

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.¹

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.^{2,3} 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.^{4,5}

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.⁶ Healthy brain development depends on attentive, nurturing caregiving in infancy.⁷ 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.⁸

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.⁹ 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.¹⁰ 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.¹¹

Infants Born With Identified Risk Factors, Rhode Island, 2009

| | # OF BIRTHS | # BORN AT RISK* | # BORN AT HIGHEST RISK** |
|--------------------|-------------|-----------------|--------------------------|
| Central Falls | 354 | 343 (97%) | 34 (10%) |
| Newport | 277 | 237 (86%) | 18 (6%) |
| Pawtucket | 1,005 | 907 (90%) | 72 (7%) |
| Providence | 2,718 | 2,524 (93%) | 244 (9%) |
| West Warwick | 404 | 355 (88%) | 15 (4%) |
| Woonsocket | 616 | 571 (93%) | 63 (10%) |
| Core Cities | 5,374 | 4,937 (92%) | 446 (8%) |
| Remainder of State | 5,740 | 4,497 (78%) | 132 (2%) |
| Rhode Island | 11,115 | 9,435 (85%) | 578 (5%) |

* Births with at least one risk factor identified by the Rhode Island Department of Health's Newborn Risk Assessment Program. See note on page 15.

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

Source: Rhode Island Department of Health, KIDSNET Database, 2009.

◆ 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 degree.¹² Studies show that effective interventions targeting this population can improve child and family outcomes and yield a strong return on investment.¹³ In 2009 in Rhode Island, 578 (5%) babies were born to unmarried teen mothers without high school diplomas.¹⁴

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.¹⁵

◆ 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.¹⁶

Table 4.

Infants Born at Highest Risk, Rhode Island, 2009

| CITY/TOWN | TOTAL # OF BIRTHS | BIRTHS TO MOTHERS WITHOUT A HIGH SCHOOL DEGREE | 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 | 95 | 1 | 14 | 1 | 1 | 1% |
| Bristol | 159 | 9 | 55 | 7 | 2 | 1% |
| Burrillville | 137 | 15 | 57 | 13 | 6 | 4% |
| Central Falls | 354 | 125 | 263 | 61 | 34 | 10% |
| Charlestown | 59 | 1 | 18 | 5 | 1 | 2% |
| Coventry | 298 | 24 | 96 | 20 | 12 | 4% |
| Cranston | 755 | 73 | 304 | 48 | 21 | 3% |
| Cumberland | 273 | 18 | 71 | 10 | 5 | 2% |
| East Greenwich | 89 | 1 | 13 | 3 | 1 | 1% |
| East Providence | 521 | 44 | 218 | 43 | 14 | 3% |
| Exeter | 46 | 2 | 11 | 2 | 0 | 0% |
| Foster | 28 | 2 | 7 | 0 | 0 | 0% |
| Glocester | 82 | 5 | 21 | 2 | 0 | 0% |
| Hopkinton | 74 | 5 | 32 | 6 | 2 | 3% |
| Jamestown | 24 | 0 | 0 | 0 | 0 | 0% |
| Johnston | 269 | 20 | 94 | 15 | 6 | 2% |
| Lincoln | 195 | 12 | 64 | 7 | 5 | 3% |
| Little Compton | 14 | 1 | 2 | 0 | 0 | 0% |
| Middletown | 169 | 10 | 51 | 12 | 6 | 4% |
| Narragansett | 89 | 2 | 29 | 2 | 0 | 0% |
| New Shoreham | 8 | 2 | 2 | 1 | 0 | 0% |
| Newport | 277 | 35 | 110 | 28 | 18 | 6% |
| North Kingstown | 200 | 5 | 60 | 11 | 3 | 2% |
| North Providence | 297 | 30 | 122 | 27 | 15 | 5% |
| North Smithfield | 88 | 4 | 21 | 1 | 1 | 1% |
| Pawtucket | 1,005 | 211 | 602 | 119 | 72 | 7% |
| Portsmouth | 113 | 0 | 15 | 0 | 0 | 0% |
| Providence | 2,718 | 812 | 1,760 | 399 | 244 | 9% |
| Richmond | 76 | 5 | 17 | 4 | 3 | 4% |
| Scituate | 62 | 1 | 13 | 1 | 0 | 0% |
| Smithfield | 129 | 1 | 20 | 2 | 1 | 1% |
| South Kingstown | 192 | 7 | 54 | 9 | 3 | 2% |
| Tiverton | 78 | 4 | 23 | 2 | 1 | 1% |
| Warren | 93 | 10 | 35 | 8 | 2 | 2% |
| Warwick | 769 | 49 | 242 | 36 | 16 | 2% |
| West Greenwich | 47 | 1 | 9 | 1 | 0 | 0% |
| West Warwick | 404 | 49 | 209 | 32 | 15 | 4% |
| Westerly | 212 | 19 | 90 | 13 | 5 | 2% |
| Woonsocket | 616 | 149 | 403 | 98 | 63 | 10% |
| Unknown | 1 | NA | NA | NA | NA | NA |
| Core Cities | 5,374 | 1,381 | 3,347 | 737 | 446 | 8% |
| Remainder of State | 5,740 | 383 | 1,880 | 312 | 132 | 2% |
| Rhode Island | 11,115 | 1,764 | 5,227 | 1,049 | 578 | 5% |

Source of Data for Table/Methodology

The Rhode Island Department of Health, KIDSNET Database, 2009. Unknown refers to infants born to mothers whose residence was not recorded. This table shows the number and percentage of all births in Rhode Island to Rhode Island residents with the three risk factors that place a child at very high risk for poor developmental outcomes.

Note: The Rhode Island Department of Health screens all infants born in the state to identify risks for poor developmental outcomes, including: developmental disabilities, low birth weight, medical fragility, inadequate prenatal care, low Apgar scores at birth, low maternal education, young maternal age, advanced maternal age, single mother, first time mother, mother who has given birth more than five times, parental characteristics indicating vulnerability (e.g., chronic illness), and low income (indicated by use of Medicaid/RIte Care health insurance). Data on all births with any of these risk factors are presented in the chart on the previous page.

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

References

- ^{1,5,12} *Linking teen pregnancy prevention to other critical social issues.* (2008). Washington, DC: The National Campaign to Prevent Teen Pregnancy.
- ² *Teen pregnancy, poverty, and income disparity.* (2008). Washington, DC: National Campaign to Prevent Teen Pregnancy.
- ⁴ 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.
- ⁵ *Teen pregnancy and overall child well being.* (2008). Washington, DC: National Campaign to Prevent Teen Pregnancy.
- ⁶ Perry, B. D. (2001). *Bonding and attachment in maltreated children: Consequences of emotional neglect in childhood.* Houston, TX: The Child Trauma Academy.
- ⁷ 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.

(continued on page 160)