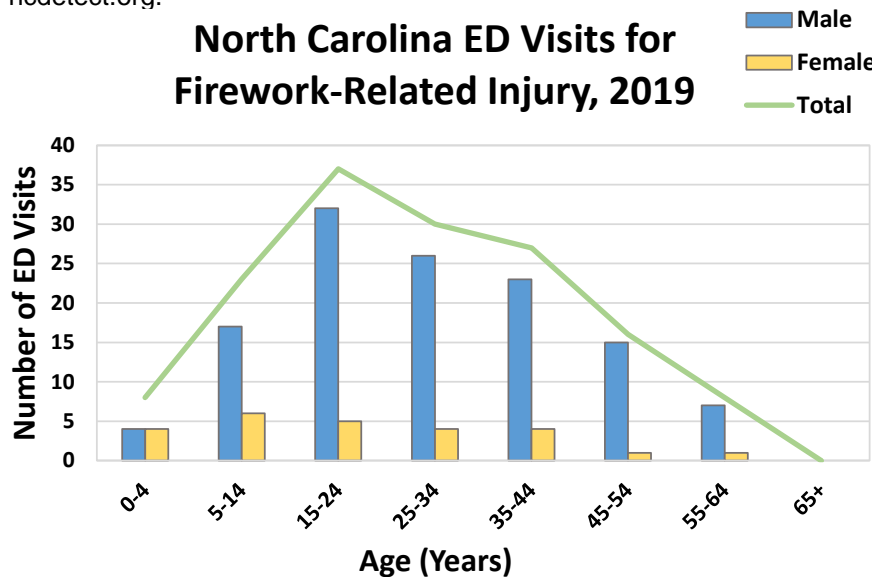


NORTH CAROLINA EMERGENCY DEPARTMENT VISITS DUE TO FIREWORK-RELATED INJURIES, 2019

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 state poison control center, and the statewide EMS data system. 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 2019 ED visits with an ICD-9/10-CM code or chief complaint/triage note keyword for firework-related injury as defined under the NC DETECT case definition found at ncdetect.org.*

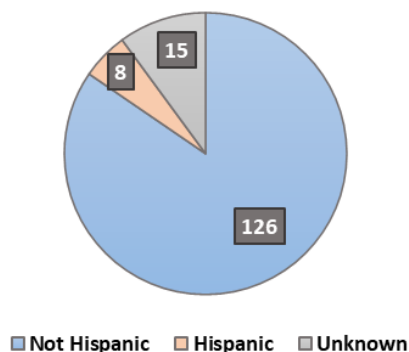
North Carolina ED Visits for Firework-Related Injury, 2019



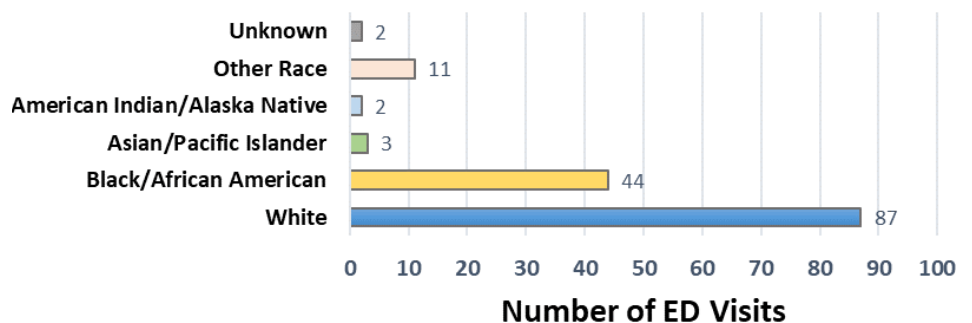
- In 2019, there were 149 Emergency Department (ED) visits for firework-related injuries. The rate of ED visits for firework-related injuries was 1.6 ED visits per 100,000 person-years.
- There were approximately 5 times as many ED visits among males (124 ED visits) as females (25 ED visits) for firework-related injuries.
- Rates peaked at 15-24 years of age among males (4.7 ED visits per 100,000 person-years) and 0-4 years of age among females (1.3 ED visits per 100,000 person-years).

- Most ED visits for firework-related injuries were white patients (58.4%). The majority of ED visits were by non-Hispanic patients (84.6%).
- The highest rate of firework-related injury was among Black/African Americans (2.1 ED visits per 100,000 person-years). Whites had the lowest rate of injury at 1.3 ED visits per 100,000 person-years.
- Those of non-Hispanic ethnicity had higher rates of firework-related injury (1.4 ED visits per 100,000 person-years) than Hispanics (1.0 ED visits per 100,000 person-years).

North Carolina ED Visits for Firework-Related Injury by Ethnicity, 2019

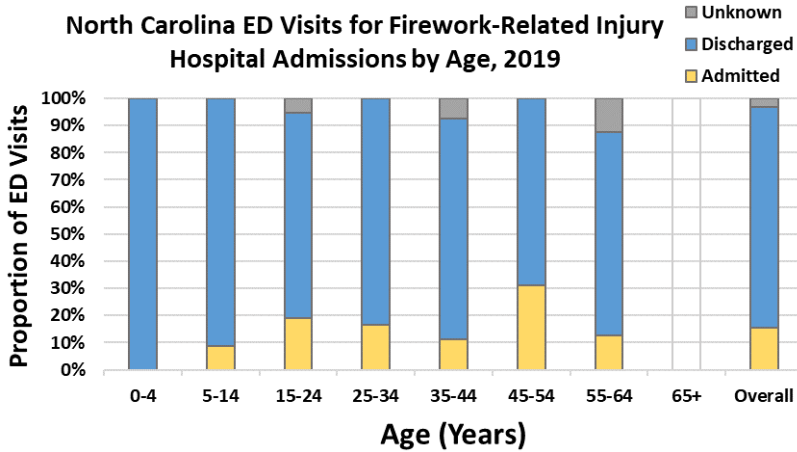


North Carolina ED Visits for Firework-Related Injury by Race, 2019

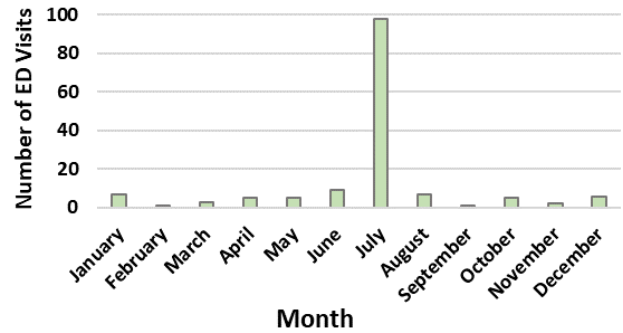


*A firework-related injury is defined following the case definition provided on ncdetect.org, with manual review to eliminate false positive cases. For questions about the methods used to generate this fact sheet, please email ncdetect@listserv.med.unc.edu.

North Carolina ED Visits for Firework-Related Injury Hospital Admissions by Age, 2019

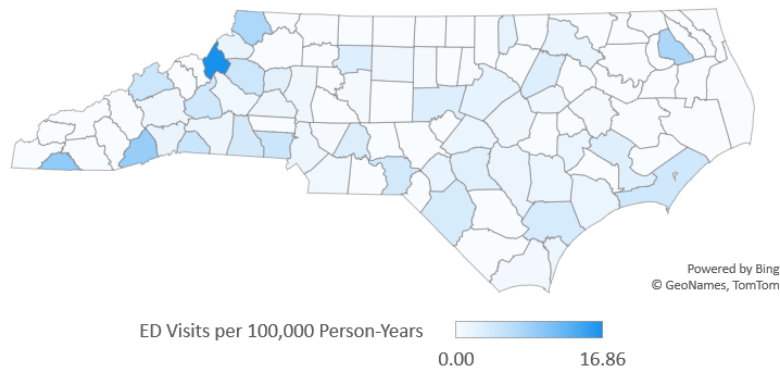


North Carolina ED Visits for Firework-Related Injury by Month, 2019



- Overall, 15.4% of all ED visits for firework-related injuries required admission to a hospital. Hospital admissions were highest among those aged 45-54 years (31.3% of all ED visits by the group), followed by those aged 15-24 years (18.9% of all ED visits by the group). There were no firework-related injuries in the 65+ age group.
- Nearly 2/3 of all firework-related injury ED visits (65.8%) occurred in July, around the Independence Day holiday.
- The NC counties with the highest numbers of ED visits due to firework-related injuries were Wake (19 visits), Mecklenburg (12 visits), Forsyth (11 visits), Gaston (10 visits), and Cumberland (9 visits).
- The NC counties with the highest rates (per 100,000 person-years) of ED visits due to firework-related injuries were Avery (16.9), Clay (9.5), Transylvania (9.1), Perquimans (7.4), and Ashe (7.3).

North Carolina ED Visits for Firework-Related Injury Rates by County, 2019



Prevention Strategies

- Fireworks that can propel themselves through the air, spin on the ground, and/or contain more than 75 grams of chemical compound per tube are **illegal to possess in NC**. This includes roman candles, bottle rockets, and mortars.
- Parents and caregivers should closely supervise children playing with legal fireworks (e.g. fountains, smoke bombs, party poppers, and sparklers), which can cause dangerous burns. Sparklers burn at temperatures of about 2,000 degrees (hot enough to melt some metals); consider glow sticks as an alternative to sparklers. Even legal fireworks can cause serious injuries!
- Never place any part of your body directly over a firework device when lighting the fuse.
- Never pick up or try to re-light fireworks that have not ignited fully. Keep a fire extinguisher or ample water nearby when using fireworks.

For more information on preventing injuries due to fireworks please visit the websites of the NC Office of State Fire Marshal (www.ncdoi.com/osfm), Safe Kids NC (www.ncdoi.com/osfm/safekids), and the Consumer Product Safety Commission (<https://www.cpsc.gov/Safety-Education/Safety-Education-Centers/Fireworks>).



Source: Carolina Center for Health Informatics, Department of Emergency Medicine, University of North Carolina at Chapel Hill, 2020.
 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
 State of North Carolina / Department of Health and Human Services / www.ncdhhs.gov
 NC DHHS is an equal opportunity employer and provider.