

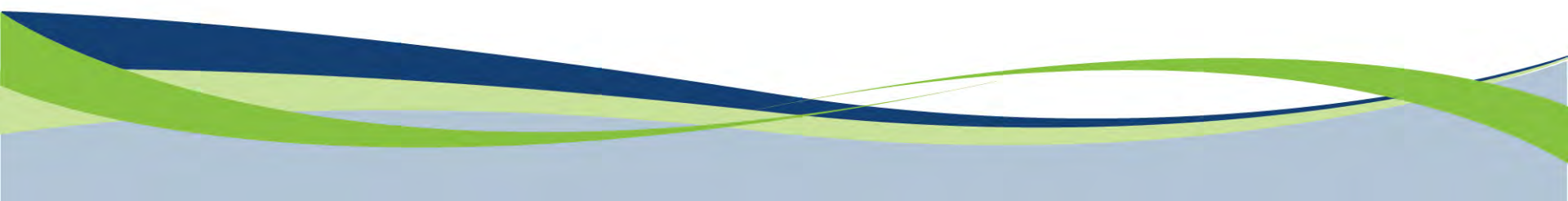
# Public Health PBRN Monthly Virtual Meeting December 20, 2012

Research-in-Progress Presentation by Massachusetts PBRN  
**Retail food safety standards for local public health  
inspectional services in Massachusetts**

Justeen Hyde, PhD, Jessica Waggett, MPH,  
Lisa Arsenault, PhD, Lise Fried, DSc  
Institute for Community Health  
Harold Cox, MSW, Kathleen MacVarish, MPH  
Boston University

If you are dialed into the conference line on the telephone,  
please turn off your computer speakers.

Please mute your telephone until the Q&A. If your telephone does not have a mute button,  
press \*6 to mute and #6 to unmute



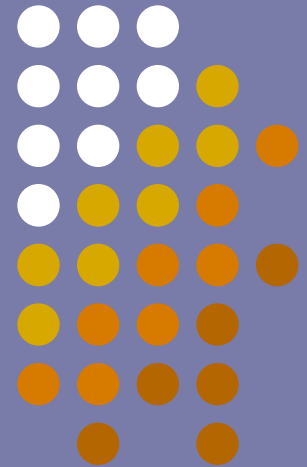
# Retail food safety standards for local public health inspectional services in Massachusetts



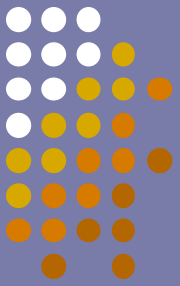
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PBRN December 2012



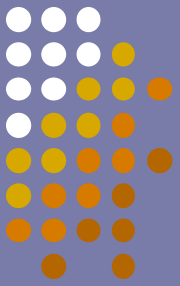
# Acknowledgements and Disclosures



This study was funded by the Robert Wood Johnson Foundation. The Massachusetts Practice Based Research Networks thanks RWJF for their support.

## **MA PBRN Research Steering Committee:**

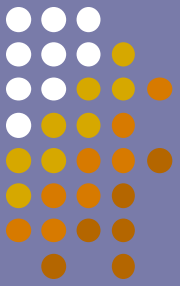
Kathleen MacVarish, Harold Cox, Phoebe Walker, Geoff Wilkinson, Sandy Collins, Jim White, Mike Moore, Cheryl Sbarra



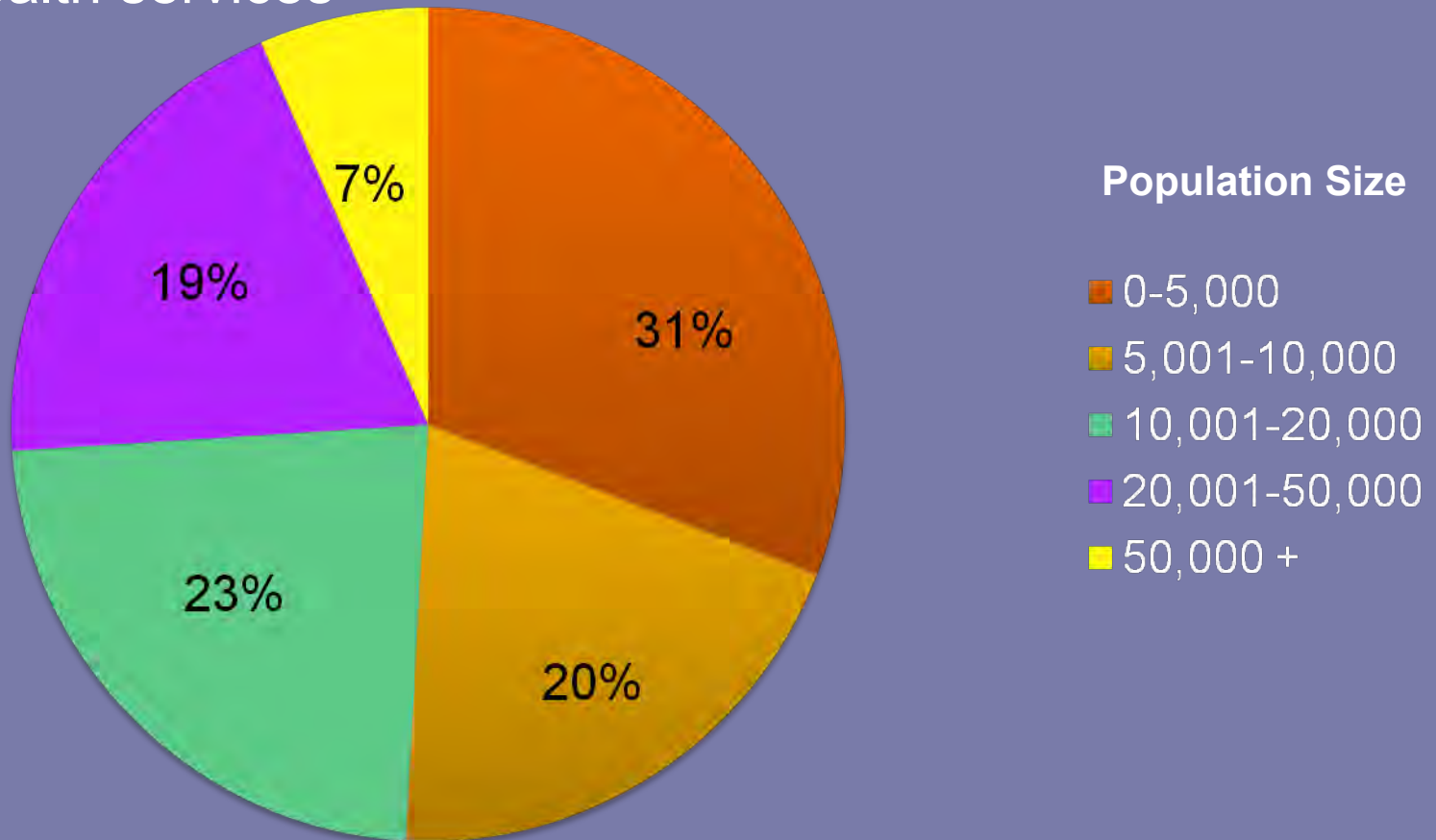
# Overview of Presentation

- Local context of public health service delivery in Massachusetts
- Brief overview of the Local PHACTS study
- Focus on capacity of local boards of health to meet retail food safety standards
  - Measures
  - Key findings
- Discussion

# Organization of local public health

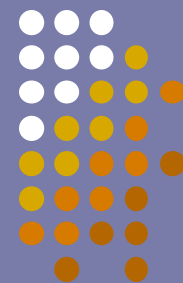


- Massachusetts has 351 Boards of Health
  - Each responsible for providing state mandated public health services



# Local PHACTS Study

## Public Health Activities, Capacity & Technical Skills

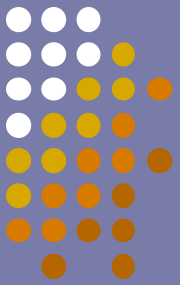


### Central Research Question

How do the following influence the delivery of evidence-based public health services in Massachusetts:

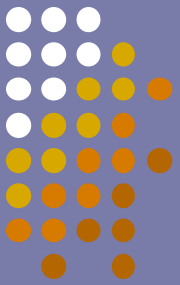
- local context
- organization of local public health service delivery
- capacity to meet core function-related performance standards

# Methods



- **Survey interview** conducted with 351 local public health directors/board of health chairs
  - Telephone & Self-Administered
- 45-60 minutes to complete
- Survey responses reviewed by Project Manager for quality and completeness
- Data entered into Access database
- Analysis performed using SAS (v 9.2)

# Methods



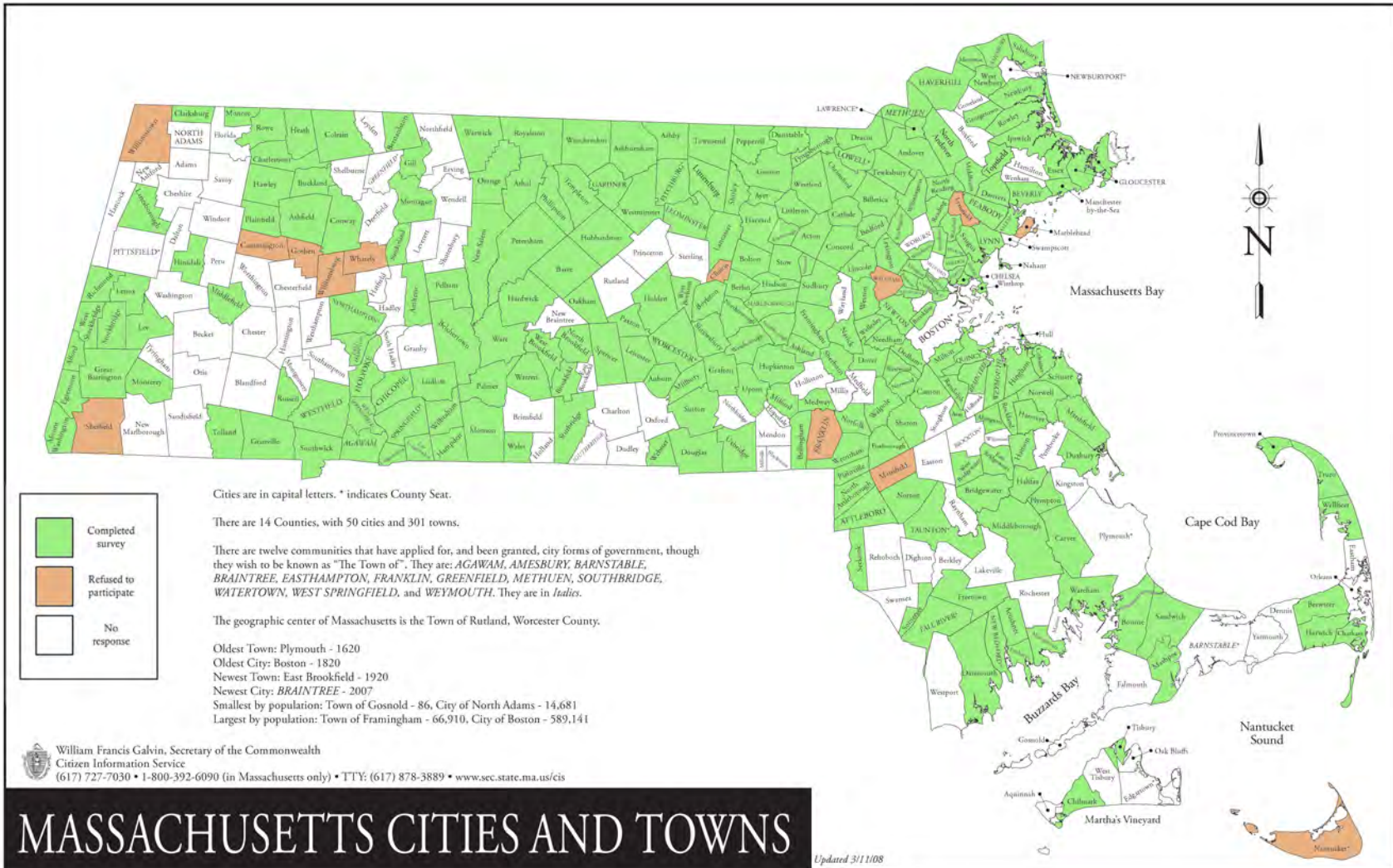
## Areas Covered on Survey:

- Municipal data (pop. size, race/ethnicity, poverty, tax rate, municipal budget)
- Governance (municipal and board of health)
- Public health services delivered
- Public health workforce (type, # FTEs, affiliation with LHD, qualifications of leadership)
- Funding for local public health services
- Capacity to perform 10 essential public health services
- Delivery of evidence-based food safety practices
- Delivery of evidence-based communicable disease control practices

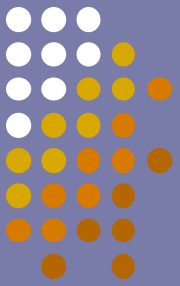


# Study Sample: 247 municipalities

## 70% response rate

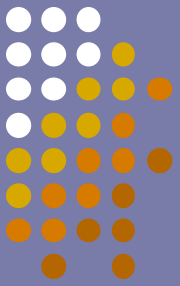


# Primary Outcome: Capacity to meet FDA Retail Food Safety Standards



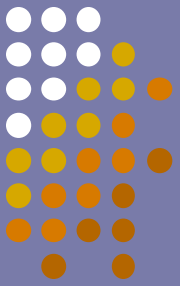
- Limited evidence base around best practices for retail food safety practices
- MA PBRN is very interested in the efficacy of retail food safety practices
  - No agreed upon practices
  - MA DPH mandates minimum of 2 inspections per establishment per year
  - Few local boards of health meet this mandate
  - Little focus on quality of retail food inspections

# Study Hypothesis



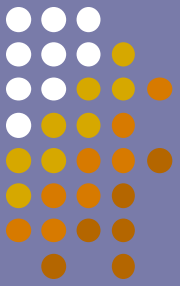
Municipalities with higher capacity to perform essential public health services would be more likely to meet FDA standards for retail food safety inspections

# FDA Retail Food Safety Standards



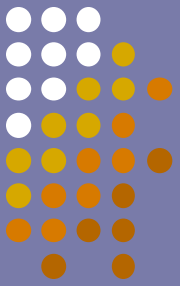
- Training of retail food safety inspectors
- Inspectional service protocols
- Preparedness and response
- Compliance and enforcement
- Industry and community relations and communication
- Resources to perform inspections
- Supervision and oversight
- Program assessment

# Capacity to meet FDA food safety standards



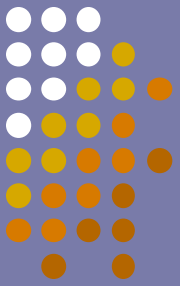
- 8 Domains, 25 questions
- Each item on screening tool worth 4 points, for a total of 100 possible points
- Divided the sample into quartiles based on scores
  - 0-30
  - 31-43
  - 44-54
  - 55-100

# Capacity to perform 10 Essential Public Health Services (EPHS)



- Capacity to provide 10 Essential Public Health Services
- 25 item screening tool based on standards of NACCHO's Operational Definition of Functional Local Public Health Department and Turnock-Miller 20
- Each item on screening tool worth 4 points, for a total of 100 possible points

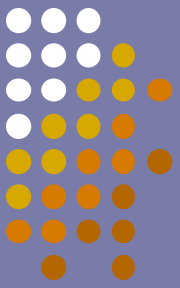
# Capacity to perform 10 Essential Public Health Services (EPHS)



## Findings:

- Mean score: 43.5 (SD 16.8)
- Mean score in lowest quartile: 22.6 (SD 6.0)
- Mean score in highest quartile: 65.5 (SD 9.6)

# Factors Associated with Capacity to Perform 10 EPHS

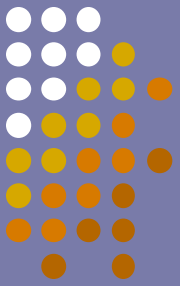


## Bivariate Analysis:

- Population size over 26,000 (P=.02)
- BOH serving urban areas (P=.003)
- BOH serving high poverty areas (P<.0001)
- Higher annual municipal budget (P<.0001)
- Municipalities with elected BOH (P=.01)
- Elected municipal leaders' understanding of local public health responsibilities (P<.0001)
- Municipalities with full-time health director (P=.003)
- Greater number of full and part time staff (P=.04)



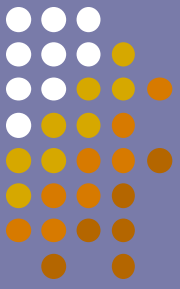
# Factors Associated with Capacity to Perform 10 EPHS



## Multivariate Analysis:

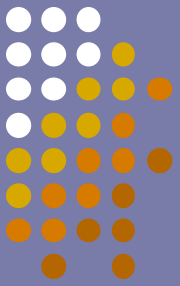
- Strongest predictor of capacity was local elected officials' understanding of public health responsibilities (OR 3.9, 95%CI=1.8,8.9)
- Full-time public health director (OR=2.5, 95%CI=0.97,6.4)
- Municipalities with higher poverty rates (OR=1.1, 95%CI=1.0,1.2)

# Predictors of Meeting FDA Retail Food Safety Standards



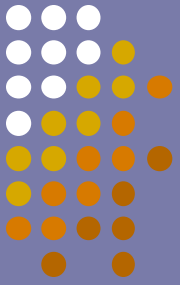
- Population size over 29,000 ( $<.0001$ )
- Annual municipal budget ( $<.0001$ )
- Annual LHD budget ( $<.0001$ )
- Appointed board of health ( $p=.0007$ )
- LPH/LBOH meets regularly with elected officials ( $p=.007$ )
- Chief executive has a good/ very good understanding of LPH responsibilities ( $.003$ )
- Full time LPH director ( $p=.001$ )
- Capacity to perform EPHS ( $<.0001$ )

# Multivariate Analysis of Food Safety Standards

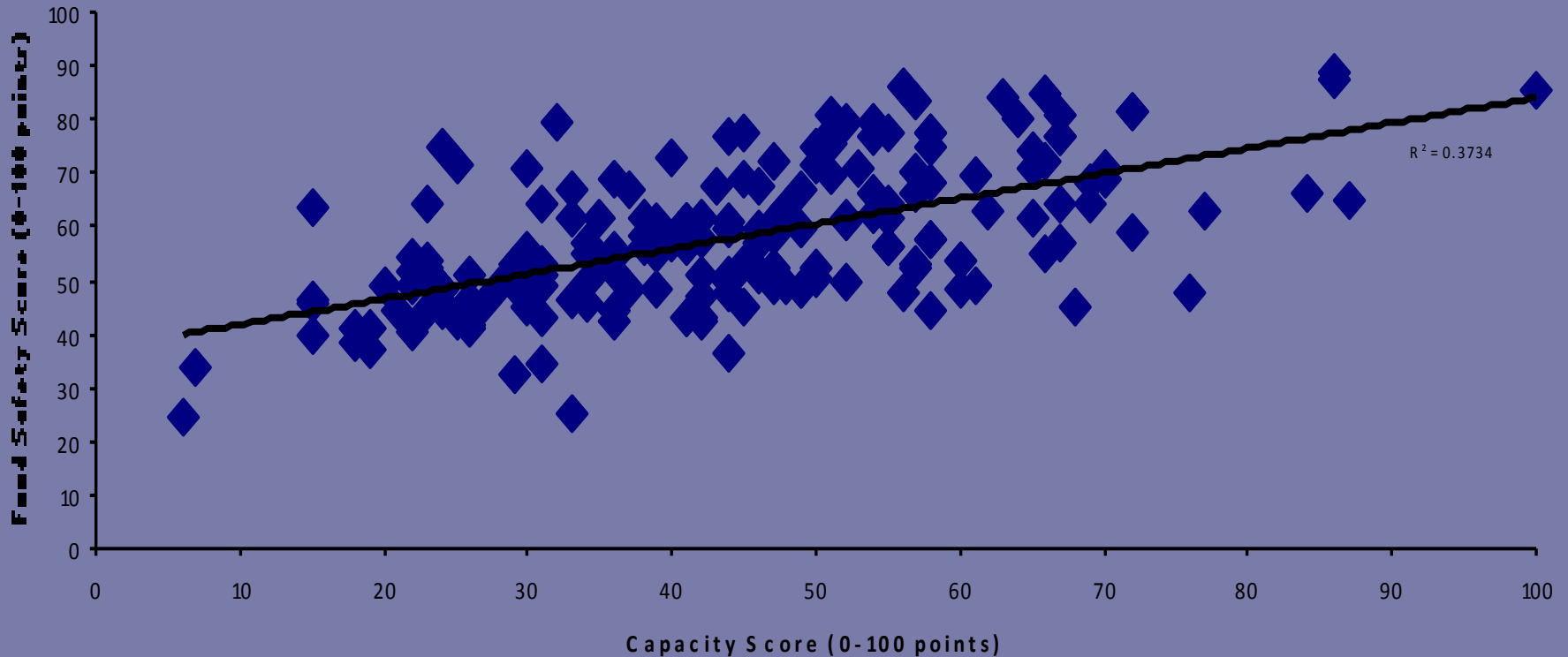


- Capacity to perform EPHS
  - Lowest vs. highest quartile ( $p=.0008$ )
- Perceived understanding of elected officials' understanding of LBOH responsibilities ( $p=.06$ )

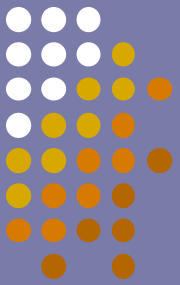
# Association between Capacity to Perform EPHS and Meet Food Safety Standards



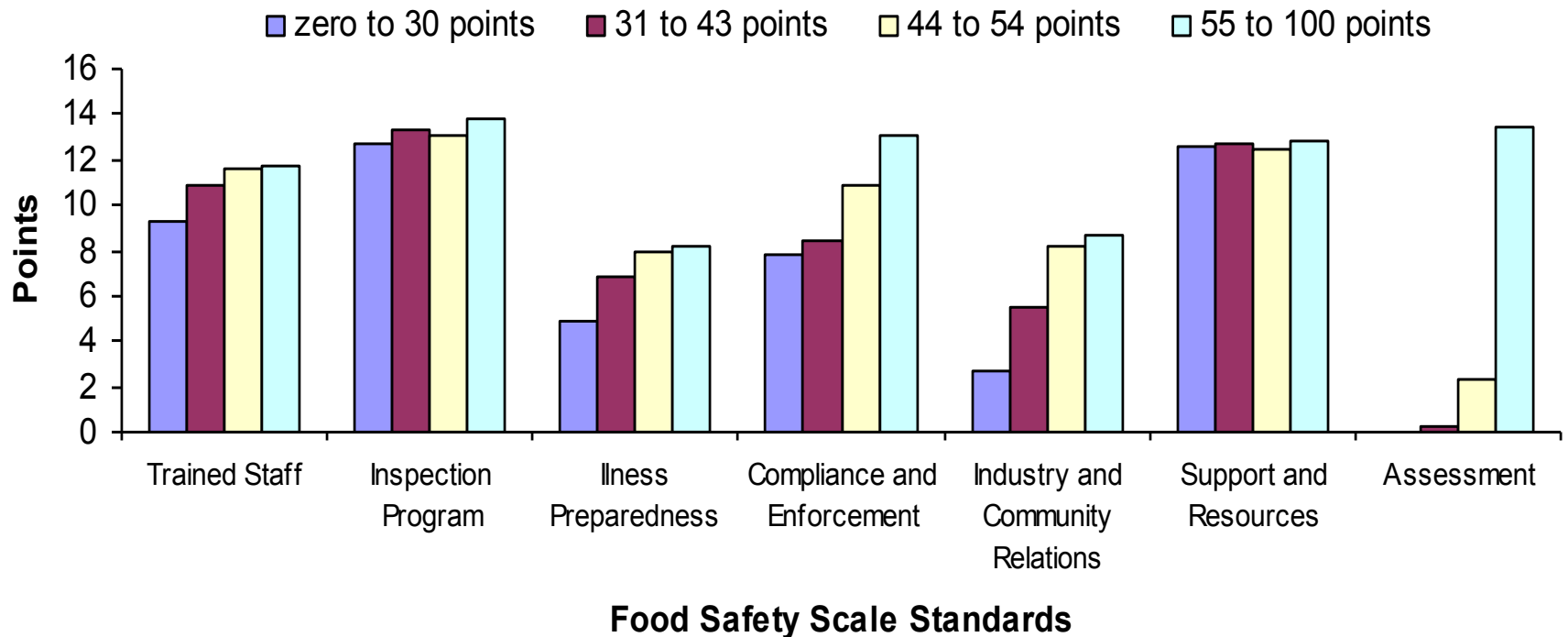
Association between Capacity and Food Safety



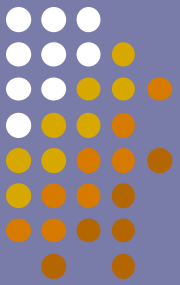
# What accounts for differences in total capacity scores?



## Individual Food Safety Standard Scores by Quartile of Total Score

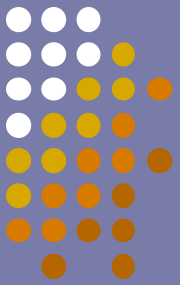


# Discussion



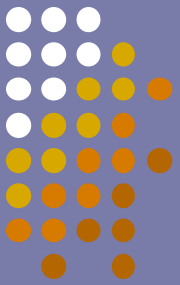
- Capacity to perform EPHS is associated with capacity to meet food safety standards
  - Population size, budgets, staffing all related to increase in capacity
  - Perceived understanding LBOH responsibilities among elected officials is strong predictor of capacity
  - There are a few standards that clearly differentiate capacity
    - Program assessment/evaluation
    - Industry and community relations/education
    - Oversight and compliance

# Next Steps



- Disseminate findings
  - Manuscript
  - LBOH through PBRN networks
  - Use findings to advocate for targeted professional development in certain areas
- Examine Capacity to perform EPHS and communicable disease control practices

# Contact information



For additional information about the MA PBRN  
or the Local PHACTS study:

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617-499-6684  
[jhyde@challiance.org](mailto:jhyde@challiance.org)



# Other Meeting Agenda Items

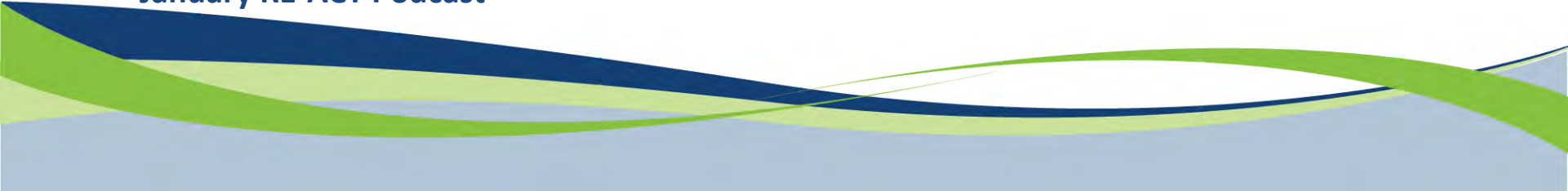
## PBRN Research Updates

- Happy Birthday PBRNs! CO, KY, MA, NC, WA are 4 years old today!
- MPROVE study updates: [data acquisition](#) phase
- RACE study updates
- Quick Strike study updates
- NACCHO Profile

## Funding and Sustainability Updates

- Reminder: [Tips on Building Sustainable Funding Sources for PBRNs](#)
- AHRQ Intent to Publish CER and PCOR FOAs in Spring 2013
- RWJF Funding Opportunities
- PCORI Funding Opportunities
- NIH Funding Opportunities

## Dissemination Updates

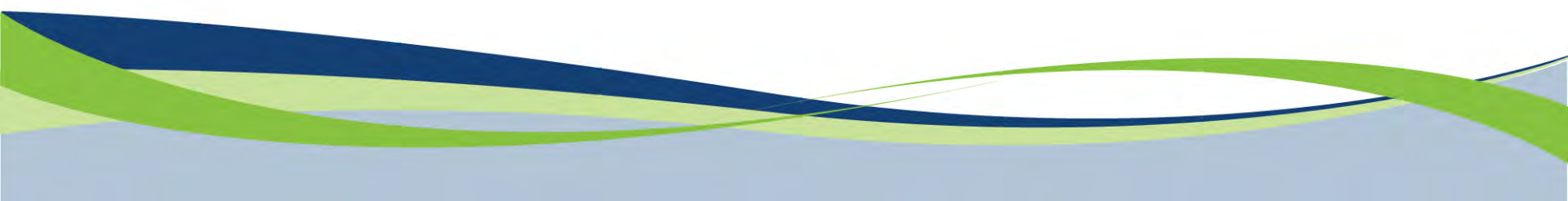
- Frontiers special issue on PBRN QI Studies  
<http://uknowledge.uky.edu/frontiersinphssr/vol1/iss3/>
  - NACCHO 2013 Sharing Session [Proposal Submission](#) Deadline Extended through December 23rd
  - Keeneland Abstract submission now open- deadline January 7
  - AcademyHealth Annual Research Meeting (and PHSSR IG): Abstracts Due January 15
  - AJPM PBRN theme issue: early 2013 release
  - January RE-ACT Podcast
- 

## Other Meeting Agenda Items

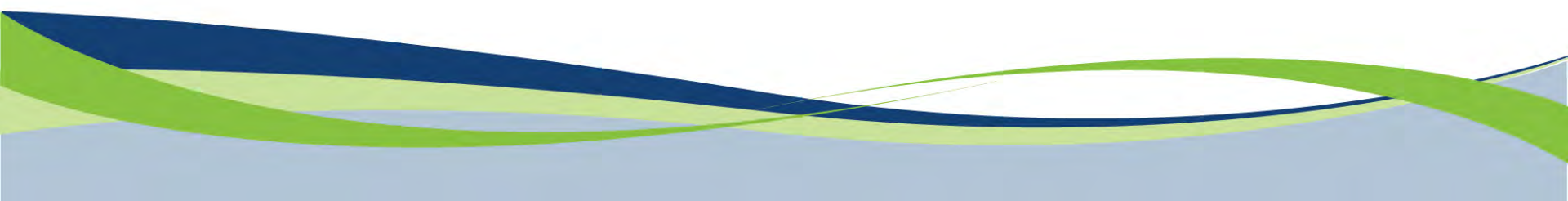
### Grants Administration Update: Travel Policy for Annual Meeting

- The Coordinating Center will cover the costs of travel and lodging for only one representative from each PBRN with active RWJF funding as of 2013 (RACE, MPROVE, QS).
- Center-covered travel costs for each designated representative will include airfare, a two-night stay at the conference hotel (April 7-8), cab fare, and a small per diem to cover meals not included in conference registration.
- To be eligible for this support, the network must provide the name of its designated representative to the Center by March 1, 2013.
- Center-funded travelers who have one or more abstracts accepted for presentation at the annual Keeneland Conference (April 9-11) could be eligible for support for one additional night's stay on a first-come, first-served basis, pending availability of funds.
- All Center-funded travelers will be required to book air travel through the University of Kentucky's travel agent. The Coordinating Center will provide details on booking flights and on reimbursement procedures directly to each network's representative.

#### HOTEL

- The two-night hotel stay for designated network representatives will be billed directly to the PBRN National Coordinating Center.
  - Funded travelers planning to stay through the Keeneland Conference will be billed directly for any additional nights not covered by the Center.
- 

## Reminders: Upcoming Meetings and Events

- January 17 1:00-2:30pm ET: PBRN Monthly Virtual Meeting, Research-in-Progress by Kentucky PBRN
  - February 4-5, 2013: AcademyHealth [National Health Policy Conference](#), Washington DC
  - March 3-6, 2013: [Environmental Health 2013: Science and Policy to Protect Future Generations](#), Boston, MA
  - April 8-9, 2013: Public Health PBRN Program Annual Grantee Meeting, Lexington, KY
  - April 9-11, 2013: [PHSSR Keeneland Conference](#), Lexington, KY
  - June 25-26, 2013: [AcademyHealth Annual Research Meeting](#), and PHSSR Interest Group Meeting, Baltimore MD
  - July 10-12, 2013: [NACCHO Annual Sharing Session](#), Dallas, TX
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# Grant Reporting Reminders

- Send to [grantreports@rwjf.org](mailto:grantreports@rwjf.org) , copy to [PublicHealthPBRN@uky.edu](mailto:PublicHealthPBRN@uky.edu)
- RWJF guidelines for annual, final narrative reports & bibliography:  
[http://www.rwjf.org/files/publications/  
RWJF\\_GranteeReportingInstructions.pdf](http://www.rwjf.org/files/publications/RWJF_GranteeReportingInstructions.pdf)
- RWJF guidelines for financial reports:  
[http://www.rwjf.org/files/publications/  
RWJF\\_FinancialGuidelinesReporting.pdf](http://www.rwjf.org/files/publications/RWJF_FinancialGuidelinesReporting.pdf)
- RWJF guidelines for electronic submission standards for products and reports  
[http://www.rwjf.org/content/dam/files/rwjf-web-files/  
GranteeResources/RWJF\\_ElectronicSubmissions.pdf](http://www.rwjf.org/content/dam/files/rwjf-web-files/GranteeResources/RWJF_ElectronicSubmissions.pdf)

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