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 in the U.S. Infants born before 37 weeks gestation are at higher risk than full-term infants for neurodevelopmental, respiratory, gastrointestinal, immune system, central nervous system, hearing, dental, and vision problems. Children who were born preterm may experience physical disabilities, learning difficulties, and behavioral problems later in life.[1,2,3]

While the specific causes of spontaneous preterm births are largely unknown, research indicates that there are a number of interrelated risk factors involved. The three leading risk factors are a history of preterm birth, pregnancy with multiples, and uterine and/or cervical abnormalities. Other risk factors include some health conditions and infections, weight, delayed or no prenatal care, stress, domestic violence, having pregnancies close together, and maternal use of tobacco, alcohol, or other drugs.[4,5]

Even "late preterm" infants (34-36 weeks gestation) can experience immediate and long-term complications. Infants born very preterm (<32 weeks gestation) are at highest risk for death, enduring health problems, more and longer hospitalizations, and increased health care costs later in life.[6,7] Preventive interventions can improve outcomes for preterm infants and their caregivers.[8,9]

The U.S. preterm birth rate declined between 2019 and 2020, from 10.23% to 10.09%. This is the first decline since 2014. The preterm birth rate varies by race/ethnicity, with non-Hispanic Black women (14.4%) continuing to have the highest preterm birth rate in the U.S. in 2020. Hispanic women had a preterm birth rate of 9.8% in 2020 and non-Hispanic white women had a rate of 9.1%. The rate decreased for each group between 2019 and 2020.[10,11] Nationally, racial and ethnic disparities affect the outcomes of preterm infants, with the preterm-related infant mortality rate for Black infants about three times the rate for white infants in 2013.[12]

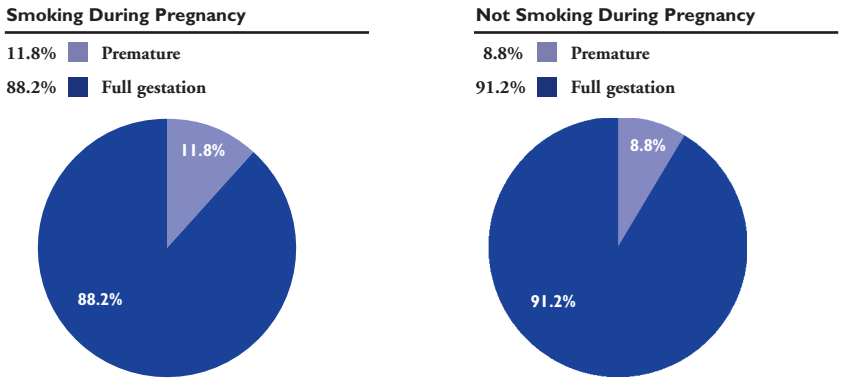
Preterm Births

	2010	2020
RI	10.8%	9.1%
US	12.0%	10.1%
National Rank*		*7th*
New England Rank**		*4th*

**1st is best; 50th is worst*
***1st is best; 6th is worst*

Source: For 2010: Martin, J. A., et al. (2012). Births: Final data for 2010. *NVSR, 61*(1), 1-19. For 2020: Martin, J. A., et al. (2022). Births: Final data for 2020. *NVSR, 70*(17), 1-19.

Preterm Births by Smoking Status, Rhode Island, 2016-2020



Source: Rhode Island Department of Health, Center for Health Data and Analysis, Maternal and Child Health Database, 2016-2020. *See note regarding new methodology for calculating preterm births, starting with the 2016 *Factbook*.

◆ **Between 2016 and 2020, 72.1% of all preterm births in Rhode Island were late preterm births (34-36 weeks gestation), and 16.3% of all preterm births were very preterm (<32 weeks gestation).[13]**

◆ **Multiple births are more likely to be born preterm. In Rhode Island between 2016 and 2020, 60.3% of multiple births were preterm, compared with 7.1% of singleton births.[14]**

◆ **Between 2016 and 2020, 13.1% of births of non-Hispanic Native American and 11.2% of births of Non-Hispanic Black infants in Rhode Island were preterm, compared with 8.1% of non-Hispanic Asian and 8.2% of non-Hispanic white infants. During this same time, 9.7% of births to Hispanic women in Rhode Island were preterm.[15]**

◆ **In Rhode Island between 2016 and 2020, 9.9% of births to women with a high school degree or less were preterm, compared with 8.4% of those with higher education levels.[16]**

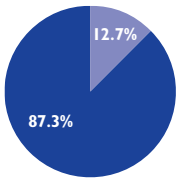
◆ **Social determinants of health, including poverty, racism, and access to care are important factors in preterm birth disparities.[17]**

◆ **"17P," a weekly injection given to mothers with a history of preterm birth and a current singleton pregnancy, can reduce the chance of recurrent preterm birth by 33%.[18]**

Preterm Births by Mother's Insurance Type, Rhode Island, 2016-2020

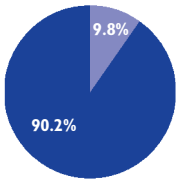
Uninsured

12.7% Preterm Births
87.3% Full-term Births



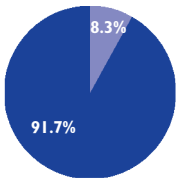
Public Insurance (RIte Care)

9.8% Preterm Births
90.2% Full-term Births



Private Insurance

8.3% Preterm Births
91.7% Full-term Births



Source: Rhode Island Department of Health, Center for Health Data and Analysis, Maternal and Child Health Database, 2016-2020.

Table 19. **Preterm Births, Rhode Island, 2016-2020**

CITY/TOWN	# BIRTHS	# PRETERM BIRTHS	% PRETERM BIRTHS
Barrington	549	40	7.3%
Bristol	681	58	8.5%
Burrillville	631	55	8.7%
Central Falls	1,561	168	10.8%
Charlestown	267	37	13.9%
Coventry	1,488	110	7.4%
Cranston	3,840	348	9.1%
Cumberland	1,713	123	7.2%
East Greenwich	543	47	8.7%
East Providence	2,256	172	7.6%
Exeter	243	22	9.1%
Foster	185	16	8.6%^
Glocester	344	23	6.7%
Hopkinton	330	22	6.7%^
Jamestown	124	8	*
Johnston	1,309	124	9.5%
Lincoln	898	78	8.7%
Little Compton	76	5	*
Middletown	794	63	7.9%
Narragansett	265	24	9.1%^
New Shoreham	34	5	*
Newport	1,174	89	7.6%
North Kingstown	1,085	96	8.8%
North Providence	1,540	144	9.4%
North Smithfield	471	40	8.5%
Pawtucket	4,594	449	9.8%
Portsmouth	660	45	6.8%
Providence	11,983	1179	9.8%
Richmond	295	29	9.8%
Scituate	430	35	8.1%
Smithfield	726	53	7.3%
South Kingstown	849	80	9.4%
Tiverton	563	46	8.2%
Warren	398	35	8.8%
Warwick	3,627	310	8.5%
West Greenwich	227	15	6.6%^
West Warwick	1,575	137	8.7%
Westerly	949	70	7.4%
Woonsocket	2,734	266	9.7%
Unknown	*157*	*12*	*
Four Core Cities	*20,872*	*2,062*	*9.9%*
Remainder of State	*31,296*	*2,616*	*8.4%*
Rhode Island	*52,168*	*4,678*	*9.0%*

Source of Data for Table/Methodology

Rhode Island Department of Health, Center for Health Data and Analysis, Maternal and Child Health Database, 2016-2020.

The denominator is the total number of live births to Rhode Island residents from 2016-2020.

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

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

Beginning in 2015, the federal Centers for Disease Control and Prevention and the Rhode Island Department of Health transitioned to a new standard for estimating the gestational age of the newborn. The new measure – the obstetric estimate of gestation at delivery (OE) – replaces the measure based on the date of the last normal menses (LMP).

The 2016-2020 five-year preterm birth percentage and the single year average are measured by OE. Because of this change, preterm birth data reported prior to the 2016 Factbook are not comparable. National preterm birth data use the OE measurement as of the 2007 data year at the time of publication of this Factbook.

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

References

[1] Centers for Disease Control and Prevention. (2019). *Preterm birth.* Retrieved February 24, 2022, from cdc.gov

[2,5,6] Mayo Clinic. (2017). *Premature birth.* Retrieved February 24, 2022, from mayoclinic.org

[3] Beauregard, J.L., et. al. (2018). Preterm birth, poverty, and cognitive development. *Pediatrics, 141*(1): e20170509.

[4] March of Dimes. (2018). *Preterm labor and premature birth: Are you at risk?* Retrieved February 24, 2022, from marchofdimes.org

[7] McCabe, E. R. B., Carrino, G. E., Russell, R. B., & Howse, J. L. (2014). Fighting for the next generation: U.S. prematurity in 2030. *Pediatrics, 134*(6), 1-7.

(continued on page 181)