

Preterm Births

DEFINITION

Preterm births is the percentage of births occurring before the 37th week of pregnancy. The data are reported by place of mother's residence, not place of infant's birth.

SIGNIFICANCE

Preterm birth is a major determinant of infant mortality and morbidity and is the leading cause of death among newborns during the first month of life in the U.S.^{1,2} Infants born before 37 weeks gestation are at higher risk than infants born full-term for neuro-developmental, respiratory, gastro-intestinal, immune system, central nervous system, hearing and vision problems.^{3,4} Infants born preterm have longer hospital stays than full-term infants. Nationally, newborns with no complications stay an average of 1.5 days in the hospital, compared with an average of 13 days for preterm infants.⁵ Children who were born preterm also experience learning difficulties, lower cognitive test scores and more behavioral problems later in life.⁶ Very preterm births (<32 weeks gestation) are at highest risk for death and life-long disability.⁷

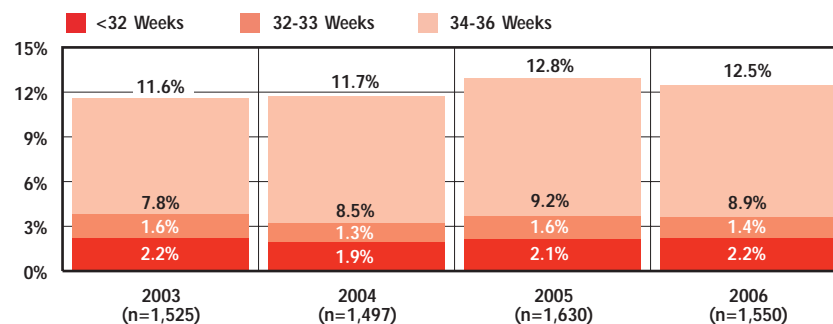
While the specific causes of spontaneous preterm births are largely unknown, research indicates that there are a number of inter-related risk factors involved. The three leading risk factors

are a history of preterm birth, current multifetal pregnancy and uterine and/or cervical abnormalities. Other risk factors include infections, diabetes, hypertension, late or no prenatal care and maternal use of tobacco, alcohol and other drugs.⁸ The rate of preterm births for Rhode Island women who smoke is higher than for those who do not. Between 2002 and 2006, 14.3% of births to smokers were preterm, compared with 11.6% of births to women who did not smoke during pregnancy.⁹

The overall rate of preterm births has been increasing in the U.S. and in Rhode Island for more than a decade.^{10,11} While preterm birth occurs in all racial and ethnic groups, nationally the rate is highest for non-Hispanic blacks.^{12,13} Low-income women also are at greater risk for pre-term births than higher-income women.¹⁴

Multiple birth infants are more likely to be born preterm than singletons. In Rhode Island between 2002 and 2006, 57.7% of multiple births were preterm, compared with 10.1% of singleton births.¹⁵ The rise in the preterm birth rate in the U.S. has been influenced by an increase in the number of multiple births (which tend to be born earlier than singletons), yet preterm births also have been rising among singletons.^{16,17}

Preterm Births by Gestational Age, Rhode Island, 2003-2006



Source: Rhode Island Department of Health, Division of Family Health, 2003-2006. Percentages by gestational age may not sum to total percentages of preterm births due to rounding.

- ◆ **In 2006, the preterm birth rate in Rhode Island was 12.5% and in the U.S. was 12.8%.^{18,19} Most of the increase in preterm births in the U.S. over the past decade was due to increases in late preterm births (34-36 weeks gestation).²⁰ Very preterm births (<32 weeks gestation) comprise approximately 2% of all births in the U.S. and Rhode Island.^{21,22} The percentage of infants born preterm in Rhode Island has increased from 11.6% in 2003 to 12.5% in 2006.²³**
- ◆ **More than 1 in 7 (15.0%) births among Black infants in Rhode Island from 2002-2006 were preterm, compared with 14.4% of Asian, 16.5% of Native American, and 11.4% of White births. During this time period, 13.2% of births to Hispanic women were preterm (Hispanic women can be of any race).²⁴**
- ◆ **Women under age 20 and over age 35 have the highest prematurity rates in Rhode Island. The rate of preterm births among women under age 20 from 2002-2006 was 13.5%. The preterm birth rate was 21.3% for 12-14 year olds, 15.4% for 15-17 year olds and 12.3% for 18-19 year olds. The preterm birth rate for women over 35 was 13.6% during this time period.²⁵**
- ◆ **Among women with private health insurance coverage in Rhode Island from 2002-2006, 11.2% of all births were premature, compared with 12.8% of those with public insurance (Rite Care or Medicaid) and 22.7% of those with no health insurance.²⁶**

Table 17.

Preterm Births, Rhode Island, 2002-2006

City/Town	# Births	# Preterm Births	% Preterm Births
Barrington	774	73	9.4%
Bristol	1,010	92	9.1%
Burr	807	81	10.0%
Central Falls	2,012	230	11.4%
Charlestown	419	38	NA
Coventry	1,863	222	11.9%
Cranston	4,427	517	11.7%
Cumberland	1,862	222	11.9%
East Greenwich	539	53	9.8%
East Providence	2,589	320	12.4%
Exeter	300	32	NA
Foster	222	29	NA
Glocester	423	53	NA
Hopkinton	445	60	NA
Jamestown	210	19	NA
Johnston	1,387	154	11.1%
Lincoln	932	112	12.0%
Lit. Compton	165	27	NA
Middletown	1,023	97	9.5%
Narragansett	558	59	10.6%
Newport	1,530	168	11.0%
New Shoreham	59	5	NA
North Kingstown	1,388	143	10.3%
North Providence	1,703	207	12.2%
North Smithfield	485	54	NA
Pawtucket	5,616	690	12.3%
Portsmouth	890	73	8.2%
Providence	14,943	2,093	14.0%
Richmond	501	55	11.0%
Scituate	454	49	NA
Smithfield	743	73	9.8%
South Kingstown	1,247	130	10.4%
Tiverton	686	73	10.6%
Warren	570	65	11.4%
Warwick	4,337	501	11.6%
West Greenwich	273	26	NA
West Warwick	2,002	215	10.7%
Westerly	1,306	122	9.3%
Woonsocket	3,233	432	13.4%
Unknown	1	8	NA
Core Cities	29,336	3,828	13.0%
Remainder of State	34,597	3,836	11.1%
Rhode Island	63,934	7,672	12.0%

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, because percentages with small denominators are statistically unreliable.

Preterm births are defined as live births that occurred before the 37th week of pregnancy.

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

References

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