). However, it is important to note that the comparability ratio for hypoxia and birth asphyxia is 1.4477. Thus, this condition is more likely to be selected as the underlying cause of death in ICD-10 than in ICD-9.

The number of deaths from *sudden infant death syndrome* (SIDS) declined from 105 in 1991 (when it reached its latest peak) to 24 in 2000, and the 2000 SIDS rate was 80 percent lower than the rate reported for 1991 (**Figure 2C-3**). In 2000, SIDS accounted for 4.2 percent of total infant mortality compared to 18 percent in 1991 (**Figure 2C-4**).

In ICD-9, SIDS was treated as an ill-defined condition and ignored in the presence of other better-defined conditions. In ICD-10, SIDS is not considered to be ill-defined and it may be selected as the underlying cause of death even when other conditions are listed on the death certificate.