

Environmental Health

Preparedness and Response

WNC Environmental Health
Supervisors Association

Dec. 18th 2013



Presenters

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Objectives

- Environmental Health Supervisors will gain a better understanding of the Public Health Preparedness and Response System in North Carolina as it relates to their job duties both traditionally and during an event.
- Supervisors will learn how to improve their expertises within the system by participating in the many courses being offered through partnering agencies.

Outline

- NC Public Health Preparedness and Response (NC PHPR)
- CDC Preparedness Capabilities
- Training
- Environmental Health Response Roles

NC PHPR



NC Public Health Preparedness and Response

- Monitors and strengthens the abilities of the public health and healthcare systems
- Examples include disease epidemics, chemical and radiological releases, severe weather and natural disasters
- Has established a multi-faceted public health preparedness and response infrastructure that involves multiple agencies

What We Do

- Provide localized support and expertise to public health officials
- Coordinate public health response to chemical/radiological emergencies
- Access to the Public Health Strategic National Stockpile of emergency medicines and medical supplies
- Provide trainings and capabilities assessments for local agencies
- Align strategic partnerships with CDC, universities, hospitals, community-based organizations, state and local agencies and other public health stakeholders

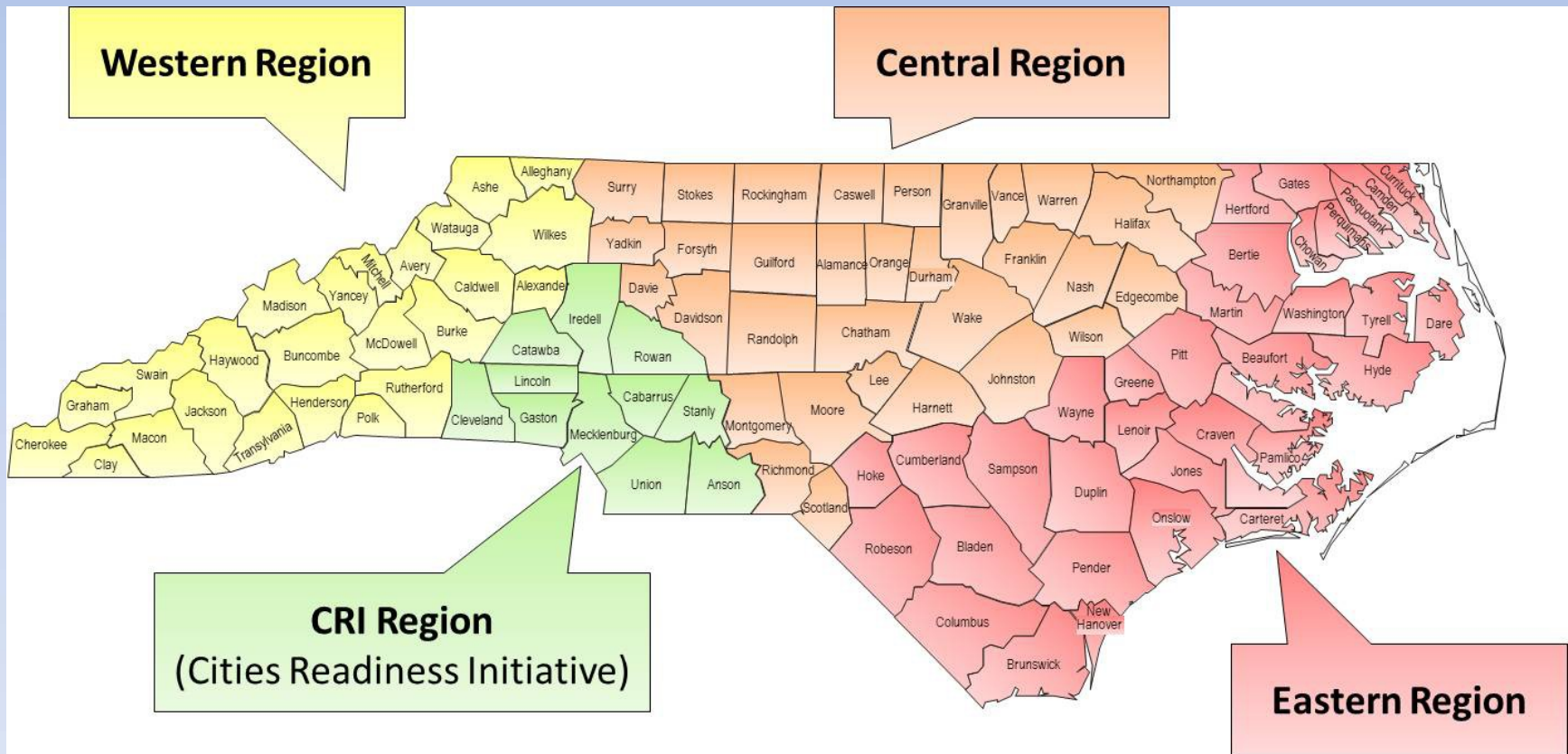
Office of Public Health Preparedness and Response Personnel

- Director, NC PH Preparedness and Response
- CDC Career Epidemiology Field Officer, Disaster Epidemiologist
- SNS and CHEMPAC Coordinator
- Medical Logistician
- CHEMPAC and SNS Planner
- Industrial Hygiene Coordinator
- Implementation and Evaluation Coordinator
- Exercise Coordinator
- Public Information Coordinator
- Telecommunications/Tactical Communication Coordinator
- Operations Manager
- Program Administrator/Finance
- Sub-recipient Grant Monitor
- IT Support Specialist
- Support Specialist

PHPR Regions

- North Carolina's 100 counties are grouped into four geographic regions:
- Central
- Western
- Eastern
- CRI (Cities Readiness Initiative)

PHPR Regional Offices



PHPR Regional Office Staff

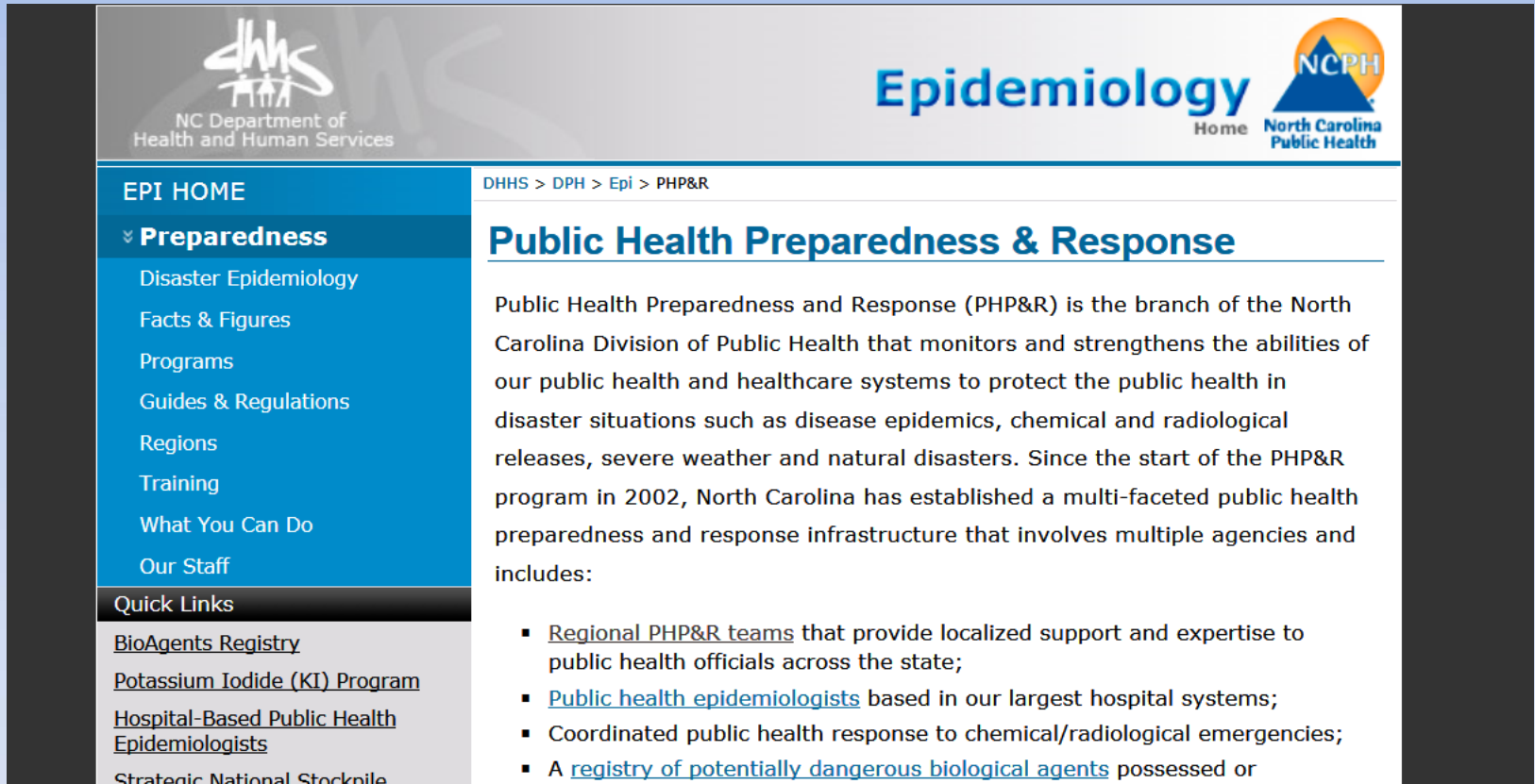
- Each region has a PHP&R field office staffed with:
 - Planning Consultants
 - Training and Exercise Facilitators
 - Industrial Hygienists
 - Pharmacists
 - Program Support


PARTNERS





Web Site

<http://epi.publichealth.nc.gov/phpr/index.html>




NC Department of
Health and Human Services


Home


North Carolina
Public Health

EPI HOME

- ∨ **Preparedness**
- Disaster Epidemiology
- Facts & Figures
- Programs
- Guides & Regulations
- Regions
- Training
- What You Can Do
- Our Staff

Quick Links

- [BioAgents Registry](#)
- [Potassium Iodide \(KI\) Program](#)
- [Hospital-Based Public Health Epidemiologists](#)
- [Strategic National Stockpile](#)

DHHS > DPH > Epi > PHP&R

Public Health Preparedness & Response

Public Health Preparedness and Response (PHP&R) is the branch of the North Carolina Division of Public Health that monitors and strengthens the abilities of our public health and healthcare systems to protect the public health in disaster situations such as disease epidemics, chemical and radiological releases, severe weather and natural disasters. Since the start of the PHP&R program in 2002, North Carolina has established a multi-faceted public health preparedness and response infrastructure that involves multiple agencies and includes:

- [Regional PHP&R teams](#) that provide localized support and expertise to public health officials across the state;
- [Public health epidemiologists](#) based in our largest hospital systems;
- Coordinated public health response to chemical/radiological emergencies;
- A [registry of potentially dangerous biological agents](#) possessed or

Public Health Preparedness Capabilities:

National Standards for State and Local Planning

March 2011

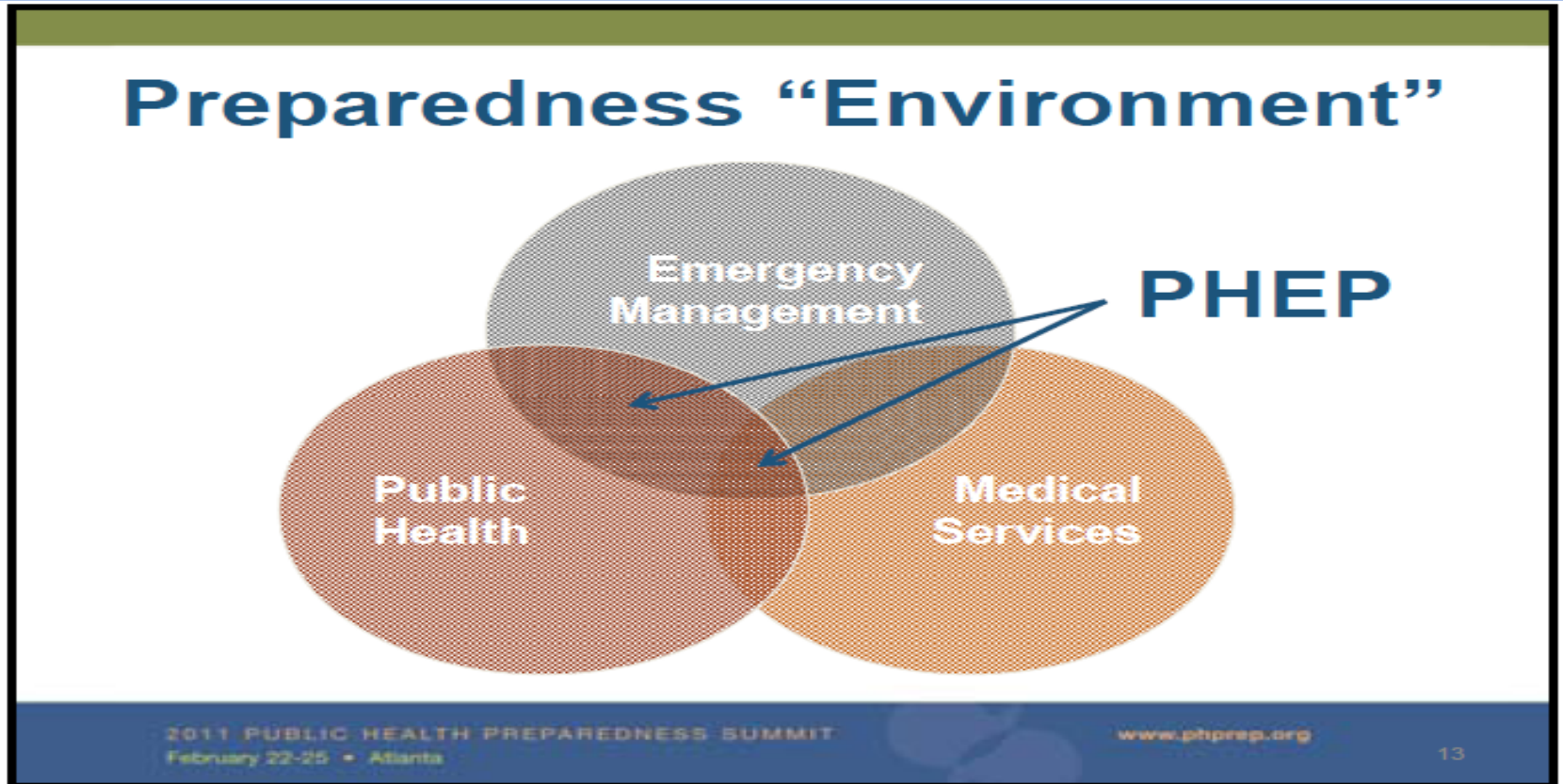


Capabilities

2011 – 2016 Direction

- Revisions to address and resolve challenges and issues identified during the 2005 -2010 cycle
 - Develop a more systematic process for determining priorities
 - Develop a more systematic process for subject matter expert engagement
 - Align with Congressional and other legislative drivers
 - Align with the DHS Target Capabilities List
 - Align with the National Health Security Strategy
 - Align with the CDC Strategic Preparedness Plan
 - More focus on formal awardee strategic planning
 - More focus on developing and implementing a “change management” process to protect against annual changes to the program

Capabilities



(CDC, 2011)

Capabilities



(CDC, 2011)

Capabilities

Preparedness Capabilities

#	Preparedness Capability
1	Community Preparedness
2	Community Recovery
3	Emergency Operations Coordination
4	Emergency Public Information and Warning
5	Fatality Management
6	Information Sharing
7	Mass Care
8	Medical Countermeasure Dispensing
9	Medical Materiel Management and Distribution
10	Medical Surge
11	Non-Pharmaceutical Interventions
12	Public Health Laboratory Testing
13	Public Health Surveillance and Epidemiological Investigation
14	Responder Safety and Health
15	Volunteer Management

Capabilities

Capability Alignment

- Capabilities were mapped to show alignment to the following guidelines:
 - Ten Essential Public Health Services
 - National Health Security Strategy
- Capabilities were mapped to show alignment to the following accreditation and recognition programs:
 - National Public Health Performance Standards Program
 - Public Health Accreditation Board
 - Project Public Health Ready
 - Joint Commission on Accreditation of Healthcare Organizations

Capabilities

Capability 7 Mass Care

Function 2: Determine mass care needs of the impacted population

- P1: (*Priority*) Written plans should include an assessment form to be used in shelter environmental health inspections, including at a minimum the following elements:
 - Identification of barriers for disabled individuals
 - Structural integrity
 - Facility contamination (e.g., radiological, nuclear, or chemical)
 - Adequate sanitation (e.g., toilets, showers, and hand washing stations) and waste removal
 - Potable water supply
 - Adequate ventilation
 - Clean and appropriate location for food preparation and storage

Category	Item	Value
Item 1	Item 1.1	Value 1.1
Item 1	Item 1.2	Value 1.2
Item 2	Item 2.1	Value 2.1
Item 2	Item 2.2	Value 2.2
Item 3	Item 3.1	Value 3.1
Item 3	Item 3.2	Value 3.2
Item 4	Item 4.1	Value 4.1
Item 4	Item 4.2	Value 4.2
Item 5	Item 5.1	Value 5.1
Item 5	Item 5.2	Value 5.2
Item 6	Item 6.1	Value 6.1
Item 6	Item 6.2	Value 6.2
Item 7	Item 7.1	Value 7.1
Item 7	Item 7.2	Value 7.2
Item 8	Item 8.1	Value 8.1
Item 8	Item 8.2	Value 8.2
Item 9	Item 9.1	Value 9.1
Item 9	Item 9.2	Value 9.2
Item 10	Item 10.1	Value 10.1
Item 10	Item 10.2	Value 10.2

Capabilities

CAPABILITY 14: Responder Safety and Health

Function 1: Identify responder safety and health risks

•P2: (*Priority*) Written plans should include documentation that identifies public health roles and responsibilities related to the jurisdiction's identified risks, that was developed in conjunction with partner agencies (e.g., state environmental health, state occupational health and safety, and hazard-specific subject matter experts) and emergency managers. This documentation should identify the protective equipment, protective actions, or other mechanisms that public health responders will need to have to execute potential roles. Roles for consideration may include the following elements:

- – **Conducting environmental health assessments**
- – **Potable water inspections**
- – **Field surveillance interviews**

TRAINING

Training Resources

- Emergency Management Institute
- Center for Domestic Preparedness
- Centers for Disease Control and Prevention
- University of North Carolina Center for Public Health Preparedness

Emergency Management Institute

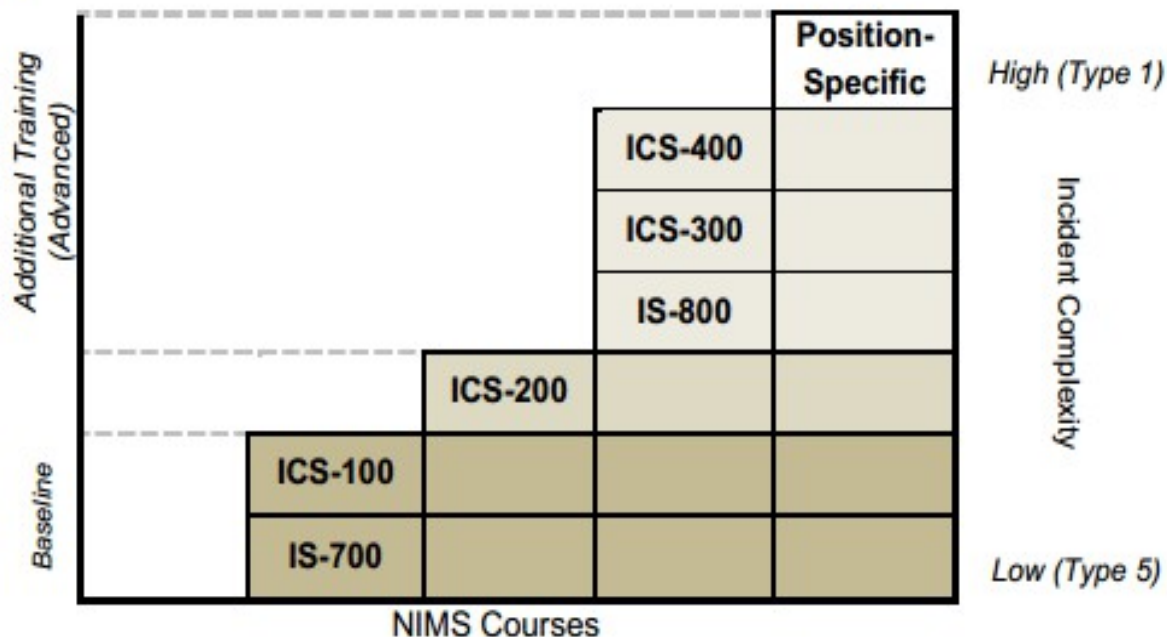
<http://training.fema.gov/EMI/>



ICS Training Courses

Training Program

As illustrated below, the National Incident Management System (NIMS) Training Program identifies those courses critical to train personnel capable of implementing all functions of emergency management. This program establishes the NIMS core curriculum to ensure it adequately trains emergency and incident response personnel to all concepts and principles of each NIMS component. [Click on this link to access the NIMS Training Program document.](#)



Center for Domestic Preparedness

Center for Domestic Preparedness (CDP), located in Anniston, Alabama, is the United States Department of Homeland Security Weapons of Mass Destruction (WMD) training center.

<http://cdp.dhs.gov>

Centers for Disease Control and Prevention

The CDC emergency preparedness and response website is CDC's primary source of information and resources for preparing for and responding to public health emergencies.

<http://www.cdc.gov>



UNC Center for Public Health Preparedness

This site offers free short Internet-based trainings developed by the UNC Center for Public Health Preparedness (CPHP) on public health preparedness topics such as disease surveillance, basic epidemiology, bioterrorism and new/emerging disease agents.

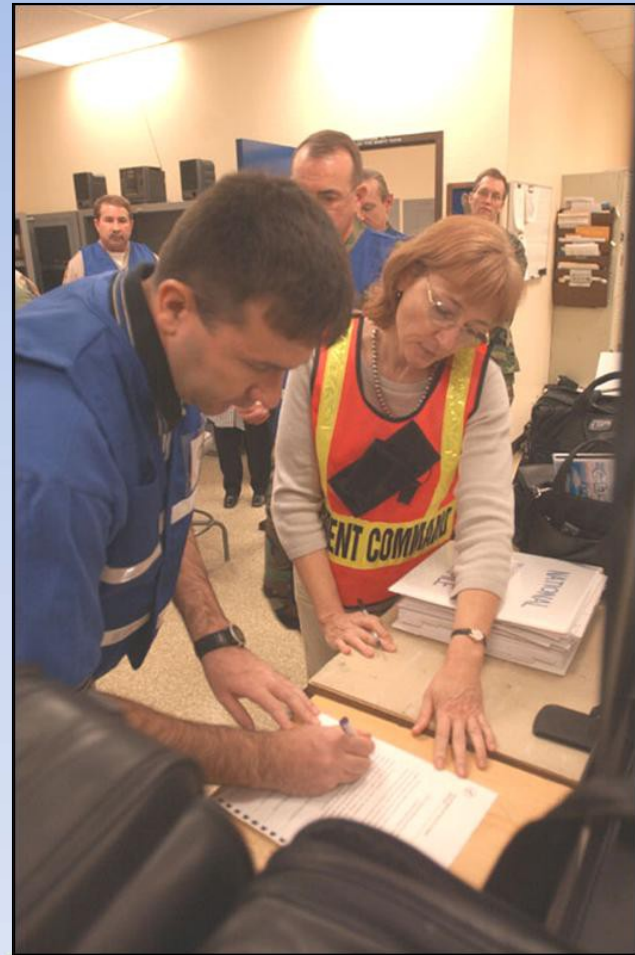
<http://cphp.sph.unc.edu/>



ENVIRONMENTAL HEALTH RESPONSE ROLES

Expertise

- EH Specialists play a vital role in responding to disasters as well as unusual trends in community health



Traditional Roles in Environmental Health

- Food and Lodging
- On-site waste water
- Lead detection and abatement
- Insect and Vector control
- Radon detection and control

DISASTERS/ PH EMERGENCIES

Natural

- Earthquakes
- Tornados
- Floods
- Fires
- Mudslides/Landslides
- Tsunamis
- Storms-power outages
- Communicable Disease

Man Made

- Chemical Spills
- Methamphetamine Labs
- Terrorism
- Incendiary/Explosive
- Communicable Disease
- Radiological/Nuclear Disaster

Possible Roles of EH in Disasters

- Food Safety
- Potable Water
- Wastewater
- Shelters
- Vector Control
- Responder Safety
- Disaster Management
- Solid Waste and Hazardous Materials
- Building Assessments
- Population Monitoring

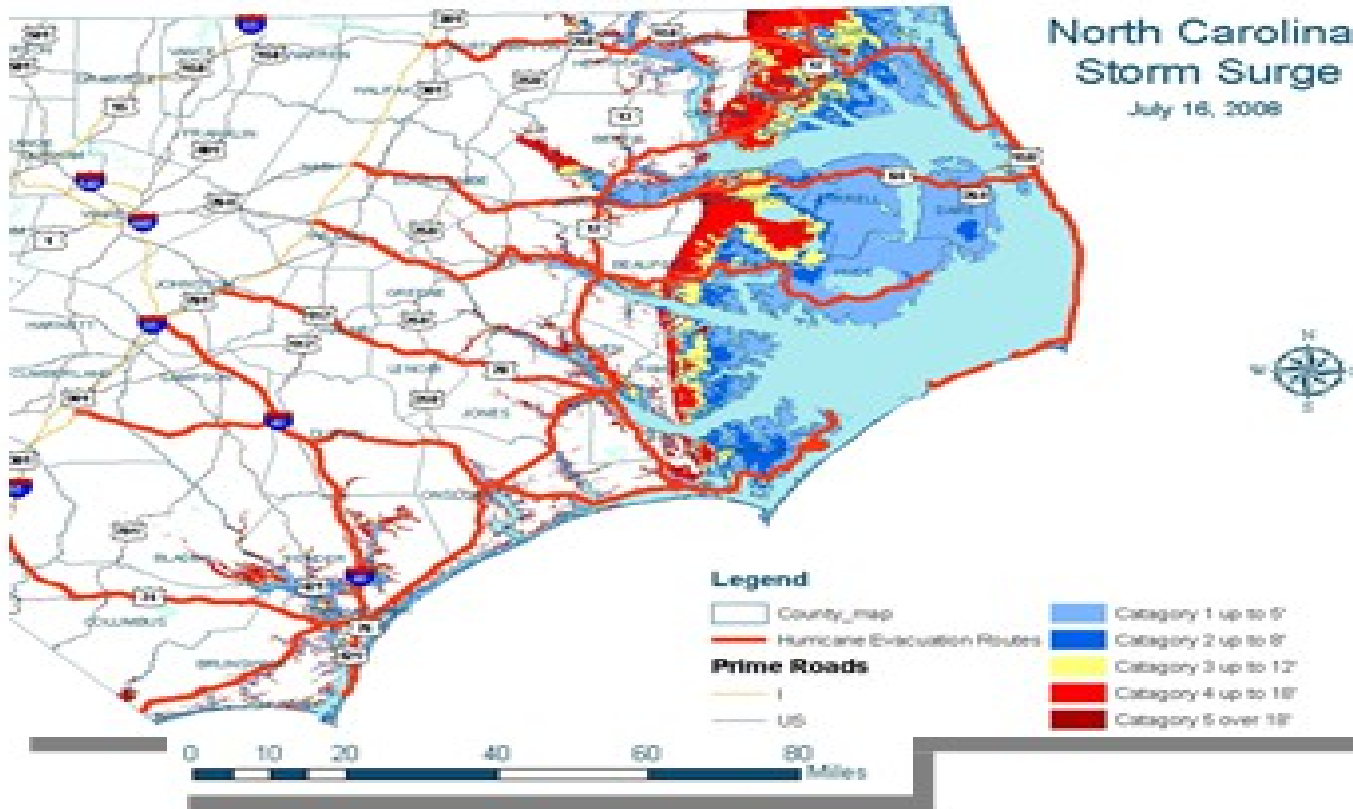


(CDC, 2011)

Natural Disasters



Hurricane Earl 2010

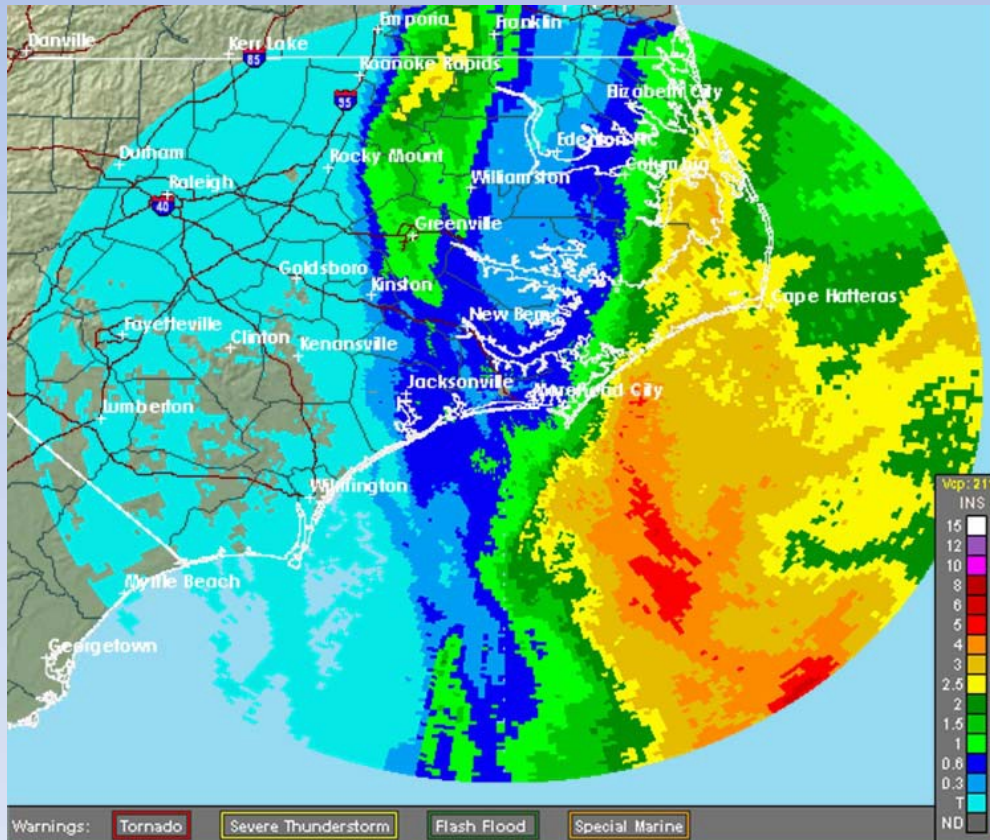


Major Hurricane (Cat 3-5)

- Power outages for up to 800,000 customers, with 30+ day restoration period
- Wide-spread, severe coastal flooding throughout east
- Six major highways covered by floodwaters
- Significant impact to local farming (livestock / crops)
- Regions with 18+ ft. storm surge:
 - 19 eastern-most counties
 - Outer Banks
 - Pamlico Sound
 - Albemarle Sound
 - Currituck Sound
 - Cape Fear River

(NCEM, 2010)

Hurricane Earl 2010



- Radar estimate shows heaviest along the Outer Banks (1-4 inches)
- Storm total to five inches possible in spots.
- Any mostly minor flooding from heavy rain should be limited to the Outer Banks and eastern sound counties.

(NCEM, 2010)

Hurricane Earl 2010

Nine (9) counties were evaluated:

- Ocracoke, Hyde, Dare, Carteret, Currituck, Pamlico, Beaufort, Craven, Tyrrell
- Twelve (12) shelters opened in the eastern region
- 1679 people evacuated from Ocracoke Island

(NCEM,2010)

Hurricane Earl

Environmental Health assisted during this time by:

- Providing food safety precautions
- Providing private well and drinking water supply precautions
- Providing additional EHS staff to counties in need

Castleberry Recall of 2007



Botulism Poisoning Linked to
Hot Dog Chili Sauce
Prompts Massive Product Recall

Castleberry Recall of 2007

On July 18, 2007, Castleberry's Food Company announced that it was voluntarily recalling several products with federal agencies to investigate possible contamination of these products with Clostridium Botulinum.

Castleberry Recall of 2007

- Castleberry's was notified by the FDA of four potential cases of botulism involving individuals who ate these products
- Botulism is a rare but serious paralytic illness caused by a nerve toxin.

Castleberry Recall of 2007

- Eight cases of botulism were reported to CDC from Indiana (2 cases), Texas (3 cases), and Ohio (3 cases).
- All eight persons were reported to have consumed hot dog chili sauce made by Castleberry's Food Company.

Castleberry Recall of 2007

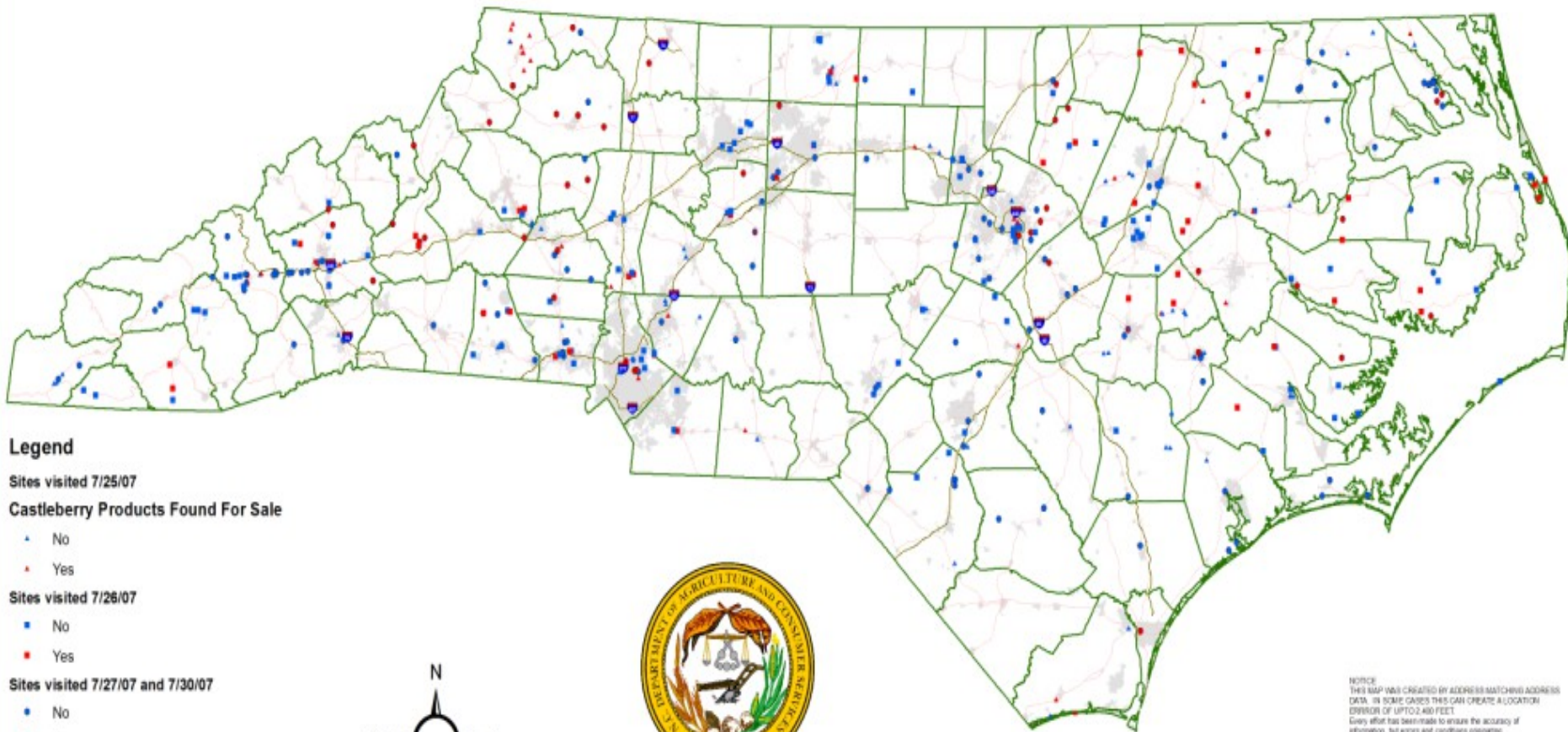
GENERAL CATEGORIES OF PRODUCTS RECALLED:

Multiple brands of chili, chili sauce, stews, & hash (10, 14.5, 15 & 19 oz. sizes)

- | | | |
|------------------|--------------------------|---------------------------|
| 1. Castleberry's | 10. Firefighter | |
| 2. <u>Austex</u> | 11. Food Club | 20. Paramount |
| 3. Best Yet | 12. Food Lion | 21. Prudence |
| 4. Big Y | 13. Georgia Hash | 22. Southern Home |
| 5. Black Rock | 14. <u>Goldstar</u> | 23. <u>Steak'N' Shake</u> |
| 6. Bloom | 15. Kroger | 24. Thrifty Maid |
| 7. Bryan | 16. Lowes Foods | 25. Triple Bar |
| 8. Bunker Hill | 17. Meijer | 26. Value Time |
| 9. Cattle Drive | 18. Morton | |
| | 19. <u>Piggly Wiggly</u> | |

Castleberry Recall Field Information

Products Found For Sale 7/25 to 7/30/07



Legend

Sites visited 7/25/07

Castleberry Products Found For Sale

- No
- Yes

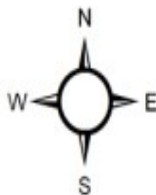
Sites visited 7/26/07

- No
- Yes

Sites visited 7/27/07 and 7/30/07

- No
- Yes

- Interstates
- US Highways
- Counties
- City Limits



Steve Troxler, Commissioner NCDA&CS
 Joe Reardon, Director Food and Drug Division
 Larry Gabriel, Food Administrator
 Sharon Stewart, Acting Director Emergency Programs

NOTICE
 THIS MAP WAS CREATED BY ADDRESS MATCHING ADDRESS DATA. IN SOME CASES THIS CAN CREATE A LOCATION ERROR OF UP TO 2,480 FEET.
 Every effort has been made to ensure the accuracy of information, but errors and conditions originating from physical sources used to develop the database may be reflected in the data supplied. The requester must be aware of data conditions and ultimately bear responsibility for the appropriate use of the information with respect to possible errors, original map scale, collection methodology, currency of data, and other conditions specific to certain data.
 Source: NCDA & Consumer Services, Emergency Programs Division.
 The original data for this map is in North Carolina State Plane Feet North American Datum 1983.
 The Map was created by Daniel Mackley on 7/28/2007.

Castleberry Recall of 2007

A division of labor and resources was conceived by local Environmental Health Specialists to target firms in the following manner:

Small independent
grocery stores
Childcare Centers
Food pantries
Flea markets

Campgrounds
Faith Based Organizations
Private schools
Summer Camps
Summer Food Services

Castleberry Recall of 2007

More than 10,000 cans of potentially contaminated food products were removed from store shelves across the state.

(NCDA&CS, 2007)



How to Prepare

- Take an active role in planning and preparing for events
- Coordinate with local preparedness coordinators
- Participate in local, regional, and state exercises.

Register

<https://www.servnc.org/>

Conclusion

- Continue to enhance NCP&R's programs that support our state's public health capacities prior to, during, and after a disaster occurs
- Engage more environmental health supervisors and their staff in available training to develop stronger relationships with preparedness partners

References

- Centers for Disease Control and Prevention. (2011, March). Collaborative, Capabilities-Based Methodology to Define Content for the Public Health Emergency Preparedness Cooperative Agreement. [Powerpoint Slide]. Retrieved from www.cdc.gov/phpr/capabilities
- Centers for Disease Control and Prevention. (2011, February). Environmental Health Training in Emergency Response. Retrieved on October 11, 2013 from www.cdc.gov/nceh/ehs/etp
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Questions

