NORTH CAROLINA ASTHMA-RELATED EMERGENCY DEPARTMENT VISITS AMONG SCHOOL-AGE CHILDREN, 5-18 YEARS OF AGE, 2013

The North Carolina Disease Event Tracking and Epidemiologic Collection tool (NC DETECT) provides public health officials and hospital users with the capacity for statewide early event detection and timely public health surveillance. Through NC DETECT, users can access near real-time data from North Carolina acute care emergency departments (EDs), the Carolinas Poison Center (CPC), and the Pre-Hospital Medical Information System (PreMIS). NC DETECT data from ED visits have become increasingly important for the surveillance of injury morbidity in North Carolina. NC DETECT is funded by the NC Division of Public Health (NC DPH). This document summarizes 2013 ED visits by school-age children 5-18 years of age with a code for asthma (493.xx) in the first or second diagnosis position.†

Rates of NC asthma-related ED visits among school-age children

- Among school-age children 5-18 years of age, there was a total of 558,499 ED visits in 2013; 4.8% of these visits were due to asthma.

- The rate of asthma-related ED visits for this population was 1,493 visits per 100,000 person-years.

- In 2013, school-age boys (1,653 ED visits per 100,000 person-years) were more likely to visit the ED than girls due to asthma (1,326 ED visits per 100,000 person-years).

- Rates peaked at five years of age for both boys (2,801 ED visits per 100,000 person-years) and girls (1,835 ED visits per 100,000 person-years).

NC asthma-related ED visits by expected source of payment and other descriptors, 2013

- Over two-thirds of school-age children treated in the ED for asthma had an expected source of payment of Medicaid (68.8%).

- Most school-age children were discharged from the ED (93.1%) with only 4.6% of children admitted to the hospital and 2.4% of children had some other disposition (e.g. left without being seen by a medical professional).

- The majority of school-age children arrived at the ED via walk-in following public/private/unspecified transportation (90.3%). Another 6.9% arrived via air/ground ambulance and 2.7% arrived via some other means of transportation.

*For questions about the methods used to generate this fact sheet, please email ncdetect@listserv.med.unc.edu.

†In 2013, 107,788 ED visits among school-age children were missing a classifiable, first-listed diagnosis code; therefore, rates may not be directly comparable with previous years of NC DETECT ED data.

In 2013, reported in 2008; and

§Other type of payment includes Medicare, workers’ compensation, other government payment, and no charge.
The number of asthma-related ED visits among school-age children varied considerably by month.

A spike in the number of ED visits occurred in late fall during the month of November (2,884 visits) and the late spring during the month of May (2,829 visits).

The numbers of asthma-related ED visits were less during the summer months as compared to the rest of the year.

The five NC counties with the highest rates of asthma-related ED visits among school-age children in 2013 (visits per 100,000 person-years in parentheses) were Pasquotank (6,966), Perquimans (4,293), Avery (4,133), Cleveland (3,531), and Richmond counties (3,462).