

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

Infant mortality rates are associated with maternal health, race and ethnicity, quality of and access to medical care, socioeconomic conditions, and public health practices and are highest in the South and Midwest.^{1,2}

In 2018, the five main causes of infant death in the U.S. – congenital malformations, low birthweight, maternal complications, sudden infant death syndrome (SIDS), and unintentional injuries – accounted for 56% of all infant deaths.³ While infant mortality has declined nationally across all racial and ethnic groups, disparities remain. Nationally in 2016, the non-Hispanic Black infant mortality rate was 11.4 deaths per 1,000 births, the American Indian/Alaska Native rate was 9.4, the Native Hawaiian or other Pacific Islander rate was 7.4, the Hispanic rate was 5.0, the non-Hispanic White rate was 4.9, and the Asian rate was 3.6.⁴

The U.S. infant mortality rate has declined from 26.0 deaths per 1,000 live births in 1960 to 5.8 deaths per 1,000 live births in 2017 due to

improvements in nutrition, medical advances, improved access to care, economic growth, and safer sleep practices.^{5,6,7} Relative to other industrialized countries, the U.S. has higher rates of infant mortality due in part to a relatively high number of preterm births that result in infant mortality.⁸

The overall infant mortality rate in Rhode Island between 2014 and 2018 was 5.2 deaths per 1,000 live births. The infant mortality rate was 6.9 per 1,000 live births in the four core cities, compared with 4.1 per 1,000 live births in the remainder of the state.⁹ Mothers with a high school degree or less had a higher infant mortality rate (5.3 per 1,000 live births) than mothers with higher educational attainment (3.2 per 1,000 live births) between 2014 and 2018.¹⁰

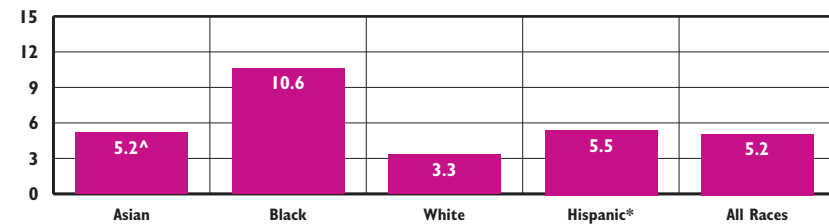
Infant Mortality Rate (rate per 1,000 live births)		
	2007	2017
RI	7.4	6.2
US	6.8	5.8
National Rank*	31st	
New England Rank**	6th	

*1st is best; 49th is worst

**1st is best; 5th is worst

Source: The Annie E. Casey Foundation, KIDS COUNT Data Center, datacenter.kidscount.org

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Infant Mortality Rate per 1,000 Live Births by Race/Ethnicity, Rhode Island, 2014-2018



Source: Rhode Island Department of Health, Center for Health Data and Analysis, Maternal and Child Health Database, 2014-2018. [^]The data are statistically unstable and should be interpreted with caution. *Hispanic infants can be of any race.

- ◆ **The Black infant mortality rate is the highest of any racial or ethnic group even after controlling for risk factors such as socioeconomic status and educational attainment. Structural racism as well as exposure to discrimination and racialized stress negatively impact birth outcomes for Black women and their babies.¹¹**
- ◆ **In Rhode Island between 2014 and 2018, the Black infant mortality rate was 10.6 deaths per 1,000 live births, which is over three times the White infant mortality rate of 3.3 deaths per 1,000 live births.¹²**
- ◆ **Between 2014 and 2018, 279 infants died in Rhode Island before their first birthday, a rate of 5.2 per 1,000 live births. Between 2014 and 2018, 72% of infants who died were low birthweight (less than 2,500 grams) and 24% were born at normal weights.¹³**
- ◆ **Preterm birth is the leading cause of infant death in Rhode Island.¹⁴ Between 2014 and 2018, 71% (197) of all infant deaths were preterm (born before the 37th week of pregnancy).¹⁵**
- ◆ **Of the 279 infant deaths between 2014 and 2018 in Rhode Island, 78% (219) occurred in the neonatal period (during the first 27 days of life).¹⁶ Generally, infant deaths in the neonatal period are related to short gestation and low birthweight (less than 2,500 grams), malformations at birth, and/or conditions occurring in the perinatal period.¹⁷ Between 2014 and 2018, 22% (60) of the 279 infant deaths in Rhode Island occurred in the post-neonatal period (between 28 days and one year after delivery).¹⁸**



Reducing Infant Mortality

◆ Comprehensive state initiatives to reduce infant mortality should improve access to critical services; improve the quality of care to pregnant women; address maternal and infant mental health; enhance supports for families before and after birth; and improve data collection and oversight.¹⁹

◆ Structural racism is at the root of disparities in maternal and infant mortality, resulting in dramatically higher rates of maternal and infant mortality among Black mothers and their babies. It is critical to acknowledge structural racism and work to identify and remove systemic barriers that keep Black mothers and their babies from receiving needed care. Strategies to reduce disparities in maternal and infant mortality include supporting Black women in navigating the health care system, increasing access to midwives and doulas, training providers to address racism with their patients, increasing diversity of the health care workforce, and dismantling barriers to maternal and infant mental health care.²⁰

◆ Participation in evidence-based family home visiting programs has been shown to reduce the risk of infant death.^{21,22} As of October 2019, there were 1,294 families enrolled in one of the evidence-based family home visiting programs coordinated by the Rhode Island Department of Health.²³

Table 21. Infant Mortality by City/Town, Rhode Island, 2014-2018

CITY/TOWN	# OF BIRTHS	# OF INFANT DEATHS	RATE PER 1,000 LIVE BIRTHS
Barrington	551	0	0.0
Bristol	681	0	0.0
Burrillville	660	0	0.0
Central Falls	1,598	10	*
Charlestown	257	3	*
Coventry	1,485	4	*
Cranston	3,889	16	4.1^
Cumberland	1,783	8	*
East Greenwich	520	4	*
East Providence	2,301	11	*
Exeter	242	0	0.0
Foster	176	0	0.0
Glocester	347	0	0.0
Hopkinton	282	4	*
Jamestown	119	0	0.0
Johnston	1,297	8	*
Lincoln	966	4	*
Little Compton	82	0	0.0
Middletown	850	4	*
Narragansett	286	1	*
New Shoreham	42	0	0.0
Newport	1,247	5	*
North Kingstown	1,113	1	*
North Providence	1,601	10	*
North Smithfield	404	3	*
Pawtucket	4,809	36	7.5
Portsmouth	654	3	*
Providence	12,406	89	7.2
Richmond	281	3	*
Scituate	410	3	*
Smithfield	691	1	*
South Kingstown	792	1	*
Tiverton	598	0	0.0
Warren	444	0	0.0
Warwick	3,814	15	3.9^
West Greenwich	235	0	0.0
West Warwick	1,710	6	*
Westerly	922	3	*
Woonsocket	2,808	14	5.0^
Unknown**	318	9	*
Four Core Cities	21,621	149	6.9
Remainder of State	32,050	130	4.1
Rhode Island	53,671	279	5.2

Source of Data for Table/Methodology

Rhode Island Department of Health, Center for Health Data and Analysis, Maternal and Child Health Database, 2014-2018.

The denominator is the total number of live births to residents between 2014 and 2018.

^ The data are statistically unstable and rates or percentages should be interpreted with caution.

* The data are statistically unreliable and rates are not reported and should not be calculated

** Unknown: Deaths were to Rhode Island residents, but specific city/town information was unavailable.

Core cities are Central Falls, Pawtucket, Providence, and Woonsocket.

References

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- ^{9,10,12,13,15,16,18} Rhode Island Department of Health, Center for Health Data and Analysis, Maternal and Child Health Database, 2014-2018.

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