



**North Carolina**

**2008**



**2008**

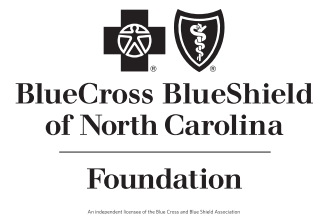
**Child Health Report Card**

A circular photograph of four diverse children smiling and looking towards the camera is centered within the text. The text "North Carolina" is at the top, "2008" is on the left and right sides, and "Child Health Report Card" is at the bottom, all in a bold, red, sans-serif font.

**WITH FINANCIAL SUPPORT FROM:**

**Annie E. Casey Foundation**

**North Carolina Department of Health and Human Services**



## Access to Care and Preventive Health

Access to preventive and primary care is critical to assuring the health of our children. The data indicate that enrollment in public insurance programs has grown dramatically and that enrolled children are receiving preventive care. However, it is alarming to note that the uninsured rate for children increased by 12.9 percent between 2002 and 2007, largely because North Carolina has experienced one of the largest decreases of employer-based coverage in the nation. The North Carolina General Assembly has approved an expansion of children's health insurance, called N.C. Kids' Care, but this program cannot be implemented without an increase in federal matching funds, which the current federal administration has not made available. Providing more children with health insurance coverage will serve to further improve the health outcomes of children and, in turn, the health of their communities.

North Carolina's investments in prevention and early intervention have been exemplary. Public insurance enrollment is high, immunization rates are encouraging, the early intervention system for young children with special needs has received national acclaim, exposure to lead continues to diminish and serious chronic illnesses such as asthma are being identified earlier and managed more successfully. Access to dental care has improved somewhat but continues to be a major problem that warrants serious attention.

Health Indicator	Current Year	Benchmark Year	% Change	Grade	Trend
<b>Insurance Coverage</b>	<b>2007</b>	<b>2002</b>			
% of all children (age 0-17) uninsured	13.1%	11.6%	12.9%	<b>D</b>	Worse
Number of children (age 0-18) covered by public health insurance (Medicaid or Health Choice)	889,642	664,734	33.8%	<b>B</b>	Better
% of Medicaid-enrolled children (age 0-18) receiving preventive care	76.9%	72.5%	6.1%	<b>B</b>	Better
<b>Breastfeeding<sup>1</sup></b>	<b>2005</b>	<b>2000</b>			
% ever breastfed	66.2%	66.5%	-0.5%	<b>C</b>	No change
% breastfed at six months	37.5%	29.3%	28.0%	<b>C</b>	Better
<b>Immunization Rates<sup>2</sup></b>	<b>2007</b>	<b>2002</b>			
% of children with appropriate immunizations:					
At age 2	77.3%	69.7%	10.9%	<b>A</b>	Better
At school entry	96.7%	99.4%	-2.7%	<b>A</b>	No Change
<b>Early Intervention</b>	<b>2007</b>	<b>2002</b>			
Number of children (age 0-3) enrolled in early intervention services to reduce effects of developmental delay, emotional disturbance and/or chronic illness	15,048	10,264	46.6%	<b>B</b>	Better
<b>Environmental Health</b>	<b>2007</b>	<b>2002</b>			
Lead <sup>3</sup> : % of children (age 12-36 months):					
Screened for elevated blood lead levels	44.9%	36.2%	24.0%	<b>C</b>	Better
Found to have elevated blood lead levels	0.6%	1.9%	-68.4%	<b>B</b>	Better
Asthma <sup>4</sup> :					
% of children diagnosed	15.7%	-	n/a	<b>D</b>	n/a
Hospital discharges per 100,000 children (age 0-14)	<b>2006</b> 152.8	<b>2001</b> 203.0	-24.7%	<b>B</b>	Better
<b>Dental Health</b>	<b>2007</b>	<b>2002</b>			
% of children:					
With untreated tooth decay (kindergarten)	19.0%	24.0%	-20.8%	<b>D</b>	Better
With one or more sealants (grade 5)	42.0%	37.0%	13.5%	<b>C</b>	Better
% of Medicaid-eligible children:					
Age 1-5 who use dental services	42.6%	16.6%	156.6%	<b>C</b>	Better
Age 6-14 who use dental services	49.3%	37.2%	32.5%	<b>C</b>	Better
Age 15-20 who use dental services	34.3%	25.5%	34.5%	<b>D</b>	Better

## Health Risk Behaviors

Children's health behaviors and risk-taking (sexual activity, poor nutrition, physical inactivity, substance use, violence, etc.) are determined by a variety of factors. Governments, foundations, communities, schools, and adults all play important roles in supporting healthy behaviors among children. Implementing evidence-based programs and policies increases the impact of financial and resource investments and can improve child health outcomes.

Since 2002, there have been some improvements worth noting. The national decline in teen pregnancy rates (for girls age 15-17) continues to be experienced in North Carolina, although the wide racial disparity in the rates is of particular concern. The continued drop in congenital syphilis and the near elimination of perinatal transmission of HIV/AIDS are true public health success stories.

While there have been successes, there are also some areas of serious concern. In particular, the high percentages of overweight children and tobacco, alcohol and substance use among adolescents are troubling. Due to investments in evidence-based programs and policies as well as media outreach led by the N.C. Department of Health and Human Services and the N.C. Health and Wellness Trust Fund, the state has seen large declines in youth tobacco use. The lessons learned from these efforts are helping to shape similar multi-faceted interventions to address the issue of overweight children in North Carolina.

Health Indicator	Current Year	Benchmark Year	% Change	Grade	Trend
<b>Teen Pregnancy</b>	<b>2007</b>	<b>2002</b>			
Number of pregnancies per 1,000 girls (age 15-17):					
All	34.8	38.3	-9.1%	<b>C</b>	Better
White	27.7	30.8	-10.1%	<b>C</b>	Better
All Other Races	47.3	54.2	-12.7%	<b>D</b>	Better
<b>Communicable Diseases</b>	<b>2007</b>	<b>2002</b>			
Number of newly-reported cases:					
Congenital Syphilis at birth	7	16	-	<b>B</b>	-
Perinatal HIV/AIDS at birth	1	3	-	<b>A</b>	-
Tuberculosis (age 0-19)	41	42	-	<b>C</b>	-
<b>Overweight<sup>5</sup></b>	<b>2007</b>	<b>2002</b>			
% of low-income children who are overweight:					
Age 2-4	15.3%	13.5%	13.3%	<b>D</b>	Worse
Age 5-11	24.9%	21.1%	18.0%	<b>F</b>	Worse
Age 12-18	29.9%	26.3%	13.7%	<b>F</b>	Worse
<b>Physical Activity</b>	<b>2007</b>	<b>2005</b>			
% of students (grades 9-12) who were physically active for a total of 60 minutes or more per day on five or more of the past seven days	44.3%	45.9%	n/a	<b>D</b>	n/a
<b>Alcohol, Tobacco &amp; Substance Abuse</b>	<b>2007</b>	<b>2003</b>			
% of students (grades 9-12) who used the following in the past 30 days:					
Cigarettes	19.0%	27.3%	-30.4%	<b>D</b>	Better
Smokeless Tobacco	8.6%	9.5%	-9.5%	<b>C</b>	Better
Marijuana	19.1%	24.3%	-21.4%	<b>D</b>	Better
Alcohol (including beer)	37.7%	39.4%	-4.3%	<b>F</b>	No Change
Cocaine (lifetime)	7.0%	8.4%	-16.7%	<b>F</b>	No Change
Methamphetamines (lifetime)	4.7%	6.6%	-28.8%	<b>D</b>	No Change

## Death and Injury

After dropping in 2006 to the lowest rate ever recorded in North Carolina, the infant death rate increased slightly in 2007. While this important indicator has dropped by a remarkable 25 percent in the past two decades, the rate has been relatively stagnant in recent years, and North Carolina still ranks poorly among all states. The N.C. Department of Health and Human Services, the N.C. Child Fatality Task Force, the March of Dimes, and other agencies are jointly providing increased attention to prematurity and low birthweight, which have been serious, relatively intractable components of infant mortality. The persistently wide racial disparity is cause for grave concern, meriting increased attention.

Similarly, the overall child death rate rose slightly in 2007 after dropping to its lowest level in 2006. This rate has dropped by almost 30 percent in the past two decades, helped largely by the passage of numerous child safety laws during this period. Injuries are the leading cause of death in children. The N.C. Child Fatality Task Force, as well as state and local review teams, continues to explore ways to prevent child deaths. Increases in homicides and firearm-related deaths command increased attention.

In an attempt to deal with child abuse and neglect more effectively, all 100 counties now participate in the Multiple Response System. Since this has changed many data definitions, trend data on assessments and substantiations are not available. However, the recurrence of maltreatment continues to decline, which is encouraging. Child abuse homicide is perhaps the most tragic of all indicators. In 2007, 25 children who were murdered died at the hands of a parent or caregiver.

Health Indicator	Current Year	Benchmark Year	% Change	Grade	Trend
<b>Infant Mortality</b>	<b>2007</b>	<b>2002</b>			
Number of infant deaths per 1,000 live births:					
All	8.5	8.2	3.7%	<b>B</b>	No Change
White	6.3	5.9	6.8%	<b>B</b>	Worse
All Other Races	13.9	14.2	-2.1%	<b>D</b>	No Change
<b>Low Birthweight Infants</b>	<b>2007</b>	<b>2002</b>			
% of infants born weighing 5 lbs., 8 ozs. (2,500 grams) or less:					
All	9.2%	8.9%	3.4%	<b>D</b>	No Change
White	7.5%	7.4%	1.4%	<b>D</b>	No Change
All Other Races	13.8%	13.3%	3.8%	<b>F</b>	No Change
<b>Child Fatality</b>	<b>2007</b>	<b>2002</b>			
Number of deaths (age 0-17) per 100,000					
	75.1	73.8	1.8%	<b>B</b>	No Change
<b>Deaths Due to Injury</b>	<b>2007</b>	<b>2002</b>			
Number of deaths (age 0-17):					
Motor vehicle-related	142	174	-	<b>C</b>	-
Drowning	26	23	-	<b>C</b>	-
Fire/Burn	24	23	-	<b>C</b>	-
Bicycle	4	5	-	<b>B</b>	-
Suicide	26	19	-	<b>D</b>	-
Homicide	61	43	-	<b>F</b>	-
Firearm	52	32	-	<b>F</b>	-
<b>Child Abuse and Neglect (Including Deaths)</b>	<b>2007</b>	<b>2002</b>			
Number of children:					
Receiving assessments for abuse and neglect	121,521	-	n/a	-	n/a
Substantiated as victims of abuse and neglect	14,475	-	n/a	-	n/a
Found in need of services	13,193	-	n/a	-	n/a
% of children experiencing recurrence of maltreatment within six months	4.09%	7.95%	-49%	<b>B</b>	Better
Confirmed child deaths due to abuse	25	26	-	<b>F</b>	-

**T**he purpose of the *North Carolina Child Health Report Card* is to heighten awareness — among policymakers, practitioners, the media and the general public — of the health of children and youth across our state. All of the leading child health indicators are summarized in this one easy-to-read document. This is the 14th annual *Report Card*, and we hope it will once again encourage everyone concerned about young North Carolinians to see the big picture and rededicate their efforts to improving the health and safety of the children whose lives they affect.

Statewide data are presented for the most current year available (usually 2007) with a comparative year (usually 2002) as a benchmark. Unless otherwise noted, data are presented for calendar years. The specific indicators were chosen not only because they are important, but also because data are available. In time, we hope expanded data systems will begin to produce more comprehensive data that will allow the “picture” of child health and safety to expand. To facilitate review, the indicators have been grouped into three broad categories — Access to Care and Preventive Health, Health Risk Behaviors, and Death and Injury. However, it should be recognized that virtually all of the indicators are interrelated.

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**“Don’t worry that children never listen to you; worry that they are always watching you.”  
— Robert Fulghum**

There are 2.2 million children (age 0-17) in North Carolina, more than ever before. Approximately 20 percent continue to live in poverty. This represents a growing challenge to adults — in the home, in the community, and collectively through government — who are responsible for protecting children from harm and providing opportunities for healthy growth. The data in this *Report Card* serve as indicators of how North Carolina is collectively discharging these responsibilities.

The data provide reason for celebration, tempered by both caution and concern. For the majority of the indicators, the trend is toward improvement, and for several — the immunization rate; the lead poisoning rate; the number of children with access to early intervention services — the data are truly encouraging. For other indicators — the uninsured rate; infant and child death rates; the breastfeeding initiation rate — the data indicate possible stagnation, and this warrants caution. Finally, the data for some indicators — child abuse homicide; access to dental care; overweight children; the use of alcohol, tobacco and illegal substances — reflect unacceptable risks to children and youth, and should be cause for grave concern. When data are available, they indicate that racial disparities remain disturbingly wide.

While North Carolina still has a long way to go, it is heartening that all of the indicators in the *Report Card* are being addressed. Through new safety statutes, additional legislative appropriations, and innovative programs introduced by state and local agencies, North Carolina continues to invest in its children.

Action for Children North Carolina and the North Carolina Institute of Medicine are pleased to support this effort through the production of study reports and participation in evidence-based decision-making. The North Carolina Institute of Medicine has sponsored task force studies on access to care, adolescent health, prevention and many others.

Children are 20 percent of our population, but they are 100 percent of our future. They will soon be our leaders, our producers and our consumers. Now is the time for adults — both collectively and individually — to make the investments that will assure a bright future for our state.

## **Grades and Trends**

Grades are assigned to bring attention to the current status of each indicator of child health and safety. Grades are assigned by a group of health experts from the sponsoring organizations. “**A**” indicates that the current status is “very good”; “**B**” is “satisfactory”; “**C**” is “mediocre”; “**D**” is “unsatisfactory”; “**F**” is “very poor.”

Data trends are described as “Better,” “Worse” or “No Change.” Indicators with trends described as “Better” or “Worse” experienced a change of more than 5 percent between the given data points. A percentage change of 5 percent or less between the two years of data is described as “No Change.” Percent change and trends have not been given for population count data. Due to data limitations, only the indicators for alcohol and drug use have been tested for statistical significance. Grades and trends are based on North Carolina’s performance year-to-year and what level of child health and safety North Carolina should aspire to, regardless of how we compare nationally.

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Tom Vitaglione, Alexandra Forter Sirota and Angella Bellota from Action for Children North Carolina and Mark Holmes, Berkeley Yorkery, Jennifer Hastings and David Jones from the North Carolina Institute of Medicine led the development of this publication, with valuable contributions from many staff members of the North Carolina Department of Health and Human Services.

This project was supported by the Annie E. Casey Foundation’s KIDS COUNT project, the North Carolina Department of Health and Human Services, the Blue Cross and Blue Shield of North Carolina Foundation and Novo Nordisk. Action for Children and the North Carolina Institute of Medicine thank them for their support but acknowledge that the findings and conclusions do not necessarily reflect the opinions of financial supporters.

## Data Sources

### Access to Care and Preventive Health

*Uninsured*: Annual Social and Economic Supplement, Current Population Survey, U.S. Census Bureau and Bureau of Labor Statistics; *Public Health Insurance*: Special data request to the Division of Medical Assistance, N.C. Department of Health and Human Services, August 2008; *Medicaid-Enrolled Preventive Care*: Calculated using data from the Division of Medical Assistance, N.C. DHHS, "Health Check Participation Data." Available online at: <http://www.dhhs.state.nc.us/dma/healthcheck.htm>; *Breastfeeding*: Centers for Disease Control and Prevention. "Breastfeeding Practices—Results from the National Immunization Survey." Available online at: [http://www.cdc.gov/breastfeeding/data/NIS\\_data/index.htm](http://www.cdc.gov/breastfeeding/data/NIS_data/index.htm); *Immunization Rates and Early Intervention*: Data for 2-year-olds from the Centers for Disease Control and Prevention, National Immunization Survey, Available online at: <http://www.cdc.gov/vaccines/stats-surv/imz-coverage.htm#nis>. Kindergarten data are from a special data request to the Women and Children's Health Section, Division of Public Health, N.C. DHHS, August 2008; *Lead*: Special data request to the Childhood Lead Poisoning Prevention Program, N.C. Department of Environment and Natural Resources, August 2008; *Asthma Diagnosed*: State Center for Health Statistics, N.C. DHHS Child Health Assessment and Monitoring Program. Available online at: <http://www.schs.state.nc.us/SCHS/champ/2007/topics.html>; *Asthma Hospitalizations*: State Center for Health Statistics, N.C. DHHS. County Health Data Book. Available online at: <http://www.schs.state.nc.us/SCHS/data/databook/>; *Dental Health*: Special data request to the Oral Health Section, Division of Public Health and Division of Medical Assistance, N.C. DHHS, August 2008.

### Health Risk Behaviors

*Teen Pregnancy*: State Center for Health Statistics, N.C. DHHS, "North Carolina Reported Pregnancies." Available online at: <http://www.schs.state.nc.us/SCHS/data/county.cfm>; *Communicable Diseases*: Special data request to the HIV/STD Section and Epidemiology Section, Division of Public Health, N.C. DHHS, August 2008; *Overweight*: 2007 NC-NPASS Data. "Proportion of Overweight (BMI  $\geq$ 95th Percentile) Children by Age, Race and Gender, NC-NPASS\* 2007." Available online at: <http://www.eatsmartmovemorenc.com/data/index.html>; *Tobacco Use*: N.C. Tobacco Prevention and Control Branch, N.C. DHHS, N.C. Youth Tobacco Survey. Available online at: <http://www.tobaccopreventionandcontrol.ncdhhs.gov/data/index.htm>; *Physical Activity, Alcohol and Substance Abuse*: 2007 Youth Risk Behavior Survey, North Carolina High School Survey, detailed tables. Available online at: <http://www.nchealthyschools.org/data/>.

### Death and Injury

*Infant Mortality*: State Center for Health Statistics, N.C. DHHS, "North Carolina Infant Mortality Report." Available online at: <http://www.schs.state.nc.us/SCHS/deaths/ims/2007/>; *Low Birth-Weight Infants*: State Center for Health Statistics, N.C. DHHS, "Infant Mortality Report, Table 10: Risk Factors and Characteristics for North Carolina Resident Live Births." Available online at: <http://www.schs.state.nc.us/SCHS/deaths/ims/2007/>; *Child Fatality and Deaths Due to Injury*: Women's and Children's Health Section, Division of Public Health, N.C. DHHS, and the State Center for Health Statistics. "Child Deaths in North Carolina." <http://www.schs.state.nc.us/SCHS/data/vitalstats.cfm>; *Child Abuse and Neglect*: Special data request to the Division of Social Services, N.C. DHHS, October 2008; *Recurrence of Maltreatment*: Duncan, D.F., Kum, H.C., Flair, K.A., Stewart, C.J., Weigensberg, E.C. (2008). N.C. Child Welfare Program. Retrieved 8/4/08, from University of North Carolina at Chapel Hill Jordan Institute for Families website. Available online at: <http://ssw.unc.edu/cwl/>; *Child Abuse Homicide*: information was obtained from the N.C. Child Fatality Prevention Team (Office of the Chief Medical Examiner) for this report. However, the analysis, conclusions, opinions and statements expressed by the author and the agency that funded this report are not necessarily those of the CFPT or OCME.

## Data Notes

- Breastfeeding** has been introduced as an indicator because evidence is growing that breastfeeding decreases the incidence and severity of childhood infectious diseases and is also associated with decreases in the occurrence of Sudden Infant Death Syndrome (SIDS). The N.C. Department of Health and Human Services has adopted a Blueprint for Action to promote breastfeeding statewide. The Department is collaborating with the N.C. Child Fatality Task Force and the Carolina Breastfeeding Institute to improve this indicator.
- Immunization** measured for 2-year-olds is the 4:3:1:3:3:1 series, the current CDC immunization recommendation, which includes four or more doses of DtaP/DTP/DTd, three or more doses of polio virus vaccine, one or more doses of any measles-mumps-rubella vaccine, three or more doses of Haemophilus influenzae type b (Hib) vaccine, three or more doses of hepatitis B vaccine, and one or more doses of varicella. In previous years of this *Report Card*, the 2-year-old immunization series measured a different immunization series. The Kindergarten data measure the percentage of children meeting the N.C. School Immunization Requirements. More information on the immunization requirements is available online at: <http://immunizenc.com/parentschoolreqs.htm>.
- Elevated Blood Lead Level** is defined as 10 micrograms per deciliter or greater. The 2007 percentage of 0.6 percent is the lowest ever reported in North Carolina, largely due to awareness campaigns and the continued reduction in exposure to products containing lead, and lead paint in particular.
- Asthma** remains the leading chronic illness among our children and is also one of the leading health reasons for school absence. The continued, dramatic decline in the hospital discharge rate reflects the success of the Community Care of North Carolina initiative in educating primary care providers and families in the management of the illness.
- Overweight** is conservatively defined as a body mass index equal to or greater than the 95th percentile using federal guidelines. The children represented in these data are those who receive services in local health departments or school health centers and are primarily low-income. They may not be representative of the state as a whole. These data send an important signal that must be heeded.

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