

NORTH CAROLINA INSTITUTE OF MEDICINE

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IN COLLABORATION WITH:

Women's and Children's Health Section,
North Carolina Department of Health and Human Services

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The purpose of the North Carolina Child Health Report Card is to heighten awareness of the health of our children by summarizing in one brief document data on important child health indicators. This sixth annual Report Card is produced to assist health administrators, legislators, and family advocates in their efforts to improve the health and safety of children statewide.

Data are presented for the most current year available and a comparative year (usually 1994) as a benchmark. Unless otherwise noted, data are presented for calendar years. Indicators are included not only because they are important, but also because there are data available. Hopefully, expanded data systems will begin to produce accurate data that would allow the "picture" of child health and safety to expand as well.

At the turn of the millenium, this Report Card presents the proverbial glass that is both half-full and half-empty. Most of the indicators show progress during the late nineties, and for many the progress is remarkable. For several - including infant and child death rates, uninsured rates, the teen pregnancy rate, the immunization rate, the percent of young children screened for lead, and the number of young children receiving early intervention services - the data are the best ever reported. However, in every case they indicate that we still have a long way to go. Other indicators - including child abuse and neglect, asthma, obesity in low-income children, and the use of alcohol, tobacco and illegal substances - remain extremely worrisome.

It is no coincidence that in the areas of greatest investment by the NC General Assembly, the Administration, and communities statewide, the greatest progress has been made on specific indicators. It provides both a hope and a challenge to all North Carolinians that progress can be made on all indicators when the societal will, the political influence, and the fiscal resources of our state are brought to bear on the challenges to the health and safety of our children.

Grades

Grades are based either on the percentage change in an indicator's current data in relation to the same indicator in a prior year, or on a general consensus among the sponsoring organizations. Generally, the following guidelines were used: A = 25% or greater improvement or current status remains "very good"; B = 11-25% improvement or current status remains "satisfactory"; C = no significant change (between 11% improvement and 11% decline) or current status remains "mediocre"; D = 11-25% decline or current status remains "unsatisfactory"; F = 25% or greater decline or current status remains "very poor". In general, pluses (+) and minuses (-) indicate where a grade falls at the threshold between two letter grades.

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Health Indicator	Current Year	Benchmark Year	Δ	Grade
Insurance Coverage¹	1999	1997		
Health Choice enrollment	56,850	0	n/a	<i>A</i>
Medicaid enrollment	498,224	491,286	+ 1.4%	<i>C</i>
% of children (0-18) in target group uninsured	14.5	15.7	- 7.6%	<i>B+</i>
% of all children (0-18) uninsured	11.5	11.8	- 2.5%	<i>B</i>
Medicaid Preventive Care²	1999	1994		
% of Medicaid-enrolled children (age 0-18) receiving preventive care:	68.1	51.2	+ 33%	<i>A-</i>
Infant Mortality³	1999	1994		
# of infant deaths per 1000 live births:				
All	9.1	10.0	- 9.0%	<i>C</i>
White	6.8	7.5	- 9.3%	<i>B</i>
Non-white	14.8	15.6	- 5.1%	<i>D</i>
Low Birth-Weight Infants⁴	1999	1994		
% of infants born weighing 5.5 lbs or less:				
All	8.9	8.7	+ 2.3%	<i>C-</i>
White	7.2	6.8	+ 5.9%	<i>C-</i>
Non-white	13.1	13.2	- 0.8%	<i>D</i>
Prenatal Care⁵	1999	1994		
% of mothers receiving prenatal care during first trimester:				
All	84.5	81.6	+ 3.6%	<i>B+</i>
White	87.9	87.0	+ 1.0%	<i>B+</i>
Non-white	75.9	69.0	+ 10.0%	<i>B</i>
Immunization Rates⁶	1999	1991		
% of children with appropriate immunizations:				
At age 2	84	64.9	+ 29.4%	<i>A-</i>
At school entry	99	98	+ 1.0%	<i>A</i>
Communicable Diseases⁷	1999	1994		
# of newly reported cases (age 0-19):				
Congenital Syphilis	21	57	- 63.2%	<i>A</i>
AIDS	11	8	+ 37.5%	<i>C</i>
Tuberculosis	25	34	- 26.5%	<i>B</i>

Health Indicator	Current Year	Benchmark Year	Δ	Grade
Vaccine-Preventable Communicable Disease⁸	1999	1994		
# of cases (age 0-18):				
Measles	0	3	- 300%	<i>A</i>
Mumps	3	73	- 95.9%	<i>A</i>
Rubella	5	0	+ 500%	<i>C</i>
Diphtheria	0	0	0%	<i>A</i>
Pertussis	76	140	- 45.7%	<i>A</i>
Tetanus	0	0	0%	<i>A</i>
Polio	0	0	0%	<i>A</i>
Environmental Health⁹	1999	1994		
Lead: % of children (age 12-36 months):				
Screened for elevated blood lead levels	30.4	21.9	+ 38.8%	<i>C</i>
Found to have elevated blood lead levels	2.3	7.0	- 67.1%	<i>A</i>
Asthma: Hospital discharges per 100,000 children (age 0-14)	1999	1995		
All	262.2	287.9	- 8.9%	<i>C</i>
White	110.4	149.1	- 26.0%	<i>C</i>
Non-white	327.2	412.2	- 20.6%	<i>D</i>
Dental Health¹⁰	FY 99-00	1994		
% of children:				
With one or more sealants (Grade 5)	34	23	+ 47.8%	<i>B+</i>
With fluoridated water systems	89	78	+ 14.1%	<i>A</i>
% of Medicaid-eligible children	1999	1998		
Ages 1-5 who used dental services	26	12	+ 116.7%	<i>C-</i>
Ages 6-14 who used dental services	55	27	+ 103.7%	<i>C</i>
Ages 15-20 who used dental services	44	19	+ 131.6%	<i>C</i>
Early Intervention¹¹	1998	1994		
# of children (age 0-3) enrolled in early intervention services to reduce effects of developmental delay, emotional disturbance and/or chronic illness	8,350	6,104	+ 36.8%	<i>A</i>
Child Abuse & Neglect¹²	FY 98-99	FY 94-95		
# of: Reports investigated	63,200	58,683	+ 8.0%	<i>D</i>
Substantiated reports	19,912	17,722	+ 12.4%	<i>D</i>
Reported victims of child abuse & neglect	127,930	95,677	+ 33.7%	<i>F</i>
Substantiated victims of child abuse & neglect	37,326	29,749	+ 25.5%	<i>F</i>
	1999	1994		
Confirmed child deaths due to abuse	21	30	- 30%	<i>D</i>

Health Indicator	Current Year	Benchmark Year	Δ	Grade
Child Fatality¹³	1999	1994		
# of deaths (age 0-18) per 100,000 children	86.7	97.9	- 11.4%	<i>B</i>
Deaths Due to Injury¹⁴	1999	1994		
# of deaths (age 0-18)				
Motor Vehicle-related	154	191	- 19.4%	<i>B</i>
Drowning	33	26	+ 26.9%	<i>D</i>
Fire/Burn	13	39	- 66.7%	<i>A-</i>
Bicycle	12	8	+ 50.0%	<i>C-</i>
Suicide	33	33	0%	<i>C-</i>
Homicide	54	66	- 18.2%	<i>D</i>
Firearm	50	72	- 30.6%	<i>D</i>
Alcohol, Tobacco & Substance Abuse¹⁵	1997	1993		
% (Grades 9-12) who used the following in the past 30 days:				
Cigarettes	35.8	29.3	+ 22%	<i>D</i>
Smokeless Tobacco	7.4	11.1	- 33%	<i>C</i>
Marijuana	24.9	14.8	+ 68%	<i>F</i>
Alcohol (beer)	42.7	43.7	- 2.0%	<i>D</i>
Cocaine	3.0	2.2	+ 36%	<i>F</i>
Physical Fitness	1997	1993		
% (Grades 9-12) who exercised at least 20 minutes a day, at least 3 days in the past week	55.3	59.1	- 6.0%	<i>C</i>
Obesity¹⁶	1999	1995		
% of low-income children who are overweight:				
Age 2-4	12.3	9.8	+ 25.5%	<i>D</i>
Age 5-11	17.8	14.3	+ 24.5%	<i>D</i>
Age 12-18	22.5	21.5	+ 4.7%	<i>D</i>
Teen Pregnancy¹⁷	1999	1994		
# of pregnancies per 1,000 girls (age 15-17):				
All	49.4	69.1	- 28.5%	<i>B+</i>
White	38.2	50.7	- 24.7%	<i>B+</i>
Non-white	74.2	111.7	- 33.6%	<i>B-</i>

Notes

1. Insurance Coverage. NC's new children's health insurance program, NC Health Choice for Children, was implemented in October, 1998, and a statewide outreach effort was begun to enroll children both on Health Choice or Medicaid. An analysis conducted by the NC Institute of Medicine after a little more than a year of implementation indicated that almost 57,000 children had already been enrolled on Health Choice, and Medicaid enrollment had increased by more than 7,000 children. (This latter figure is misleading, for the outreach effort had led to the enrollment of an additional 30,000 children on Medicaid, but 23,000 had lost Medicaid during this period when their families lost welfare cash assistance.) Current reports indicate that enrollment in both programs continues to grow, and NC's efforts in this regard have received national acclaim. The analysis indicates that the uninsured rate for the target group (those under 200% of the federal poverty guidelines) decreased by 7.6% in the short period of time measured. This was particularly timely, for the uninsured rate for children between 200%-300% fpl rose by 9.5 % in this same period. Thus, without Health Choice and the outreach efforts, the uninsured rate for the target group would have risen dramatically (as it has in other states) instead of decreasing. In addition, the uninsured rate for all children would have increased markedly, instead of the small decrease actually experienced in NC.

2. Medicaid Preventive Care. The percentage of Medicaid-enrolled children receiving preventive care increased by 33% between 1994 and 1999. This significant increase can be attributed to the Carolina Access Program, which links enrolled children with primary care providers, and to the outreach efforts of the Health Check Initiative (EPSDT). The increase is even more remarkable because Medicaid enrollment increased significantly during this period due to expanded access provided by the NC General Assembly and ensuing outreach efforts. These outreach efforts have now been combined with those for NC Health Choice for Children to produce a single, efficient awareness campaign for all publicly-sponsored health insurance in NC.

3. Infant Mortality. The 1999 infant mortality rate of 9.1 is the lowest ever recorded in NC, representing a 9% reduction since 1994 and a remarkable 25% reduction in the past decade. The rate has been relatively stable in the past few years, and it is hoped that a new downward trend has begun. While the disparity between white and non-white rates has narrowed somewhat, the large difference between these rates is a continuing cause for concern.

4. Low Birth-Weight Infants. Low birth-weight is often associated with increased risk for infant mortality and developmental concerns. The percent of infants born weighing 5.5 lbs. or less has not decreased in the past five years and remains an intractable problem of serious concern.

5. Prenatal Care. Infants whose mothers seek prenatal care in the first trimester (first 13 weeks) of pregnancy are less likely to be low birth-weight and are less likely to die soon after birth. In recent years this indicator has been increasing steadily, with most of the progress among non-white women. Much of this good news is attributable to increased access through Medicaid, as well as the awareness efforts of the Minority Infant Mortality Reduction Initiative.

6. Immunization Rates. The 29% increase in the immunization rate (at age 2) is directly attributable to a decision by the NC General Assembly to make vaccines available to children at low or no cost, and to a statewide immunization initiative that enjoys the participation of primary care providers statewide. Though the rate has remained steady for the past several years, NC is one of the national leaders with regard to this indicator.

7. Communicable Disease. The number of newly-reported cases of congenital syphilis, AIDS and tuberculosis fluctuate year-to-year. Though the reductions in congenital syphilis and tuberculosis and the absence of a significant increase in AIDS are encouraging, the incidence of these communicable diseases in children remains disappointingly high.

8. Vaccine-Preventable Communicable Disease. These diseases are no longer the childhood afflictions they used to be due to the discovery of vaccines, the expanded availability of vaccines, and the vigilance described in Note 6. Measles, diphtheria, tetanus and polio have virtually been eliminated. Since 1994, cases of mumps and pertussis have been markedly reduced. However, surveillance and persistence are still required. These efforts were instrumental in containing the rubella outbreak of 1999 to just 5 children.

9. Environmental Health. The percent of children ages 12-36 months screened for blood lead has increased by a remarkable 38% since 1994,

largely due to an awareness initiative and the participation of private physicians and local health departments. However, only 30% of children are screened, a disappointingly low percentage given the adverse effects of elevated blood lead levels (defined as 10 micrograms per deciliter) on child development. Conversely, the percent of screened children who are found to have elevated blood lead levels has declined a dramatic 67% since 1994. This is largely due to successful public awareness campaigns and the continued reduction in exposure to products containing lead.

As indicated in the hospital discharge data, asthma is a serious concern for far too many children in NC. The disparity between white and non-white rates is extremely wide. In addition, for the past two years school nurses have reported in the School Health Services Survey that asthma is the number one chronic disease among school-age children and is a leading cause of school absences. A growing statewide initiative is attempting to address this major problem.

10. Dental Health. Data for preventive dentistry, which show steady gains, are from the 1999-2000 Oral Health Survey conducted by the Dental Health Section. Awareness efforts regarding the effectiveness of sealants (and now fluoride varnish for young children) continue to be enhanced. Access to dental care for Medicaid-enrolled children increased dramatically in the past year. This increase is due to greater participation in Medicaid by dentists as a response to collaborative recruitment/outreach efforts by the Medicaid Program and the NC Dental Society.

11. Early Intervention. Program caseloads continue to increase (a dramatic 36% increase since 1994), and NC's collaborative early intervention services system continues to receive national acclaim. Despite these impressive enrollment numbers, program administrators estimate that as little as 50% of the target population is being served. Efforts to strengthen and expand these services have been a priority of both the Administration and the General Assembly.

12. Child Abuse and Neglect. The number of substantiated reports and the number of affected children continue to rise alarmingly. At these rates, were it a communicable disease, child abuse and neglect in NC might be declared an epidemic. While child deaths due to abuse have decreased, each such death is a needless tragedy.

13. Child Fatality. The rate of child deaths in 1999 is the lowest ever reported for NC, representing a decline of 11% since 1994 and a full 25% in the past decade. The NC Child Fatality Task Force as well as state and local review teams continue to explore ways to prevent child deaths.

14. Deaths Due to Injury. This is the primary cause of death in children older than one year of age. Preliminary indications are that the new graduated drivers' license requirements as well as increased enforcement of seat belt laws have resulted in the significant decline in motor vehicle-related deaths. Deaths due to drowning have been an intractable problem in NC; serious study is indicated. While homicide deaths have declined, suicides are unchanged; the whole area of deaths due to intentional injury remains a great concern.

15. Alcohol, Tobacco, Substance Abuse and Physical Fitness. These data are derived from the biennial Youth Risk Behavior Survey conducted by the NC Department of Public Instruction in cooperation with the Centers for Disease Control and Prevention. Regrettably, this survey was not conducted in NC in 1999. Since timely data are needed to guide efforts to reduce the risk-taking behaviors of school-age children and youth, the Comprehensive Child Health Plan recently published by the NC Institute of Medicine includes a strong recommendation that NC participate in the 2001 survey.

16. Obesity. This is conservatively defined as a body mass index equal to or greater than the 95th percentile using newly-released federal guidelines. Concern about overweight prevalence occurs when it exceeds 5%. The NC data for all age groups are well above the level of concern. This does not bode well, for childhood obesity can lead to adult problems such as high blood pressure, heart disease, etc. While the children represented in these data are those that receive services in a local health department or school-based health center and may not be representative of the state as a whole, the data are sending an important message that must be addressed.

17. Teen Pregnancies. The national decline in teen pregnancies is being experienced in NC as well. While the discrepancy between white and non-white rates is narrowing, these data are a reminder that more progress must be made in this area.