

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 have great 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, 2008

	# OF BIRTHS	# BORN AT RISK*	# BORN AT HIGHEST RISK**
Central Falls	396	382	37 (9%)
Newport	269	226	8 (3%)
Pawtucket	1,021	921	75 (7%)
Providence	2,900	2,704	257 (9%)
West Warwick	376	302	20 (5%)
Woonsocket	624	566	50 (8%)
Core Cities	5,586	5,101	447 (8%)
Remainder of State	6,071	4,687	160 (3%)
Rhode Island	11,668	9,788	607 (5%)

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

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

Source: Rhode Island Department of Health, KIDSNET Database, 2008.

◆ 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 2008 in Rhode Island, 607 (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 23 states. Nurses conduct a series of home visits to low-income, first-time mothers, starting during pregnancy and continuing through the child's second birthday. The model has operating costs of approximately \$4,500 per family per year based on experiences in other states.¹⁵

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

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Table 4.

Infants Born at Highest Risk, Rhode Island, 2008

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	111	2	17	3	1	1%
Bristol	149	7	47	6	2	1%
Burrillville	133	4	43	4	1	1%
Central Falls	396	143	300	60	37	9%
Charlestown	59	1	15	1	0	0%
Coventry	313	29	95	25	11	4%
Cranston	835	71	282	48	26	3%
Cumberland	290	13	71	13	5	2%
East Greenwich	112	2	22	1	0	0%
East Providence	506	60	199	38	21	4%
Exeter	52	4	18	3	0	0%
Foster	44	1	9	0	0	0%
Glocester	66	4	18	4	3	5%
Hopkinton	90	8	35	6	3	3%
Jamestown	24	0	2	0	0	0%
Johnston	296	24	107	21	5	2%
Lincoln	163	9	40	6	4	2%
Little Compton	23	0	9	1	0	0%
Middletown	185	10	45	7	3	2%
Narragansett	76	4	14	2	0	0%
New Shoreham	13	0	3	0	0	0%
Newport	269	28	114	21	8	3%
North Kingstown	231	17	65	15	6	3%
North Providence	335	24	139	18	7	2%
North Smithfield	68	4	16	2	0	0%
Pawtucket	1,021	224	642	131	75	7%
Portsmouth	117	2	20	0	0	0%
Providence	2,900	879	1,945	456	257	9%
Richmond	86	9	29	13	9	10%
Scituate	59	0	11	0	0	0%
Smithfield	122	3	32	4	0	0%
South Kingstown	215	13	63	11	8	4%
Tiverton	69	5	17	3	1	1%
Warren	88	9	37	4	4	5%
Warwick	810	72	266	64	36	4%
West Greenwich	51	3	11	3	1	2%
West Warwick	376	52	161	33	20	5%
Westerly	280	21	103	15	3	1%
Woonsocket	624	171	405	92	50	8%
Unknown	11	1	5	2	0	NA
Core Cities	5,586	1,497	3,567	793	447	8%
Remainder of State	6,071	435	1,900	341	160	3%
Rhode Island	11,668	1,933	5,472	1,136	607	5%

Source of Data for Table/Methodology

The Rhode Island Department of Health, KIDSNET Database, 2008. Unknown refers to infants born to mothers whose residence was not recorded. 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: 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

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- 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.
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- 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.

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