North Carolina Institute for Public Health (NCIPH)

- Service arm of the Gillings School of Global Public Health at UNC-Chapel Hill
- Since 1999 has served as a bridge between academia and partners in community organizations and government agencies

*Deliver training, conduct research and provide technical assistance to transform the practice of public health for all*
Objectives

• Describe how the Vulnerable and At-Risk Populations Guide can identify vulnerable and at-risk populations

• Discuss strategies for engaging vulnerable and at-risk populations in local preparedness planning

• Identify lessons learned from communities working with vulnerable and at-risk populations to enhance preparedness efforts
Planning & Resilience

• All-Hazards Planning
  - Based on the concept that jurisdictions should develop, exercise and revise core plans that address all hazards, whether natural, accidental, negligent or intentional

• Community Resilience
  - Ongoing and developing capacity of the community to account for its vulnerabilities and develop capabilities that aid that community in mitigating, recovering, and strengthening
Individuals with Access and Functional Needs

- Individuals who may have difficulty accessing public health and medical services they require following a disaster or emergency
- Referred to as “at-risk”, “special needs” or “vulnerable” populations
- At-risk groups may include:
  - Children
  - Senior citizens
  - Pregnant women
  - Persons living with disabilities
  - Persons living in institutions
  - Persons from diverse cultures
  - Persons with limited English proficiency
  - Transportation disadvantaged
  - Persons with chronic medical disorders
  - Persons with pharmacological dependency
Defining Vulnerability

“Vulnerability is the pre-event, inherent characteristics or qualities of a social system that create potential harm. Vulnerability is a function of exposure (who or what is at risk) and sensitivity to the system (the degree to which people and places can be harmed)”.

Bluestone Dam, West Virginia
Vulnerability and Risk

Pressure and Release Model – Progression of Vulnerability (Blaikie et al. 2003)
Vulnerability is Multidimensional

Resource limitations:

• **Economic** - poverty and link to hazardous environments and in adequate nutrition

• **Educational** - ability to understand health information and make informed choices

• **Social** - support system

• **Health status** - physical, biological, psychological

• **Health risk** - lifestyle, environmental
Developing Your Plan

Assess Current State
- Response roles and responsibilities
- Resources (health dept. and partners)
- Progress and needs in developing PHEP capabilities

Determine Goals
- Review jurisdictional planning and assessment documents
- Prioritize PHEP capabilities
- Develop short and long-term goals

Develop Plans
- Implement goals
- Plan for how to build and sustain capabilities
- Evaluate progress
Developing Your Plan

- Assess at-risk populations
- Set priorities based on findings
- Define public health’s primary responsibility
- Define partners
- Collaborate and engage
- Reassess and refine
Assess At-Risk Populations

Ability to set priorities based on evidence

• How many?
• Where do they live?
Social Vulnerability Index (SVI)*

- Metric that combines 14 census variables
  - Indicators of social vulnerability
  - Focuses on a set of population groups
  - Different domains of potential vulnerability

- Mapped at the local jurisdiction level
  - Spatially identifies socially vulnerable populations
  - Constructed at a smaller unit for local planning

*Developed by CDCs Geospatial Research, Analysis, and Services Program (GRASP), 2011
Social Vulnerability Index (SVI)*

*Developed by CDCs Geospatial Research, Analysis, and Services Program (GRASP), 2011
Levels of Planning

Planning for the “whole community” varies by scale and “community”

Illustrates each jurisdiction's vulnerable populations at the census tract level
Making Planning Local

Planning for the “whole community” varies by scale and “community”

Example of Putnam County across multiple planning regions
Translation to Practice

Special Guest

Betsy Kagey, PhD, MSPH
Academic Liaison
Georgia Department of Public Health

[Map of Georgia Public Health Districts]
Georgia’s Four Seasons of Climate Change

- Drought
- Floods
- Wildfires
- Ice storms
www.VARPguide.com

Releasing a printed Atlas to EP planners in Georgia
Georgia Public Health District – Fulton (3-2)

Overall Social Vulnerability

[Socioeconomic Status vs. Household Composition]

- Income, Poverty, Employment, Education
- Age, Dependency, Single-Parenting
- Minority Status, Non-English Speaking
- Housing, Crowding, Transportation

[Map of Fulton with color-coded vulnerability levels]
Beyond the Atlas

• Complement to the printed atlas
  – VARPguide.com
• Accessing Georgia data
  – Public Health Districts
  – Regional Coordinating Hospitals
  – Emergency Management Areas
• Offers online resources
Maps & Data

This page enables you to explore the many different kinds of demographic data available, exploring via map and data table to see the vulnerability of populations in a selected area. Start by choosing where your search will take place (five states currently included in this pilot project), and then move through the variables to view maps and data about the populations living in your selected area.

To create your map, use the drop down menu to narrow your search by selecting a location to explore.

Choose a state >> Choose an Area >> Choose a Place

Use the drop down menu beneath to select the level or variable of vulnerability to view. To scroll down the list, simply click on the tab and hold your mouse button to slide it up or down. You can view the level of vulnerability for each census tract in the map by hovering over the tract. Alternatively, you can view a table of the data by clicking on the Data tab located at the top of the map area.

BONUS >> After you've created your map and selected your vulnerability domain or variable, you can view a list of matching Resources by clicking on the tab.

For Registered Users >> You have the option to bookmark your map and data for later use. Bookmarked maps are listed on your MyPage.

If you are not already registered, you can create your account here >>
### Socioeconomic Status

#### Total Rankings

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Adairsville
January 2013
HD 1-1 Northwest Georgia
2010 SVI Data
Planning for Tornados

Housing and Transportation

% Mobile Homes
Limitations of SVI Mapping

• Scale
  – *Census Tract*

• Timeliness of Data (2010)

• Completeness
  – *Know the variables*
  – *There are other things that make people vulnerable*
How Can Public Health Make a Difference?

• Identification (outreach and case finding)
• Linking to health services (case manager)
• Developing or revising programs to meet needs
• Educating how to promote health
• Ensuring a competent work force
• Providing direct care
• Advocating for programs and services to meet specific needs
Involve Target Groups In Planning

- Primary data collection
- Identification and involvement of key stakeholders
- Identification and training of community organizations serving the target populations
- Creating a special planning group
Institutional Preparedness and Planning

• Train, advocate for, and assure institutions that work with these groups are prepared:
  – *Intellectually disabled*
  – *Drug and/or alcohol dependent*
  – *People in nursing homes or assisted-living facilities*
  – *Adults and children in criminal justice system*
  – *Children in school or foster care*
Alignment w/ PHEP Capabilities

- Engage public and private organizations in preparedness activities that represent the functional needs of at-risk individuals as well as the cultural and socio-economic, demographic components of the community. (Capability 1, Function 1.)

- Identify those populations that may be at higher risk for adverse health outcomes. (Capability 1, Function 1.)

- Identify the potential hazards, vulnerabilities, and risks in the community that relate to the jurisdiction’s public health, medical, and mental/behavioral health systems. (Capability 1, Function 1.)

- Work with emergency management and community and faith-based partners to identify the public health, medical, and mental/behavioral health services. (Capability 1, Function 3.)

- Build community partnerships to support public health preparedness (Capability 1, Function 2.)

- Facilitate the collection of geographically-specific data (Capability 1, Function 1.)
Applications to Practice

• Leverage resources into opportunities
  – Plan more efficient evacuations
  – Identify neighborhoods that may need services
  – Effectively target and support community-based efforts
  – Apply evidence-based decisions to support practice

• One piece of the complex puzzle
  – Help the whole community get prepared, stay prepared and be ready
  – Effective risk reduction and mitigation
Thank You

For additional questions, contact us at:

VARPguide@unc.edu

Visit the Vulnerable & At-Risk Populations Resource Guide at:

www.VARPguide.com