North Carolina Public Health Practice-Based Research Network – DACS 71131

Product Type: Meeting and Conference Presentation

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Title of Presentation: NC Public Health PBRN DACS Overview

Meeting: Public Health PBRN DACS Methods Development Workshop

Sponsor Organization: National Coordinating Center for PHSSR and PH PBRN

Date: September 27, 2013

Location: Lexington, Kentucky

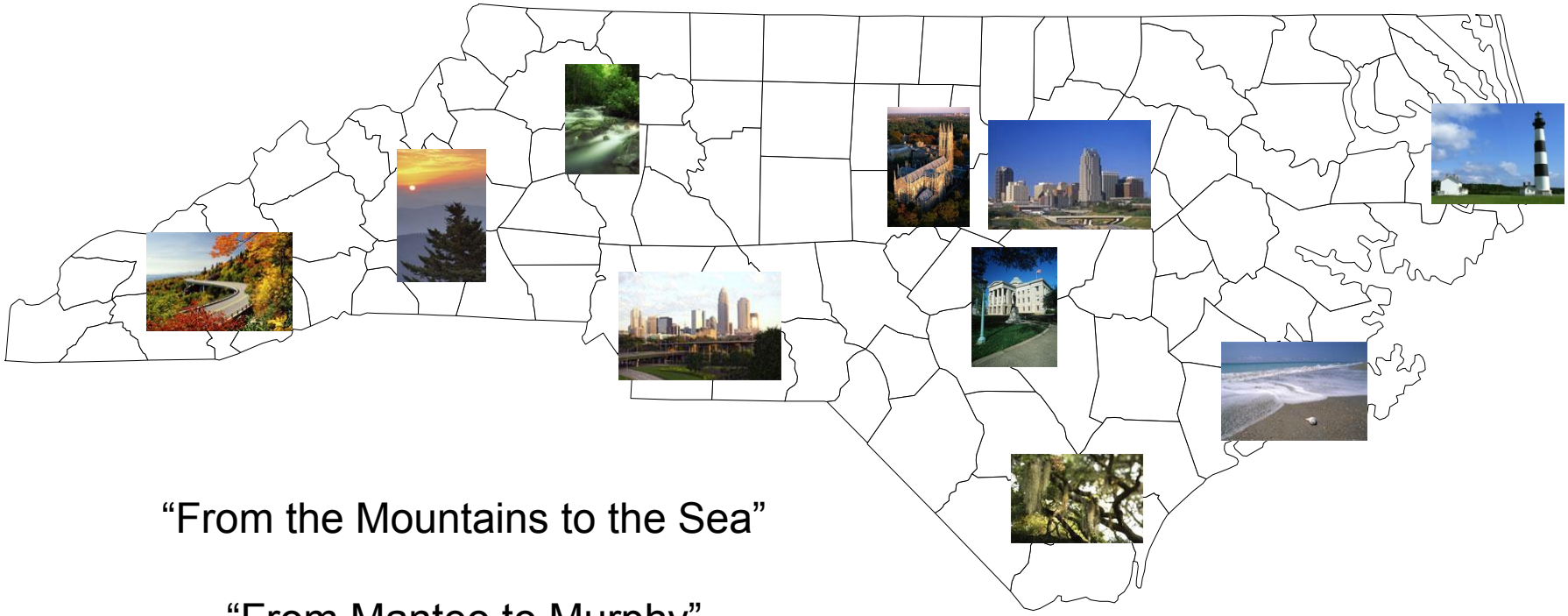
NCPH

North Carolina Public Health

Creating conditions for every community to be a healthier community

North Carolina Public Health works to promote and contribute to the highest possible level of health for the people of North Carolina.

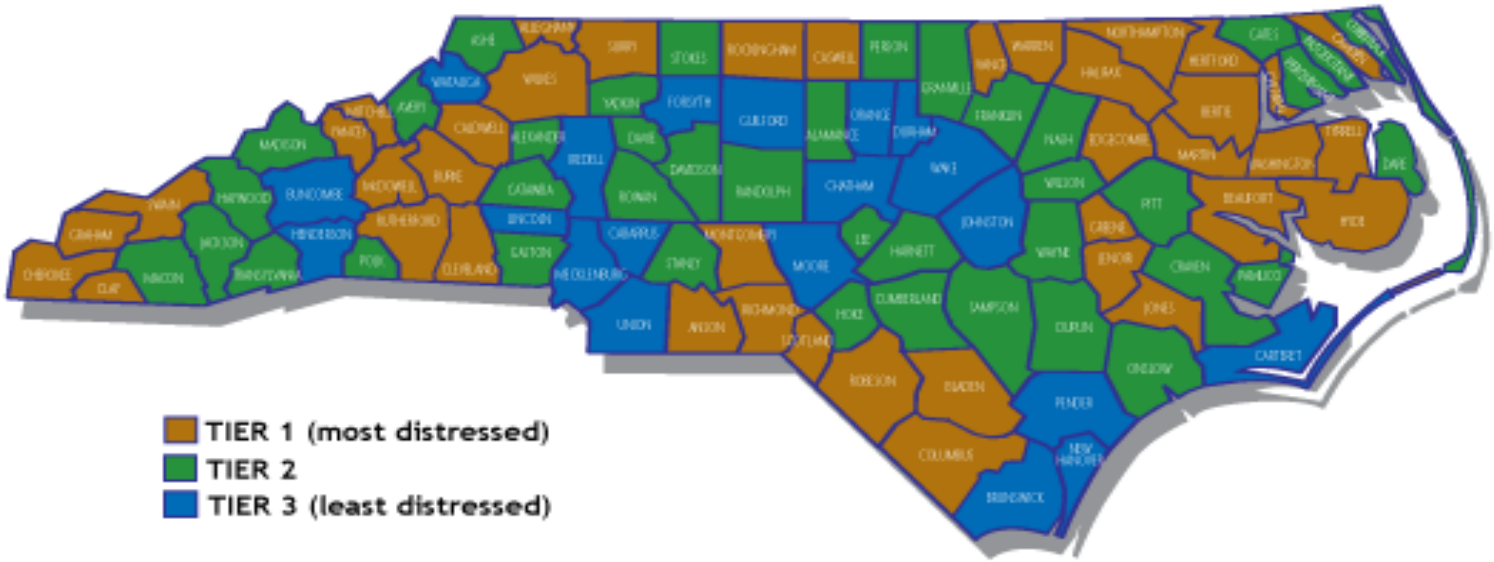
NC has great diversity in its 100 counties and its ~9,500,000 citizens



"From the Mountains to the Sea"

"From Manteo to Murphy"

Rural – Urban Continuum
3 Economic Tier Designations



Source: N.C. Department of Commerce

Source: NC Department of Commerce

Tier 1 Most Economically Distressed: 40 Counties

Tier 2 Distressed: 40 Counties

Tier 3 Urban or Least Economically Distressed: 20 Counties

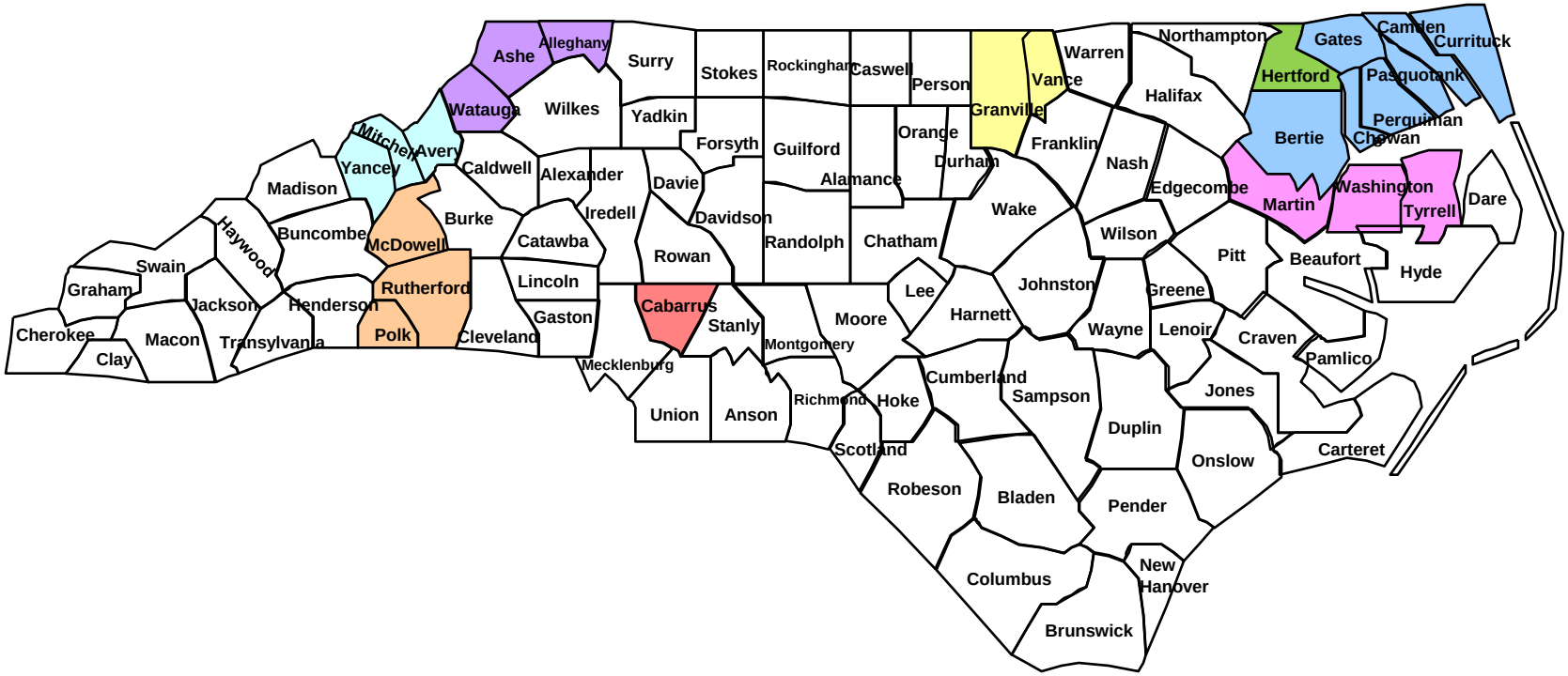
NC Local Health Departments

"A county shall provide public health services." GS 130A-34(a)

Any county	Counties ≥ 425K population
County health department	Consolidated human services agency
District health department	County department or CHSA governed directly by county commissioners (no BOH)
Public health authority (single- or multi-county)	

North Carolina has 100 Independent Geo-Political Counties
North Carolinians have access to 100+ physical locations for local public health

There are 85 Local Health Department Administrative Units (85 local health directors)
Including 1 Local Hospital Authority (pink), 1 Local Public Health Authority (green)
and 6 Local Public Health Districts










North Carolina Prevention Infrastructure

- **Federal Government Funding Streams**
  - US Dept of Health and Human Services (DHHS)
  - Centers for Disease Control and Prevention (CDC)
  - National Institute for Health (NIH)
- **State-Level Infrastructure**
  - NC Dept of Health and Human Services
  - Medicaid and Mental Health Services
  - Division of Public Health
  - All state-supported departments and divisions that provide assistance to the local level
- **Local Entities**
  - Local Health Departments
  - Local Management Entities/Mental Health/DSS
  - Schools, Churches, Community Centers, Businesses, Interest Groups, Families, Individuals – Everyone!

Public Health Services

- Laws that affect local health department services:
  - Mission and essential services of the NC public health system (GS 130A-1.1.)
  - Mandated services rules (10A NCAC Ch. 46)
  - Accreditation statute and benchmarks (GS 130A-34.1 & 10A NCAC Ch. 48)

Mandated services

Provide:	Provide/contract/certify:
Food, lodging & institutional sanitation	Adult health
Individual on-site water supply	Home health
Sanitary sewage collection, treatment & disposal	Dental public health
Communicable disease control	Grade-A milk sanitation
Vital records registration	Maternal health
	Child health
	Family planning
	Public health laboratory

Methodology

Cost Estimation Methods

Study will use three approaches:

1. Empirical modeling based approach
2. Resource based approach
3. Time log approach

Empirical Modeling Based Approach

- Will use administrative data from NC DOH for 2004-2012
  - Data includes expenditures and staffing but no service counts
  - NACCHO service fulfillment data will be used to estimate scope of service
- Will provide a measure of resource use for core services; will allow us to investigate the influence of organization and community level factors on LHDs' production cost function (following OH model)
- Sample will include all 85 LHDs (100 counties) in NC

Resource Based Approach

- Will use primary data collected with the help of a modified version of the SASCAP instrument currently used by PH practitioners in WA
- Will develop cost estimates for select PH services using both a survey of key informants (health director in consultation with program/financial staff) and administrative data
  - Data collected will include production inputs, such as personnel, supplies, overhead
- Sample will include 16 LHDs (chosen using a stratified random sample to ensure representativeness)

Time Log Approach

- Will use primary data collected through an ABC approach, e.g., direct observation or activity logs (to be determined with partners)
- Will develop cost estimates for one mandated PH service (to be determined with partners)
- Sample will include 4 volunteer LHDs which also participate in resource based approach

Summary of Methods

Table 1. Summary of Methods			
Costing Method	Data Collection Method	Sample Size	Comments
Empirical 5 years of data	Administrative data	All 100 counties, 5 mandated services	Both build specific service production cost models recognizing demographic factors. Both measure equity of production.
Resource-based	Key informant input, administrative data	16 LHDs, 5 mandated services	
Time log	Direct observation or activity logs supplemented with administrative data	4 LHDs, 1 mandated service	Builds service production cost model based on micro-level estimates of input resources.

Thank you

- ***Core PBRN Team***
  - Nancy Winterbauer (Co-PI) ECU
  - Lisa Macon Harrison (Co-PI) GVDHD
  - Simone Singh, healthcare finance expert, Michigan
  - Patrick Bernet, healthcare finance expert, Florida

- ***Advisory Committee***
  - Local Health Departments (LHD): Sue Lynn Ledford, Colleen Bridger, and Amy Belflower Thomas
  - NC Division of Public Health (DPH): Joy Reed
  - UNC-Chapel Hill: Jill Moore (SOG) and Dorothy Cilenti (NCIPH)

Benjamin Disraeli

“The health of the people is really the foundation upon which all their happiness and all their powers as a state depend.”