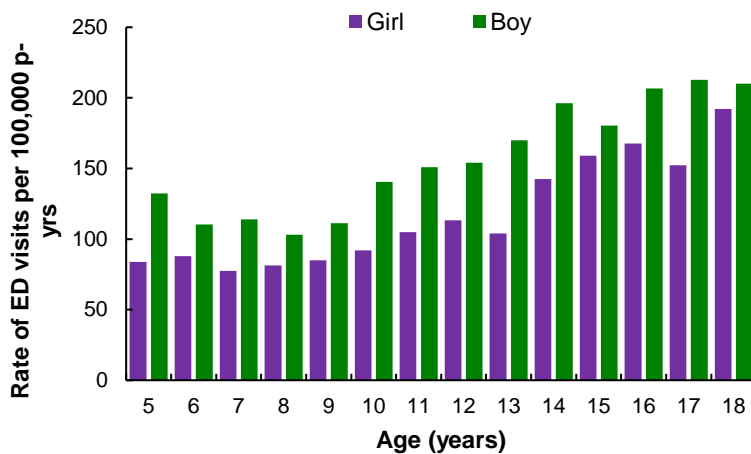


## NORTH CAROLINA INJURY-RELATED EMERGENCY DEPARTMENT VISITS AMONG SCHOOL-AGE CHILDREN, 5-18 YEARS OF AGE: HALLOWEEN, 2012-2014

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 2012-2014 ED visits during the two days before through the two days after Halloween among school-age children, 5-18 years of age. An ED visit was characterized as injury-related if it had an ICD-9-CM diagnosis code in the range of 800-999 (excluding 995.9) and/or an External Cause of Injury code (E-code) in any position. This fact sheet is produced with support from the UNC Injury Prevention Research Center and the Injury and Violence Prevention Branch of NC DPH.\*

### Rates of injury-related NC ED visits among school-age children during Halloween, 2012-2014



- Among school-age children 5-18 years of age, there was a total of 7,440 injury-related ED visits during the two days prior to Halloween through the two days after Halloween during 2012-2014.

- The average annual rate of injury-related ED visits for this population was 137.4 visits per 100,000 person-years (p-yrs).

- Rates were higher among boys (156.5 per 100,000 p-yrs) than girls (117.4 visits per 100,000 p-yrs).

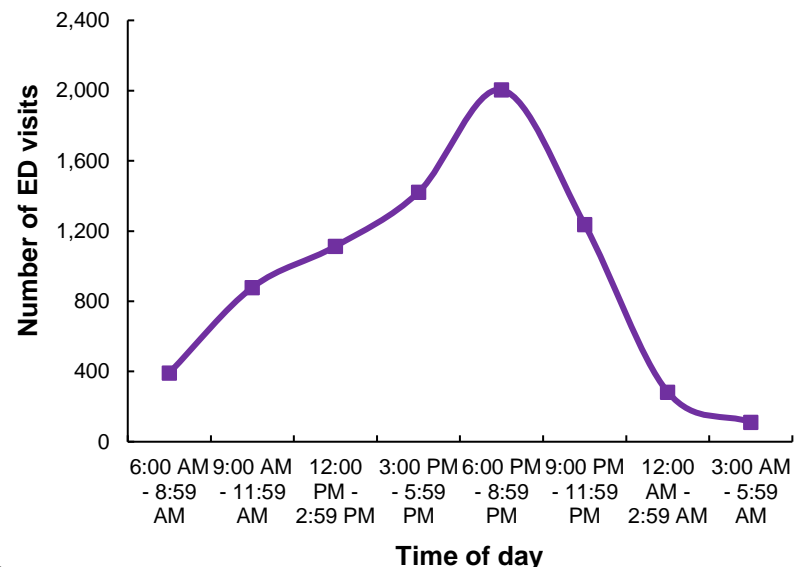
- Rates peaked at 18 years of age for both girls (192.2 ED visits per 100,000 p-yrs) and boys (201.3 ED visits per 100,000 p-yrs).

### NC ED visits by time of visit among school-age children during Halloween, 2012-2014

- During Halloween, over one-fourth of ED visits took place during the evening hours of 6:00 PM – 8:59 PM.

- The overwhelming majority of ED visits treated during Halloween were due to unintentional injury mechanisms (90.5%). The three most common injury mechanisms were: unintentional – falls (20.7%), unintentional – struck by/against (17.6%), and unintentional – motor vehicle traffic-related collisions (11.4%).

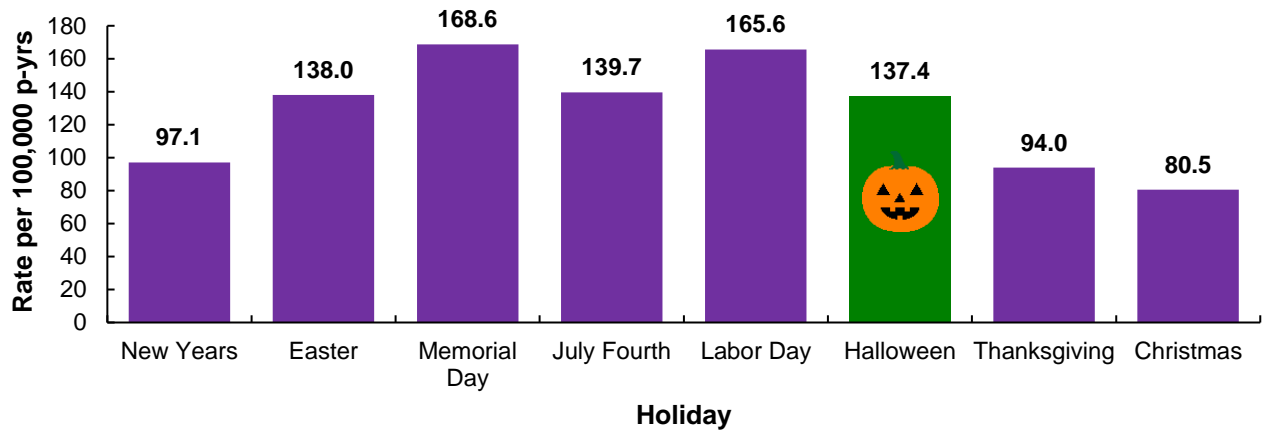
- The most common types of injuries (as classified by nature of injury and injury site) were: sprains/strains of the lower extremities (10.2%); fractures of the upper extremities (8.5%); and unspecified injuries of the head, face, and neck (7.2%).



\*The methodology used for this fact sheet was adapted from the following manuscript: D'Ippolito A, Collins, CL, Comstock RD. Epidemiology of pediatric holiday-related injuries presenting to US emergency departments. *Pediatrics* 2010. 125 (5): 931-937.

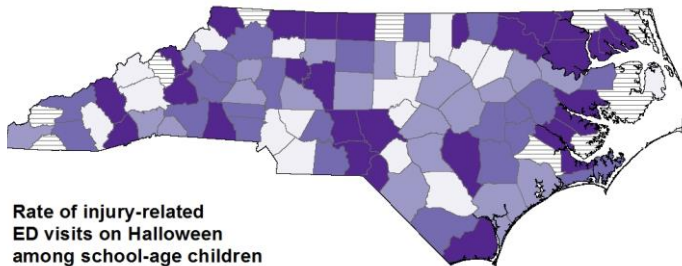
For questions about the methods used to generate this fact sheet, please email [ncdetect@listserv.med.unc.edu](mailto:ncdetect@listserv.med.unc.edu).

Rates of Injury-related NC ED visits among school-age children, by holiday 2012-2014†



†All holidays were defined as the two days prior to the holiday through two days after the holiday.

• In 2012-2014, Halloween did not have the highest rate of injury-related NC ED visits among school-age children. The Memorial Day, Labor Day, July Fourth, and Easter holidays all had higher rates of injury-related ED visits than Halloween.



Rate of injury-related ED visits on Halloween among school-age children per 100,000 person-years, categorized by quartile

- 45.0 - 108.9
- 109.0 - 143.1
- 143.2 - 175.4
- 175.5 - 370.3
- <10 ED visits; data are suppressed

Population-based rates of ED visits among school-age children by NC county, 2012-2014

• The five NC counties with the highest rates of injury-related ED visits during Halloween for the years 2012-2014 (visits per 100,000 p-yrs in parentheses) were: Richmond (370.3), Chowan (334.3), Transylvania (269.6), Montgomery (254.9), and Pasquotank (251.1) counties.

Injuries are highly preventable during Halloween as well as during the rest of the year. According to the American Academy of Pediatrics ([www.aap.org](http://www.aap.org)), follow these strategies in order to prevent injuries on Halloween:

- Wear costumes that are nonflammable, brightly colored, and reflective. For costumes that are not reflective, add reflective tape. Always carry a flashlight and travel in a group.
- Wear comfortable footwear and make sure that your costume is short enough to prevent tripping.
- If wearing make-up, make sure that it is non-toxic and test it ahead of time on a small patch of skin.
- Do not let small children carve pumpkins; only adults should handle sharp objects and perform the carving.

For more information in regards to preventing injuries please visit the NC Injury and Violence Prevention Branch ([www.injuryfreenc.ncdhhs.gov](http://www.injuryfreenc.ncdhhs.gov) or [www.injuryfreenc.org](http://www.injuryfreenc.org)).



Source: Carolina Center for Health Informatics / <https://cchi.web.unc.edu> / Department of Emergency Medicine, University of North Carolina at Chapel Hill, 2016.  
 NC Division of Public Health / [www.publichealth.nc.gov](http://www.publichealth.nc.gov) / Injury Epidemiology & Surveillance Unit/ 919-707-5425  
 NC Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) / [www.ncdetect.org](http://www.ncdetect.org) / 919-843-2361  
 State of North Carolina / Department of Health and Human Services / [www.ncdhhs.gov](http://www.ncdhhs.gov)  
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