

# Children's Health Care Coverage and Children's Health: 2007-2009

A Report from the North Carolina  
Child Health Assessment and Monitoring Program



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## Table of Contents

List of Tables .....	4
List of Figures .....	5
Introduction .....	6
Procedures .....	7
Data Collection .....	7
NC CHAMP 2007 to 2009 .....	7
Data Weighting and Analysis .....	8
Strengths and Limitations .....	9
Eligibility for Medicaid and NC Health Choice .....	10
Health Care Coverage .....	11
Categories of Health Care Coverage .....	13
Type of Health Care Coverage .....	15
Continuous Health Care Coverage .....	16
Sample Characteristics .....	18
Sex .....	18
Racial Background .....	19
Ethnicity .....	23
Household Level of Education .....	27
Child's Age .....	32
Health Care Access and Utilization .....	36
Usual Source of Care .....	36
Personal Doctor .....	39
Preventive Health Care .....	41
Children's Health .....	43
General Health Status .....	43
Asthma .....	45
Elevated Need for Services Due to a Chronic Condition .....	49
Weight Status .....	53
Medicaid Summary .....	59
Demographic Characteristics .....	59
Health Care Access and Utilization .....	60
Health Status .....	60
NC Health Choice Summary .....	61
Demographic Characteristics .....	61
Health Care Access and Utilization .....	61
Health Status .....	62
Summary of Results .....	63
Health Care Coverage .....	63
Demographic Characteristics .....	63
Health Care Access and Utilization .....	64
Health Status .....	65
Errata .....	67

## List of Tables

Table 1.	NC CHAMP Survey Sample by Sex, Age, and Race/Ethnicity .....	8
Table 2.	Parent report of children’s health care coverage. ....	11
Table 3.	Parent report of type of children’s health care coverage .....	14
Table 4.	Primary health insurance plan among children with health insurance coverage .....	15
Table 5.	Discontinuous health care coverage by current type of health care coverage .....	17
Table 6.	Child’s sex by type of health care coverage. ....	18
Table 7.	Child’s race by type of health care coverage. ....	20
Table 8.	Child’s type of health care coverage by child’s race. ....	22
Table 9.	Child’s ethnicity by type of health care coverage.....	24
Table 10.	Child’s type of health care coverage by child’s ethnicity.....	26
Table 11.	Highest level of education in household by type of child’s health care coverage. ....	28
Table 12.	Child’s type of health care coverage by highest level of education in household. ....	31
Table 13.	Child’s age group by type of health care coverage.....	33
Table 14.	Child’s type of health care coverage by child’s age. ....	35
Table 15.	Place for sick care by type of health care coverage.....	37
Table 16.	Child has personal doctor or nurse by type of health care coverage. ....	40
Table 17.	Preventive health care within the past 12 months by type of health care coverage. ...	42
Table 18.	Parent report of child’s general health status by type of health care coverage.....	44
Table 19.	Parent report of child’s current asthma by type of health care coverage.....	46
Table 20.	Child’s type of health care coverage by parent report of child’s current asthma. ....	48
Table 21.	Elevated need for services for a chronic condition by type of health care coverage...	50
Table 22.	Type of health care coverage by elevated need for services for a chronic condition. .	52
Table 23.	Children’s weight status by type of health care coverage. ....	55
Table 24.	Prevalence of child overweight/obesity by type of health care coverage.....	56
Table 25.	Child’s type of health care coverage by child overweight/obesity .....	58

## List of Figures

Figure 1.	Prevalence of children’s health care coverage based on parent report.....	12
Figure 2.	Type of children’s health care coverage based on parent report. ....	14
Figure 3.	Discontinuous health care coverage by current type of health care coverage.....	16
Figure 4.	Racial background by type of health insurance coverage. ....	19
Figure 5.	Child’s type of health care coverage by child’s race.....	21
Figure 6.	Percent Hispanic by type of health care coverage.....	23
Figure 7.	Child’s type of health care coverage by child’s ethnicity. ....	25
Figure 8.	Highest level of education in household by type of health care coverage. ....	27
Figure 9.	Child’s type of health care coverage by highest level of education in household. ....	30
Figure 10.	Child’s age group by type of health care coverage. ....	32
Figure 11.	Child’s type of health care coverage by child’s age group. ....	34
Figure 12.	Visit a doctor’s office for sick care by type of health care coverage. ....	36
Figure 13.	Visit a public health department for sick care by type of health care coverage.....	37
Figure 14.	Visit a hospital for sick care by type of health care coverage. ....	37
Figure 15.	Personal doctor by type of health care coverage. ....	39
Figure 16.	Preventive health care visit by type of health care coverage.....	41
Figure 17.	General health status is fair or poor by type of health care coverage.....	43
Figure 18.	Current asthma by type of health care coverage. ....	45
Figure 19.	Child’s type of health care coverage by parent report of current asthma.....	47
Figure 20.	Elevated need for services for a chronic condition by type of health care coverage. ....	49
Figure 21.	Type of health care coverage by elevated need for services.....	51
Figure 22.	Percentage of children overweight/obese by type of health care coverage.....	54
Figure 23.	Child’s type of health care coverage by child overweight/obesity.....	57

## **Introduction**

The American Academy of Pediatrics advocates that all children should have access to comprehensive, age-appropriate, quality health care. Research shows that health insurance leads to improved health and better access to care. However, children's health care and health status can vary by type of health insurance plans. In addition, approximately one-quarter of a million children in North Carolina are uninsured, with children in poverty more likely to be uninsured than all children.

This report focuses on comparisons between children with different types of health care coverage for a variety of health-related behaviors. Assessment of the health characteristics of children is essential in order to identify and monitor health issues that will lead to better understanding and guidance in the improvement of child health.

Data presented in this report are from the North Carolina Child Health Assessment and Monitoring Program (NC CHAMP). NC CHAMP is a surveillance system that collects information about the health characteristics of children and adolescents from age 0 to 17 years in North Carolina. Eligible children for the NC CHAMP survey are drawn each month from the North Carolina Behavioral Risk Factor Surveillance System (BRFSS) telephone survey of adults, ages 18 and older. All adult respondents with children living in their households are invited to participate in the NC CHAMP survey. One child is randomly selected from the household, and the adult most knowledgeable about the health of the selected child is interviewed in a follow-up survey. Questions on the NC CHAMP survey pertain to a wide range of health-related topics. This 2007-2009 report on children's health care coverage examines health care access and utilization, as well as the health status of children with different types of health insurance.

## **Procedures**

### ***Data Collection***

The North Carolina Child Health Assessment and Monitoring Program (NC CHAMP) is a surveillance system that collects information about the health characteristics of children and adolescents from age 0 to 17 years in the state of North Carolina. NC CHAMP operates through the State Center for Health Statistics' (SCHS) Survey Center, Division of Public Health, North Carolina Department of Health and Human Services ([www.schs.state.nc.us/SCHS](http://www.schs.state.nc.us/SCHS)). NC CHAMP is a follow-up survey of North Carolina Behavioral Risk Factor Surveillance System (NC BRFSS) households with children.

The NC BRFSS is an annual survey that assesses health characteristics of non-institutionalized adults age 18 and older, and is federally supported through the Centers for Disease Control and Prevention (CDC). This telephone survey utilizes a random-digit-dial (RDD) computer-assisted-telephone-interviewing (CATI) system. During the BRFSS interview, the respondent is asked if there are any children 17 and younger living in the household. If more than one child is living in the household, one child is randomly selected through a pre-programmed process in the CATI data entry system used by each interviewer. Respondents are asked if they are willing to participate in a call-back survey that asks additional questions about the health of the selected child. If they agree to participate in the call-back survey, they are asked to identify the one person that is most knowledgeable about the health of the child. The NC CHAMP call is made one to two weeks after the BRFSS interview, and the interviewer speaks to the adult who was identified as the most knowledgeable about the randomly selected child's health.

For further details on the NC CHAMP survey design and data collection refer to: Miles DR, Herrick H, Ford CA. *The North Carolina Child Health Assessment and Monitoring Program: Survey methodology and data collection*. Statistical Primer No. 18. Raleigh, NC: State Center for Health Statistics; 2010 ([www.schs.state.nc.us/SCHS/pdf/Primer18\\_WEB\\_051210.pdf](http://www.schs.state.nc.us/SCHS/pdf/Primer18_WEB_051210.pdf)).

### ***NC CHAMP 2007 to 2009***

The purpose of the NC CHAMP survey is to measure the health characteristics of North Carolina children, ages 0 to 17. The survey measures a wide variety of health-related topics affecting children and parents and is revised each year to meet the child health surveillance needs of North Carolina. Annual surveys are available at: [www.schs.state.nc.us/SCHS/champ/questions.html](http://www.schs.state.nc.us/SCHS/champ/questions.html). The NC CHAMP 2007 survey includes 117 items assessing 21 health topics. The NC CHAMP 2008 survey includes 109 items assessing 20 health topics. The NC CHAMP 2009 survey includes 93 items assessing 21 health topics.

## *Data Weighting and Analysis*

NC CHAMP data are weighted to reflect the North Carolina state census (available at [www.census.gov/popest/estimates](http://www.census.gov/popest/estimates)). The use of weighted data adjusts the results of the sample to better represent the entire population of North Carolina. Adjustments are made to account for the unequal probabilities of selection due to the disproportionate sampling method and due to people living in households with different numbers of residential telephone numbers and different numbers of children in the home, as well as unequal non-response rates among different demographic groups.

Table 1 presents the unweighted number of respondents, the unweighted percent of respondents, and the weighted percent of respondents by selected demographic characteristics for the 2007-2009 NC CHAMP surveys.

**Table 1. NC CHAMP Survey Sample by Sex, Age, and Race/Ethnicity, 2007-2009**

	<b>Unweighted N</b>	<b>Unweighted %</b>	<b>Weighted %</b>
Total	8,072	100%	100%
<i>Sex</i>			
Male	4,173	51.7%	52.1%
Female	3,899	48.3%	47.9%
<i>Age</i>			
0-5 years	2,428	30.1%	33.6%
6-11 years	2,486	30.8%	32.8%
12-17 years	3,158	39.1%	33.5%
<i>Race/Ethnicity</i>			
White non-Hispanic	5,619	69.6%	61.1%
African American non-Hispanic	1,124	13.9%	21.1%
Hispanic	756	9.4%	11.7%
Other	570	7.1%	6.1%

Given the complex nature of the NC CHAMP sample (i.e., it is not a simple random sample), SAS procedures for survey data were used to calculate the confidence intervals for the estimates. These procedures take the complex sampling design into account when computing the errors of the estimates. In general, any percentage with a cell size of less than 50 will have a relatively large degree of sampling error and should be considered cautiously.

Respondents who answered that they did not know or who refused to answer a survey question were not included in the calculation of the percentages. Therefore, the sample sizes used to calculate the estimates in this report vary.

### ***Strengths and Limitations***

One potential limitation of the NC CHAMP survey is due to the fact that the data are reported by proxy (94 percent of surveys are completed by a parent; 6 percent by another adult). NC CHAMP data are based on subjective parental perception of the child's health characteristics. Research suggests that parental respondents may not accurately report health risk behaviors involving their children, especially those that are illegal or socially undesirable. Inconsistency in how well parents judge child health, possibly depending on cultural and socioeconomic variables, is a limiting factor in this study. In addition, in certain cases, parents may not be aware of the health risk behaviors of their children — especially teenagers.

Another limitation is one common to all telephone surveys — the pool of respondents is limited to only those who have a telephone, leading to a lack of coverage of people who live in households without a telephone. As a result, even though the telephone numbers are randomly selected and the data are weighted to represent the statewide population of children, there are some limits to how well the data can be generalized to all North Carolina children. The percentage of certain types of health care coverage (e.g., uninsured, Medicaid) may be somewhat lower in NC CHAMP than the percentage of the total population of the state due to the fact that a higher proportion of the uninsured or Medicaid recipients do not have telephones, or may have cell phones only which were not sampled in the survey. In addition, low-income persons with phones may be more likely than others not to respond to the survey for various reasons. Previous studies have found differences in populations with and without a land line telephone in demographic, economic, and health characteristics. Although differences in health indicators tend to be small, results may understate the true level of risk in some of the subpopulations of children in North Carolina. Post-stratification adjustments for age, race, and sex, and other weighting adjustments help minimize the impact of these differences.

Significant advantages of the telephone survey methodology include better quality control over data collection made possible by a CATI system, cost efficiency, and speed of data collection. The content of the survey questions, questionnaire design, data collection procedures, interviewing techniques, and editing procedures have been carefully developed to improve data quality and reduce the potential for bias. The data collection is ongoing, and each year new annual results become available.

The survey results presented here are purely descriptive. It is not possible to infer causes of the observed differences from the information presented in this report.

For more information, please visit [www.schs.state.nc.us/SCHS/champ](http://www.schs.state.nc.us/SCHS/champ) or contact the NC CHAMP Survey Coordinator at (919) 855-4494 or [CHAMPstaff@dhhs.nc.gov](mailto:CHAMPstaff@dhhs.nc.gov).

## **Eligibility for Medicaid and NC Health Choice**

### **Medicaid**

Medicaid is a health insurance program for low-income families who cannot afford health care costs. Medicaid serves children under the age of 6 years with a family income at or below 200 percent of the Federal Poverty Level. Children ages 6 to 19 years qualify for Medicaid with a family income at or below the federal poverty level. Some individuals who do not meet income requirements may still receive Medicaid benefits due to medical need. Medicaid pays for certain medical expenses such as well-child checkups, medicines, sick visits, dental care, immunizations, hospital care, lab tests, counseling, therapies, surgeries, medical equipment and supplies, vision and hearing care, and most medically necessary services for children under age 21.

Carolina ACCESS is Medicaid's primary care case management program in North Carolina. The Carolina ACCESS program links Medicaid recipients with a primary care provider who delivers and coordinates their health care needs in an effort to improve patient access to physicians, enhance patient and doctor relations, and reduce inappropriate or unnecessary use of medical services. Health Check is the name of the Medicaid program for children in North Carolina (known as EPSDT [Early, Periodic Screening, Diagnosis and Treatment] at the Federal level). The Health Check Program is a preventive and primary health care program for Medicaid-eligible children ages birth through 20. Health Check offers coverage for comprehensive medical and dental care, including vision, hearing and developmental screening, and referrals for treatment.

### **NC Health Choice**

The North Carolina Health Choice for Children program is a free or reduced price comprehensive health care program for children (known as CHIP [Child Health Insurance Program] at the Federal level). Families ineligible for Medicaid, who are not able to afford private insurance, may qualify for NC Health Choice. The NC Health Choice Program serves children ages 6 to 19 years with a family income between 100 percent and  $\leq$  200 percent of the Federal Poverty Level. NC Health Choice covers well-child checkups, medicines, sick visits, dental care, immunizations, hospital care, lab tests, counseling, therapies, surgeries, medical equipment and supplies, vision and hearing care, and an enhanced package of services for children with special health care needs.

Medicaid and NC Health Choice are funded by a combination of federal and state government dollars. Both programs require participants to re-enroll on an annual basis.

More information about North Carolina's Medicaid and NC Health Choice programs is available through the North Carolina Department of Health and Human Services, Division of Medical Assistance ([www.dhhs.state.nc.us/dma/index.htm](http://www.dhhs.state.nc.us/dma/index.htm)).

## Health Care Coverage

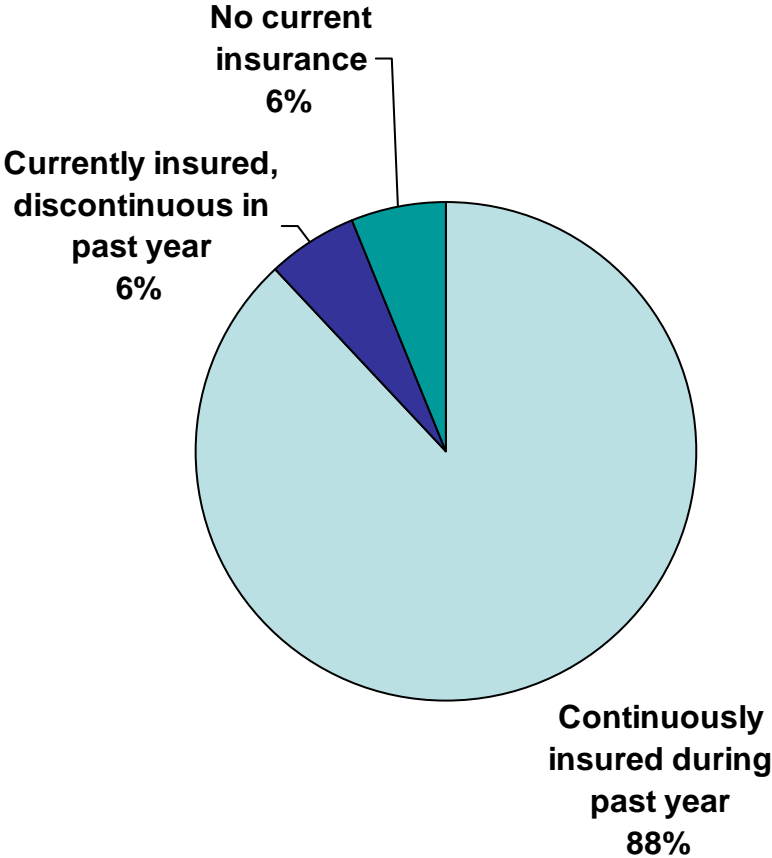
During the NC CHAMP survey, parents are asked whether their child has any kind of health care coverage, including private health insurance, prepaid plans such as HMOs, or government plans such as Health Check, Medicaid Program for Children, or NC Health Choice. Parents that report that their child currently has health care coverage are then asked if during the past 12 months there was any time when their child was not covered by any health insurance. Prevalence rates for children's health care coverage are presented in Table 2 and Figure 1.

- The majority of parents surveyed (94.5%) reported that their child (ages 0 to 17 years) currently had some kind of health care coverage.
- Among children with current health care coverage, 6.4 percent did not have health care coverage at some time during the past 12 months.
- Approximately 12 percent of parents reported that their child does not currently have health care coverage or was not covered at some point during the past 12 months.

**Table 2. Parent report of children's health care coverage, 2007-2009.**

<b>Children's Health Care Coverage</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
<i>Health Care Coverage Currently:</i>			
No health care coverage currently	462	5.5%	4.9, 6.2
Child currently has health care coverage	7,596	94.5%	93.8, 95.1
<i>Continuous Health Care Coverage during the past 12 months (among currently insured):</i>			
No health care coverage during past 12 months	483	6.4%	5.6, 7.1
Continuous health care coverage during past 12 months	7,109	93.6%	92.9, 94.3
<i>Continuous Health Care Coverage during the past 12 months (total sample):</i>			
No health care coverage during past 12 months	945	11.6%	10.6, 12.5
Continuous health care coverage during past 12 months	7,115	88.4%	87.5, 89.3

**Figure 1. Prevalence of children’s health care coverage based on parent report, 2007-2009 (N = 8,060).**



## *Categories of Health Care Coverage*

Prevalence rates for child health care coverage are presented in Table 3 and Figure 2. For the purposes of this report in comparing children's health in relation to type of health care coverage, five categorical groups were identified: children currently uninsured (5.5%) and four categories among children currently insured by type of health insurance plan (94.5%). The four categories among children with current insurance include children that did not have health care coverage at some time during the past 12 months (6.4%). Type of health care coverage was categorized into the following five groups:

- *No insurance* – child is currently not covered by any type of health insurance plan (5.5%).
- *Private Health Insurance* – child is currently covered under the State Employee Health Plan, Blue Cross/Blue Shield of North Carolina, or another private health insurance plan purchased from an employer or directly from insurance company (52.2%).
- *Medicaid* – child is currently covered under Medicaid, Carolina ACCESS or Health Check (25.7%). Carolina ACCESS is Medicaid's primary case management program in North Carolina. Health Check is the name of the Medicaid program for children in North Carolina.
- *NC Health Choice* – child is currently covered under NC Health Choice (4.0%). NC Health Choice is the name of a Federal/state funded health plan for uninsured children in North Carolina (called CHIP at national level).
- *Military/IHS/unspecified* – child is currently covered under a health insurance plan other than those specified above, including military insurance, Civilian Health and Medical Program of the Uniformed Services (CHAMPUS), TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified (7.1%).

While respondents may experience multiple types of health care coverage over a one year period, NC CHAMP captures the type of coverage experienced at the time of the survey. Additionally, the length of time covered under the current health care program was not assessed. Continuous and discontinuous care was assessed; 6 percent (N = 483) of children with current health care coverage did not have health care coverage at some point during the past 12 months (i.e., discontinuous health care coverage). When children with discontinuous health care coverage were excluded from the current health care coverage categories, results did not differ to a great extent (e.g., prevalence estimates differed within 1-percentage point or less); therefore, children with discontinuous coverage were included in all tables of results based on current type of health care coverage.

**Table 3. Parent report of type of children’s health care coverage, 2007-2009 (N = 7,960).**

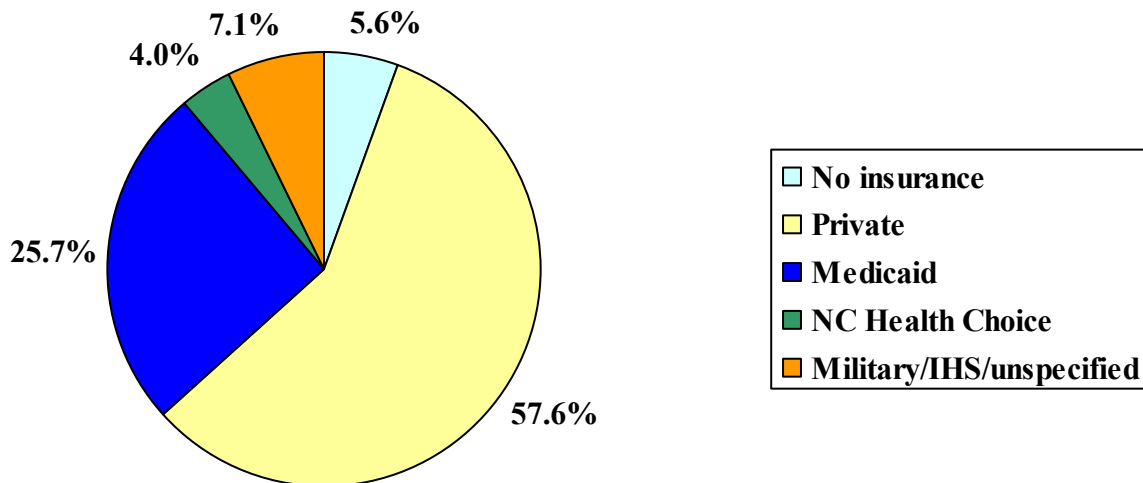
<b>Health Care Coverage</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	462	5.6%	5.0, 6.3
Private Health Insurance	4,783	57.6%	56.2, 59.0
Medicaid <sup>1</sup>	1,772	25.7%	24.4, 27.0
NC Health Choice <sup>2</sup>	330	4.0%	3.4, 4.5
Military/IHS/unspecified <sup>3</sup>	613	7.1%	6.4, 7.8
<i>Total uninsured and insured</i>	<i>7,960</i>	<i>100%</i>	

<sup>1</sup>Medicaid group also includes Carolina ACCESS and Health Check.

<sup>2</sup>NC Health Choice is only available for children ages 6 years and older; parents of children age 0-5 years that reported their child was covered under NC Health Choice were excluded in all analyses (N = 31).

<sup>3</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

**Figure 2. Type of children’s health care coverage based on parent report, 2007-2009.**



## ***Type of Health Care Coverage***

Parents that reported that their child currently had health care coverage were asked to specify their child’s primary health insurance plan (i.e., the plan which pays the medical bills first or pays most of the medical bills). Prevalence rates for type of child health care coverage are presented in Table 4.

- Over half of parents surveyed reported that their child was covered under a private health insurance plan (55.3%); 5.7 percent of children were covered under the State Employee Health Plan.
- One-quarter of parents surveyed reported that their child was covered under Medicaid, Carolina ACCESS, or Health Check (27.2%).
- Four percent of children were covered under NC Health Choice.

**Table 4. Parent report of child’s primary health insurance plan among children (ages 0 to 17 years) with health insurance coverage, 2007-2009 (N = 7,498).**

<b>Type of Health Insurance Plan</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
State Employee Health Plan	518	5.7%	5.1, 6.3
Private Health Insurance	4,265	55.3%	53.9, 56.7
Medicaid	1,694	25.9%	24.6, 27.2
Carolina ACCESS	22	0.41%	0.20, 0.63
Health Check	56	0.90%	0.59, 1.2
NC Health Choice <sup>1</sup>	330	4.2%	3.6, 4.8
Military, CHAMPUS, or TRI CARE	425	5.0%	4.5, 5.6
Indian Health Service (IHS)	3	0.04%	0.0, 0.12
Other (not specified)	185	2.4%	2.0, 2.9
<i>Total number of children with health insurance</i>	<i>7,498</i>	<i>100%</i>	

Note: use caution in interpreting cell sizes n < 50.

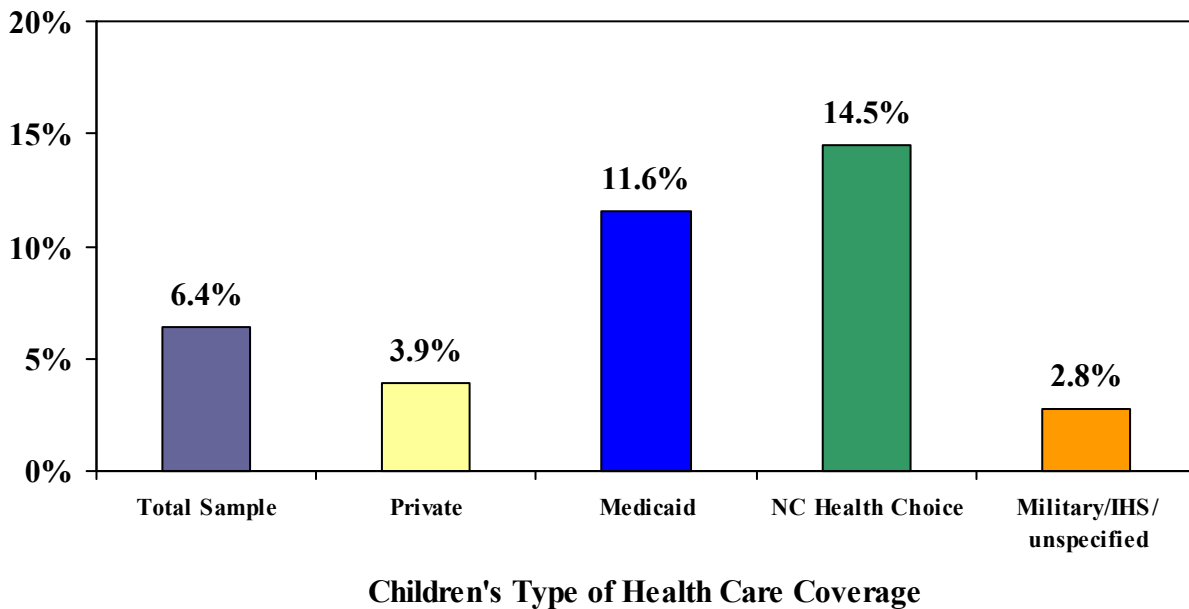
<sup>1</sup>NC Health Choice is only available for children ages 6 years and older; parents of children age 0-5 years that reported their child was covered under NC Health Choice were excluded in all analyses (N = 31).

### *Continuous Health Care Coverage*

Parents that reported that their child currently has health care coverage were also asked if during the past 12 months there was any time when their child was not covered by any health insurance. Prevalence rates for discontinuous children’s health care coverage are presented in Table 5 and Figure 3.

- In general, among children currently covered by health insurance, 6.4 percent of parents reported that their child did not have health insurance at some point during the past 12 months.
- Children currently covered by Medicaid or NC Health Choice were more likely to have discontinuous health care coverage during the past 12 months (11.6% and 14.5% respectively), compared to children with other types of health insurance. This may be due in part to the annual re-enrollment process and attendant documentation required for both Medicaid and NC Health Choice, while children covered by other types of health insurance programs are not required to re-enroll each year.

**Figure 3. Percentage of parents who report discontinuous children’s health care coverage during the past 12 months by current type of health care coverage, 2007-2009.**



**Table 5. Parent report of discontinuous children’s health care coverage during the past 12 months by current type of health care coverage, 2007-2009.**

<b>Current Health Care Coverage</b>	<b>No health insurance w/in past year<sup>1</sup></b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
Private Health Insurance	Yes	185	3.9%	3.2, 4.6
	No	4,596	96.1%	95.4, 96.8
Medicaid	Yes	208	11.6%	9.7, 13.5
	No	1,556	88.4%	86.4, 90.3
NC Health Choice	Yes	54	14.5%	9.7, 19.2
	No	301	85.5%	80.8, 90.3
Military/IHS/unspecified <sup>2</sup>	Yes	25	2.8%	1.6, 4.1
	No	588	97.2%	95.9, 98.4
<i>Total</i>	<i>Yes</i>	<i>477</i>	<i>6.4%</i>	<i>5.6, 7.1</i>
	<i>No</i>	<i>7,041</i>	<i>93.6%</i>	<i>92.9, 94.4</i>

Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>During the past 12 months there was a time when child was not covered by any health insurance.

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

## Sample Characteristics

### Sex

Prevalence rates for child's sex by type of health care coverage are presented in Table 6.

- In general, 52.0 percent of the children sampled were male and 48.0 percent were female.

**Table 6. Child's sex by type of health care coverage, 2007-2009.**

Health Care Coverage	Sex	N	Weighted%	95% CI
No insurance	Male	240	53.1%	47.1, 59.1
	Female	222	46.9%	40.9, 52.9
Private Health Insurance	Male	2,408	50.6%	48.8, 52.4
	Female	2,375	49.4%	47.6, 51.2
Medicaid	Male	952	53.6%	50.6, 56.6
	Female	820	46.4%	43.4, 49.4
NC Health Choice	Male	176	52.0%	45.2, 58.9
	Female	154	48.0%	41.1, 54.8
Military/IHS/unspecified <sup>1</sup>	Male	336	56.9%	51.7, 62.1
	Female	277	43.1%	37.9, 48.3
<i>Total</i>	<i>Male</i>	<i>4,112</i>	<i>52.0%</i>	<i>50.6, 53.4</i>
	<i>Female</i>	<i>3,848</i>	<i>48.0%</i>	<i>46.6, 49.4</i>

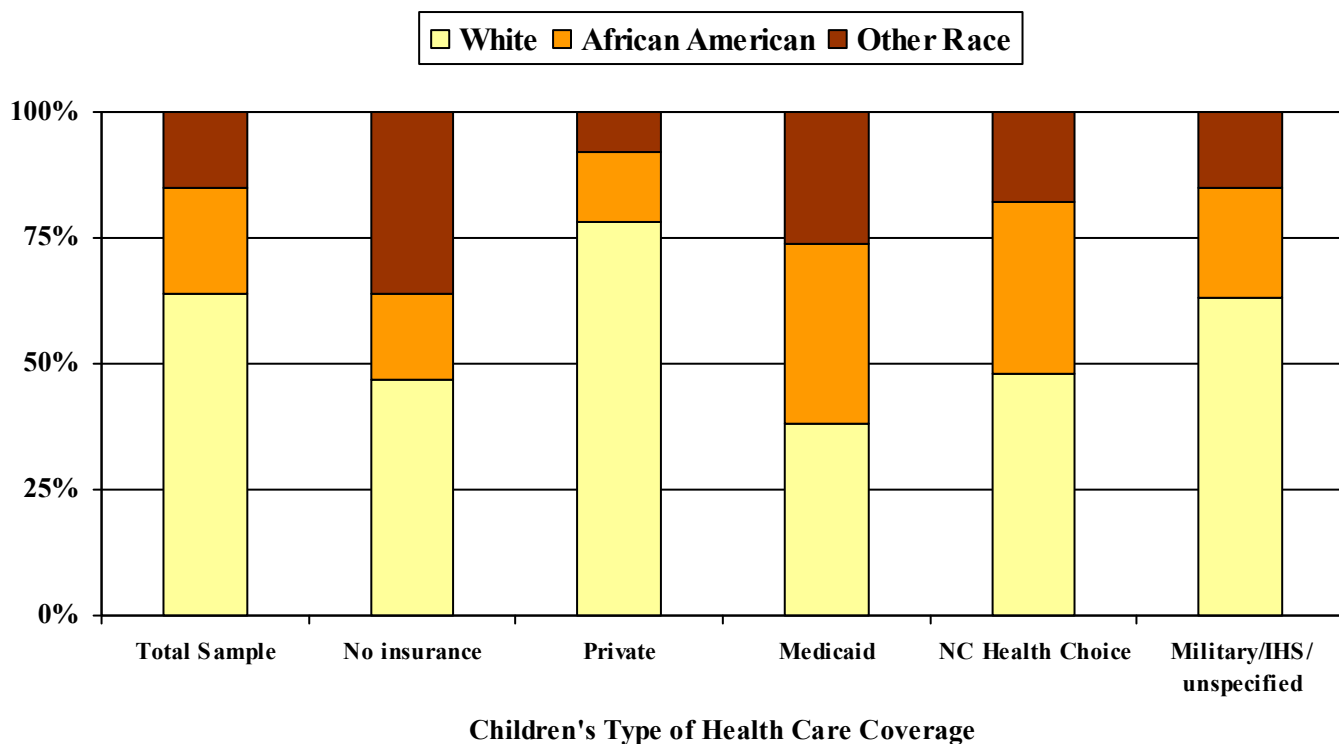
<sup>1</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

## Racial Background

Prevalence rates for child's race by type of health care coverage are presented in Table 7 and Figure 4. Child's race was found to vary by type of health care coverage.

- In general, 63.7 percent of the total sample was white, 21.3 percent African American, and 15 percent other race.
- Children with no insurance were more likely to be of other racial background (35.9%), compared to children with health care coverage.
- One-third of children covered by Medicaid or NC Health Choice were African American (36.0% and 33.5%) compared to only 14.3 percent of children with private health insurance.
- Children covered by Medicaid or NC Health Choice were more likely to be other racial background (26.4% and 18.0%) compared to children with private health insurance (7.6%).

**Figure 4. Child's racial background among children with different types of health insurance coverage, 2007-2009.**



**Table 7. Child’s race by type of health care coverage, 2007-2009.**

<b>Health Care Coverage</b>	<b>Race</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	White	255	47.4%	41.4, 53.5
	African American	57	16.8%	11.9, 21.6
	Other Race	150	35.9%	30.2, 41.6
Private Health Insurance	White	3,975	78.0%	76.4, 79.6
	African American	442	14.3%	12.9, 15.8
	Other Race	362	7.6%	6.7, 8.6
Medicaid	White	850	37.6%	34.8, 40.3
	African American	458	36.0%	33.0, 39.0
	Other Race	464	26.4%	23.8, 29.1
NC Health Choice	White	188	48.5%	41.7, 55.3
	African American	76	33.5%	26.7, 40.3
	Other Race	66	18.0%	13.0, 22.9
Military/IHS/unspecified <sup>1</sup>	White	430	63.3%	58.2, 68.5
	African American	94	22.1%	17.5, 26.7
	Other Race	89	14.5%	10.7, 18.4
<i>Total</i>	<i>White</i>	<i>5,698</i>	<i>63.7%</i>	<i>62.3, 65.0</i>
	<i>African American</i>	<i>1,127</i>	<i>21.3%</i>	<i>20.1, 22.6</i>
	<i>Other Race</i>	<i>1,131</i>	<i>15.0%</i>	<i>14.0, 16.0</i>

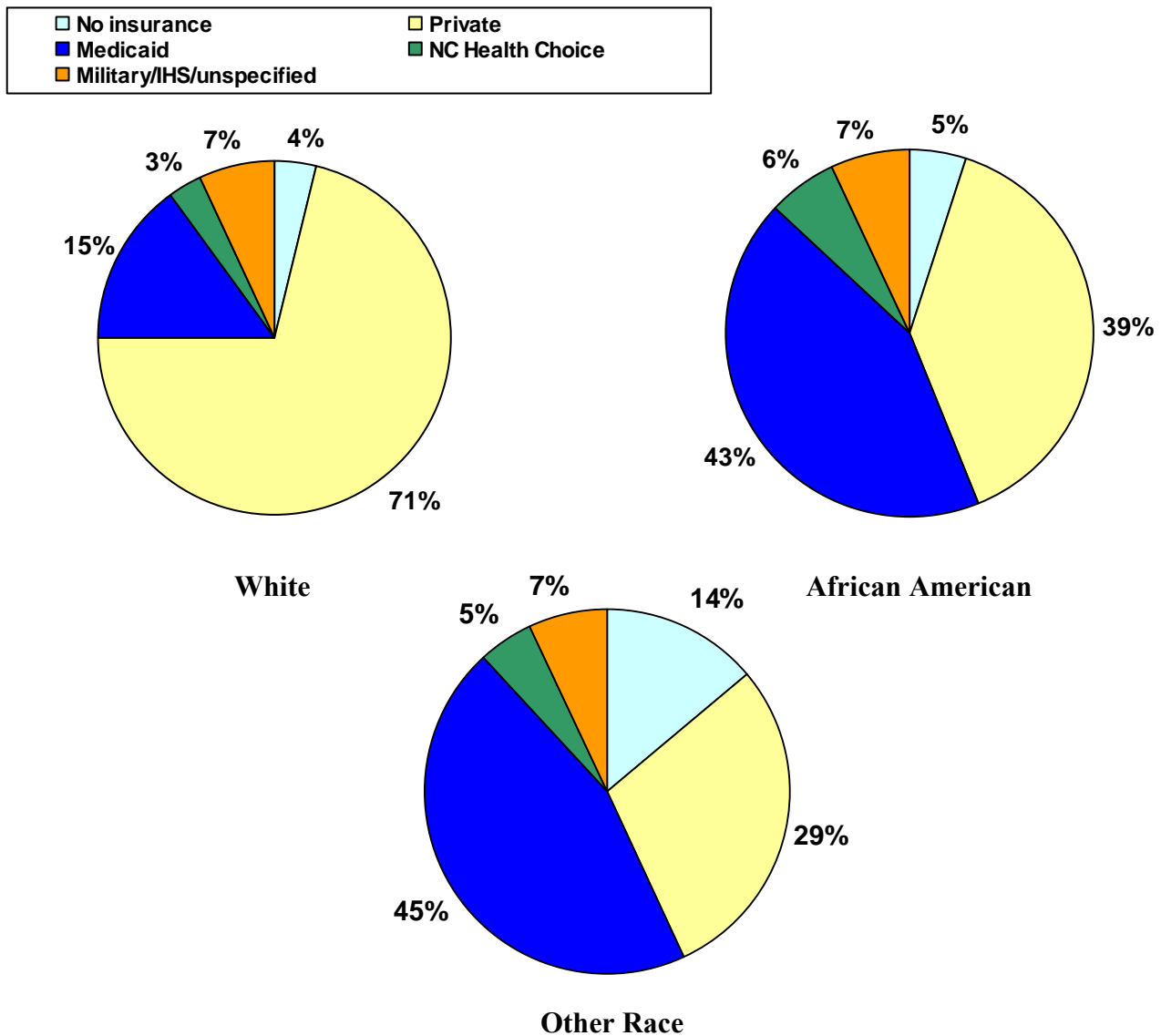
Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

Prevalence rates for child's type of health care coverage by child's race are presented in Figure 5 and Table 8.

- Among whites, the majority of children were covered by private health insurance (70.5%); 15.2 percent of white children were covered under Medicaid. Less than 5 percent of white children were uninsured (4.2%).
- Among African Americans, 38.6 percent were covered by private health insurance and 43.3 percent were covered under Medicaid; Less than 5 percent of African American children were uninsured (4.4%).
- Among other racial groups, 29.4 percent were covered by private health insurance and 45.4 percent were covered under Medicaid; 13.5 percent were uninsured.

**Figure 5. Child's type of health care coverage by child's race, 2007-2009.**



**Table 8. Child’s type of health care coverage by child’s race, 2007-2009.**

<b>Race</b>	<b>Health Care Coverage</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
White	No insurance	255	4.2%	3.5, 4.9
	Private Health Insurance	3,975	70.5%	69.0, 72.0
	Medicaid	850	15.2%	13.9, 16.4
	NC Health Choice	188	3.0%	2.5, 3.6
	Military/IHS/unspecified <sup>1</sup>	430	7.1%	6.2, 7.9
African American	No insurance	57	4.4%	3.0, 5.8
	Private Health Insurance	442	38.6%	35.3, 42.0
	Medicaid	458	43.3%	39.8, 46.8
	NC Health Choice	76	6.2%	4.7, 7.8
	Military/IHS/unspecified <sup>1</sup>	94	7.4%	5.6, 9.1
Other Race	No insurance	150	13.5%	11.0, 15.9
	Private Health Insurance	362	29.4%	26.1, 32.8
	Medicaid	464	45.4%	41.7, 49.1
	NC Health Choice	66	4.8%	3.4, 6.2
	Military/IHS/unspecified <sup>1</sup>	89	6.9%	5.0, 8.8

Note: use caution in interpreting cell sizes n < 50.

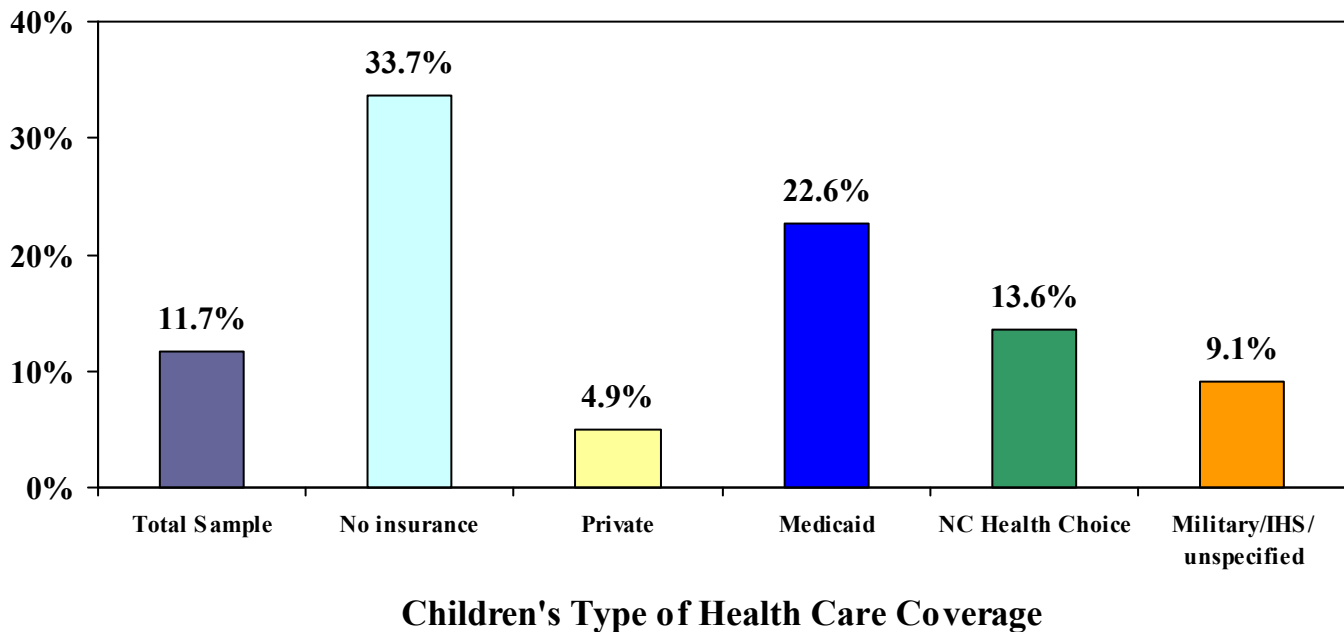
<sup>1</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

## *Ethnicity*

Prevalence rates for child's ethnicity by type of health care coverage are presented in Table 9 and Figure 6. Child's ethnicity was found to vary by type of health care coverage.

- Approximately 12 percent of the total sample was Hispanic.
- One in three children without health insurance was Hispanic (33.7%).
- Approximately 23 percent of children covered by Medicaid were Hispanic.

**Figure 6. Percent Hispanic by type of health care coverage, 2007-2009.**



**Table 9. Child’s ethnicity by type of health care coverage, 2007-2009.**

<b>Health Insurance Coverage</b>	<b>Ethnicity</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	Hispanic	128	33.7%	28.0, 39.4
	Non- Hispanic	333	66.3%	60.6, 72.0
Private Health Insurance	Hispanic	188	4.9%	4.0, 5.8
	Non-Hispanic	4,589	95.1%	94.2, 96.0
Medicaid	Hispanic	348	22.6%	20.0, 25.1
	Non-Hispanic	1,421	77.4%	74.8, 80.0
NC Health Choice	Hispanic	37	13.6%	8.7, 18.5
	Non-Hispanic	292	86.4%	81.5, 91.3
Military/IHS/unspecified <sup>1</sup>	Hispanic	46	9.1%	5.9, 12.3
	Non-Hispanic	566	90.9%	87.7, 94.1
<i>Total</i>	<i>Hispanic</i>	<i>747</i>	<i>11.7%</i>	<i>10.7, 12.7</i>
	<i>Non-Hispanic</i>	<i>7,201</i>	<i>88.3%</i>	<i>87.3, 89.3</i>

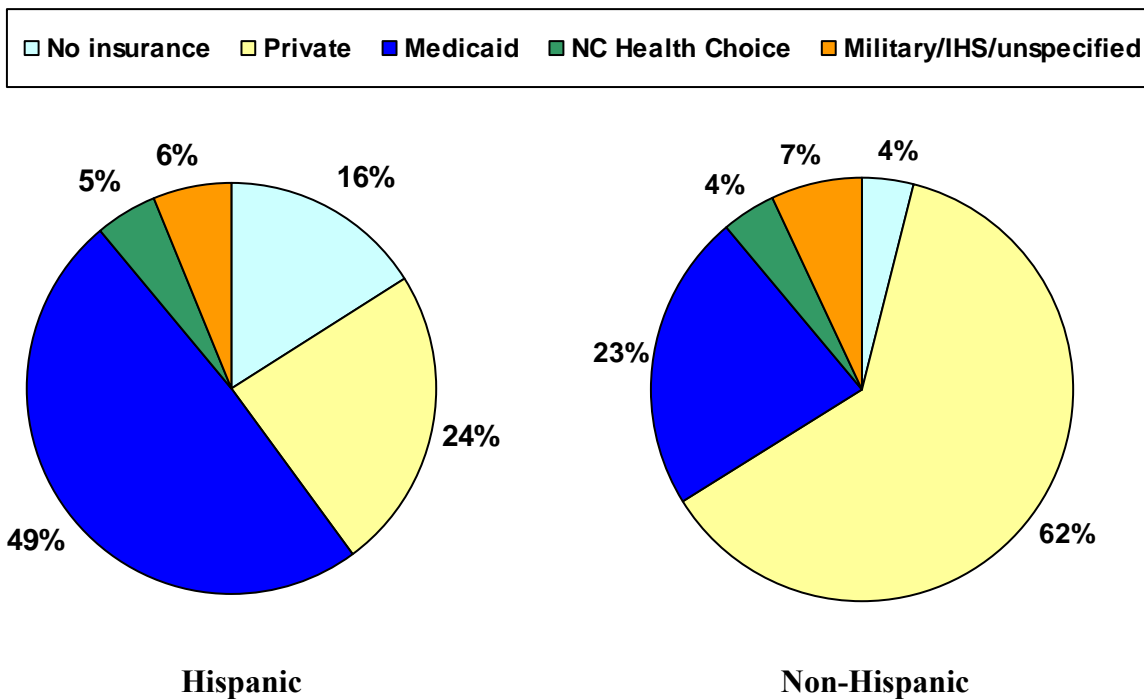
Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

Prevalence rates for child’s type of health care coverage by child’s ethnicity are presented in Figure 7 and Table 10.

- Among Hispanics, 24.1 percent were covered by private health insurance and 49.5 percent were covered under Medicaid; 16.2 percent of Hispanic children were uninsured.
- Among non-Hispanics, 62 percent were covered by private health insurance and 22.5 percent were covered under Medicaid; Less than 5 percent of non-Hispanic children were uninsured (4.2%).

**Figure 7. Child’s type of health care coverage by child’s ethnicity, 2007-2009.**



**Table 10. Child’s type of health care coverage by child’s ethnicity, 2007-2009.**

<b>Ethnicity</b>	<b>Health Care Coverage</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
Hispanic	No insurance	128	16.2%	13.0, 19.3
	Private Health Insurance	188	24.1%	20.3, 28.0
	Medicaid	348	49.5%	45.0, 54.0
	NC Health Choice	37	4.6%	2.8, 6.4
	Military/IHS/unspecified <sup>1</sup>	46	5.5%	3.5, 7.5
Non-Hispanic	No insurance	333	4.2%	3.6, 4.8
	Private Health Insurance	4,589	62.0%	60.6, 63.5
	Medicaid	1,421	22.5%	21.2, 23.8
	NC Health Choice	292	3.9%	3.3, 4.4
	Military/IHS/unspecified <sup>1</sup>	566	7.3%	6.6, 8.0

Note: use caution in interpreting cell sizes n < 50.

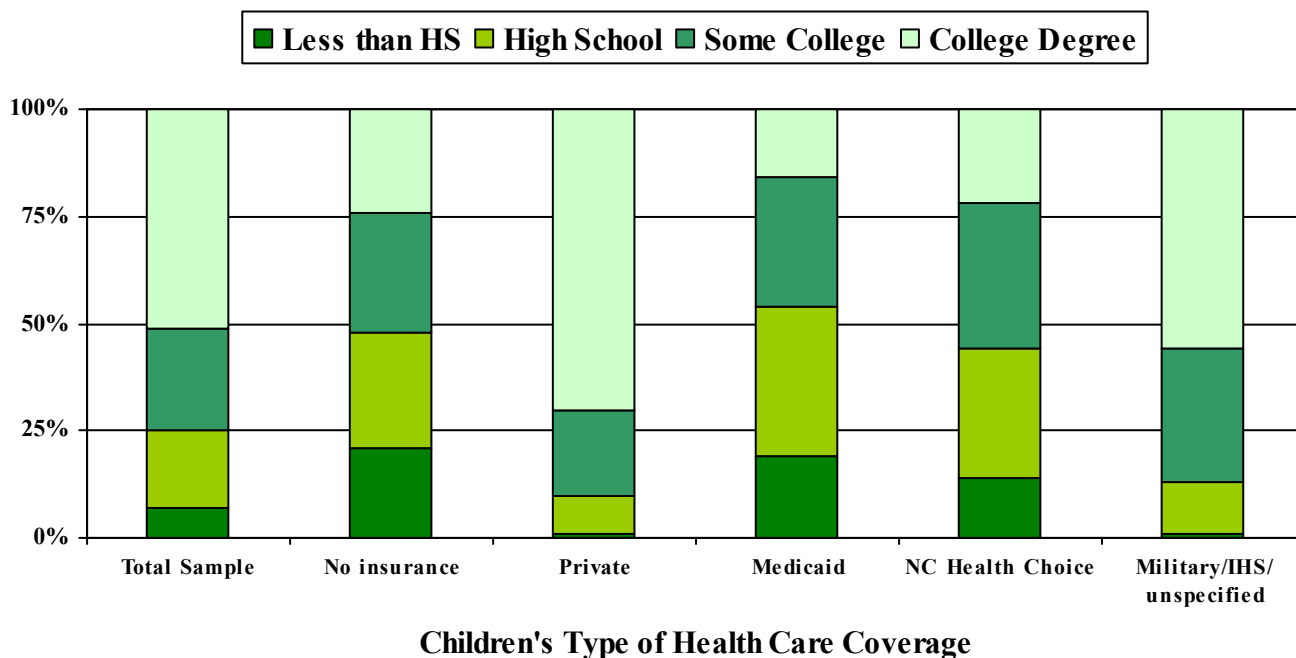
<sup>1</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

## Household Level of Education

Prevalence rates for highest level of education in household surveyed by type of health care coverage are presented in Table 11 and Figure 8. Household level of education was found to vary by type of health care coverage.

- In general, 7.0 percent of the total sample had less than a high school education, 17.8 percent were high school graduates, 24.5 percent had some college education, and 50.7 percent had a college degree.
- Parents of uninsured children were more likely to have less than a high school education (20.9%) and less likely to have a college degree (24.4%), compared to parents of children with health care coverage.
- Parents of children covered by Medicaid or NC Health Choice were more likely to have less than a high school education (19.0% and 13.9%) and less likely to have a college degree (16.1% and 22%), compared to parents with a child covered by other types of health care coverage.

**Figure 8. Highest level of education in household by type of health care coverage, 2007-2009.**



**Table 11. Highest level of education in household by type of child’s health care coverage, 2007-2009.**

<b>Health Care Coverage</b>	<b>Education</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	Less than HS	87	20.9%	16.0, 25.7
	High School	132	26.6%	21.3, 31.8
	Some College	139	28.2%	22.9, 33.4
	College Degree	102	24.4%	19.1, 29.8
Private Health Insurance	Less than HS	38	0.63%	0.36, 0.89
	High School	485	9.0%	8.0, 10.1
	Some College	1,018	20.3%	18.8, 21.7
	College Degree	3,241	70.1%	68.4, 71.7
Medicaid	Less than HS	316	19.0%	16.6, 21.4
	High School	654	35.1%	32.3, 38.0
	Some College	520	29.8%	27.1, 32.6
	College Degree	278	16.1%	13.9, 18.3
NC Health Choice	Less than HS	36	13.9%	8.9, 19.0
	High School	108	30.1%	24.0, 36.2
	Some College	120	34.0%	27.7, 40.3
	College Degree	66	22.0%	16.0, 28.0
Military/IHS/unspecified <sup>1</sup>	Less than HS	6	0.52%	0.07, 0.96
	High School	76	12.4%	9.0, 15.8
	Some College	202	31.2%	26.4, 35.9
	College Degree	328	56.0%	50.8, 61.1
<i>Total</i>	<i>Less than HS</i>	<i>483</i>	<i>7.0%</i>	<i>6.2, 7.8</i>
	<i>High School</i>	<i>1,455</i>	<i>17.8%</i>	<i>16.7, 18.9</i>
	<i>Some College</i>	<i>1,999</i>	<i>24.5%</i>	<i>23.3, 25.7</i>
	<i>College Degree</i>	<i>4,015</i>	<i>50.7%</i>	<i>49.4, 52.1</i>

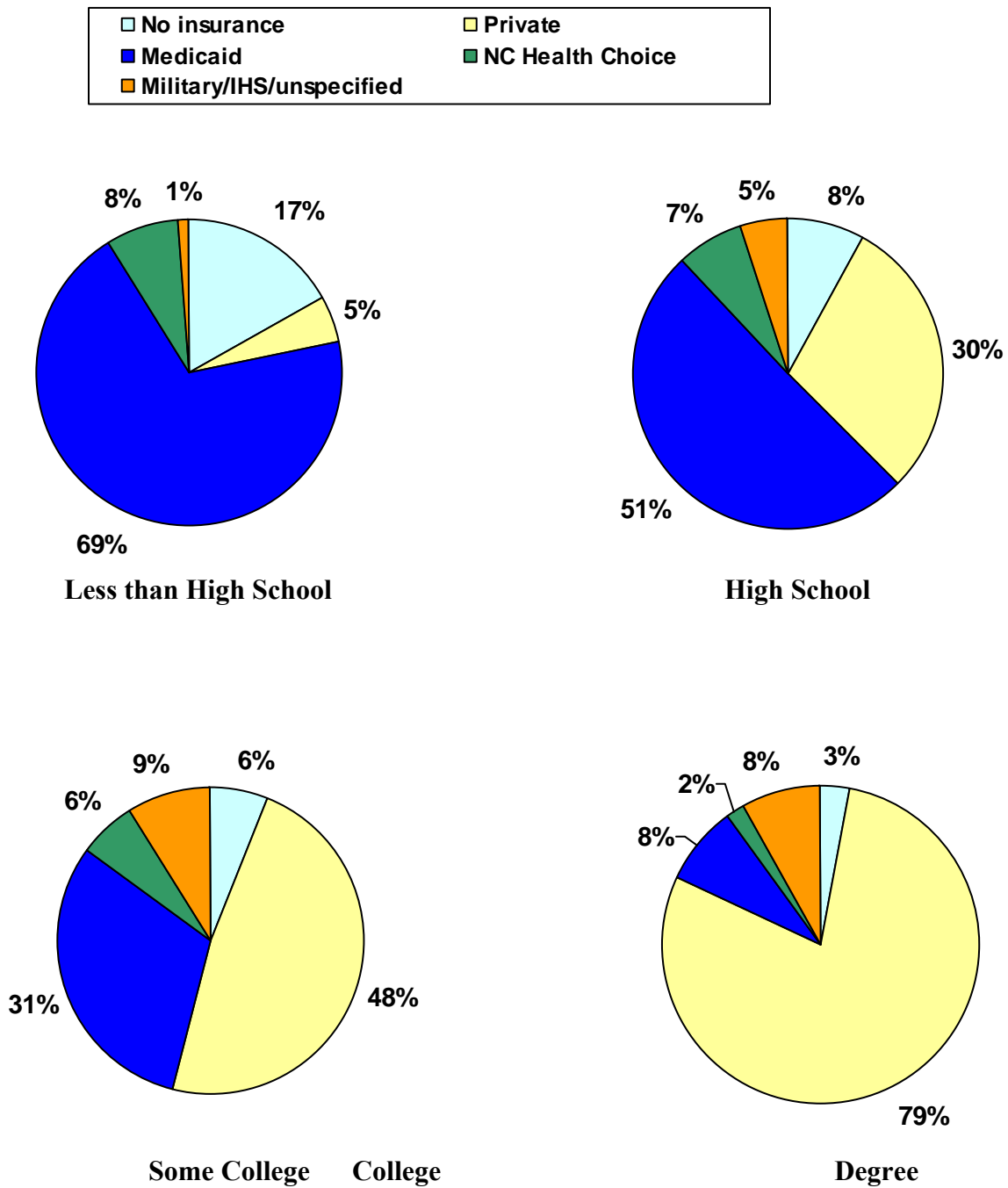
Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

Prevalence rates for child's type of health care coverage by highest level of education in household are presented in Figure 9 and Table 12.

- Among households with less than a high school education, the majority of children were covered under Medicaid (69.7%); 7.9 percent were covered under NC Health Choice. Five percent were covered under private health insurance; 16.7 percent of children from households with less than a high school education did not have health insurance.
- Among households with a high school degree, the majority was covered under Medicaid (50.6%); 6.8 percent were covered under NC Health Choice; 29.3 percent were covered under private health insurance, and less than 10 percent did not have health care coverage (8.3%).
- Among households with some college education, 31.2 percent were covered under Medicaid and 47.7 percent had private health insurance; 5.5 percent were covered under NC Health Choice; 6.4 percent were uninsured.
- Among households with a college degree, the majority of children had private health care coverage (79.6%); less than 10 percent were covered under Medicaid (8.3%); 1.7 percent were covered under NC Health Choice, and only 2.7 percent did not have health insurance.

**Figure 9. Child's type of health care coverage by highest level of education in household, 2007-2009.**



**Table 12. Child’s type of health care coverage by highest level of education in household, 2007-2009.**

Education	Health Care Coverage	N	Weighted%	95% CI
Less than High School	No insurance	87	16.7%	12.6, 20.7
	Private Health Insurance	38	5.2%	3.0, 7.3
	Medicaid	316	69.7%	64.6, 74.7
	NC Health Choice	36	7.9%	4.9, 11.0
	Military/IHS/unspecified <sup>1</sup>	6	0.52%	0.07, 0.98
High School	No insurance	132	8.3%	6.5, 10.2
	Private Health Insurance	485	29.3%	26.3, 32.3
	Medicaid	654	50.6%	47.2, 54.0
	NC Health Choice	108	6.8%	5.2, 8.3
	Military/IHS/unspecified <sup>1</sup>	76	4.9%	3.5, 6.3
Some College	No insurance	139	6.4%	5.1, 7.8
	Private Health Insurance	1,018	47.7%	44.9, 50.6
	Medicaid	520	31.2%	28.5, 34.0
	NC Health Choice	120	5.5%	4.3, 6.7
	Military/IHS/unspecified <sup>1</sup>	202	9.0%	7.5, 10.6
College Degree	No insurance	102	2.7%	2.0, 3.4
	Private Health Insurance	3,241	79.6%	78.0, 81.3
	Medicaid	278	8.1%	7.0, 9.3
	NC Health Choice	66	1.7%	1.2, 2.3
	Military/IHS/unspecified <sup>1</sup>	328	7.8%	6.8, 8.9

Note: use caution in interpreting cell sizes n < 50.

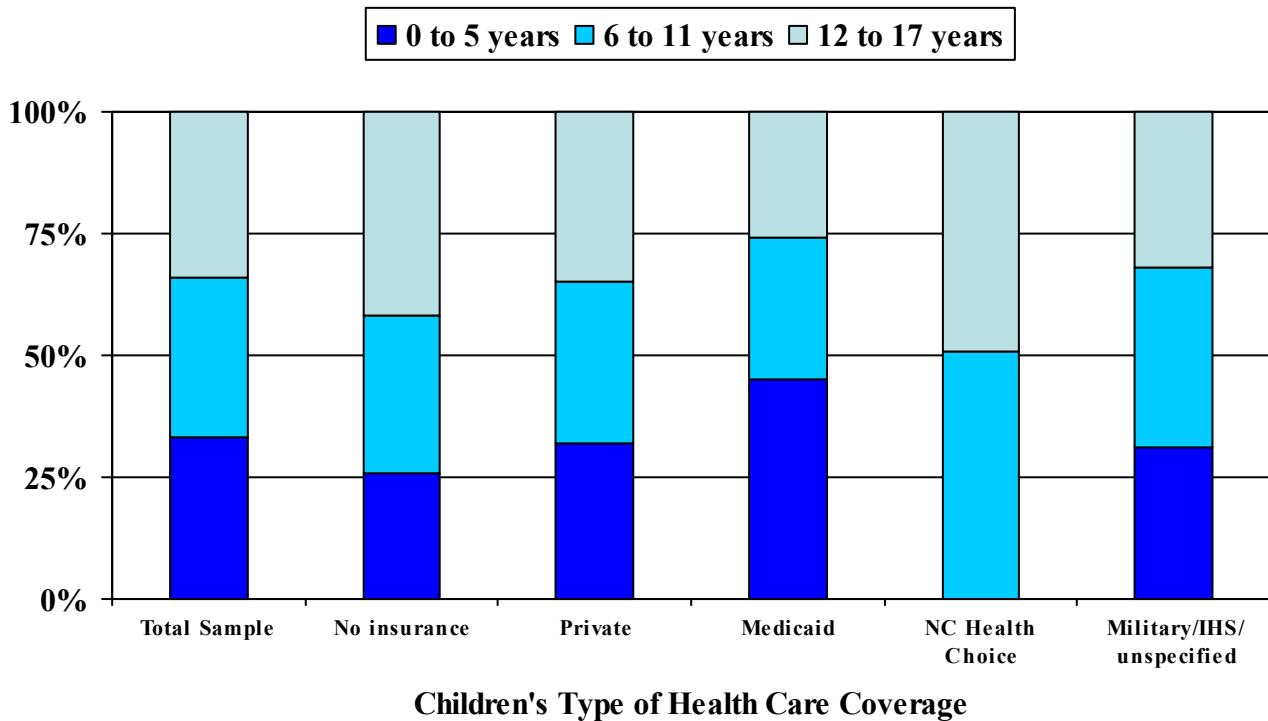
<sup>1</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

## Child's Age

Prevalence rates for child's age group by type of health care coverage are presented in Table 13 and Figure 10.

- In general, one-third of the sample was between the ages of 0 to 5 years old (33.4%), one-third between the ages of 6 to 11 years old (33.0%), and one-third between the ages of 12 to 17 years old (33.6%).
- Children with no insurance were more likely to be older (42.0% ages 12-17 years), compared to children with health care coverage.
- NC Health Choice is only available for children ages 6 years and older, thus children covered by NC Health Choice were more likely to be older compared to children with other types of health care coverage.
- Children covered by Medicaid were more likely to be younger (45.4% ages 0 to 5 years), compared to children with other types of health care coverage. Note: NC Health Choice is only available for children 6 and older; children under the age of 6 are covered under Medicaid.

**Figure 10. Child's age group by type of health care coverage, 2007-2009.**



**Table 13. Child's age group by type of health care coverage, 2007-2009.**

<b>Health Care Coverage</b>	<b>Child's Age Group</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	0-5 years	88	25.6%	20.0, 31.1
	6-11 years	145	32.4%	26.9, 38.0
	12-17 years	229	42.0%	36.2, 47.9
Private Health Insurance	0-5 years	1,337	31.5%	29.7, 33.2
	6-11 years	1,473	33.2%	31.4, 34.9
	12-17 years	1,973	35.4%	33.7, 37.1
Medicaid	0-5 years	770	45.4%	42.4, 48.4
	6-11 years	497	29.2%	26.4, 31.9
	12-17 years	505	25.5%	22.9, 28.0
NC Health Choice <sup>1</sup>	0-5 years	-	-	-
	6-11 years	155	50.8%	44.0, 57.6
	12-17 years	175	49.2%	42.4, 56.0
Military/IHS/unspecified <sup>2</sup>	0-5 years	187	31.2%	26.3, 36.0
	6-11 years	196	36.8%	31.7, 41.9
	12-17 years	230	32.0%	27.2, 36.8
<i>Total</i>	<i>0-5 years</i>	<i>2,382</i>	<i>33.4%</i>	<i>32.0, 34.8</i>
	<i>6-11 years</i>	<i>2,466</i>	<i>33.0%</i>	<i>31.7, 34.4</i>
	<i>12-17 years</i>	<i>3,112</i>	<i>33.6%</i>	<i>32.2, 34.8</i>

Note: use caution in interpreting cell sizes n < 50.

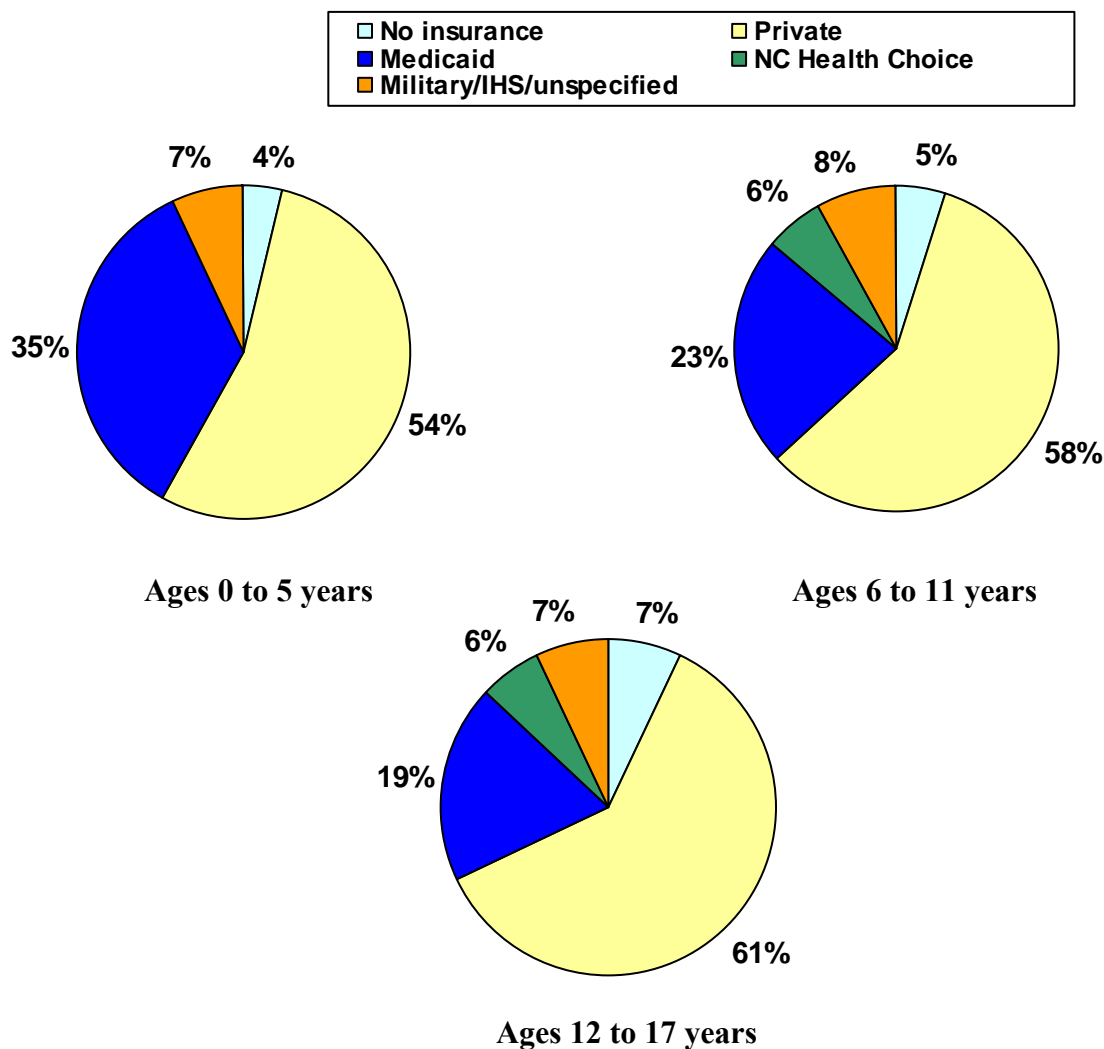
<sup>1</sup>NC Health Choice is only available for ages 6 years and older.

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

Prevalence rates for child’s type of health care coverage by child’s age group are presented in Figure 11 and Table 14.

- Among children between 0 and 5 years old, about half were covered under private health insurance (54.2%) and one-third were covered under Medicaid (34.9%); less than 5 percent were uninsured (4.3%).
- Among children between the ages of 6 and 11 years, about half were covered under private insurance (57.8%) and one-fifth were covered under Medicaid (22.7%); Approximately 6 percent were covered under NC Health Choice or were uninsured.
- Among children between the ages of 12 and 17 years, about half were covered under private insurance (60.8%) and one-fifth were covered under Medicaid (19.5%); 5.8 percent were covered under NC Health Choice and 7.0 percent did not have health insurance.

**Figure 11. Child’s type of health care coverage by child’s age group, 2007-2009.**



**Table 14. Child's type of health care coverage by child's age, 2007-2009.**

Age	Health Care Coverage	N	Weighted%	95% CI
0-5 years	No insurance	88	4.3%	3.2, 5.4
	Private Health Insurance	1,337	54.2%	51.7, 56.7
	Medicaid	770	34.9%	32.4, 37.3
	NC Health Choice <sup>1</sup>	-	-	-
	Military/IHS/unspecified <sup>2</sup>	187	6.6%	5.4, 7.8
6-11 years	No insurance	145	5.5%	4.4, 6.6
	Private Health Insurance	1,473	57.8%	55.3, 60.2
	Medicaid	497	22.7%	20.5, 24.8
	NC Health Choice	155	6.1%	5.0, 7.3
	Military/IHS/unspecified <sup>2</sup>	196	7.9%	6.6, 9.2
12-17 years	No insurance	229	7.0%	5.8, 8.2
	Private Health Insurance	1,973	60.8%	58.5, 63.1
	Medicaid	505	19.5%	17.5, 21.5
	NC Health Choice	175	5.8%	4.8, 6.9
	Military/IHS/unspecified <sup>2</sup>	230	6.8%	5.6, 7.9

Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>NC Health Choice is only available for ages 6 years and older.

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

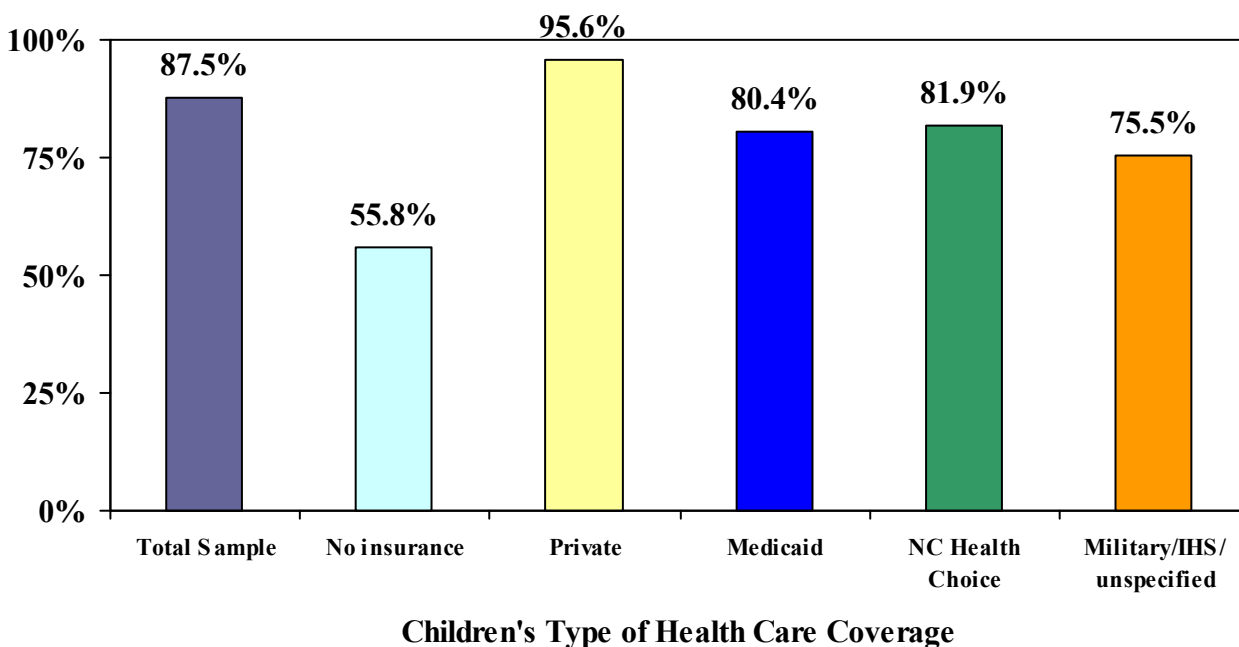
## Health Care Access and Utilization

### *Usual Source of Care*

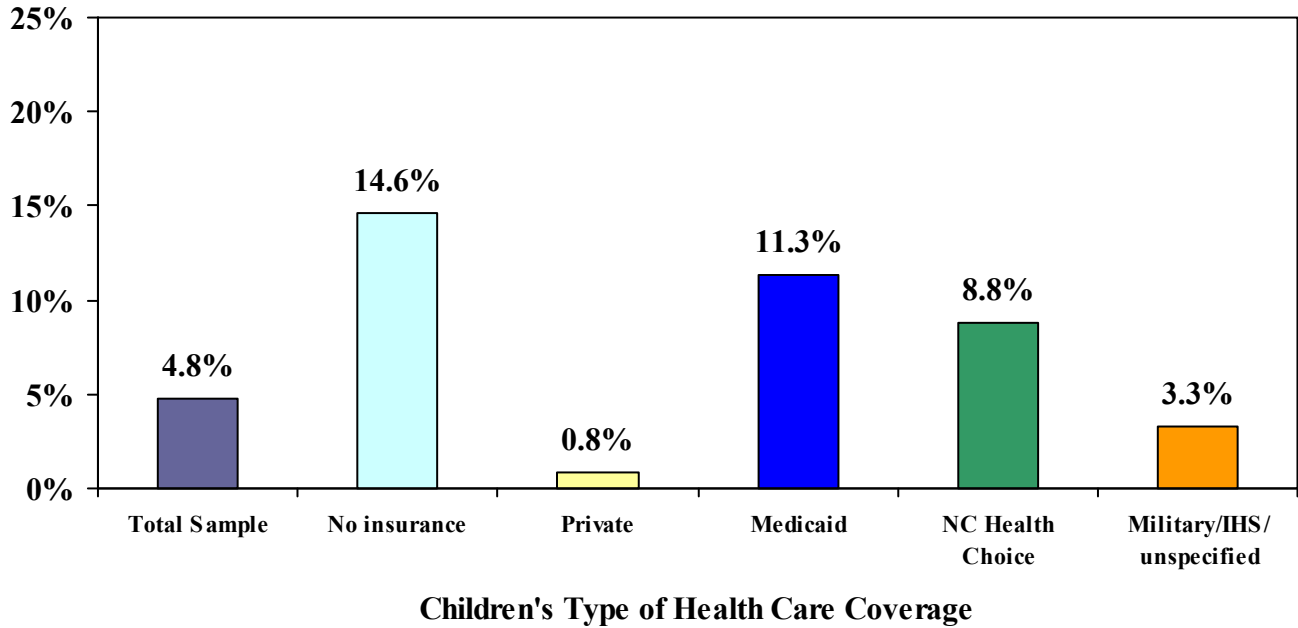
Parents were asked to report the kind of place that they take their child to most often for sick care, either: a doctor's office; a public health department (including a community health center); a hospital (including a hospital outpatient department, hospital emergency room, or urgent care center); or some other place (including a school nurse, school based health center, or no usual place). Prevalence rates for usual source of care by type of health care coverage are presented in Table 15. Prevalence rates for parents that reported their usual source of care by type of health care coverage for a doctor's office are presented in Figure 12, a public health department in Figure 13, and a hospital in Figure 14.

- In general, 87.5 percent of parents take their child to a doctor's office for sick care, 4.8 percent go to a public health department, 6.0 percent go to a hospital, and 1.6 percent go to some other place.
- Children with no insurance were less likely to visit a doctor's office (55.8%) and more likely to go to a public health department (14.6%) or a hospital (21.9%), compared to children with health care coverage.
- Children covered by private insurance were more likely to visit a doctor's office (95.6%), compared to children with Medicaid (80.4%), NC Health Choice (81.9%), or other type of insurance plan (75.5%).

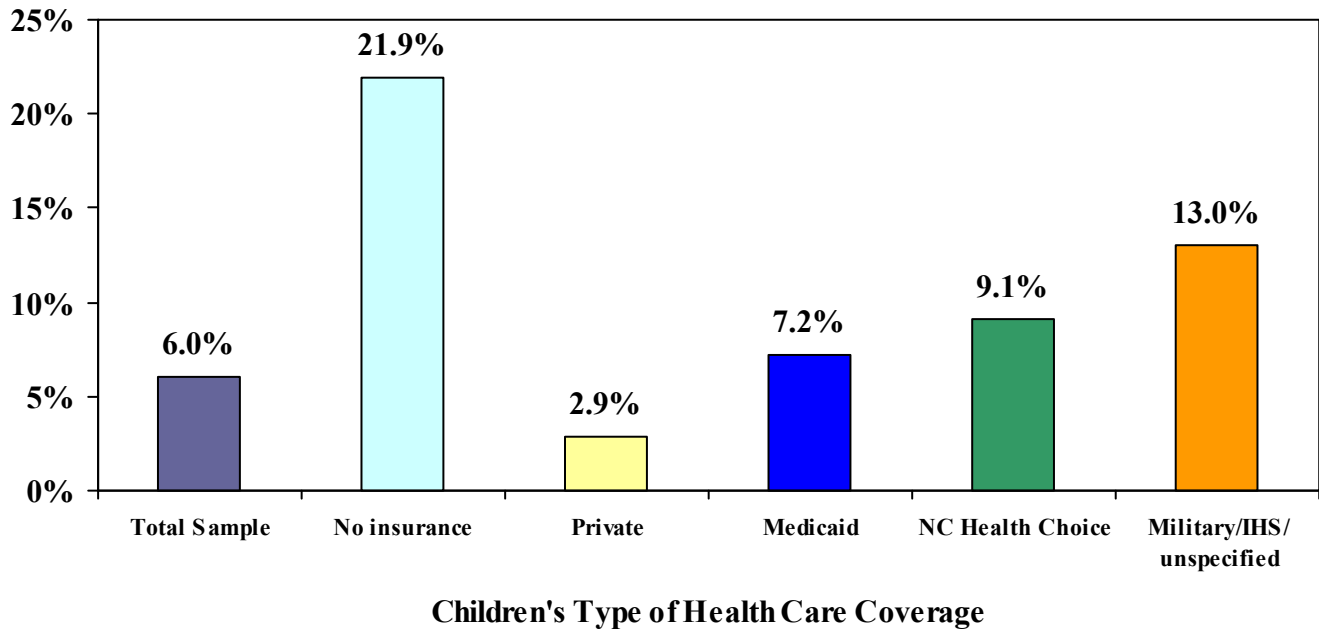
**Figure 12. Percentage of parents who report that they most often take their child to a doctor's office for sick care by type of health care coverage, 2007-2009.**



**Figure 13. Percentage of parents who report that they most often take their child to a public health department or community health center for sick care by type of health care coverage, 2007-2009.**



**Figure 14. Percentage of parents who report that they most often take their child to a**



**hospital (including hospital outpatient department, hospital emergency room, or urgent care center) for sick care by type of health care coverage, 2007-2009.**

**Table 15. Place where parent most often takes child for sick care by type of health care coverage, 2007-2009.**

Health Care Coverage	Usual Source of Care <sup>1</sup>	N	Weighted%	95% CI
No insurance	Doctor's office	255	55.8%	49.7, 61.8
	Public Health Center	70	14.6%	10.5, 18.7
	Hospital	98	21.9%	17.0, 26.9
	Other	29	7.7%	4.4, 10.9
Private Health Insurance	Doctor's office	4,560	95.6%	94.8, 96.4
	Public Health Center	41	0.80%	0.47, 1.1
	Hospital	145	2.9%	2.3, 3.6
	Other	30	0.64%	0.35, 0.94
Medicaid	Doctor's office	1,460	80.4%	78.0, 82.9
	Public Health Center	180	11.3%	9.3, 13.3
	Hospital	113	7.2%	5.6, 8.8
	Other	15	1.0%	0.41, 1.7
NC Health Choice	Doctor's office	278	81.9%	76.4, 87.4
	Public Health Center	23	8.8%	4.6, 13.2
	Hospital	27	9.1%	5.2, 12.9
	Other	2	0.15%	0.0, 0.35
Military/IHS/unspecified <sup>2</sup>	Doctor's office	458	75.5%	71.2, 79.9
	Public Health Center	22	3.3%	1.4, 5.2
	Hospital	90	13.0%	9.7, 16.3
	Other	43	8.2%	5.4, 11.0
<i>Total</i>	<i>Doctor's office</i>	<i>7,011</i>	<i>87.5%</i>	<i>86.6, 88.5</i>
	<i>Public Health Center</i>	<i>336</i>	<i>4.8%</i>	<i>4.1, 5.4</i>
	<i>Hospital</i>	<i>473</i>	<i>6.0%</i>	<i>5.4, 6.7</i>
	<i>Other</i>	<i>119</i>	<i>1.6%</i>	<i>1.3, 2.0</i>

Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>Usual source of care = Parent's response to the question: What kind of place does your child go to most often for sick care - a doctor's office; a public health department (including community health center); a hospital (including hospital outpatient department, hospital emergency room, or urgent care center); or other (including a school nurse, school based health center, "some other kind of place" or "no usual place")?

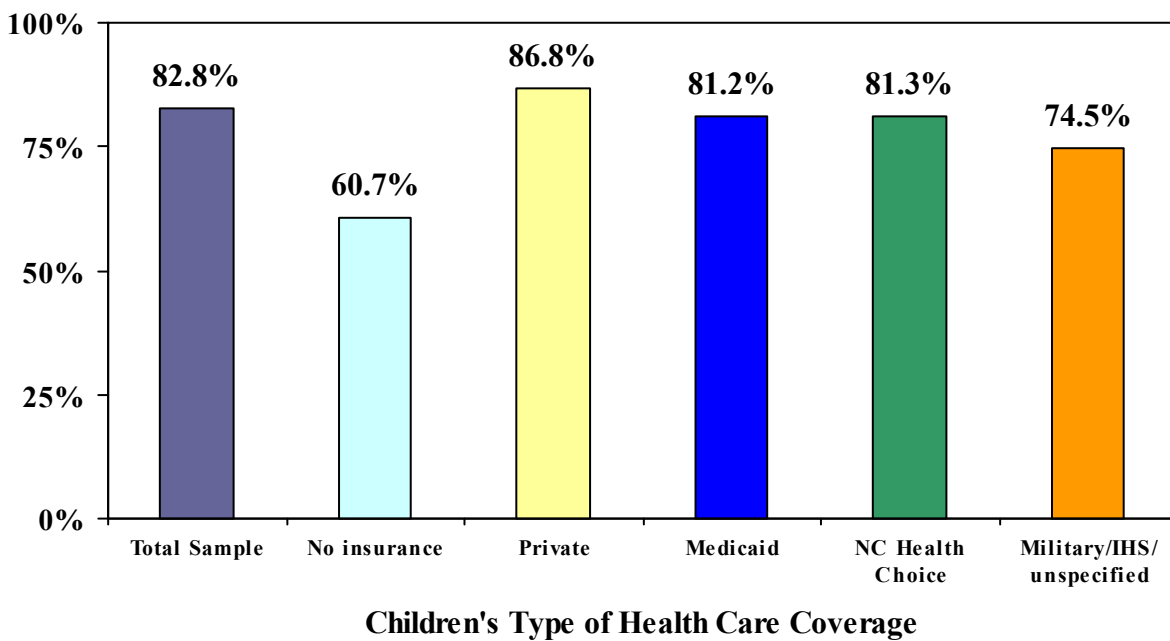
<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

## *Personal Doctor*

Parents were asked to report whether they have one person that they think of as their child's personal doctor or nurse. A personal doctor or nurse is a health professional who knows the child well and is familiar with the child's health history (e.g., a general doctor, a pediatrician, a specialist doctor, a nurse practitioner, or a physician assistant). Prevalence rates for whether a child has a personal doctor or nurse by type of health care coverage are presented in Table 16 and Figure 15.

- In general, 82.8 percent of parents reported that they have one person that they think of as their child's personal doctor or nurse.
- Children with no health insurance were less likely to have a personal doctor or nurse (60.7%), compared to children with health care coverage.

**Figure 15. Percent of parents who report that their child has a health professional who knows child well and is familiar with child's health history by type of health care coverage, 2007-2009.**



**Table 16. Child has personal doctor or nurse by type of health care coverage, 2007-2009.**

<b>Health Care Coverage</b>	<b>Personal Doctor<sup>1</sup></b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	Yes	273	60.7%	54.8, 66.5
	No	184	39.3%	33.5, 45.1
Private Health Insurance	Yes	4,142	86.8%	85.6, 88.1
	No	636	13.2%	11.9, 14.4
Medicaid	Yes	1,437	81.2%	78.8, 83.5
	No	328	18.8%	16.5, 21.1
NC Health Choice	Yes	266	81.3%	76.2, 86.5
	No	63	18.7%	13.5, 23.8
Military/IHS/unspecified <sup>2</sup>	Yes	440	74.5%	70.1, 79.0
	No	171	25.5%	21.0, 29.9
<i>Total</i>	<i>Yes</i>	<i>6,558</i>	<i>82.8%</i>	<i>81.8, 83.9</i>
	<i>No</i>	<i>1,382</i>	<i>17.2%</i>	<i>16.1, 18.2</i>

<sup>1</sup>A personal doctor or nurse is a health professional who knows child well and is familiar with child's health history (including a general doctor, a pediatrician, a specialist doctor, a nurse practitioner, or a physician assistant).

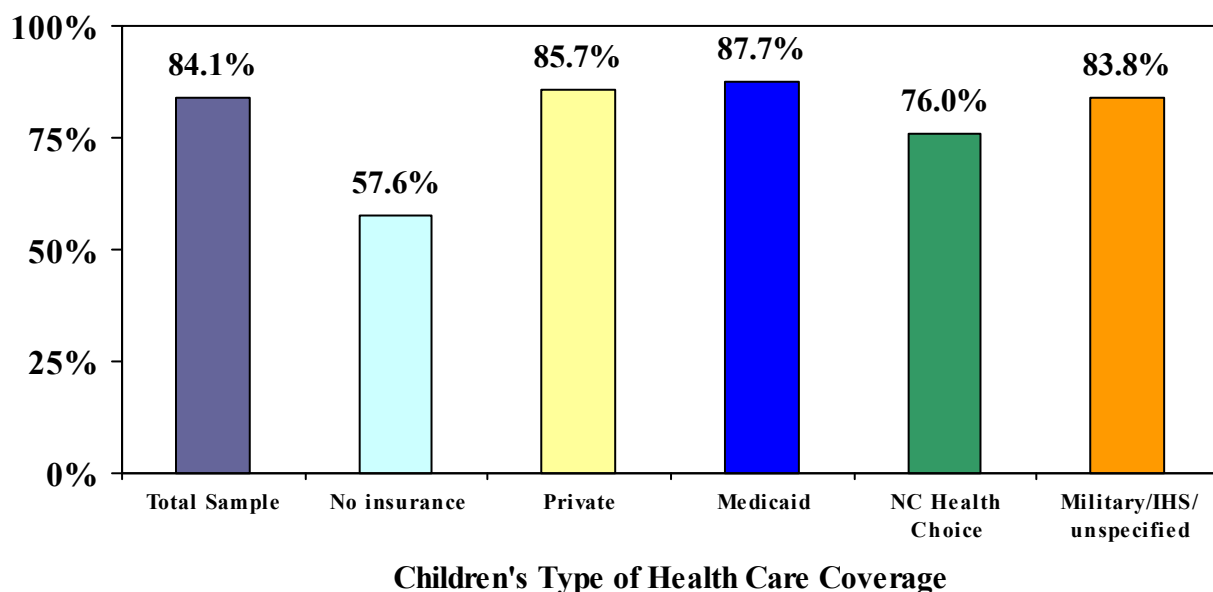
<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

## Preventive Health Care

Parents were asked to report whether their child has had a preventive care visit within the past 12 months. Preventive care visits include things like a well child check-up, a routine physical exam, immunizations, or health screening tests. Prevalence rates for whether a child has had a preventive health care visit within the past 12 months by type of health care coverage are presented in Table 17 and Figure 16.

- In general, 84.1 percent of parents reported that their child has had a preventive health care visit within the past 12 months.
- Children with no health insurance were less likely to have had a preventive health care visit within the past 12 months (57.6%), compared to children with health care coverage.
- Children with NC Health Choice were less likely to have had a preventive health care visit within the past 12 months (76.0%), compared to children with other types of health care coverage.
- Children with Medicaid were most likely to have had a preventive health care visit within the past 12 months (87.7%), compared to children with other types of health care coverage. This may be due in part to the fact that Medicaid children receive letters reminding them when it is time for a well child check-up and have Health Check Coordinators who follow up on children when they are delinquent for care. NC Health Choice and other health insurance programs do not offer these services.

**Figure 16. Percentage of parents who report that their child had a preventive health care visit within the past 12 months by type of health care coverage, 2007-2009.**



**Table 17. Parent report of children’s preventive health care within the past 12 months by type of health care coverage, 2007-2009.**

<b>Health Care Coverage</b>	<b>Preventive Care<sup>1</sup></b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	Yes	253	57.6%	51.7, 63.5
	No	204	42.4%	36.5, 48.3
Private Health Insurance	Yes	3,991	85.7%	84.5, 87.0
	No	759	14.3%	13.0, 15.5
Medicaid	Yes	1,525	87.7%	85.8, 89.7
	No	234	12.3%	10.3, 14.2
NC Health Choice	Yes	249	76.0%	70.2, 82.8
	No	79	24.0%	18.2, 29.8
Military/IHS/unspecified <sup>2</sup>	Yes	495	83.8%	80.0, 87.6
	No	111	16.2%	12.4, 20.0
<i>Total</i>	<i>Yes</i>	<i>6,513</i>	<i>84.1%</i>	<i>83.1, 85.1</i>
	<i>No</i>	<i>1,387</i>	<i>15.9%</i>	<i>14.8, 16.9</i>

<sup>1</sup>Preventive care visit includes a well child check-up, a routine physical exam, immunizations, or health screening tests within the past 12 months.

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

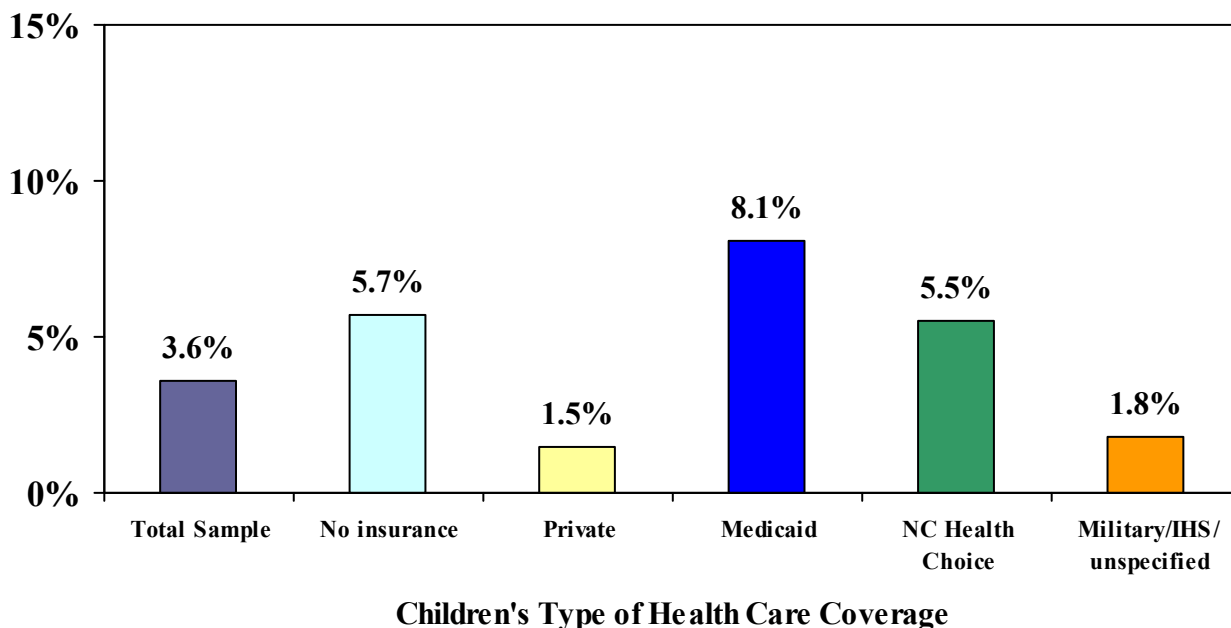
## Children’s Health

### General Health Status

Parents were asked to report how they would rate their child’s health, as either “excellent,” “very good,” “good,” “fair” or “poor.” Prevalence of parental ratings of child’s general health status by type of health care coverage is presented in Table 18. Prevalence rates of parents who rated their child’s health as “fair or poor” by type of health care coverage are presented in Figure 17.

- In general, 56.0 percent parents rated their child’s health as “excellent,” 25.7 percent as “very good,” 14.7 percent as “good,” and 3.6 percent as “fair or poor.”
- Children covered by private health insurance were less likely to be rated as in fair or poor health (1.5%), compared to children with no health insurance or covered by other types of health insurance.
- Children covered by Medicaid were the most likely to be rated as in fair or poor health (8.1%).

**Figure 17. Percentage of parents who report that their child’s general health status is fair or poor by type of health care coverage, 2007-2009. †**



†Note. Data in Figure 17 updated on October 25, 2010.

**Table 18. Parent report of child's general health status by type of health care coverage, 2007-2009.<sup>†</sup>**

<b>Health Care Coverage</b>	<b>Health Status</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	Excellent	196	43.6%	37.6, 49.6
	Very Good	125	24.6%	19.6, 29.7
	Good	110	25.9%	20.7, 31.2
	Fair/Poor	30	5.9%	3.3, 8.4
Private Health Insurance	Excellent	3068	64.3%	62.5, 66.0
	Very Good	1207	25.2%	23.6, 26.8
	Good	429	9.0%	7.9, 10.1
	Fair/Poor	69	1.5%	1.0, 2.0
Medicaid	Excellent	713	40.2%	37.2, 43.1
	Very Good	478	27.0%	24.3, 29.7
	Good	443	24.7%	22.1, 27.3
	Fair/Poor	137	8.1%	6.4, 9.7
NC Health Choice	Excellent	122	38.9%	32.2, 45.5
	Very Good	109	29.6%	23.3, 35.9
	Good	79	26.0%	20.0, 31.9
	Fair/Poor	20	5.5%	2.5, 8.4
Military/IHS/unspecified <sup>1</sup>	Excellent	382	65.7%	61.0, 70.5
	Very Good	170	23.2%	19.2, 27.2
	Good	50	9.2%	6.1, 12.4
	Fair/Poor	11	1.8%	0.4, 3.2
<i>Total</i>	<i>Excellent</i>	<i>4481</i>	<i>56.0%</i>	<i>54.6, 57.40</i>
	<i>Very Good</i>	<i>2089</i>	<i>25.7%</i>	<i>24.4, 26.9</i>
	<i>Good</i>	<i>1111</i>	<i>14.7%</i>	<i>13.7, 15.7</i>
	<i>Fair/Poor</i>	<i>267</i>	<i>3.6%</i>	<i>3.1, 4.2</i>

Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

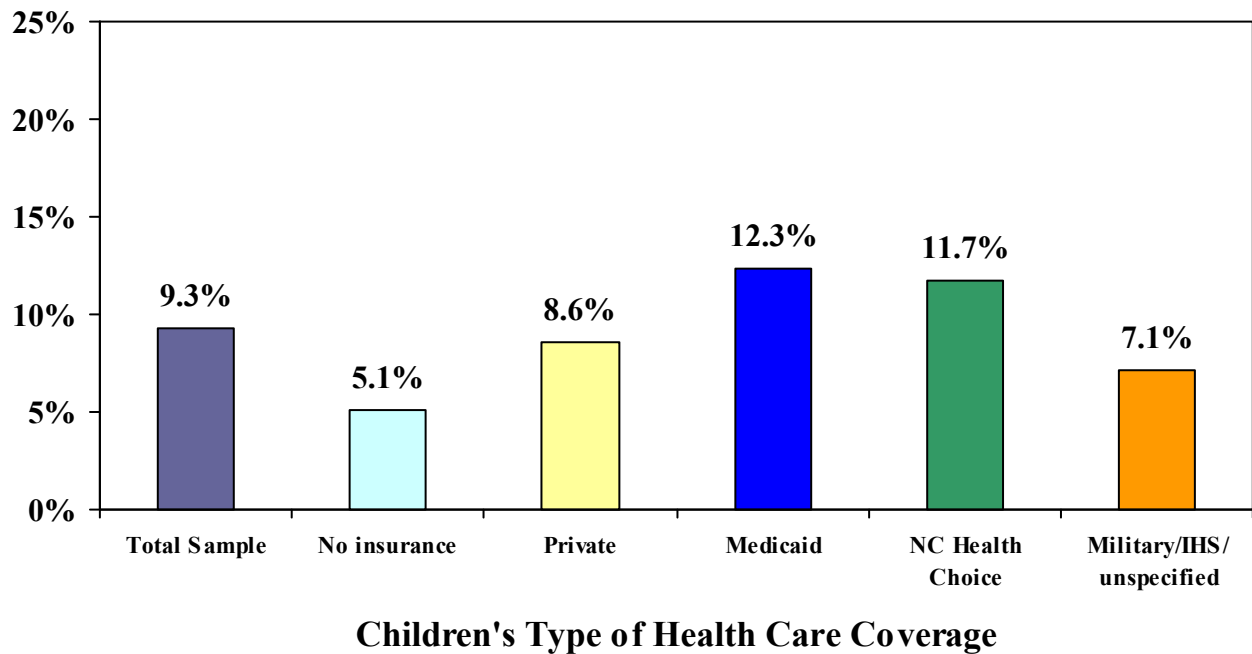
<sup>†</sup>Note. Data in Table 18 updated on October 25, 2010.

## *Asthma*

Parents with children between the ages of 1 to 17 years old were asked if they had ever been told by a doctor that their child has asthma and if the child still has asthma. Prevalence rates for children with current asthma by type of health care coverage are presented in Table 19 and Figure 18.

- In general, 9.3 percent of parents reported that their child currently has asthma.
- Children with no insurance were less likely to have been told by a doctor that they currently have asthma (5.1%), compared to children with health insurance.
- Children with Medicaid or NC Health Choice were more likely to have been told by a doctor that they currently have asthma (12.3% and 11.7%), compared to children with other types of health care coverage.

**Figure 18. Percentage of parents who report that their child currently has asthma by type of health care coverage, 2007-2009.**



**Table 19. Parent report of child’s current asthma by type of health care coverage, 2007-2009.**

<b>Health Care Coverage</b>	<b>Current Asthma<sup>1</sup></b>	<b>N</b>	<b>Weighted %</b>	<b>95% CI</b>
No insurance	Yes	27	5.1%	2.4, 7.8
	No	424	94.9%	92.2, 97.6
Private Health Insurance	Yes	370	8.6%	7.5, 9.7
	No	4,176	91.4%	90.4, 92.5
Medicaid	Yes	229	12.3%	10.4, 14.3
	No	1,411	87.7%	85.7, 89.6
NC Health Choice	Yes	45	11.7%	7.8, 15.5
	No	285	88.3%	84.5, 92.2
Military/IHS/unspecified <sup>1</sup>	Yes	49	7.1%	4.6, 9.6
	No	532	92.9%	90.4, 95.4
<i>Total</i>	<i>Yes</i>	<i>720</i>	<i>9.3%</i>	<i>8.5, 10.2</i>
	<i>No</i>	<i>6,828</i>	<i>90.7%</i>	<i>89.8, 91.5</i>

Note: use caution in interpreting cell sizes n < 50.

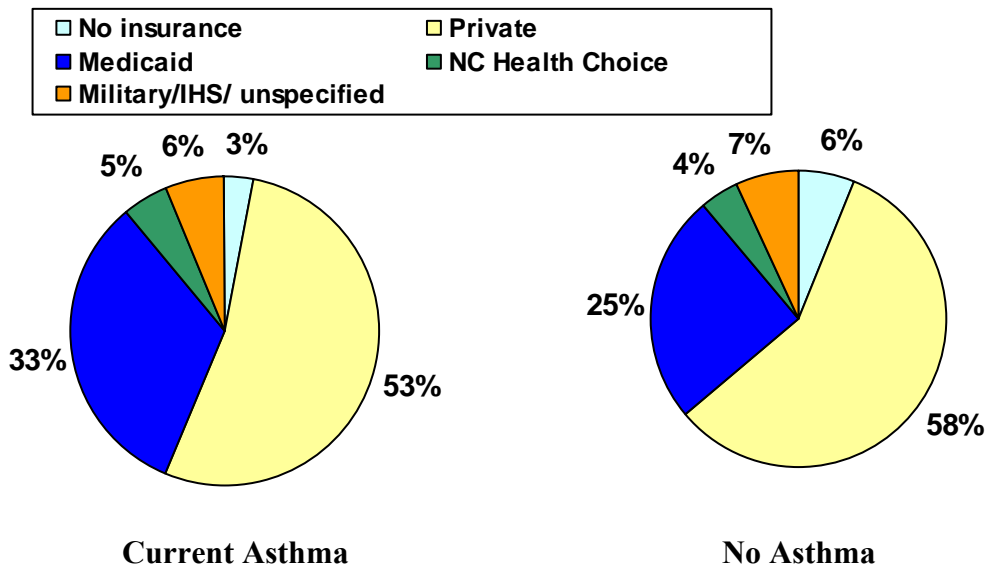
<sup>1</sup>Parental report if they had ever been told by a doctor that their child has asthma and that the child still has asthma (ages 1 to 17 years).

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

Prevalence rates for child’s type of health care coverage by report of child’s current asthma are presented in Table 20 and Figure 19.

- About half of children with and without current asthma were covered under private health insurance (52.8% and 58.1%, respectively).
- One-third of children with asthma were covered under Medicaid compared to one-quarter of children without current asthma (33.3% vs. 24.4%, respectively).
- Twice as many children without current asthma were uninsured compared to children with current asthma (6% vs. 3.1%).

**Figure 19. Child’s type of health care coverage by parent report of current asthma, 2007-2009.**



**Note: Current asthma refers to parental report if they had ever been told by a doctor that their child has asthma and that the child still has asthma (ages 1 to 17 years).**

**Table 20. Child’s type of health care coverage by parent report of child’s current asthma, 2007-2009.**

<b>Current Asthma<sup>1</sup></b>	<b>Health Care Coverage</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
Yes	No insurance	27	3.1%	1.4, 4.8
	Private Health Insurance	370	52.8%	48.0, 57.6
	Medicaid	229	33.3%	28.7, 37.9
	NC Health Choice	45	5.3%	3.5, 7.0
	Military/IHS/unspecified <sup>2</sup>	49	5.5%	3.6, 7.4
No	No insurance	424	6.0%	5.3, 6.7
	Private Health Insurance	4,176	58.1%	56.6, 60.0
	Medicaid	1,411	24.4%	23.0, 25.8
	NC Health Choice	285	4.1%	3.5, 4.7
	Military/IHS/unspecified <sup>2</sup>	532	7.4%	6.6, 8.1

Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>Parental report if they had ever been told by a doctor that their child has asthma and that the child still has asthma (ages 1 to 17 years).

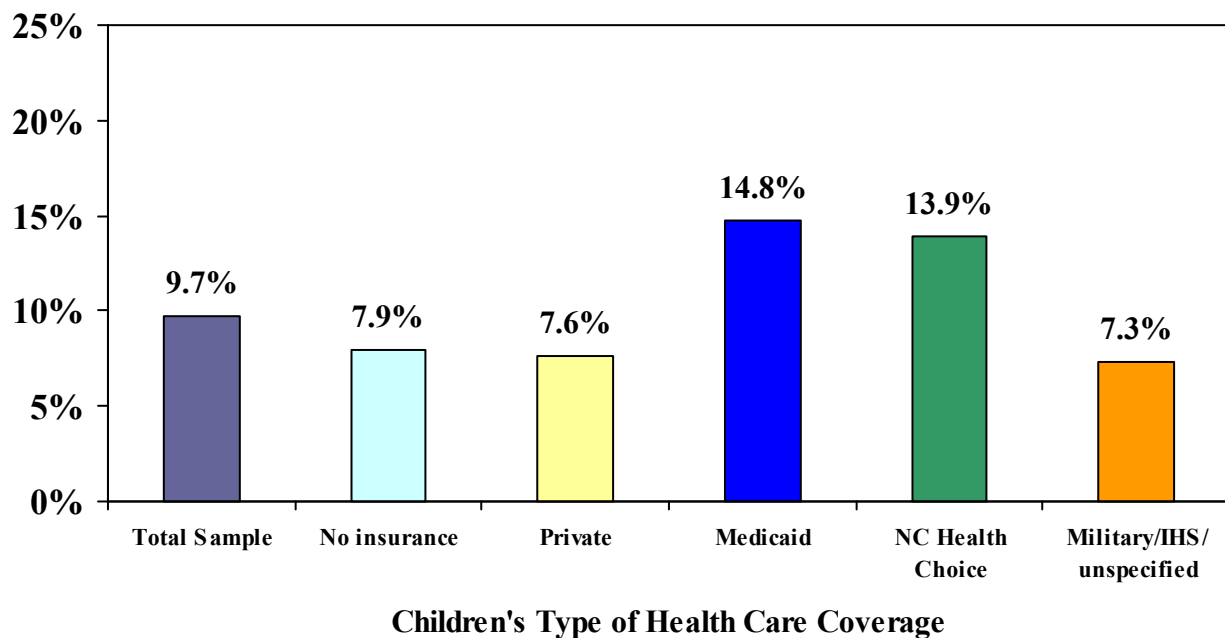
<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

### ***Elevated Need for Medical Care, Mental Health or Educational Services Due to a Chronic Condition***

Parents were asked to report whether their child currently needs or uses more medical care, mental health or educational services than is usual for most children of the same age because of any medical, behavioral, or other health condition that has lasted or is expected to last for at least 12 months. Prevalence rates for elevated need for services by type of health care coverage are presented in Table 21 and Figure 20.

- In general, 9.7 percent parents reported that their child currently needs or uses more medical, mental health, or educational services than children of the same age for a chronic medical, behavioral, or health condition.
- Children covered under Medicaid (14.8%) or NC Health Choice (13.9%) were more likely to currently need or use more medical, mental health or educational services than children of the same age, compared to children with other types of health care coverage.

**Figure 20. Percentage of parents who report that their child needs or uses more medical care, mental health or educational services than children of the same age because of a chronic medical, behavioral, or other health condition by type of health care coverage, 2007-2009.**



**Table 21. Parent report of child’s elevated need for medical care, mental health or educational services for a chronic condition by type of health care coverage, 2007-2009.**

<b>Health Care Coverage</b>	<b>Elevated need for services<sup>1</sup></b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	Yes	34	7.9%	4.6, 11.2
	No	421	92.1%	88.8, 95.4
Private Health Insurance	Yes	361	7.6%	6.6, 8.5
	No	4,380	92.4%	91.5, 93.4
Medicaid	Yes	267	14.8%	12.7, 17.0
	No	1,468	85.2%	83.0, 87.3
NC Health Choice	Yes	55	13.9%	9.4, 18.3
	No	270	86.1%	81.6, 90.5
Military/IHS/unspecified <sup>2</sup>	Yes	47	7.3%	4.8, 9.9
	No	559	92.7%	90.1, 95.2
<i>Total</i>	<i>Yes</i>	<i>764</i>	<i>9.7%</i>	<i>8.8, 10.5</i>
	<i>No</i>	<i>7,098</i>	<i>90.3%</i>	<i>89.5, 91.2</i>

Note: use caution in interpreting cell sizes n < 50.

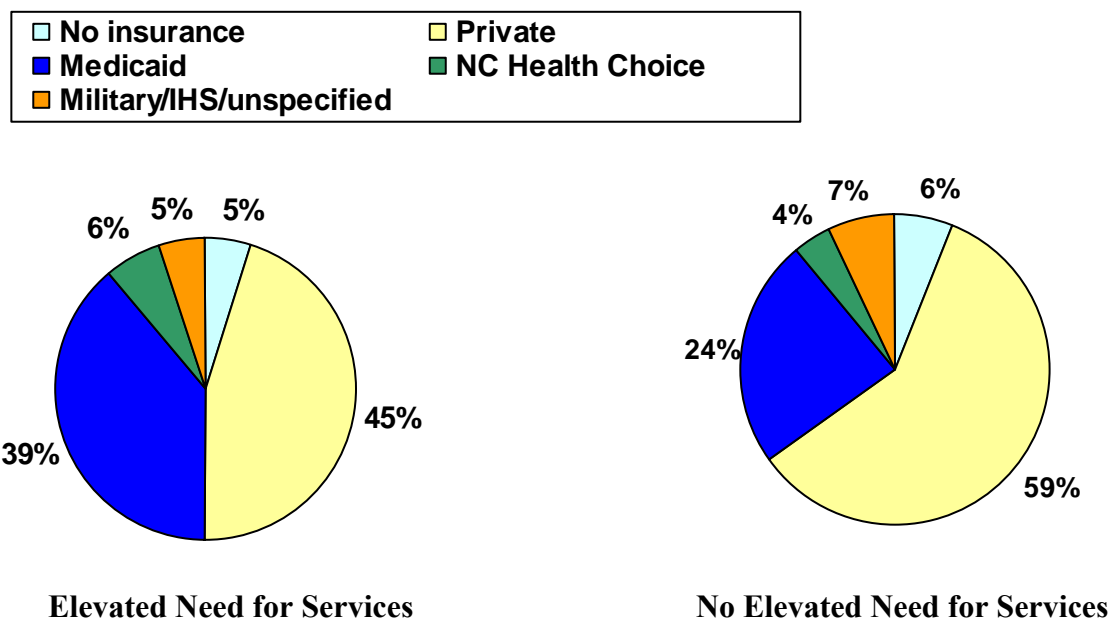
<sup>1</sup>Child currently needs or uses more medical care, mental health or educational services than is usual for most children of the same age for a medical, behavioral, or other health condition that has lasted or is expected to last for at least 12 months.

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

Prevalence rates for child’s type of health care coverage by child’s elevated need for services are presented in Figure 21 and Table 22.

- Children with an elevated need for services were less likely to have private insurance (45.0%) compared to children without an elevated need for services (59.1%).
- Children with an elevated need for services were more likely to be covered under Medicaid (39.3%) compared to children without an elevated need for services (24.1%).

**Figure 21. Child’s type of health care coverage by child’s elevated need for medical care, mental health or educational services for a chronic condition, 2007-2009.**



**Note:** Elevated Need for Services refers to parental report that the child currently needs or uses more medical care, mental health or educational services than is usual for most children of the same age for a medical, behavioral, or other health condition that has lasted or is expected to last for at least 12 months.

**Table 22. Child’s type of health care coverage by child’s elevated need for medical care, mental health or educational services for a chronic condition, 2007-2009.**

<b>Elevated need for services<sup>1</sup></b>	<b>Health Care Coverage</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
Yes	No insurance	34	4.6%	2.6, 6.5
	Private Health Insurance	361	45.0%	40.5, 49.6
	Medicaid	267	39.3%	34.7, 43.8
	NC Health Choice	55	5.7%	3.8, 7.6
	Military/IHS/unspecified <sup>2</sup>	47	5.4%	3.5, 7.3
No	No insurance	421	5.7%	5.0, 6.4
	Private Health Insurance	4,380	59.1%	57.6, 60.5
	Medicaid	1,468	24.1%	22.8, 25.4
	NC Health Choice	270	3.8%	3.2, 4.4
	Military/IHS/unspecified <sup>2</sup>	559	7.3%	6.6, 8.0

Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>Child currently needs or uses more medical care, mental health or educational services than is usual for most children of the same age for a medical, behavioral, or other health condition that has lasted or is expected to last for at least 12 months.

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

## ***Weight Status***

### **Calculation of Weight Status**

Parents were asked to report how much their child currently weighs and how tall their child is, from which Body Mass Index (BMI) is estimated. BMI is calculated as weight (in kilograms) divided by height (in meters) squared. Weight status is based on BMI percentiles calculated from the 2000 CDC growth charts ([www.cdc.gov/growthcharts](http://www.cdc.gov/growthcharts)), by age and sex and defined as:

- Underweight = less than the 5<sup>th</sup> percentile;
- Recommended range (i.e., normal weight) = between the 5<sup>th</sup> and 84<sup>th</sup> percentile;
- Overweight = between the 85<sup>th</sup> and 94<sup>th</sup> percentile;
- Obese = greater than or equal to the 95<sup>th</sup> percentile.

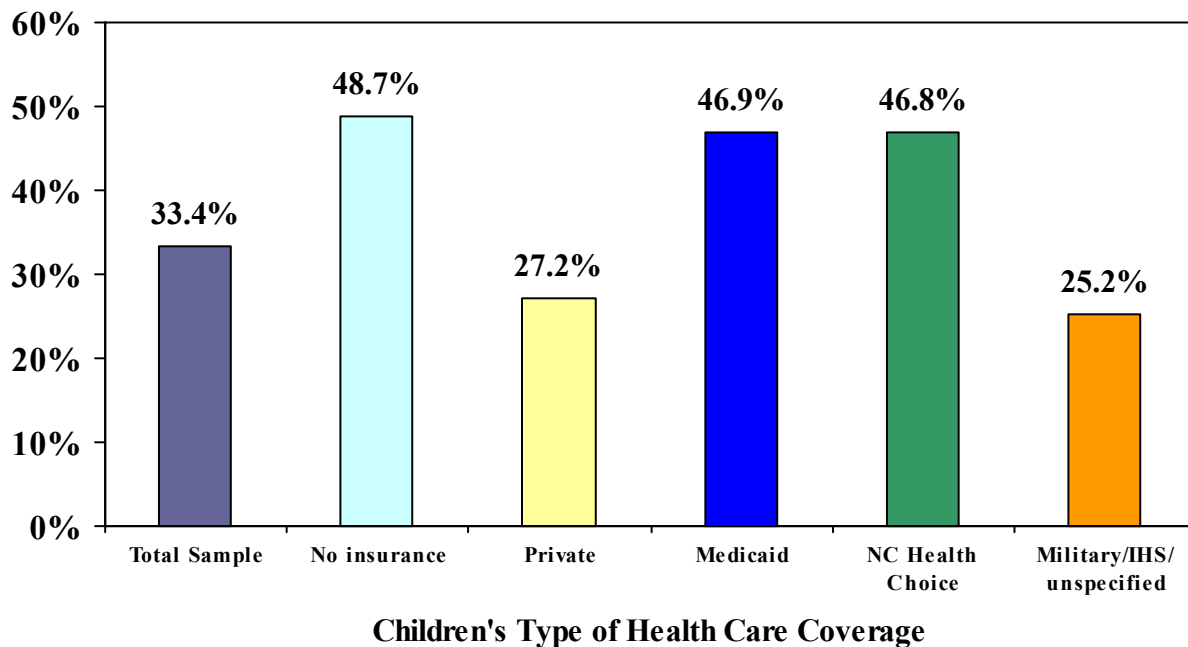
### **Parent’s Report of Child’s Height and Weight**

Measures of height and weight in the NC CHAMP survey are based on proxy reports and are not independently measured. Several procedures are used to increase accuracy of proxy reported child’s height and weight. When participants are recruited into NC CHAMP through the BRFSS, the parent is told that they will be asked to report the child’s height and weight and to please weigh and measure the child in the next couple of days prior to the NC CHAMP telephone interview. During the NC CHAMP interview, parents are asked to report how they arrived at their child’s height and weight. Parents that report that their child had told them their height and/or weight, that they had guessed, or that they had arrived at the height and weight “some other way” are asked if they would be willing to weigh and/or measure their child and provide the updated height and/or weight to NC CHAMP (i.e., height/weight call-back survey). Outlier observations or observations that are considered to be “biologically implausible values” (BIV; i.e., values identified as too low or too high for child age) are calculated based on World Health Organization fixed exclusion ranges. Heights and weights are not included in analyses if they are identified as BIV or if they were identified to participate in the height/weight call-back survey but were unable to be updated. Weight status is only reported for children ages 10 to 17 years due to a greater percentage of missing values and biologically improbable values (e.g., proxy reported height too high for child’s age) for height among children ages 10 and younger.

Prevalence of weight status by type of health care coverage for children ages 10 to 17 years are presented in Table 23. Prevalence of overweight/obesity for children ages 10 to 17 years are presented in Table 24 and Figure 22.

- In general 4.7 percent of children ages 10 to 17 years are underweight, 61.9 percent are at normal weight, 18.0 percent are overweight, and 15.5 percent are obese based on BMI percentiles for age and sex.
- One-third (33.4%) of children ages 10 to 17 years were either overweight or obese.
- Rates of child overweight and obesity were greater among children with no insurance (48.7%) and children covered by Medicaid (46.9%) or NC Health Choice (46.8%), compared to children with other types of health care coverage.

**Figure 22. Percentage of children (ages 10-17 years) overweight/obese based on parental report by type of health care coverage, 2007-2009.**



**Note: Overweight/obese defined as Body Mass Index (BMI) greater than or equal to sex- and age-specific 85<sup>th</sup> percentile from the 2000 CDC Growth Charts.**

**Table 23. Children’s weight status (ages 10 to 17 years) based on parental report by type of health care coverage, 2007-2009.**

<b>Health Care Coverage</b>	<b>Weight Status<sup>1</sup></b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	Underweight	16	7.5%	3.1, 11.8
	Normal Weight	135	43.8%	35.9, 51.6
	Overweight	56	23.7%	16.2, 31.1
	Obese	58	25.0%	17.8, 32.4
Private Health Insurance	Underweight	116	5.0%	3.9, 6.0
	Normal Weight	1,595	67.9%	65.4, 70.3
	Overweight	367	15.3%	13.4, 17.2
	Obese	285	11.8%	10.1, 13.6
Medicaid	Underweight	24	3.1%	1.3, 4.8
	Normal Weight	303	50.0%	44.7, 55.3
	Overweight	136	24.8%	20.2, 29.4
	Obese	152	22.1%	17.8, 26.4
NC Health Choice	Underweight	5	1.7%	0.0, 3.5
	Normal Weight	116	51.4%	42.9, 59.9
	Overweight	46	21.4%	14.2, 28.5
	Obese	48	25.5%	17.8, 33.1
Military/IHS/unspecified <sup>2</sup>	Underweight	18	6.5%	2.6, 10.4
	Normal Weight	198	68.3%	60.8, 75.8
	Overweight	43	14.3%	8.7, 19.8
	Obese	31	10.9%	5.9, 16.0
<i>Total</i>	<i>Underweight</i>	<i>179</i>	<i>4.7%</i>	<i>3.8, 5.5</i>
	<i>Normal Weight</i>	<i>2,347</i>	<i>61.9%</i>	<i>59.8, 63.9</i>
	<i>Overweight</i>	<i>648</i>	<i>18.0%</i>	<i>16.3, 19.6</i>
	<i>Obese</i>	<i>574</i>	<i>15.5%</i>	<i>13.9, 17.0</i>

Note: use caution in interpreting cell sizes n < 50.

<sup>1</sup>Weight status defined as Body Mass Index (BMI) sex- and age-specific percentiles from the 2000 CDC Growth Charts: Underweight < 5<sup>th</sup> percentile; Normal weight between 5<sup>th</sup> and 84<sup>th</sup> percentile; Overweight between 85<sup>th</sup> and 94<sup>th</sup> percentile; Obese = ≥ 95<sup>th</sup> percentile.

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

**Table 24. Prevalence of child overweight/obesity (ages 10 to 17 years) based on parental report by type of health care coverage, 2007-2009.**

<b>Health Care Coverage</b>	<b>Overweight/Obese<sup>1</sup></b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
No insurance	Yes	114	48.7%	40.6, 56.8
	No	151	51.3%	43.2, 59.4
Private Health Insurance	Yes	652	27.2%	24.8, 29.5
	No	1,711	72.8%	70.5, 75.2
Medicaid	Yes	288	46.9%	41.6, 52.2
	No	327	53.1%	47.8, 58.3
NC Health Choice	Yes	94	46.8%	38.3, 55.4
	No	121	53.1%	44.6, 61.7
Military/IHS/unspecified <sup>2</sup>	Yes	74	25.2%	18.2, 32.2
	No	216	74.8%	67.8, 81.8
<i>Total</i>	<i>Yes</i>	<i>1,222</i>	<i>33.4%</i>	<i>31.4, 35.5</i>
	<i>No</i>	<i>2,526</i>	<i>66.5%</i>	<i>64.5, 68.6</i>

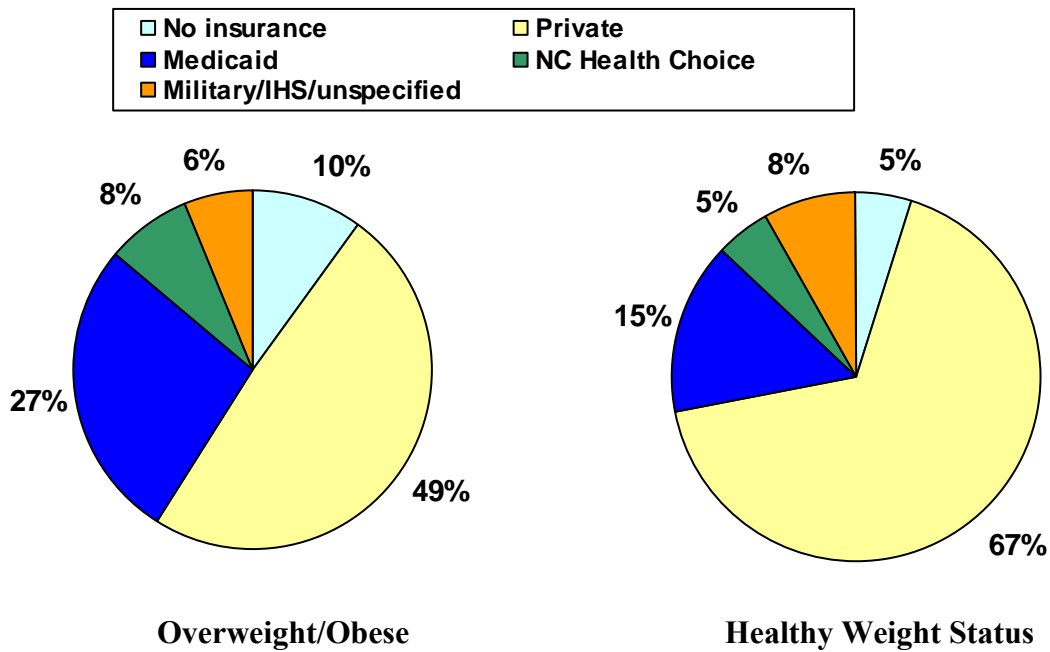
<sup>1</sup>Overweight/obese defined as Body Mass Index (BMI) greater than or equal to sex- and age-specific 85<sup>th</sup> percentile from the 2000 CDC Growth Charts.

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

Prevalence of type of health care coverage by child overweight/obesity for children ages 10 to 17 years are presented in Table 25 and Figure 23.

- Children who are overweight/obese are less likely to be covered by private health insurance compared to healthy weight children (49.3% vs. 66.4%).
- Children who are overweight/obese are more likely to be covered under Medicaid compared to healthy weight children (27% vs. 15.3%).
- Children who are overweight/obese are more likely to be uninsured compared to healthy weight children (9.8% vs. 5.2%).

**Figure 23. Child’s type of health care coverage by child overweight/obesity (ages 10-17 years), 2007-2009.**



**Note: Overweight/obese defined as Body Mass Index (BMI) greater than or equal to sex- and age-specific 85<sup>th</sup> percentile from the 2000 CDC Growth Charts.**

**Table 25. Child’s type of health care coverage by child overweight/obesity (ages 10 to 17 years), 2007-2009.**

<b>Overweight/Obese<sup>1</sup></b>	<b>Health Care Coverage</b>	<b>N</b>	<b>Weighted%</b>	<b>95% CI</b>
Yes	No insurance	114	9.8%	7.5, 12.2
	Private Health Insurance	652	49.3%	45.5, 53.0
	Medicaid	288	27.0%	23.5, 30.4
	NC Health Choice	94	8.4%	6.3, 10.4
	Military/IHS/unspecified <sup>2</sup>	74	5.6%	3.8, 7.3
No	No insurance	151	5.2%	4.1, 6.2
	Private Health Insurance	1,711	66.4%	64.0, 68.8
	Medicaid	327	15.3%	13.3, 17.3
	NC Health Choice	121	4.8%	3.7, 5.8
	Military/IHS/unspecified <sup>2</sup>	216	8.3%	6.9, 9.7

<sup>1</sup>Overweight/obese defined as Body Mass Index (BMI) greater than or equal to sex- and age-specific 85th percentile from the 2000 CDC Growth Charts.

<sup>2</sup>Includes health care coverage through the military, CHAMPUS, TRI CARE, Indian Health Service (IHS) or other health insurance plan not specified.

## Medicaid Summary

- 25.7 percent of parents reported that their child's current primary health insurance plan was Medicaid, Carolina ACCESS or Health Check.
- 11.6 percent of children currently under Medicaid did not have health insurance at some point during the past 12 months, compared to 6.4 percent of all children.

## *Demographic Characteristics*

- Racial background for children covered by Medicaid was 37.6 percent white, 36.0 percent African American, and 26.4 percent other race, compared to the total sample of 63.7 percent white, 21.3 percent African American and 15.0 percent other race.
- Among whites, 15.2 percent were covered under Medicaid compared to 43.3 percent of African American children and 45.4 percent of other races.
- 22.6 percent of children covered by Medicaid were Hispanic, compared to 11.7 percent for the total sample.
- 49.5 percent of Hispanic children were covered under Medicaid compared to 22.5 percent of non-Hispanic children.
- Highest level of education for households with a child covered by Medicaid was 19.0 percent less than high school, 35.1 percent high school graduate, 29.8 percent some college, and 16.1 percent college degree, compared to the total sample of 7.0 percent less than high school, 17.8 percent High school graduate, 24.5 percent some college, and 50.7 percent college degree.
- Among households with less than a high school education, the majority of children were covered under Medicaid (69.7 percent), as well as households with a high school degree (50.6 percent), compared to 31.2 percent of households with some college education and 8.1 percent of households with a college degree.
- Age group of child covered by Medicaid was 45.4 percent birth to 5 years, 29.2 percent 6 to 11 years, and 25.5 percent 12 to 17 years, compared to the total sample of 33.4 percent birth to 5 years, 33.0 percent 6 to 11 years, and 33.6 percent 12 to 17 years.
- One-third of children between 0 and 5 years old were covered under Medicaid (34.9 percent). One-fifth of children between the ages of 6 and 11 years (22.7 percent) and children between the ages of 12 and 17 years (19.5%) were covered under Medicaid.

## *Health Care Access and Utilization*

- 80.4 percent of children covered by Medicaid usually visited a doctor for sick care, while 11.3 percent visited a Public Health Center, and 7.2 percent visited a hospital (including outpatient, emergency room, or urgent care center), compared to the total sample of 87.5 percent who visited a doctor, 4.8 percent visited a Public Health Center, and 6.0 percent visited a hospital for sick care.
- 81.2 percent of children covered by Medicaid had a personal doctor or nurse who is familiar with the child's health history and 87.7 percent have had a preventive health care visit within the past 12 months, compared to 82.8 percent and 84.1 percent of all children, respectively.

## *Health Status*

- Parental rating of child's general health status for children covered by Medicaid was 40.2 percent "excellent," 27.0 percent "very good," 24.7 percent "good," and 8.1 percent "fair or poor," compared to all children general health ratings of 56.0 percent "excellent," 25.7 percent "very good," 14.7 percent "good," and 3.6 percent "fair or poor."
- 12.3 percent of children covered by Medicaid currently have asthma, compared to 9.3 percent of all children.
- One-third of children with current asthma were covered under Medicaid compared to one-quarter of children without current asthma (33.3% vs. 24.4%, respectively).
- 14.8 percent of children covered by Medicaid currently need or use more medical care, mental health or educational services than is usual for most children of the same age, compared to 9.7 percent of all children.
- Children with an elevated need for services were more likely to be covered under Medicaid compared to children without an elevated need for services (39.3% vs. 24.1%, respectively).
- 24.8 percent of children covered by Medicaid are overweight and 22.1 percent are obese, compared to 18.0 percent and 15.5 percent of all children, respectively.
- Children who are overweight/obese are more likely to be covered under Medicaid compared to healthy weight children (27% vs. 15.3%).

## **NC Health Choice Summary**

- 4.0 percent of parents reported that their child's current primary health insurance plan was NC Health Choice.
- 14.5 percent of children currently under NC Health Choice did not have health insurance at some point during the past 12 months, compared to 6.4 percent of all children.

### ***Demographic Characteristics***

- Racial background for children covered by NC Health Choice was 48.5 percent white, 33.5 percent African American, and 18.0 percent other race, compared to the total sample of 63.7 percent white, 21.3 percent African American and 15.0 percent other race.
- 13.6 percent of children covered by NC Health Choice were Hispanic, compared to 11.7 percent for the total sample.
- Highest level of education for households with a child covered by NC Health Choice was 13.9 percent less than high school, 30.1 percent high school graduate, 34.0 percent some college, and 22.0 percent college degree, compared to the total sample of 7.0 percent less than high school, 17.8 percent High School graduate, 24.5 percent some college, and 50.7 percent college degree.
- Among households with less than a high school education, 7.9 percent were covered under NC Health Choice; 6.8 percent of children from households with a high school degree were covered under NC Health Choice. Among households with some college education, 5.5 percent were covered under NC Health Choice; 1.7 percent of children from households with a college degree were covered under NC Health Choice.
- NC Health Choice is available for children ages 6 years and older. Age group of child covered by NC Health Choice was 50.8 percent 6 to 11 years, and 49.2 percent 12 to 17 years, compared to the total sample of 33.4 percent 0 to 5 years, 33.0 percent 6 to 11 years, and 33.6 percent 12 to 17 years.

### ***Health Care Access and Utilization***

- 81.9 percent of children covered by NC Health Choice usually visited a doctor for sick care, while 8.8 percent visited a Public Health Center, and 9.1 percent visited a hospital (including outpatient, emergency room, or urgent care center), compared to the total sample of 87.5 percent who visited a doctor, 4.8 percent visited a Public Health Center, and 6.0 percent visited a hospital for sick care.

- 81.3 percent of children covered by NC Health Choice had a personal doctor or nurse who is familiar with the child’s health history and 76.0 percent have had a preventive health care visit within the past 12 months, compared to 82.8 percent and 84.1 percent of all children, respectively.

### ***Health Status***

- Parental rating of child’s general health status for children covered by NC Health Choice was 38.9 percent “excellent,” 29.6 percent “very good,” 26.0 percent “good,” and 5.5 percent “fair or poor,” compared to all children general health ratings of 56.0 percent “excellent,” 25.7 percent “very good,” 14.7 percent “good,” and 3.6 percent “fair or poor.”
- 11.7 percent of children covered by NC Health Choice currently have asthma, compared to 9.3 percent of all children.
- 13.9 percent of children covered by NC Health Choice currently need or use more medical care, mental health or educational services than is usual for most children of the same age for a chronic condition, compared to 9.7 percent of all children.
- 5.7 percent of children with a current need for more medical care, mental health or educational services than is usual for most children of the same age for a chronic condition were covered by NC Health Choice, compared to 3.8 percent of children without an elevated need for services.
- 21.4 percent of children covered by NC Health Choice are overweight and 25.5 percent are obese, compared to 18.0 percent and 15.5 percent of all children, respectively.
- 8.4 percent of children who were overweight/obese were covered by NC Health Choice, compared to 4.8 percent of healthy weight children.

## Summary of Results

### *Health Care Coverage*

The majority of parents surveyed reported that their child currently had some kind of health care coverage (94.5%); 11.6 percent of parents reported that their child does not currently have health care coverage or was not covered at some point during the past 12 months.

Over half of parents surveyed reported that their child was covered under a private health insurance plan (57.6%), and one-quarter of parents surveyed reported that their child was covered under Medicaid (25.7%); about 5 percent were covered under NC Health Choice (4%), or the military/CHAMPUS/TRI CARE/Indian Health Service/unspecified (7.1%).

Children currently covered by Medicaid or NC Health Choice were more likely to have discontinuous health care coverage during the past 12 months (11.6% and 14.2% respectively), compared to children with other types of health insurance.

### *Demographic Characteristics*

**Racial Background** - 63.7 percent of the total sample was white, 21.3 percent African American, and 15 percent other race. Children with no insurance were more likely to be of other racial background (35.9%), compared to children with health care coverage. Children with Medicaid or NC Health Choice were more likely to be African American (36.0% and 33.5%) or other racial background (26.4% and 18.0%) compared to other types of health care coverage.

- 15.2 percent of whites, 43.3 percent of African Americans, and 45.4 percent of other races were covered under Medicaid.
- 70.5 percent of whites, 38.6 percent of African Americans, and 26.4 percent of other races were covered by private health insurance.
- 4.2 percent of whites, 4.4 percent of African Americans, and 13.5 percent of other races were uninsured.

**Ethnicity** - 11.7 percent of the total sample was Hispanic. Children with no insurance were more likely to be Hispanic (33.7%), compared to children with health care coverage. Children covered by Medicaid were more likely to be Hispanic (22.6%), compared to other types of health care coverage.

- 24.1 percent of Hispanics and 62.0 percent of non-Hispanics were covered by private health insurance.
- 49.5 percent of Hispanics and 22.5 percent of non-Hispanics were covered under Medicaid.

- 16.2 percent of Hispanics and 4.2 percent of non-Hispanics were uninsured.

**Household Level of Education** – Seven percent of the total sample had less than a high school education, 17.8 percent were high school graduates, 24.5 percent had some college education, and 50.7 percent had a college degree. Parents of uninsured children were more likely to have less than a high school education (20.9%) and less likely to have a college degree (24.4%), compared to parents of children with health care coverage. Parents of children covered by Medicaid were more likely to have less than a high school education (19.0%) and less likely to have a college degree (16.1%), compared to parents with a child covered by other types of health care coverage.

*Medicaid Coverage:* Seventy percent of children from households with less than a high school education were covered under Medicaid, compared to 50.6 percent of children from households with a high school degree, 31.2 percent of children from households with some college, and 8.1 percent of children from households with a college degree.

*Private Health Insurance:* Five percent of children from households with less than a high school education had private health insurance, compared to 29.3 percent of children from households with a high school degree, 47.7 percent of children from households with some college, and 79.6 percent of children from households with a college degree.

*Lacking Health Care Coverage:* Seventeen percent of children from households with less than a high school education were uninsured, compared to 8.3 percent of children from households with a high school degree, 6.4 percent of children from households with some college, and 2.7 percent of children from households with a college degree.

**Child's Age** – One-third of the sample was between the ages of 0 to 5 years old (33.4%), one-third between the ages of 6 to 11 years old (33.0%), and one-third between the ages of 12 to 17 years old (33.3%). Children with no insurance were more likely to be older (42.0% ages 12-17 years), compared to children with health care coverage. NC Health Choice is only available for children ages 6 years and older, thus children covered by NC Health Choice were more likely to be older compared to children with other types of health care coverage. Children with Medicaid were more likely to be younger (45.4% 0 to 5 years), compared to children with other types of health care coverage.

### ***Health Care Access and Utilization***

The majority of parents take their child to a doctor's office for sick care (87.5%). Children with no insurance were less likely to visit a doctor's office (55.8%) and more likely to go to a public health department (14.6%) or a hospital (21.9%), compared to children with health care coverage. Children covered by private insurance were more likely to visit a doctor's office (95.6%), compared to children with Medicaid (80.4%), NC Health Choice (81.9%), or the military/ CHAMPUS/TRI CARE/Indian Health Service/unspecified (75.5%).

The majority of parents reported that they have one person that they think of as their child's personal doctor or nurse (82.8%). Children with no health insurance were less likely to have a personal doctor or nurse (60.7%), compared to children with health care coverage.

The majority of parents reported that their child has had a preventive health care visit within the past 12 months (84.1%). Children with no health insurance were less likely to have had a preventive health care visit (57.6%), compared to children with health care coverage. Children with NC Health Choice were less likely to have had a preventive health care visit within the past 12 months (76.0%), compared to children with other types of health care coverage.

## ***Health Status***

### **General Health Status**

Half of all parents rated their child's health as "excellent" (56.0%), 25.7 percent "very good," 14.7 percent "good," and 3.6 percent "fair or poor." Children covered by private insurance were less likely to be rated as in fair or poor health (1.5%), compared to children with no health insurance or covered by other types of health insurance. Children with Medicaid were the most likely to be rated as in fair or poor health (8.1%).

### **Asthma**

Nine percent of all parents reported that their child currently has asthma (i.e., parent has been told by a doctor that the child has asthma). Children with no insurance were less likely to be reported as having asthma (5.1%), compared to children with health insurance. Children with Medicaid or NC Health Choice were more likely to be reported as having asthma (12.3% and 11.7%), compared to children with other types of health care coverage. About half of children with and without current asthma were covered under private health insurance (52.8% and 58.1%, respectively). One-third of children with asthma were covered under Medicaid compared to one-quarter of children without current asthma (33.3% vs. 24.4%, respectively). Children without current asthma were somewhat more likely to be uninsured (6.0%) compared to children with current asthma (3.1%).

### **Elevated Need for Services for a Chronic Condition**

Ten percent of all parents reported that their child currently needs or uses more medical, mental health, or educational services than children of the same age for a chronic medical, behavioral, or health condition. Children covered under Medicaid (14.8%) or NC Health Choice (13.9%) were more likely to currently need or use more medical, mental health or educational services than children of the same age, compared to children with other types of health care coverage. Children with an elevated need for services were less likely to have private insurance compared to children without an elevated need for services (45.0% vs. 59.1%, respectively). Children with an elevated need for services were more likely to be covered under Medicaid compared to children without an elevated need for services (39.3% vs. 24.1%, respectively).

## **Weight Status**

One-third of children ages 10 to 17 years were either overweight or obese. Rates of child overweight and obesity were greater among children with no insurance (48.7%) and children covered by Medicaid (46.9%) or NC Health Choice (46.8%), compared to children with other types of health care coverage. Compared to healthy weight children, children who are overweight/obese are less likely to be covered by private health insurance (66.4% vs. 49.3%, respectively), more likely to be covered under Medicaid (15.3% vs. 27.0%, respectively), and more likely to be uninsured (5.2% vs. 9.8%, respectively).

## **Conclusion**

The North Carolina Child Health Assessment and Monitoring Program (NC CHAMP) is a surveillance system that collects information about the health characteristics of children and adolescents from ages 0 to 17 years in North Carolina on an annual basis. The focus of this report is children's health care coverage. NC CHAMP 2007-2009 data suggest that there are significant differences in children's health care access and utilization, as well as health status between children covered under different types of health insurance. Results highlight the need for the continued study of children and the causes of these health differences.

## **Errata**

On October 25, 2010 this report was updated to correct data presented in Figure 17 and Table 18 on pages 43 and 44 with respect to parental rating of child's general health status.