North Carolina Injury & Violence

NORTH CAROLINA EMERGENCY DEPARTMENT VISITS DUE TO FIRE/BURNS, 2012

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 ED visits with an *ICD-9-CM* diagnosis code and/or and External Cause of Injury code (E-code) for a fire/burn injury.*⁺

NC ED visits for injuries fire/burn injuries, 2012



Missing: <10 ED visits missing sex and/or age

NC ED visits for fire/burn injuries by expected source of payment and other descriptors, 2012

• The most common expected source of payment for ED visits due to fire/burn injuries was self-payment (29.3%) closely followed by Medicaid (28.7%).

• Although only 6.4% of ED visits for fire/burn injuries had an expected source of payment of workers' compensation' this percentage was higher than the percentage for all injury mechanisms in 2012 (2.5%).

• The majority of ED visits due to fire/burn injuries were discharged from the ED (89.5%). Another 5.5% were transferred to a different institution, 3.1% were admitted to the hospital, 1.4% left against or without medical advice, 0.1% died, and 0.4% had some other disposition.

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

[†]According to the Centers for Disease Control and Prevention, a fire/burn injury is due to "Severe exposure to flames, heat, or chemicals that leads to tissue damage in the skin or places deeper in the body; injury from smoke inhalation to the upper airway, lower airway, or lungs."

• In 2012, there were 12,110 ED visits for fire/burn injuries. The rate of ED visits for fire/burn injuries was 124.2 ED visits per 100,000 person-years. The 2012 rate was similar to the 2011 (126.4 ED visits per 100,000 person-years) and 2010 rates (125.9 ED visits per 100,000 person-years).

• There were more ED visits among men (6,498 visits) than women (5,611 visits) for fire/burn injuries.

• Men had higher rates of fire/burn injuries across all age groups, except for children 5-9 years of age, than women.

• Children 0-4 years of age had the highest rates of fire/burn injuries for both sexes (262.7 ED visits per 100,000 person-years).



Missing: 226 visits missing expected source of payment Abbreviations: co., company; comp., compensation; govt, government

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NC ED visits due to fire/burn injuries by type of fire/burn, 2012§

• Nearly all of the ED visits due to fire/burn injuries were unintentional injuries (98.3%). Another 0.7% were due to assault, 0.3% were due to self-harm, and 0.8% were of an undetermined intent.

• Most of the ED visits due to fire/burn injuries were burns due to hot liquids (e.g. tap water), vapors, and steam (65.0%). Another 10.1% of visits were due to burns from caustic and corrosive substances (e.g. ammonia, acids, and lye).

• Nearly 15% of injuries due to fire/burns were due to conflagrations, controlled fires, and the ignition of clothing.



Missing: 157 ED visits missing an E-code classifiable to type. [§]For ED visits with more than one E-code for a fire/burn, the visit was classified by the first-listed E-code

*A contained fire such as a fire located in a furnace, fireplace, or stove *A large, destructive fire such as a building fire

Population-based rates of ED visits with a diagnosis or E-code of a fire/burn injury by NC county, 2012



• The five NC counties with the highest rates of ED visits for fire/burn injuries (visits per 100,000 personyears in parentheses) were Scotland (287.3), Montgomery (282.1), Washington (275.2), McDowell (269.0), and Richmond counties (262.7).

Prevention Strategies

• The National Fire Protection Association (NFPA) recommends that all homes should contain working smoke alarms. Install smoke alarms inside and outside each bedroom and sleeping area and on every level of the home, including the basement. You should test your smoke alarms each month and replace them when they are 10 years old.

• To prevent scalds, set your water heater at 120°F/48°C or just below the medium setting. After adjusting the hot water heater, test your hot water from the faucet using a safety thermometer to ensure that the maximum temperature does not exceed 120°F/48°C. Fill the tub, then run your hand through to water to test for hot spots; if none are found, then help the child get in the tub. Never leave a child unattended in the bath.

For more information on preventing injuries due to fire/burns please visit the websites of the NFPA (<u>www.nfpa.org</u>) NC Office of State Fire Marshal (<u>www.ncdoi.com/osfm</u>), Safe Kids NC (<u>www.ncdoi.com/osfm/safekids</u>), and the NC Injury and Violence Prevention Branch (<u>www.injuryfreenc.ncdhhs.gov</u> or <u>www.injuryfreenc.org</u>).













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 State of North Carolina / Department of Health and Human Services / www.ncdhhs.gov NC DHHS is an equal opportunity employer and provider.

PREVENTION