

Non-Fatal Firearm-Related Injuries in NC

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Emergency Room visits for Firearm-related Injuries in NC

- This presentation summarizes 2010-2012 Emergency Department visits with an External Cause of Injury code (E-code) for a firearm-related injury.
- Data came from the North Carolina Disease Event Tracking and Epidemiologic Collection tool (NC DETECT)
- NC DETECT provides public health officials and hospital users with the capacity for statewide early event detection and timely public health surveillance
- NC DETECT is funded by the NC Division of Public Health (DPH)

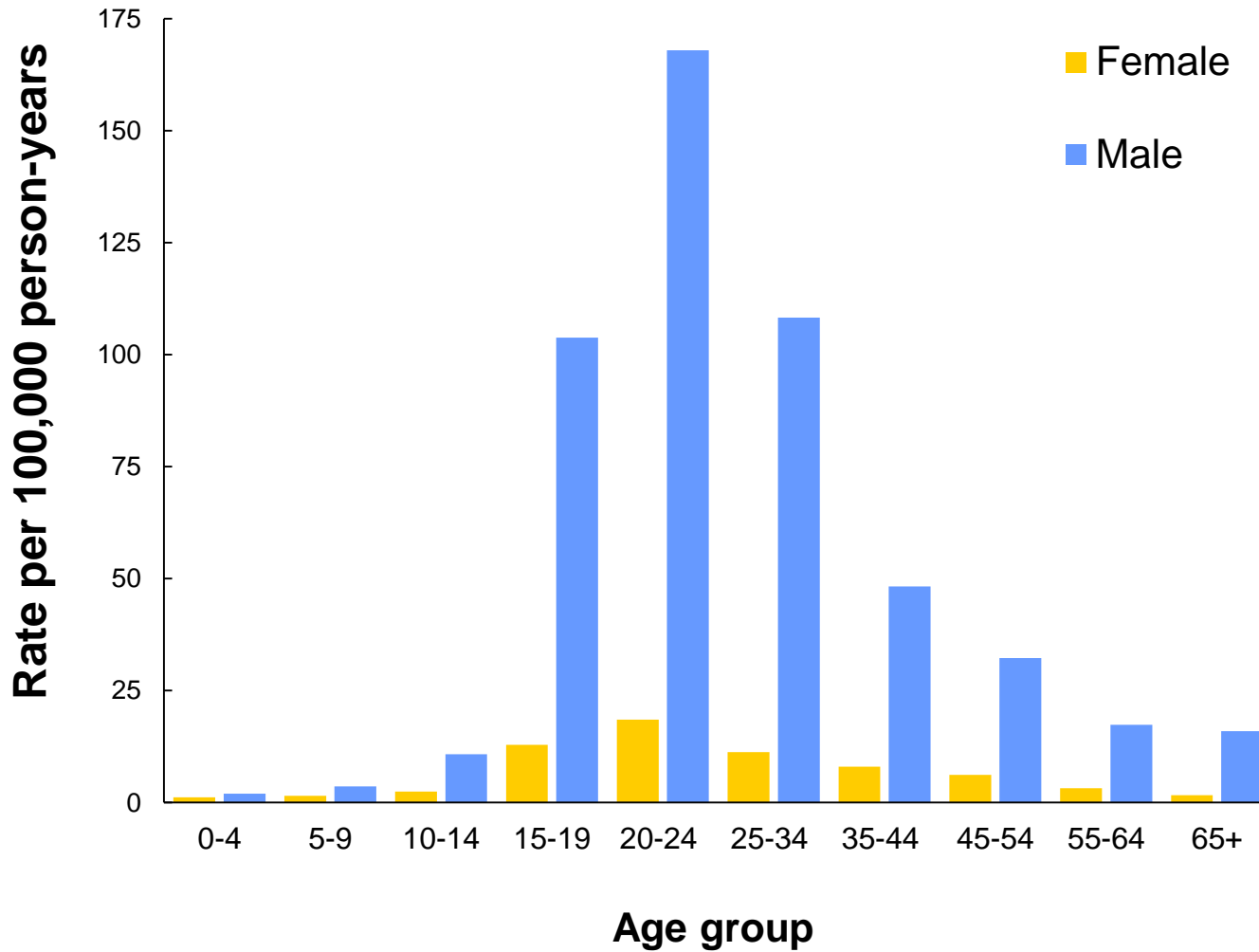
Firearm-Related Injury E-code Groupings

- **Unintentional:** E922.0-.3,.8, .9
- **Self-inflicted:** E955.0-.4
- **Assault:** E965.0-4, E979.4
- **Undetermined:** E985.0-.4
- **Other:** E970

Emergency Room visits for Firearm-related Injuries in NC

- Over 2,500 ER visits for firearms-related injury per year in NC
- Firearms-related injuries are severe
 - 41.1% result in admission to the hospital, transfer to another hospital, or death in the ED

Emergency Room visits for firearm-related injuries



Emergency Room visits for Firearm-related Injuries in NC

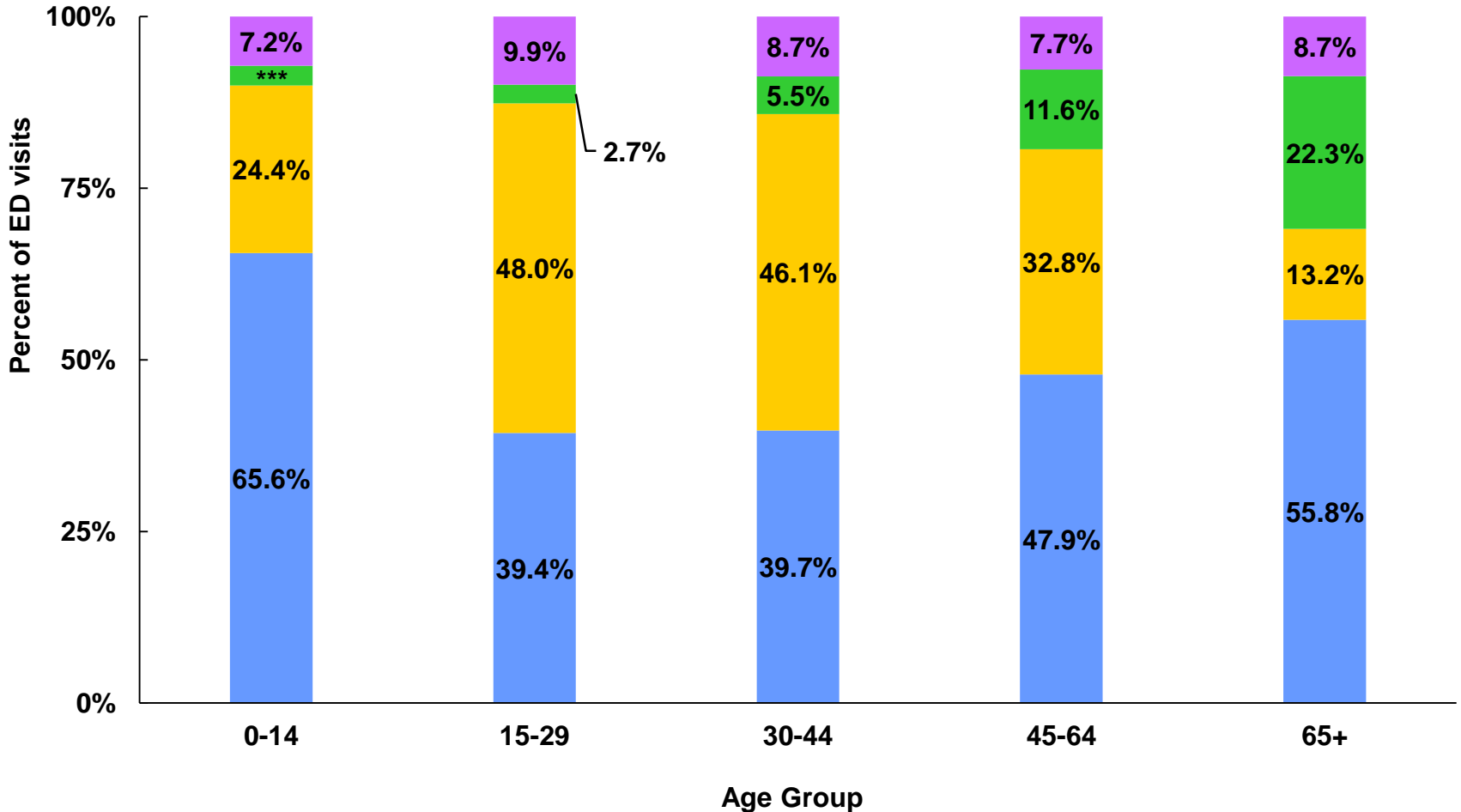
- Seven times as many ED visits among men than women for firearm-related injuries
 - For fatalities, more than one half (55.7%) of all female homicides are related to partner violence
 - Non-fatal injuries likely to be similar
- Rates peak at 20-24 years of age

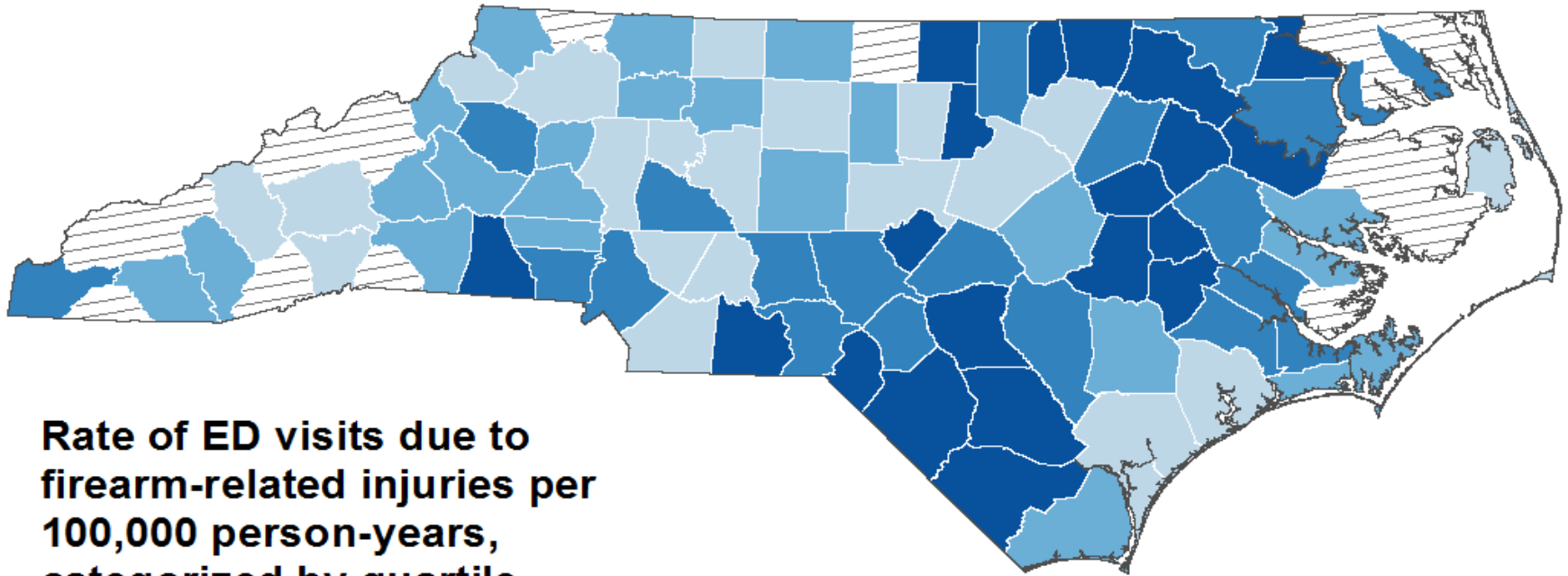
Emergency Room visits for Firearm-related Injuries in NC

- Most common intent is **assault** (43.6%) followed closely by **unintentional** injuries (41.9%)
- Two-thirds of ED visits due to firearm-related injuries among **0-14 year-olds** were **unintentional**
- Over a fifth of ED visits due to firearm-related injuries among adults **65+ years** of age were due to **self-harm**

Emergency Room visits for firearm-related injuries

■ Unintentional ■ Assault ■ Self-harm ■ Other / undetermined intent





**Rate of ED visits due to
firearm-related injuries per
100,000 person-years,
categorized by quartile**

- 5.6 - 16.2
- 16.3 - 21.0
- 21.1 - 38.2
- 38.3 - 137.3
- <10 ED visits; data are not displayed

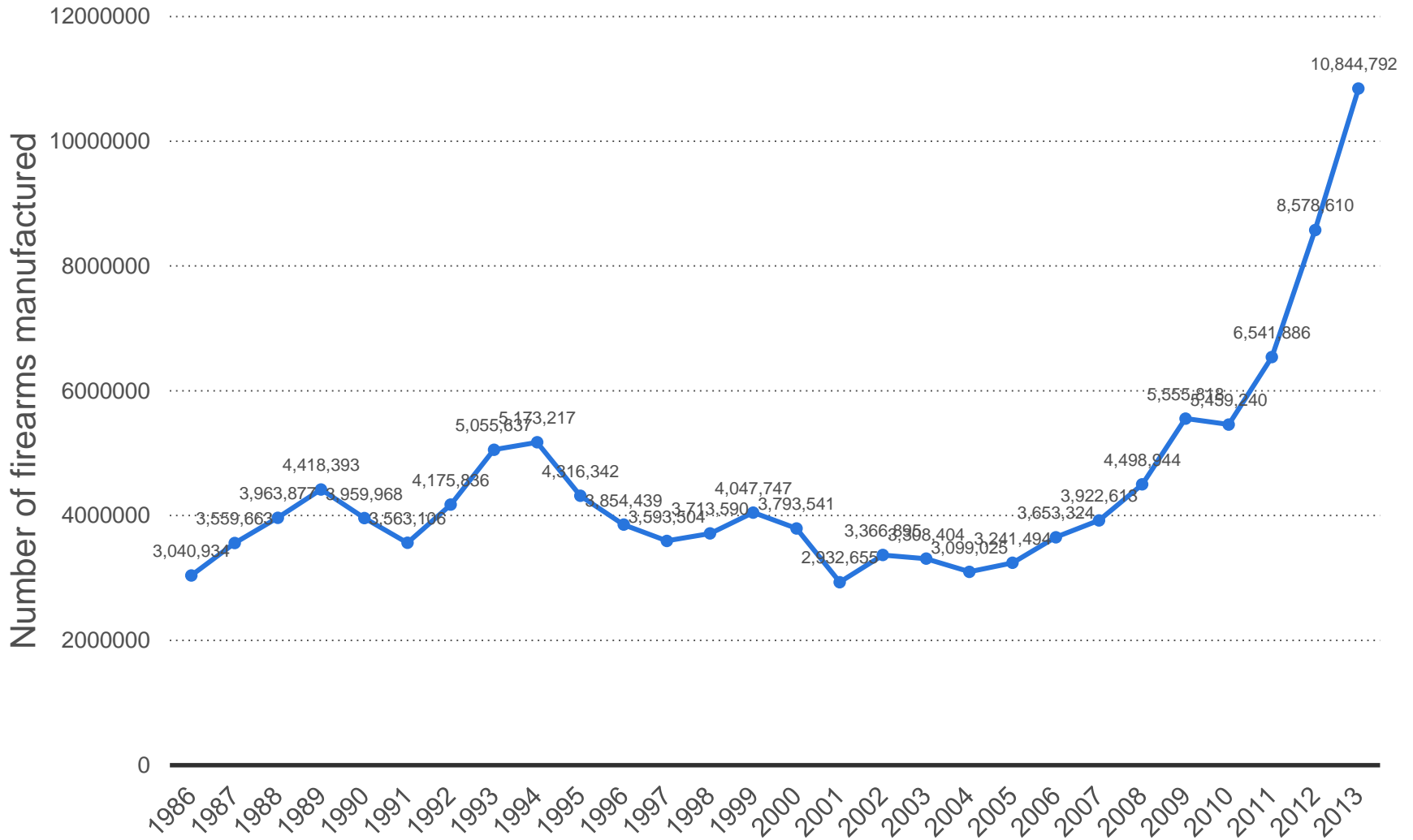
**NC counties with the highest rates of
ED visits for firearm-related injuries
were Robeson (137.3), Scotland
(116.9), Vance (95.2), Halifax (88.5),
and Wayne (79.2)**

(visits per 100,000 person-years in parentheses)

Summary

- Non-fatal Firearms Injuries different from Fatal
 - Assault and unintentional rather than self-harm
- Intent varies by age
 - Small Kids: unintentional
 - Older Adults: self-harm
- Etiology likely varies by Sex
 - Partner violence involvement for women

Number of total firearms manufactured in the U.S. from 1986 to 2013



Source: Bureau of Alcohol, Tobacco, Firearms and Explosives. Firearms Commerce in the United States Report.

Prevention

- **Importance of Better Storage Practices**
 - Small Kids: Unintentional
 - Older Adults: Self-harm
 - Less effective for Assaults and Adult Unintentional
- **Limiting Access to Firearms for Those with a History of Violence**
 - Potentially effective for Assaults & Partner violence
 - Hard to implement at current time
- **Limiting Access to Firearms universally**
 - Hard to implement at current time
- **Behavior change for Firearm owners**
 - Always hard to implement effective behavioral interventions on a population basis

Recommendations

- Think of Firearm-Related Injury as a Public Health Problem
- Monitor the Issue in your Region on an Ongoing Basis
- Engage Key Stakeholders in your Area and Provide Them with Data
 - Owners, retailers
 - Hospitals, physicians, concerned individuals

Access your county-level data on this problem

Search...

NC DETECT

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RSS Feeds

Morbidity and Mortality Weekly Report (MMWR)

- SURVEILLANCE SUMMARIES: Abortion Surveillance — United States, 2010
- Tularemia — United States, 2001–2010
- Very High Blood Lead Levels Among Adults — United States, 2002–2011
- Notifiable Diseases and Mortality Tables
- HIV Testing and Risk Behaviors Among Gay, Bisexual, and Other Men Who Have Sex with Men — United States

HealthMap Global Disease Alerts

- PRO/EDR> Zika virus - New Caledonia (02): ex French Polynesia
- PRO/AH/EDR> MERS-CoV - Eastern Mediterranean (97): UAE, WHO
- PRO/EDR> Chikungunya (50): India (MH)
- PRO/AH/EDR> Avian influenza, human (147): China (Hong Kong) H7N9, first case
- PRO/EDR> Sapovirus - New Zealand: (GI) hospital outbreak

Welcome

The North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT) is North Carolina's statewide syndromic surveillance system. NC DETECT was created by the North Carolina Division of Public Health (NC DPH) in 2004 in collaboration with the Carolina Center for Health Informatics (CCHI) in the UNC Department of Emergency Medicine to address the need for early event detection and timely public health surveillance in North Carolina using a variety of secondary data sources. Authorized users are currently able to view data from emergency departments, the Carolinas Poison Center, and the Pre-hospital Medical Information System (PreMIS), as well as pilot data from select urgent care centers.

NC DETECT is designed, developed and maintained by CCHI staff with funding by the NC DPH. New functionality is added regularly based on end user feedback.

For more information, please visit the links on this page and/or send email to ncdetect@listserv.med.unc.edu.

Upcoming Events

International Society for Disease Surveillance (ISDS) Annual Conference
December 11-13, 2013
New Orleans, LA

2014 Annual State Health Director's Conference
January 23-24, 2014
North Raleigh/Midtown Hilton
Raleigh, NC

What's New

Traumatic Brain Injury Fact Sheet 2012 Update

Animal Bites Fact Sheet

Lippmann SJ, Yeatts KB, Waller AE, Hassinger Lich K, Travers D, Weinberger M, Donohue JF. Hospitalizations and return visits after chronic obstructive pulmonary disease ED visits. Am J Emerg Med 2013 Aug 1 (Epub ahead of print)

Hakenewerth A, Tintinelli J, Waller A, Ising A, DeSelm T. Emergency Department Visits by Patients with Mental Health Disorders—North Carolina, 2008–2010. MMWR 62(23):469-472, June 14, 2013.

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Account Request

<http://www.ncdetect.org/>

NC DETECT Training

- Contact Amy Ising for customized Web-based or in-person training
 - ising@ad.unc.edu (919) 966-8853
- NC DETECT User Guide available online
- Help icon on dashboard reports

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