

Infant Mortality

DEFINITION

Infant mortality is the number of deaths of infants under one year of age per 1,000 live births. The data are reported by place of mother's residence, not place of infant's birth.

SIGNIFICANCE

The infant mortality rate is an important measure of the well-being of infants, children, and pregnant women. Infant mortality is associated with a variety of factors, including health status of women, quality of and access to medical care, socio-economic conditions, and public health practices.¹ Communities with multiple problems such as poverty, unemployment and illiteracy tend to have higher infant mortality rates than more advantaged communities.²

The two chief causes of infant death are low birthweight (particularly births at less than 500 grams) and prematurity.³ Other leading causes of infant death include congenital abnormalities and malformations, Sudden Infant Death Syndrome (SIDS), and unintentional injuries.⁴

The infant mortality rate in the U.S. has declined significantly in recent decades from 26.0 deaths per 1,000 births in 1960 to 6.9 deaths in 2003. Despite this decline, the U.S. ranks below many other industrialized nations.⁵ The poor ranking of the U.S.

is due in large part to disparities among various racial and ethnic groups, particularly African Americans. The rate of infant mortality among African Americans is more than twice the national average.⁶

Risk factors for infant mortality include poor preconception health status of the mother, delayed or no prenatal care, smoking during pregnancy, pregnancies involving more than one fetus, and maternal age over forty. Factors related to the poverty status of the mother are also associated with infant mortality, including being younger than age 20 at the time of birth, having low education levels, and being unmarried.⁷

The overall infant mortality rate in Rhode Island for 2002-2006 was 6.2 deaths per 1,000 births. The infant mortality rate was 65% higher in the core cities than the remainder of the state.⁸

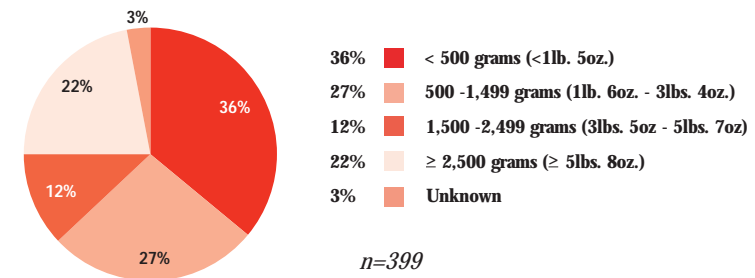
Infant Mortality Rate (rate per 1,000 live births)		
	2000	2004
RI	6.3	5.3
US	6.9	6.8
National Rank*		8th
New England Rank**		3rd

*1st is best; 50th is worst

**1st is best; 6th is worst

Source: *KIDS COUNT data book: State profiles in child well-being 2007*. (2007). Baltimore, MD: The Annie E. Casey Foundation.

Infant Mortality by Birthweight, Rhode Island, 2002-2006



Source: Rhode Island Department of Health, Division of Family Health, Maternal and Child Health Database, 2002-2006. Data for 2005-2006 are provisional.

- ◆ Between 2002-2006, 399 infants died before their first birthday. Of these, 75% of infants who died were low birthweight, 22% were born at a normal weight and 3% had an unknown birthweight.⁹
- ◆ Of the 399 infant deaths between 2002-2006 in Rhode Island, 299 (75%) occurred in the neonatal period (during the first 27 days of life).¹⁰ Neonatal mortality is generally related to short gestation and low birthweight (less than 2,500 grams), a malformation at birth and/or conditions occurring in the perinatal period.¹¹
- ◆ Twenty-five percent (100) of the 399 infant deaths in Rhode Island occurred in the post-neonatal period (between 28 days and one year after delivery).¹² Nationally, most of the progress in reducing the rate of infant mortality has resulted from better outcomes during the post-neonatal period.¹³
- ◆ In Rhode Island between 2002-2006, the Black infant mortality rate was 12.3 deaths per 1,000 births, the Asian infant mortality rate was 7.3, and the Native American infant mortality rate was 7.6. All minority groups had infant mortality rates greater than the rate for White infants (5.5 deaths per 1,000 births). The Hispanic infant mortality rate was 8.0 deaths per 1,000 births compared with 7.1 deaths per 1,000 births among non-Hispanics in Rhode Island.¹⁴
- ◆ Preterm births are a major determinant of infant mortality in the U.S. In Rhode Island between 2002-2006 there were 7,672 preterm births (12% of all births).¹⁵

Table 19. Infant Deaths, Rhode Island, 2002-2006

CITY/TOWN	# OF BIRTHS	# OF INFANT DEATHS	RATE/1000 BIRTHS
Barrington	774	2	2.6
Bristol	1,010	5	5.0
Burrillville	807	1	1.2
Central Falls	2,012	9	4.5
Charlestown	419	1	NA
Coventry	1,863	12	6.4
Cranston	4,427	25	5.6
Cumberland	1,862	4	2.1
East Greenwich	539	5	9.3
East Providence	2,589	14	5.4
Exeter	300	1	NA
Foster	222	2	NA
Glocester	423	4	NA
Hopkinton	445	1	NA
Jamestown	210	1	NA
Johnston	1,387	4	2.9
Lincoln	932	7	7.5
Little Compton	165	1	NA
Middletown	1,023	2	2.0
Narragansett	558	4	7.2
New Shoreham	59	0	NA
Newport	1,530	7	4.6
North Kingstown	1,388	11	7.9
North Providence	1,703	6	3.5
North Smithfield	485	5	NA
Pawtucket	5,616	37	6.6
Portsmouth	890	4	4.5
Providence	14,943	138	9.2
Richmond	501	2	4.0
Scituate	454	1	NA
Smithfield	743	3	4.0
South Kingstown	1,247	3	2.4
Tiverton	686	4	5.8
Warren	570	1	1.8
Warwick	4,337	21	4.8
West Greenwich	273	0	NA
West Warwick	2,002	15	7.5
Westerly	1,306	9	6.9
Woonsocket	3,233	27	8.4
<i>Unknown</i>	<i>1</i>	<i>0</i>	<i>NA</i>
<i>Core Cities</i>	<i>29,336</i>	<i>233</i>	<i>7.9</i>
<i>Remainder of State</i>	<i>34,597</i>	<i>166</i>	<i>4.8</i>
<i>Rhode Island</i>	<i>63,934</i>	<i>399</i>	<i>6.2</i>

Source of Data for Table/Methodology

Rhode Island Department of Health, Division of Family Health, Maternal and Child Health Database, 2002-2006. Data for 2005-2006 are provisional.

Core cities are Central Falls, Newport, Pawtucket, Providence, West Warwick and Woonsocket.

NA: Rates were not calculated for cities and towns with fewer than 500 births, as rates with small denominators are statistically unreliable.

The denominator is the total number of live births to Rhode Island residents between 2002-2006.

References

¹ Federal Interagency Forum on Child and Family Statistics. (2007). *America's children: Key national indicators of well-being 2007*. Washington, DC: Government Printing Office.

² *KIDS COUNT data book: State profiles in child well-being 2004*. (2004). Baltimore, MD: The Annie E. Casey Foundation.

^{3,13} Shore, R. (2005). *KIDS COUNT indicator brief: Reducing infant mortality*. Baltimore, MD: The Annie E. Casey Foundation.

^{4,5,11} Maternal and Child Health Bureau. (2006). *Child health USA 2006 data book*. Rockville, Maryland: U.S. Department of Health and Human Services.

⁶ *Eliminate disparities in infant mortality*. (2006). Atlanta, GA: Centers for Disease Control and Prevention. Retrieved January 20, 2007 from www.cdc.gov

⁷ Matthews, T., Menacker, F. & MacDorman, M. (2003). Infant mortality statistics from the 2001 period linked birth/infant death data set. *National vital statistics reports*, 52(2). Hyattsville, MD: Centers for Disease Control and Prevention.

^{8,9,10,12,14,15} Rhode Island Department of Health, Division of Family Health, Maternal and Child Health Database, 2002-2006. Data for 2005-2006 are provisional.