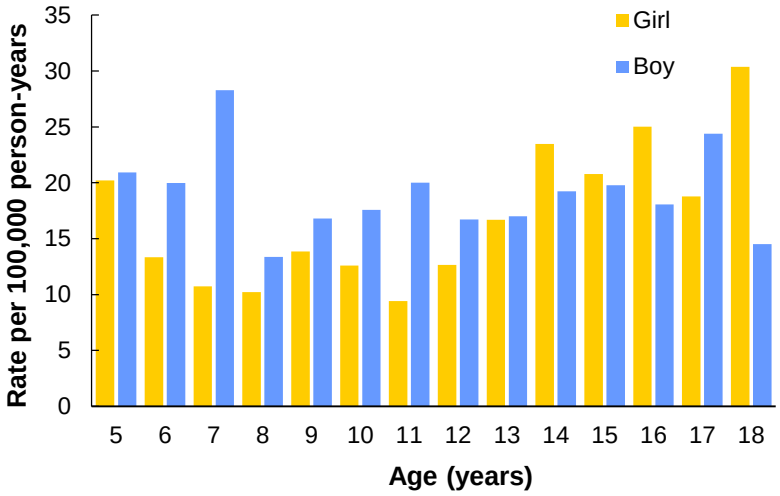
# NORTH CAROLINA EMERGENCY DEPARTMENT VISITS DUE TO ANAPHYLACTIC SHOCK AMONG SCHOOL-AGE CHILDREN, 5-18 YEARS OF AGE, 2010-2012

NC DETECT

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 2010-2012 ED visits by school-age children 5-18 years of age with a code for anaphylactic shock (995.0 and/or 995.6x).*

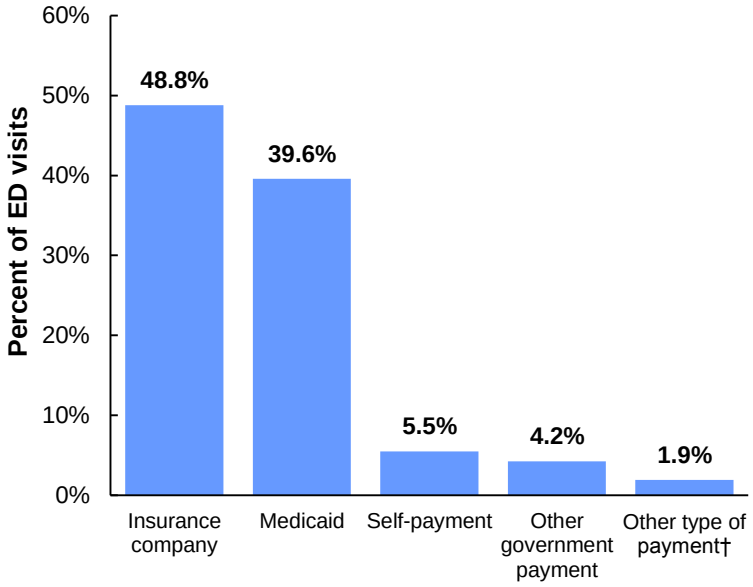
## Rates of NC ED visits due to anaphylactic shock among school-age children, 2010-2012




- Over the years 2010-2012, there were 970 ED visits by school-age children due to anaphylactic shock. The rate of ED visits for anaphylactic shock in this age group was 18.0 ED visits per 100,000 person-years during this period.
- The 2012 rate (20.1 visits per 100,000 person-years) was slightly higher than the 2011 rate (17.9 visits per 100,000 person-years) and the 2010 rate (16.1 visits per 100,000 person-years).
- In 2010-2012, there were 19,560 ED visits for allergic reactions in this age group; 5.0% of these ED visits were due to anaphylactic shock.
- Overall, rates were slightly higher among school-age boys (19.0 ED visits per 100,000 person-years) than school-age girls (17.0 ED visits per 100,000 person-years).

## NC ED visits due to anaphylactic shock by expected source of payment and other descriptors, 2010-2012

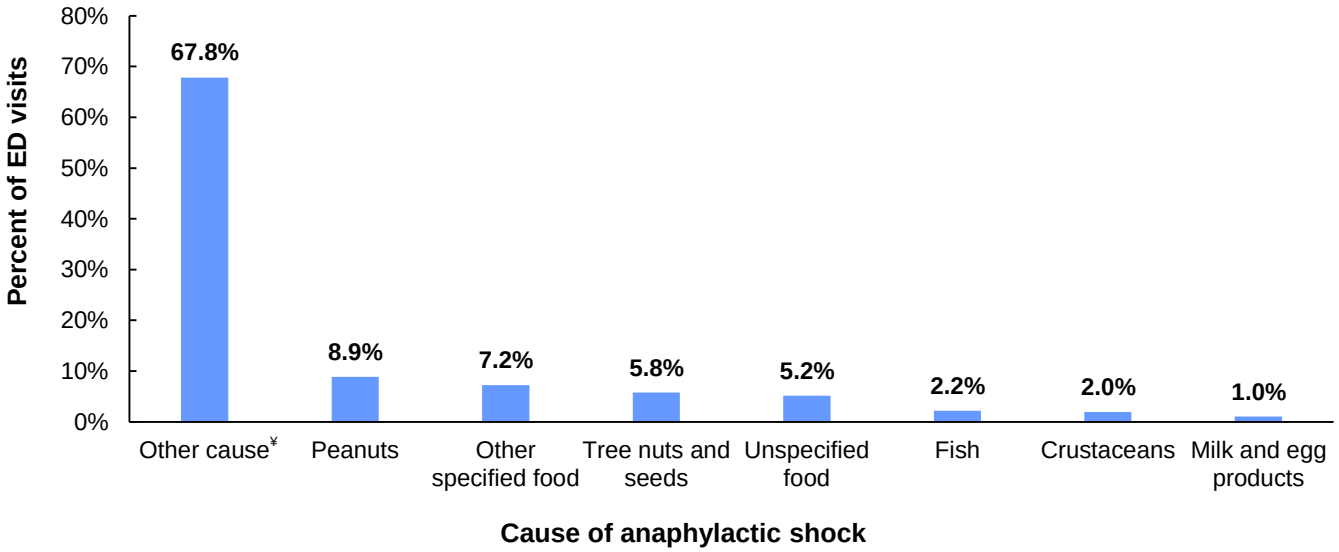
- Over one-third of school-age children treated in the ED for anaphylactic shock had an expected source of payment by Medicaid (39.6%).
- Most school-age children were discharged from the ED (87.0%). Another 11.0% of children were admitted to the hospital or transferred to another institution. Less than 2% of children had some other disposition (e.g. died).
- Most school-age children arrived at the ED via walk-in following public/private/unspecified transportation (67.7%); however, 27.8% of children arrived via air/ground ambulance and 4.5% arrived via some other means of transportation.




Missing: 21 ED visits missing expected source of payment
†Other type of payment includes workers' compensation and other type of payment

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

## NC ED visits due to anaphylactic shock classified by cause of reaction among school-age children, 2010-2012§




§For visits with more than one diagnosis code for anaphylactic shock, the visit was classified by the first-listed code.
¥Refers to anaphylactic shock following allergic reactions to medicinal substances and for reasons not otherwise specified (such as bee stings). This category excludes anaphylactic shock due to serum or food.

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- Most NC ED visits due to anaphylactic shock among school-age children were classified as "other anaphylactic shock (995.0)." This is a broad category that includes anaphylactic shock following events as arthropod envenomation, medication use, and immunotherapy.

- About one-third of ED visits due to anaphylactic shock among school-age children were due to an adverse food reaction (995.6x).

- The most common food cited as causing anaphylactic shock was peanuts (8.9%).

## Prevention strategies

- In order to prevent anaphylactic shock, contact your child's pediatrician or allergist to be sure all medical forms, care plans, and authorization for medication administration are complete and submitted to the child's school each year.

- Discuss with your child their allergy and treatment plan, including how to use the epinephrine kit (if age-appropriate).

- Meet with your school nurse and your child's teachers prior to the school year to discuss your child's allergy symptoms and treatment plan. Be sure to update teachers and staff with any changes to your child's care plan.

- Provide your child's school with an epinephrine kit. Check that the epinephrine doses have not expired.

For more information on preventing anaphylactic shock contact the School Nurse Association of NC (www.snanc.org) and the NC Injury and Violence Prevention Branch (www.injuryfreenc.ncdhhs.gov or www.injuryfreenc.org).

UNC INJURY PREVENTION RESEARCH CENTER

dhhs nc department of health and human services

NCPH North Carolina Public Health

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**Source: Carolina Center for Health Informatics / https://cchi.web.unc.edu / Department of Emergency Medicine, University of North Carolina at Chapel Hill, 2014.**
**NC Division of Public Health / www.publichealth.nc.gov / Injury Epidemiology & Surveillance Unit/ 919-707-5425**
**NC Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) / www.ncdetect.org / 919-843-2361**
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