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Affiliation: Northeast Ohio Medical University

Title: Investigation in a Public Health Practice Based

Research Network: Integration of Original and Publicly

Available Data

Meeting/Workshop: Ohio Health Data Statewide Symposium

Organization Holding Meeting: Case Western Reserve

University and Ohio Department of Health

Date: August 30, 2012

Place: Wolstein Research Building, Cleveland, OH

# Investigation in a Public Health Practice Based Research Network: Integration of Original and Publicly Available Data

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NEOMED








Ohio Research Association  
for Public Health Improvement

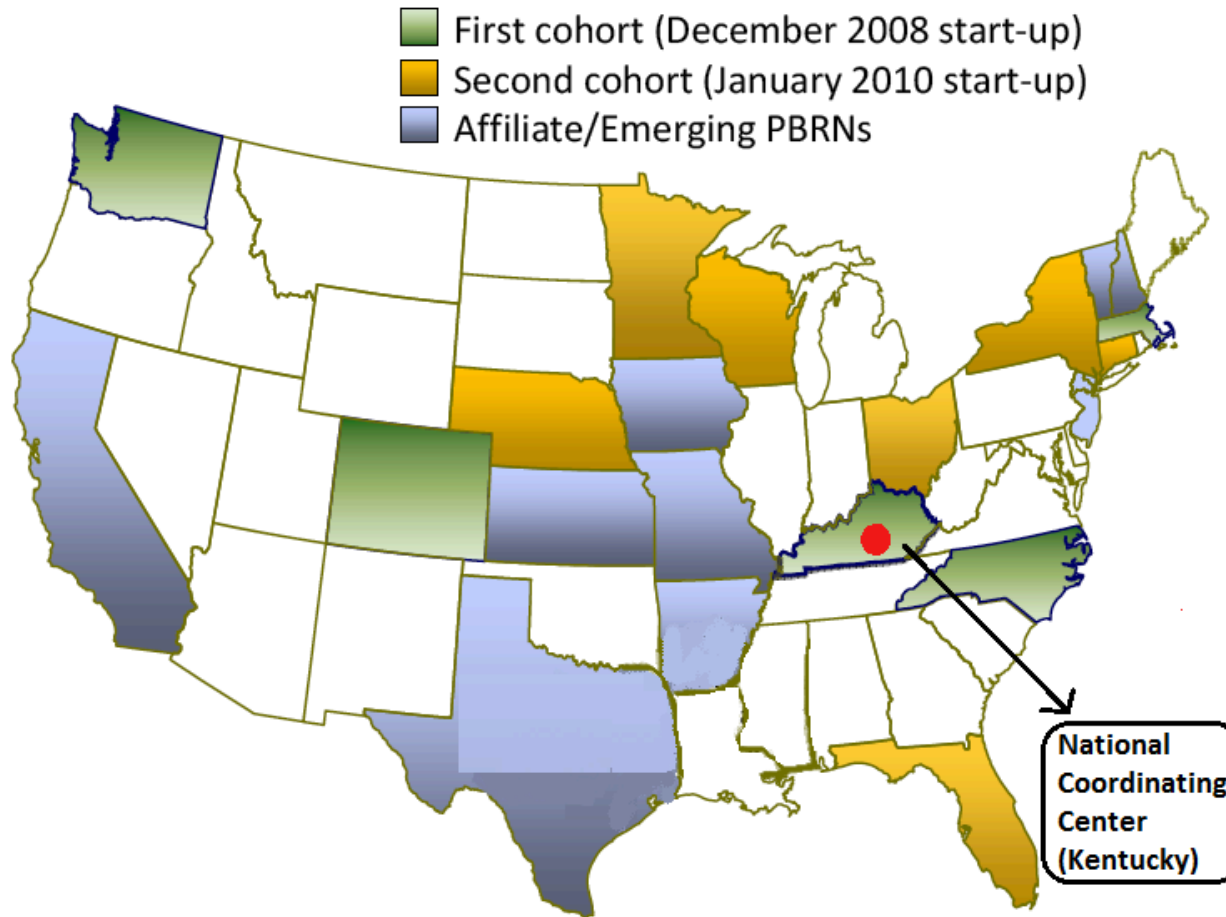
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Public Health Practice-Based Research Network

# What is RAPHI?

-  RAPHI is a Public Health Practice-Based Research Network (PH PBRN)
-  Organized group of Ohio public health agencies
-  1 of 12 funded PH PBRNs and 12 affiliate PH PBRNs nationally (total 24)
-  PH PBRNs support the development & dissemination of evidence-based public health practices
-  Funded by the Robert Wood Johnson Foundation (RWJF)—December 2009 through 2013

# RWJF Public Health PBRN Program



# Purpose of RAPHI?






- Ongoing collaborations with public health research centers
- Conducts rigorous, applied studies
- Identify ways of improving the organization, financing and delivery of public health services in real world community settings





# Ohio RAPHI Coordination

- 🌳 PI—Scott Frank, MD, MS, Case Western Reserve University
- 🌳 Co-PI (former)—Matthew Stefanak, MPH, RS (former Health Commissioner, Mahoning County District Board of Health)
- 🌳 Co-PI (new)--Gene Nixon, MPA, RS, Health Commissioner, Summit County Public Health
- 🌳 Project Coordinator—Michelle Menegay, MPH

# Representative Projects


-  Variation in Enforcement of the Ohio Smoke Free Work Place Act by Local Health Departments
-  Analyzing the Difference between Position Descriptions for Ohio Public Health Nurses and Standard Descriptions of PH Nursing Competency and Scope of Practice
-  The Future of Teaching in Local Health Departments: Budgetary Decreases and the Extent and Nature of Student Experiences in Governmental Public Health
-  The Impact of Consolidation of Local Health Departments in Ohio
-  **Direct Observation of Local Public Health: The Role of the Local Health Department in Prevention, Investigation, and Management of Foodborne Outbreak (DOLPH)**

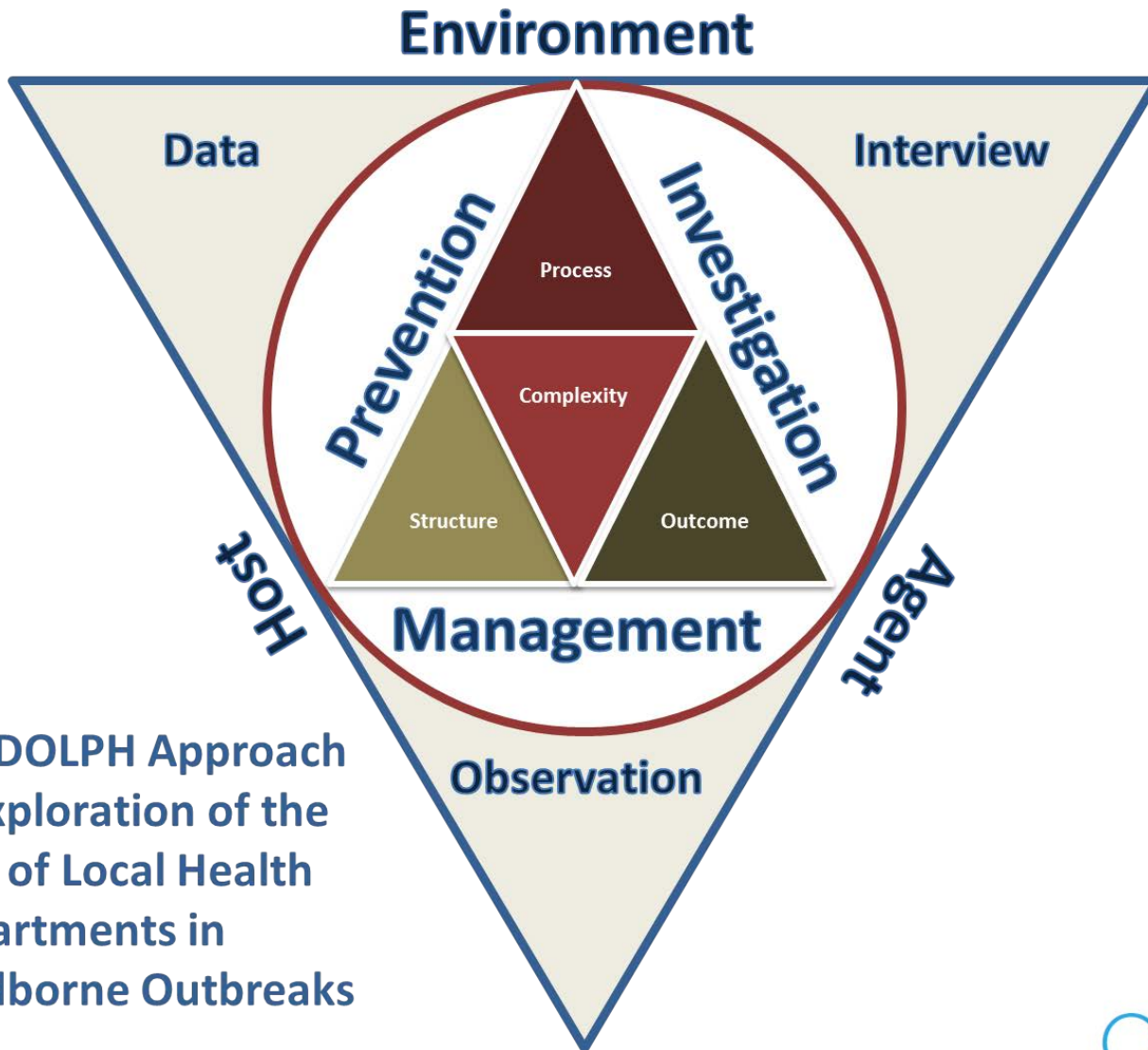
# Direct Observation of Local Public Health Rationale

-  Lack of credible evidence regarding the types and levels of workforce, infrastructure, related resources, and financial investments in public health
-  Offer evidence to provide a rational approach to changing the public health system in the face of health reform



# Direct Observation of Local Public Health Purpose

-  **Purpose:** seek to characterize public health practice—structure, process, and outcome of the local health department (LHD) role in foodborne illness prevention, investigation, and intervention



The DOLPH Approach  
to Exploration of the  
Role of Local Health  
Departments in  
Foodborne Outbreaks



# Direct Observation of Local Public Health Research Structure

- 🌳 Seven academic public health programs
  - DOLPH liaison(s) at each program
  - Regular conference calls
- 🌳 3 to 5 local health departments per program
  - Regular contact with liaison to report on progress and assure opportunity for feedback
- 🌳 3 to 5 student observers
  - Statewide and local training

# Direct Observation of Local Public Health Methods

- 🌳 Mixed methods approach
  - Qualitative and quantitative interview, observation data
  - Secondary data (health department, jurisdictional profiles)
- 🌳 Combines original qualitative and quantitative data with existing statewide quantitative databases
- 🌳 Ohio statewide databases for public health services and systems research:
  - Socio-demographic census data
  - Ohio Annual Financial Report data
  - Local health department performance standards data

# Current Progress

-  Nearly 200 observed food service establishment inspections
-  Examination of inter-rater reliability and instrument validity demonstrate positive results

# DOLPH Observational Protocol Validity and Inter-Rater Reliability

Variable	N	Percent Correct	Gold Standard
RS admits uncertainty	27	85.2%	(Not at all)
PIC uses humor	27	55.6%	(Not at all)
RS uses humor	27	85.2%	(More than once)
PIC interrupts RS	27	74.1%	(Not at all)
RS uses unexplained jargon	27	100%	(Not at all)
Argumentation occurs	27	96.3%	(Not at all)
RS gives Positive Feedback	27	96.3%	(More than once)
RS gives Negative Feedback	27	88.9%	(Not at all)
RS threaten punitive action	27	100%	(No)
Favors offered to RS	27	96.3%	(No)
RS gave clear feedback	27	92.6%	(More than once)
RS discuss improvement plan	27	85.2%	(More than once)

N=Number of Trained Observers

PIC=Person in Charge; RS=Registered Sanitarian



# Research Questions Using Statewide Data Integration

- 🌳 What variations in registered sanitarian inspection practices\* exist by differences in
  - Jurisdictional socio-demographics? (census data)
  - Jurisdictional structure? (local health department performance standards)
  - Public health spending? (Annual Financial Report)
  - Socio-demographic characteristics of food service establishment census tracts? (census data)

\*interaction/cooperation with person in charge; extent of food safety education, extent of feedback, others

# Research Questions Using Statewide Data Integration

- 🌳 What variations in food service establishment violations\* occur by differences in
  - Jurisdictional socio-demographics? (census data)
  - Jurisdictional structure? (local health department performance standards)
  - Public health spending? (Annual Financial Report)
  - Socio-demographics characteristics of food service establishment census tracts? (census data)




\*especially those associated with foodborne outbreaks



# Research Questions Using Statewide Data Integration

- 🌳 What patterns of geographic variation exist for
  - Registered sanitarian practices?
  - Food service establishment characteristics?
  - Food service establishment violations?
  - Foodborne outbreaks?
- 🌳 Can these variations be explained by
  - Public health spending?
  - Local health department characteristics?
  - Workforce differences?
  - Jurisdictional characteristics?

# Implications of PHSSR Databases for Chronic Diseases

-  Relationship between public health spending and chronic disease outcome by region or jurisdiction
-  Relationship between public health performance and chronic disease outcome by region or jurisdiction
-  Opportunities for mapping chronic disease outcome by public health spending and local health department structure

Thank You!

