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CIC Report 10  
June 2008

### HOMICIDES OF INFANTS

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# Homicides of Infants



## What is this indicator?

Homicide is the intentional or careless cause of death of a child. It is often described as a child abuse death.

Homicide was defined as an underlying cause coded through the *International Classification of Disease, Ninth Revision*, codes E960—E969 (World Health Organization, 1977).

Most infant deaths are certified by medical examiners or coroners. Statistical information from death certificates is consolidated into a national database through the National Vital Statistics System (*Murphy 2000*). Information on U.S. resident infant homicide deaths for 1989—1998 was obtained from Centers for Disease Control's National Center for Health Statistics.

An infant was defined as a person aged <1 year at death. Age at death in days was defined as one plus the difference between the dates of death and birth recorded on the death certificate. An infant killed on its date of birth had an age at death of 1 day. In comparison, homicide rates during different time periods within infancy were presented as rates per person-years of exposure. Information on Oklahoma and Tulsa County resident infant homicide deaths for 2005 was

obtained from the Oklahoma State Department of Health, Death Certificates as compiled on OK2Share. The age at death as listed on death certificate was categorized as neonatal (first 28 days) or post-neonatal death (29 days to 365 days).

## What are key findings?

Homicide is 15th leading cause of death during the first year of life (i.e., infancy) in the United States (Paulozzi, 2008) and 7th leading cause of death in 2005 for Oklahoma (OSDH, 2008). "The risk for homicide is greater in infancy than in any other year of childhood before age 17 years (Murphy, 2000) and is greatest during the first 4 months of life (Overpeck, 1998)" cites Paulozzi, in *Variations in Homicide Risk in Infancy*.

Findings from the report:

- The U.S. infant population during 1989-1998 accounted for 39,941,628 person years of exposure, of which days of birth accounted for 109,354 person years, and the remainder of infancy accounted for 39,832,274 person years.
- During 1989-1998, a total of 3,312 infant homicides were reported for a rate of 8.3 per 100,000 person years. Of these, 81 (2.4%) were excluded because of a miss-

ing date of birth. The proportion of homicides occurring each week of infancy varied, with 9.1% of homicides occurring during the first week of life; a secondary peak in the distribution of homicides occurred at week 8.

- Among homicides during the first week of life, 82.6% occurred on the day of birth, 9.2% on the second day, and 8.2% during the remainder of the week. After the first 2 days of life, the number of deaths in the remainder of the first week was comparable to the number of deaths in the second week of life. Overall, 243 (7.3%) of all infant homicides occurred on the day of birth. When homicide rates on the first day of life and during the remainder of infancy were compared with homicide rates during later age groups, the homicide rate on the first day of life was at least ten times greater than the rate during any other time of life.
- Among homicides on the first day of life, 95% of the victims are not born in a hospital. Among homicides later in infancy, 8% of infants are not born in a hospital.
- Among homicides during the first week of life, 89% of known perpetrators are female, usually the mother (Jason, 1983). Mothers who kill their infants are more likely to be adolescents and have a history of mental illness (Overpeck, 1998 and Resnick, 1969). The secondary peak in risk in week 8 might reflect the peak in the daily duration of crying among normal infants between weeks 6 and 8 (Barr, 1990).
- It is not known what percent of cases of homicide on the day of birth might have been stillbirths. However, the percentage is probably small because medical examiners usually will attribute a death to infanticide only if autopsy evidence indicates that respiration had occurred, no evidence indicates death from natural causes, and circumstantial evidence is consistent with homicide (Barr, 1990).

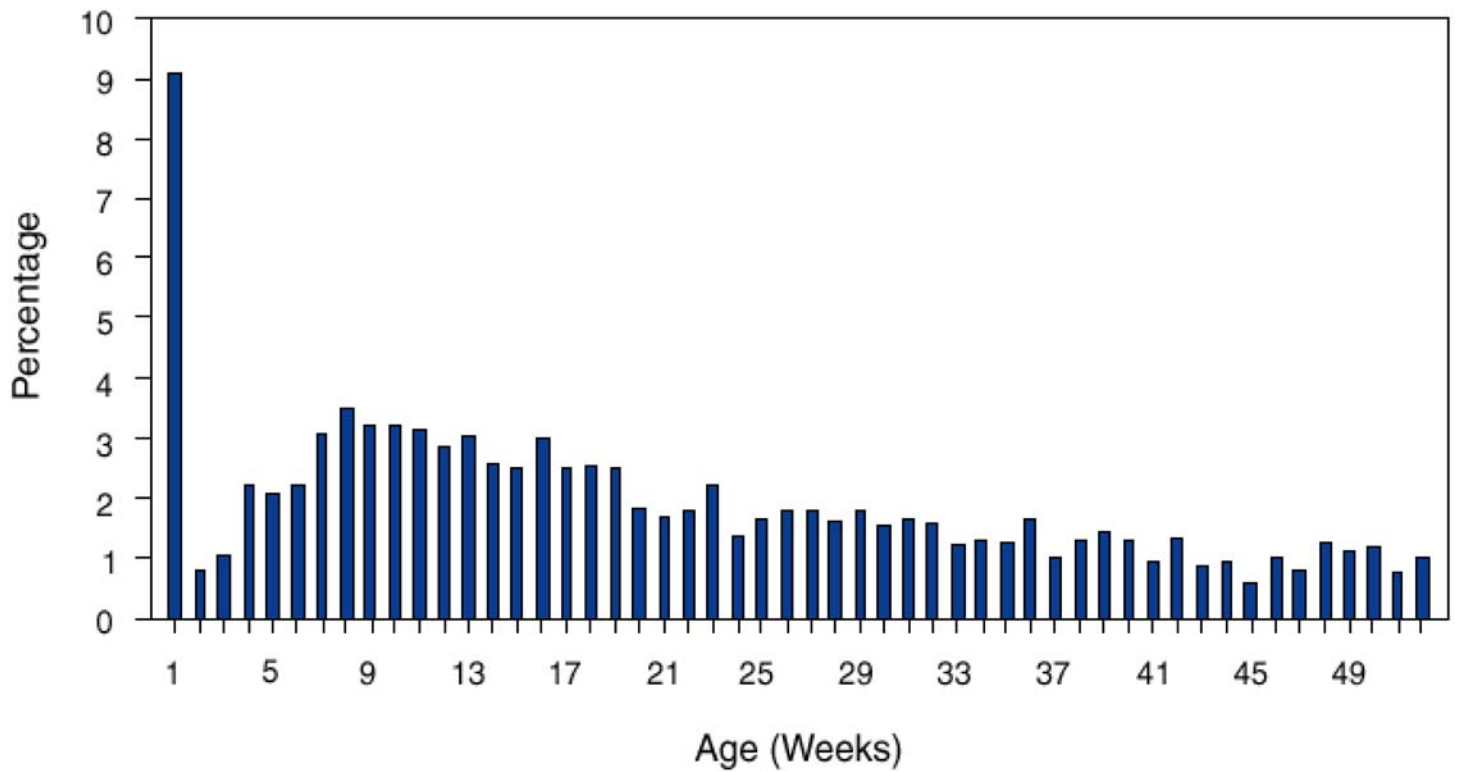
In Oklahoma, there were 51,157 births in 2004. In the same year, there were 51 deaths of children, of which 23 deaths were infants less than one year old (45.1% of all child abuse deaths). The deaths were attributed predominately to neglect of the child. The child abuse deaths in 2004 were numerically the highest in 27 years. No profile of the infants or the birth circumstances is available. The mother was the most frequently cited perpetrator.

## What are the implications?

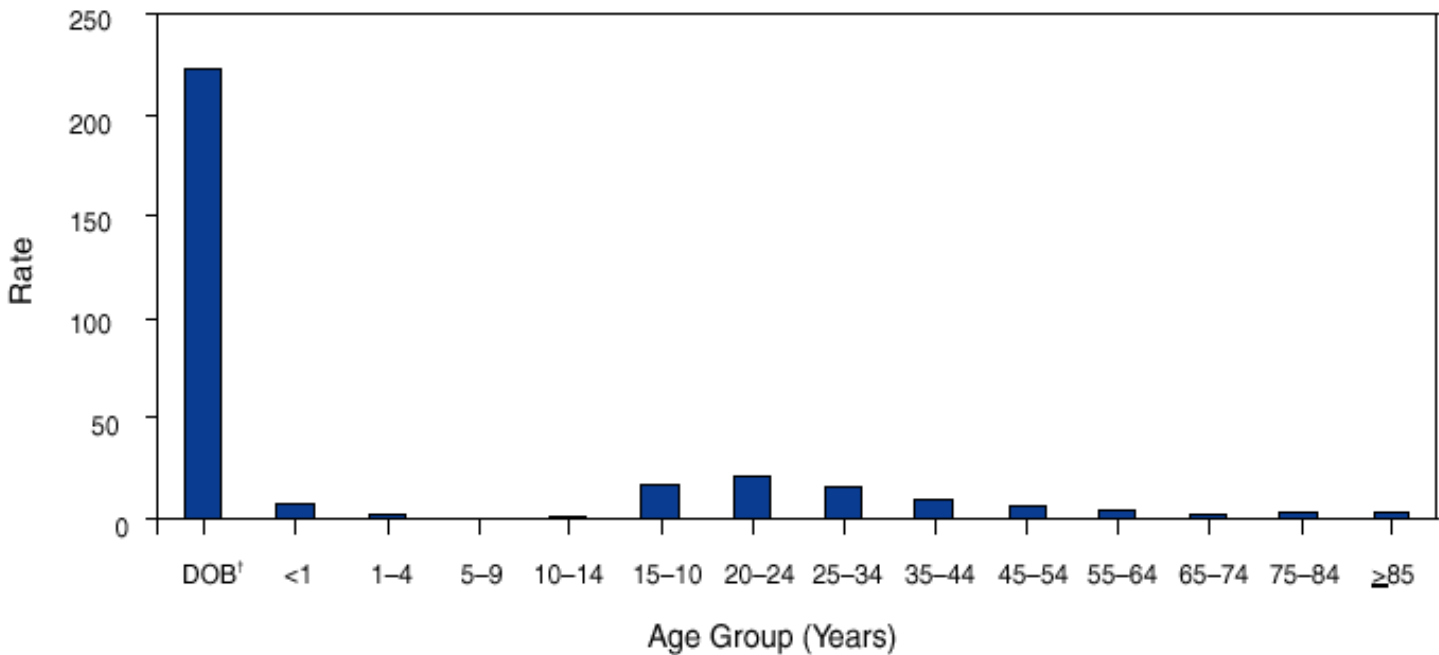
The findings highlight the high risk for homicide on the day of birth. Risk is comparatively small after the day of birth, even during the highest risk periods of adulthood. Among homicides on the first day of life, 95% of the victims are not born in a hospital. Among homicides later in infancy, 8% of infants are not born in a hospital. Among homicides during the first week of life, 89% of known perpetrators are female, usually the mother (Jason, 1983). Mothers who kill their infants are more likely to be adolescents and have a history of mental illness (Overpeck, 1998 and Resnick, 1969). The secondary peak in risk in week 8 might reflect the peak in the daily duration of crying among normal infants between weeks 6 and 8 (Barr, 1990).

Preventing out-of-hospital births among high-risk women might help reduce the number of homicides on the day of birth. Home visitation and parenting programs, especially those that begin during pregnancy, might help reduce child abuse during infancy by focusing on the weeks of greatest risk early in infancy (Sanders, 1999).

**FIGURE 1. Percentage of infant homicides, by week of age at death — United States, 1989–1998**



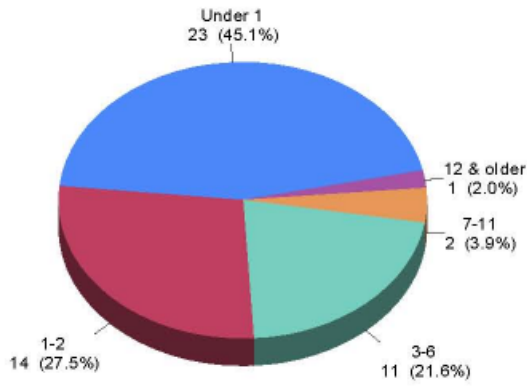
**FIGURE 2. Homicide rate,\* by age group — United States, 1989–1998**



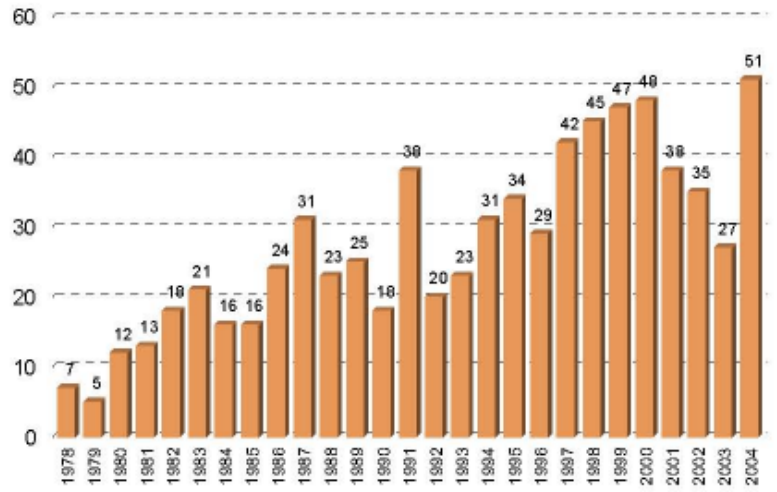
\* Per 100,000 person years.

† Day of birth.

**FIGURE 3: Percentage of infant homicides by the age of child, Oklahoma 2004**



**FIGURE 4. Child Abuse Deaths in Oklahoma 1978 to 2004**



**Census questions?**

**1-866-758-1060**

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