

Running the Numbers

*A Periodic Feature to Inform North Carolina Health Care Professionals
About Current Topics in Health Statistics*

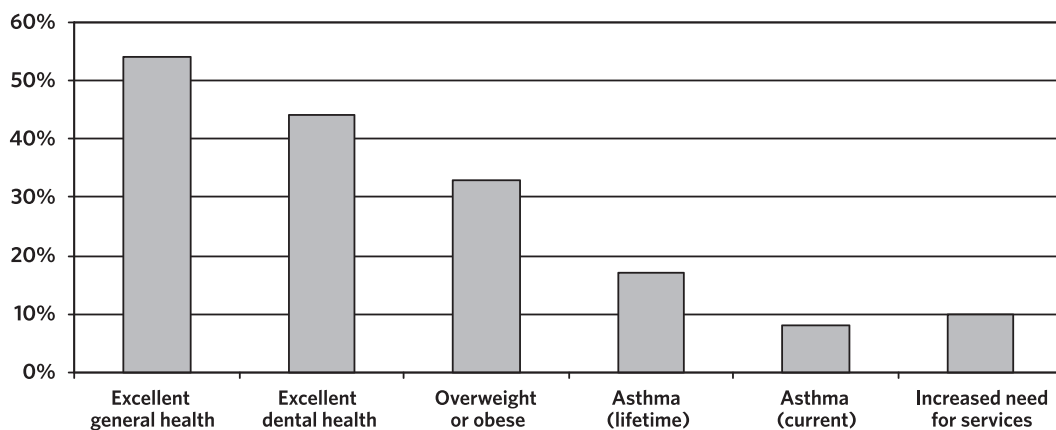
*From the State Center for Health Statistics, North Carolina Department of Health and Human Services
<http://www.schs.state.nc.us/SCHS>*

Adolescent Health in North Carolina

The North Carolina Child Health Assessment and Monitoring Program (NC CHAMP) is a comprehensive surveillance system used to assess the health characteristics of approximately 2.2 million North Carolina children aged 0 to 17 years. It was first developed in the fall of 2004 and has been implemented annually since January 2005. Children eligible for the NC CHAMP survey are drawn each month from the Behavioral Risk Factor Surveillance System (BRFSS) telephone survey of adults aged 18 and older. All BRFSS respondents with children younger than 18 years 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 over the telephone in a follow-up survey. Questions on the NC CHAMP survey are revised each year on the basis of state surveillance needs and pertain to a wide variety of health-related topics, including breastfeeding, health care access and utilization, oral and physical health, nutrition, immunization, physical activity, and parent perspectives on health issues. During 2008, nearly 1,500 parents responded to NC CHAMP survey questions about their adolescent child aged 10 to 17 years. This report provides an overview of the health of North Carolina adolescents, based on the 2008 NC CHAMP survey results.

Fifty-five percent of parents reported that their adolescent was in excellent health, whereas less than half rated the condition of their adolescent's teeth as excellent (Figure 1). On the basis of body mass index (BMI; defined as the weight in kilograms divided by height in meters squared) percentiles for age and sex, 18% of adolescents were overweight (ie, BMI between the 85th and 94th percentile) and 15% were obese (ie, BMI $\geq$ 95th percentile) at the time of the survey. Yet only 10% of parents reported that a health

Figure 1.
Health Status of Adolescents, North Carolina Child Health Assessment and Monitoring Program, 2008



Note. Data are percentage of parents whose child had the specified characteristic. The age range for adolescents is defined as 10-17 years.

continued on page 392

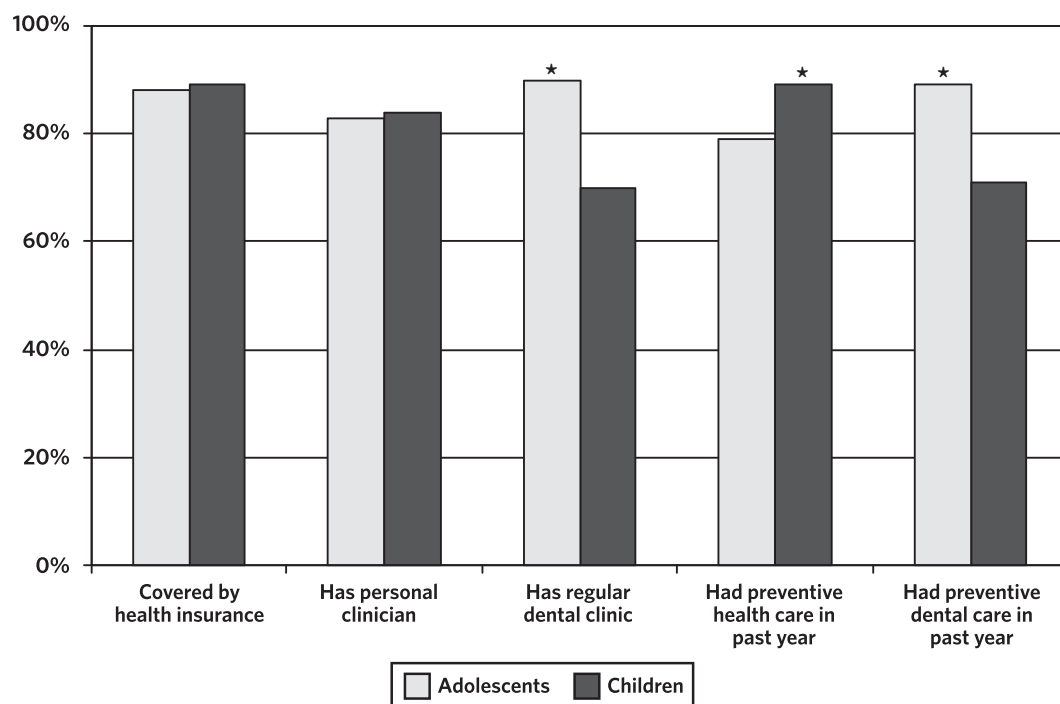
continued from page 391

care professional has told them that their adolescent was overweight. Seventeen percent of adolescents received a diagnosis of asthma at some point, whereas 8% had symptoms of asthma at the time of the survey. Ten percent of parents reported that their adolescent currently needs or uses more medical care, mental health, or educational services than their adolescent's peers because of a chronic medical, behavioral, or other health condition.

Figure 2 compares health care access and utilization between adolescents aged 10 to 17 years and children aged 0 to 9 years. Although the majority of parents reported that their adolescent was covered by some form of health insurance, 12% reported that their adolescent did not have health insurance at some point during the past 12 months. One-fourth of participating adolescents with health insurance were covered by Medicaid or the state's Children's Health Insurance Program (ie, North Carolina HealthChoice), 65% were covered by a private health insurance plan, and 10% were covered by another health insurance provider (eg, the military, the Civilian Health and Medical Program of the Uniformed Services, or another, unspecified plan).

Almost all parents (92%) believed that teenagers should be seen by a doctor or nurse for an annual check-up; however, only 79% reported that their adolescent had had a preventive health care visit in the past 12 months. This percentage is significantly lower than that for participating children aged 0 to 9 years, 89% of whom had had a check-up in the past year. Conversely, the frequency of access to and utilization of dental care increased with age, such that adolescents in the survey were more likely to have a dentist or dental clinic they visited regularly and to have visited a dentist in the past 12 months, compared with participating children younger than 10 years of age. There were no noticeable differences in the patterns of health care access and utilization across age subgroups of the adolescent population.

Figure 2.
Health Care Access and Utilization Among Children and Adolescents, North Carolina
Child Health Assessment and Monitoring Program, 2008



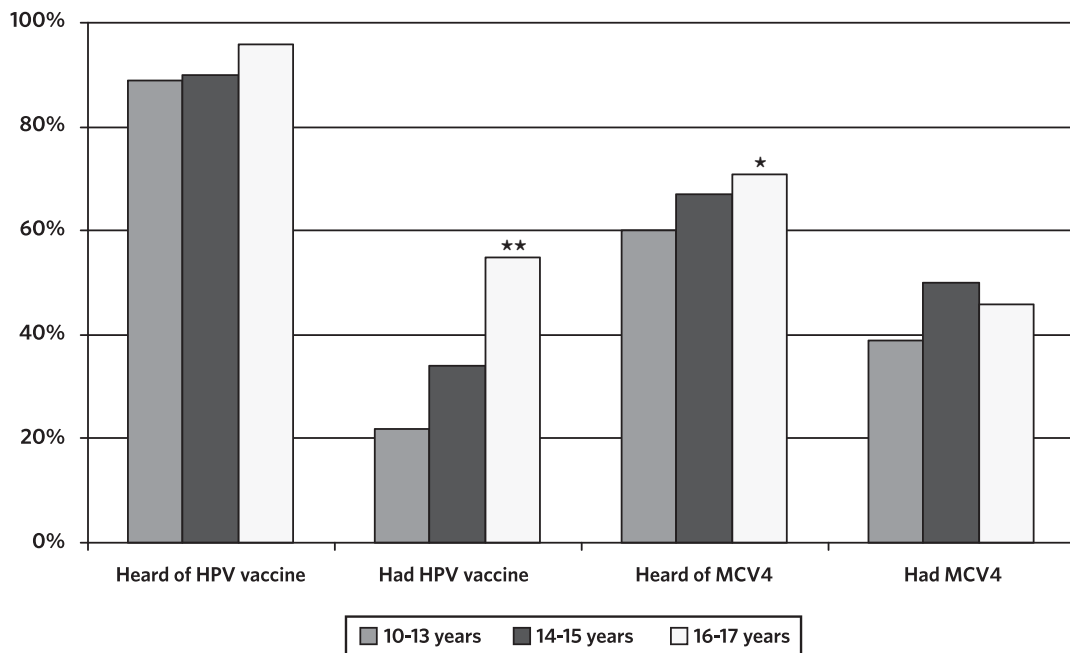
Note. Data are percentage of parents whose child had the specified characteristic. The age ranges for children and adolescents are defined as 0-9 years and 10-17 years, respectively.

* Statistically significant difference between groups ($P < .001$).

NC CHAMP respondents also provided information about their knowledge of childhood immunization and the immunization status of their adolescent (Figure 3). Immunization is an important part of adolescence. At the time of the survey, human papillomavirus (HPV) vaccination was recommended for females aged 11 to 12 years (vaccination was licensed for females as young as 9 years old, and catch-up vaccination was recommended for females aged 13-26 years), and the meningococcal conjugate vaccine (MCV4) is recommended for males and females aged 11 to 12 years. In 2008, a total of 91% of parents of adolescent females had heard of HPV vaccine, of whom only one-third had had their adolescent daughter vaccinated against HPV infection. The frequency of HPV vaccination increased with age among adolescents, such that twice as many individuals aged 16 to 17 years than those aged 10 to 13 years (45% vs 22%) had been vaccinated. Parents were less likely to have heard of the MCV4 (64%) than to have heard of HPV vaccination, and parents of older adolescents were more likely than parents of younger adolescents to have heard of the MCV4. However, parents who had heard of the MCV4 were more likely to have had their adolescent vaccinated against meningitis (44%) than against HPV infection. Unlike findings for HPV vaccination, the frequency of vaccination against meningitis did not vary significantly by age among adolescents.

The NC CHAMP annual survey provides valid and reliable data that can be used to present a comprehensive overview of adolescent health and offer valuable insights into health issues in North Carolina. This report highlighted health status, health care access and utilization, and immunization characteristics among adolescents. Information about other survey results can be accessed at the NC CHAMP Web site (available at: <http://www.schs.state.nc.us/SCHS/champ>).

Figure 3.
Human Papillomavirus (HPV) Vaccine and Meningococcal Conjugate Vaccine (MCV4) Characteristics among Adolescents, by Age, North Carolina Child Health Assessment and Monitoring Program, 2008



* Statistically significant difference between age groups ($P < .01$).

** Statistically significant difference between age groups ($P < .001$).

*Contributed by Donna R. Miles, PhD, and Robert E. Meyer, PhD, MPH,
State Center for Health Statistics, North Carolina Division of Public Health.*