

# Infants Born at Highest Risk

## DEFINITION

*Infants born at highest risk* is the percentage of babies born to Rhode Island women who were under age 20, unmarried and had fewer than 12 years of education.

## SIGNIFICANCE

Maternal marriage status, age and education level at birth influence the likelihood that a child will live in poverty and predict many developmental vulnerabilities. When a child is born to a teenage, unmarried mother who has not graduated from high school, he or she is nine times more likely to grow up in poverty than a child born to a married woman over age 20 with a high school diploma.<sup>1</sup>

Most children facing these three economic and social risk factors at birth continue to face great challenges throughout childhood. Teen mothers often have difficulty completing high school, are likely to remain unmarried and a majority will remain persistently low-income.<sup>2,3</sup> Children born to mothers under age 20 are more likely to suffer abuse and neglect and are less likely to be ready for school at kindergarten entry, to perform well in school and to complete high school themselves.<sup>4,5</sup>

Brain development proceeds rapidly during the infant and toddler years. By

age three, a child's brain has grown to 90% of its adult size and the foundation of many cognitive structures and systems are in place.<sup>6</sup> Healthy brain development depends on attentive, nurturing caregiving in infancy.<sup>7</sup> Research shows that there is a negative impact on brain development when young children do not have consistent, supportive relationships with caregivers and are exposed to "toxic stress" associated with extreme poverty, family chaos, chronic neglect and/or abuse, severe maternal depression, parental substance abuse and repeated exposure to violence at home or in their communities.<sup>8</sup>

Providing early and intensive support to families with multiple risk factors can help parents develop critical nurturing skills during the prenatal, infancy and toddler periods and improve child development outcomes.<sup>9</sup> Cost-benefit studies show that effective interventions for at-risk young children and their families can yield up to a \$17.00 return on every \$1.00 invested.<sup>10</sup> Economists and scientists agree that improving the social and cognitive environments of disadvantaged young children is the most cost-effective strategy for reducing child abuse and neglect, promoting school readiness and strengthening the future workforce.<sup>11</sup>

## Infants Born With Identified Risk Factors, Rhode Island, 2010

	# OF BIRTHS	# BORN AT RISK*	# BORN AT HIGHEST RISK**
Central Falls	349	314 (90%)	21 (6%)
Newport	266	169 (64%)	11 (4%)
Pawtucket	934	675 (72%)	55 (6%)
Providence	2,680	2,089 (78%)	191 (7%)
West Warwick	372	236 (63%)	18 (5%)
Woonsocket	556	424 (76%)	57 (10%)
Core Cities	5,157	3,907 (76%)	353 (7%)
Remainder of State	5,682	2,937 (52%)	115 (2%)
Rhode Island	10,839	6,844 (63%)	468 (4%)

\* Births that are identified as "risk positive" by the Rhode Island Department of Health's Newborn Risk Assessment Program. These numbers cannot be compared to data in previous Factbooks. See note on page 15.

\*\* Births to mothers who were under age 20, single and without a high school diploma.

Source: Rhode Island Department of Health, KIDSNET Database, 2010.

◆ There are three important social and economic risk factors present at birth that, when combined, strongly predict childhood poverty and poor education outcomes – having a mother who is under age 20, unmarried and without a high school diploma.<sup>12</sup> Studies show that effective interventions targeting this population can improve child and family outcomes and yield a strong return on investment.<sup>13</sup> In 2010 in Rhode Island, 468 (4%) babies were born to unmarried teen mothers without high school diplomas.<sup>14</sup>

## Nurse-Family Partnership

◆ The Nurse-Family Partnership (NFP) program is an evidence-based home visiting model that has been replicated in 28 states. Nurses conduct a series of home visits with low-income, first-time mothers, starting during pregnancy and continuing through the child's second birthday.<sup>15</sup>

◆ NFP focuses on improving pregnancy outcomes, parenting skills, child development and the mother's self-sufficiency. The program has demonstrated numerous positive benefits for children and families, including reduced child abuse and neglect, fewer pre-term deliveries, fewer subsequent births, longer duration between births, lower rates of criminal behavior of mothers, and improved child language skills and academic achievement.<sup>16</sup>

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Table 4.

## Infants Born at Highest Risk, Rhode Island, 2010

CITY/TOWN	TOTAL # OF BIRTHS	BIRTHS TO MOTHERS WITHOUT A HIGH SCHOOL DIPLOMA	BIRTHS TO SINGLE MOTHERS	BIRTHS TO MOTHERS YOUNGER THAN AGE 20	BIRTHS TO MOTHERS WITH ALL 3 RISK FACTORS	% OF BIRTHS WITH ALL 3 RISK FACTORS
Barrington	101	1	14	4	0	0%
Bristol	178	10	63	8	2	1%
Burrillville	114	5	40	3	1	1%
Central Falls	349	125	264	54	21	6%
Charlestown	51	1	17	2	0	0%
Coventry	277	17	77	8	4	1%
Cranston	796	75	310	52	24	3%
Cumberland	294	11	78	15	4	1%
East Greenwich	94	2	21	4	2	2%
East Providence	516	42	207	33	13	3%
Exeter	64	7	20	4	3	5%
Foster	23	1	5	1	1	4%
Glocester	59	3	17	3	0	0%
Hopkinton	85	4	26	2	1	1%
Jamestown	17	1	5	1	1	6%
Johnston	234	22	93	16	7	3%
Lincoln	164	11	48	6	4	2%
Little Compton	15	0	3	0	0	0%
Middletown	158	9	52	5	3	2%
Narragansett	79	4	27	3	2	3%
New Shoreham	14	1	2	0	0	0%
Newport	266	36	131	22	11	4%
North Kingstown	204	8	67	7	1	0%
North Providence	289	16	118	14	5	2%
North Smithfield	79	3	25	2	1	1%
Pawtucket	934	189	572	90	55	6%
Portsmouth	120	1	27	3	1	1%
Providence	2,680	714	1,678	328	191	7%
Richmond	75	4	15	1	1	1%
Scituate	48	1	12	2	1	2%
Smithfield	113	0	21	2	0	0%
South Kingstown	185	12	58	5	4	2%
Tiverton	85	4	30	6	2	2%
Warren	91	10	33	6	4	4%
Warwick	803	60	260	34	14	2%
West Greenwich	54	2	10	1	0	0%
West Warwick	372	64	180	35	18	5%
Westerly	203	17	86	15	9	4%
Woonsocket	556	136	362	88	57	10%
<i>Core Cities</i>	<i>5,157</i>	<i>1,264</i>	<i>3,187</i>	<i>617</i>	<i>353</i>	<i>7%</i>
<i>Remainder of State</i>	<i>5,682</i>	<i>365</i>	<i>1,887</i>	<i>268</i>	<i>115</i>	<i>2%</i>
<i>Rhode Island</i>	<i>10,839</i>	<i>1,629</i>	<i>5,074</i>	<i>885</i>	<i>468</i>	<i>4%</i>

### Source of Data for Table/Methodology

The Rhode Island Department of Health, KIDSNET Database, 2010. This table shows the number and percentage of all births with three risk factors that place a child at very high risk for poor developmental outcomes.

Note for chart on page 14: "Risk positive" births are infants born with *any one of the following risk factors*: developmental disabilities and certain other established conditions, birth weights less than 1500 grams (3.3 lbs), neonatal intensive care hospitalization greater than 48 hours, or mother is Hepatitis B surface antigen positive; **Or** infants born with *any two of the following risk factors*: caregiver's education less than 11th grade, mother's age less than 19, mother's age greater than 37, single caregiver, mother's number of live births greater than 5, no previous live birth to mother, parental characteristic indicating vulnerability (e.g. chronic illness), inadequate prenatal care, low birth weight for gestational age, low Apgar scores at birth, or low-income family (indicated by use of Medicaid/Rite Care health insurance).

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

### References

- <sup>1,3,12</sup> *Linking teen pregnancy prevention to other critical social issues.* (2008). Washington, DC: The National Campaign to Prevent Teen Pregnancy.
- <sup>2</sup> *Teen pregnancy, poverty, and income disparity.* (2008). Washington, DC: The National Campaign to Prevent Teen Pregnancy.
- <sup>4</sup> Terry-Humen, E., Manlove, J. & Moore, K. A. (2005). *Playing catch up: How children born to teen mothers fare.* Washington, DC: The National Campaign to Prevent Teen Pregnancy.
- <sup>5</sup> *Teen pregnancy and overall child well-being.* (2008). Washington, DC: The National Campaign to Prevent Teen Pregnancy.
- <sup>6</sup> Perry, B. D. (2001). *Bonding and attachment in maltreated children: Consequences of emotional neglect in childhood.* Houston, TX: The Child Trauma Academy.
- <sup>7</sup> Perry, B. D. (2002). Childhood experience and the expression of genetic potential: What childhood neglect tells us about nature and nurture. *Brain and Mind*, 3, 79-100.

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