

Low Birthweight Infants

DEFINITION

Low birthweight infants is the percentage of infants born weighing less than 2,500 grams (5 pounds 8 ounces). The data are reported by place of mother's residence, not place of infant's birth.

SIGNIFICANCE

An infant's birthweight is a key indicator of newborn health. Infants born weighing less than 5 pounds 8 ounces are at greater risk for physical and developmental problems than infants at normal weights.¹ Increased risk of low birthweight is associated with maternal poverty, smoking and low levels of educational attainment.²

Low birthweight is often a result of a premature birth but can also occur after a full-term pregnancy. In 2005 in the U.S., 43% of all low birthweight infants had a premature birth (under 37 weeks gestation) while 3% had a full-term birth (37 to 41 weeks gestation) and 2.5% had a post-term birth (over 41 weeks gestation).³

Since 1984, the percentage of babies born at low birthweight has been steadily rising across the U.S. and is currently at the highest level recorded in the past three decades.⁴ A significant climb in the rate of multiple births has strongly influenced the increase in the percentage of low birthweight babies. The data show that low birthweights are

also on the increase among single infant deliveries.⁵

Children born with low birthweight have greater risk of long-term illness, long-term disability and death than infants of normal birthweight.⁶ Children born at very low birthweight (less than 1,500 grams or 3 pounds 4 ounces) are nearly 100 times more likely to die within the first year of life than infants born at normal birthweights.⁷ Those who survive are at significantly higher risk of severe problems, including physical and visual difficulties, developmental delays, and cognitive impairment.⁸ The number of births with moderately low birthweight (1,500 to 2,400 grams or 3 pounds 5 ounces to 5 pounds 8 ounces) has risen more than 20% since the mid 1980s.⁹ Low birthweight babies are at greater risk for long-term cognitive problems, poor school performance, special education needs, and are substantially less likely to complete high school.¹⁰

Low Birthweight Infants		
	1990	2005
RI	6.2%	7.8%
US	7.0%	8.2%
National Rank*		19th
New England Rank**		4th

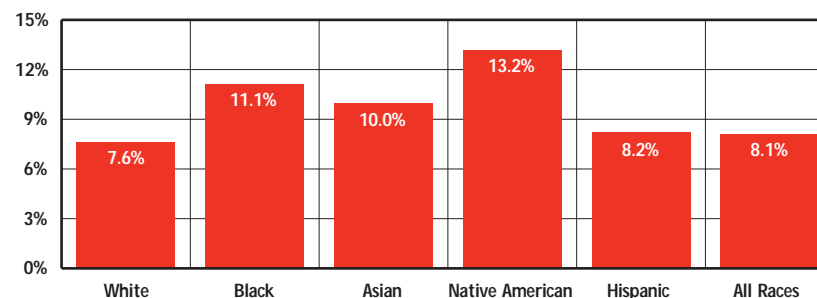
*1st is best; 50th is worst

**1st is best; 6th is worst

Source: Martin, J. A., Hamilton, B. E., Sutton, P. D., Ventura, S. J., Menacker, F., Kirmeyer, S. & Munson, M. L. (2007). Births: Final data for 2005. *National vital statistics reports*, 56(6).



Low Birthweight Infants by Race/Ethnicity, Rhode Island, 2002-2006



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

- ◆ Over the past decade, the percentage of low birthweight infants has increased in Rhode Island and in the U.S., with particular disparities existing by race and ethnicity.^{11,12} In Rhode Island between 2002-2006, 13.2% of Native American infants, 11.1% of Black infants, 10.0% of Asian infants, and 8.2% of Hispanic infants were born with low birthweight, compared to 7.6% of White infants.¹³
- ◆ Nationally and in Rhode Island, the rate of low birthweight infant births is higher for women under the age of 20. It is particularly high for girls who give birth under age 15.^{14,15} Between 2002 and 2006 in Rhode Island, the percentage of low birthweight infants born to mothers under age 20 was 10.2% compared to 7.9% for mothers ages 20 and above.¹⁶
- ◆ Rhode Island has the 4th highest rate of twin births in the U.S.¹⁷ Of the 5,177 babies born with low birthweights between 2002 and 2006 in Rhode Island, 1,423 (27%) were part of a twin, triplet or higher order birth.¹⁸
- ◆ In Rhode Island between 2002-2006, 2% (1,047) of infants born were very low birthweight (less than 1,500 grams).¹⁹

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Table 18. Low Birthweight Infants, Rhode Island, 2002-2006

CITY/TOWN	# BIRTHS	# LOW BIRTHWEIGHT	% LOW BIRTHWEIGHT
Barrington	774	37	4.8%
Bristol	1,010	54	5.3%
Burrillville	807	63	7.8%
Central Falls	2,012	122	6.1%
Charlestown	419	25	NA
Coventry	1,863	157	8.4%
Cranston	4,427	335	7.6%
Cumberland	1,862	152	8.2%
East Greenwich	539	48	8.9%
East Providence	2,589	245	9.5%
Exeter	300	21	NA
Foster	222	22	NA
Glocester	423	27	NA
Hopkinton	445	35	NA
Jamestown	210	10	NA
Johnston	1,387	104	7.5%
Lincoln	932	75	8.0%
Little Compton	165	16	NA
Middletown	1,023	70	6.8%
Narragansett	558	43	7.7%
New Shoreham	59	4	NA
Newport	1,530	112	7.3%
North Kingstown	1,388	91	6.6%
North Providence	1,703	140	8.2%
North Smithfield	485	37	NA
Pawtucket	5,616	488	8.7%
Portsmouth	890	57	6.4%
Providence	14,943	1,418	9.5%
Richmond	501	41	8.2%
Scituate	454	25	NA
Smithfield	743	41	5.5%
South Kingstown	1,247	70	5.6%
Tiverton	686	51	7.4%
Warren	570	43	7.5%
Warwick	4,337	335	7.7%
West Greenwich	273	17	NA
West Warwick	2,002	145	7.2%
Westerly	1,306	92	7.0%
Woonsocket	3,233	308	9.5%
Unknown	1	1	NA
Core Cities	29,336	2,593	8.8%
Remainder of State	34,597	2,583	7.5%
Rhode Island	63,934	5,177	8.1%

Source of Data for Table/Methodology

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

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

NA: Percentages were not calculated for cities and towns with less than 500 births, as percentages for small denominators are statistically unreliable.

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

References

- ¹ 2007 KIDS COUNT data book: State profiles of child well-being. (2007). Baltimore, MD: The Annie E. Casey Foundation.
- ² U.S. Department of Health and Human Services (2005). *Child health USA 2005 data book*. Rockville, MD: U.S. Department of Health and Human Services, Maternal and Child Health Bureau.
- ^{3,9,11,14,17} Martin, J. A., Hamilton, B. E., Sutton, P. D., Ventura, S. J., Menacker, F., Kirmeyer, S. & Munson, M. L. (2007). Births: Final data for 2005. *National vital statistics reports*, 5(6). Hyattsville, MD: Centers for Disease Control and Prevention.
- ^{4,5,7,8} U.S. Department of Health and Human Services. (2006). *Child health USA 2006 data book*. Rockville, MD: U.S. Department of Health and Human Services, Maternal and Child Health Bureau.
- ⁶ Federal Interagency Forum on Child and Family Statistics. (2007). *America's children: Key national indicators of well-being 2007*. Washington, DC: Government Printing Office.
- ¹⁰ Shore, R. (2005). *KIDS COUNT indicator brief: Preventing low birth weight*. Baltimore, MD: The Annie E. Casey Foundation.
- ^{12,13,15,16,18} Rhode Island Department of Health, Division of Family Health, Maternal and Child Health Database, 2002-2006. Data for 2006 are provisional. (Note: Hispanic infants can be of any race).