

# Public Health PBRN

## Monthly Virtual Meeting

### October 18, 2012

Research-in-Progress Presentation by Ohio PBRN

Direct Observation of Local Public Health:

The Role of Local Health Departments in Prevention of Food Borne Outbreaks

Scott Frank, MD, MS



# Direct Observation of Local Public Health

## The Role of Local Health Departments in Prevention of Foodborne Outbreaks

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Director, Case Western Reserve University Master of Public Health  
Program





Ohio Research Association  
for Public Health Improvement

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Public Health Practice-Based Research Network

# 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

# 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

# DOLPH Academic Research Sites



# DOLPH Co-Investigators



## Case Western Reserve University

- Michelle Menegay, MPH



## University of Cincinnati

- William Mase, DrPH, MPH, MA



## Kent State University

- Scott Olds, MS, PhD



## Consortium of Eastern Ohio, NEOMED

- Amy Lee, MD, MBA, MPH
- Tom Albani, MPH



## Ohio State University

- Michael Bisesi, MS, PhD



## Northwest Consortium, University of Toledo

- Barbara Saltzman, PhD, MPH
- Brian Fink, PhD, MPH
























## Wright State University

- Sylvia Ellison, MA



# Participating Health Departments (21)

-  Athens City-County
-  Clark County
-  Cleveland Public Health
-  Cincinnati Public Health
-  Cuyahoga County
-  Columbus Public Health
-  Dayton & Montgomery County
-  Franklin County
-  Greene County
-  Kent City
-  Lake County
-  Lorain County
-  Lucas County
-  Mahoning County
-  Montgomery County
-  Norwood City
-  Portage County
-  Stark County
-  Summit County
-  Warren County
-  Wood County

36 Current Participating Registered Sanitarians

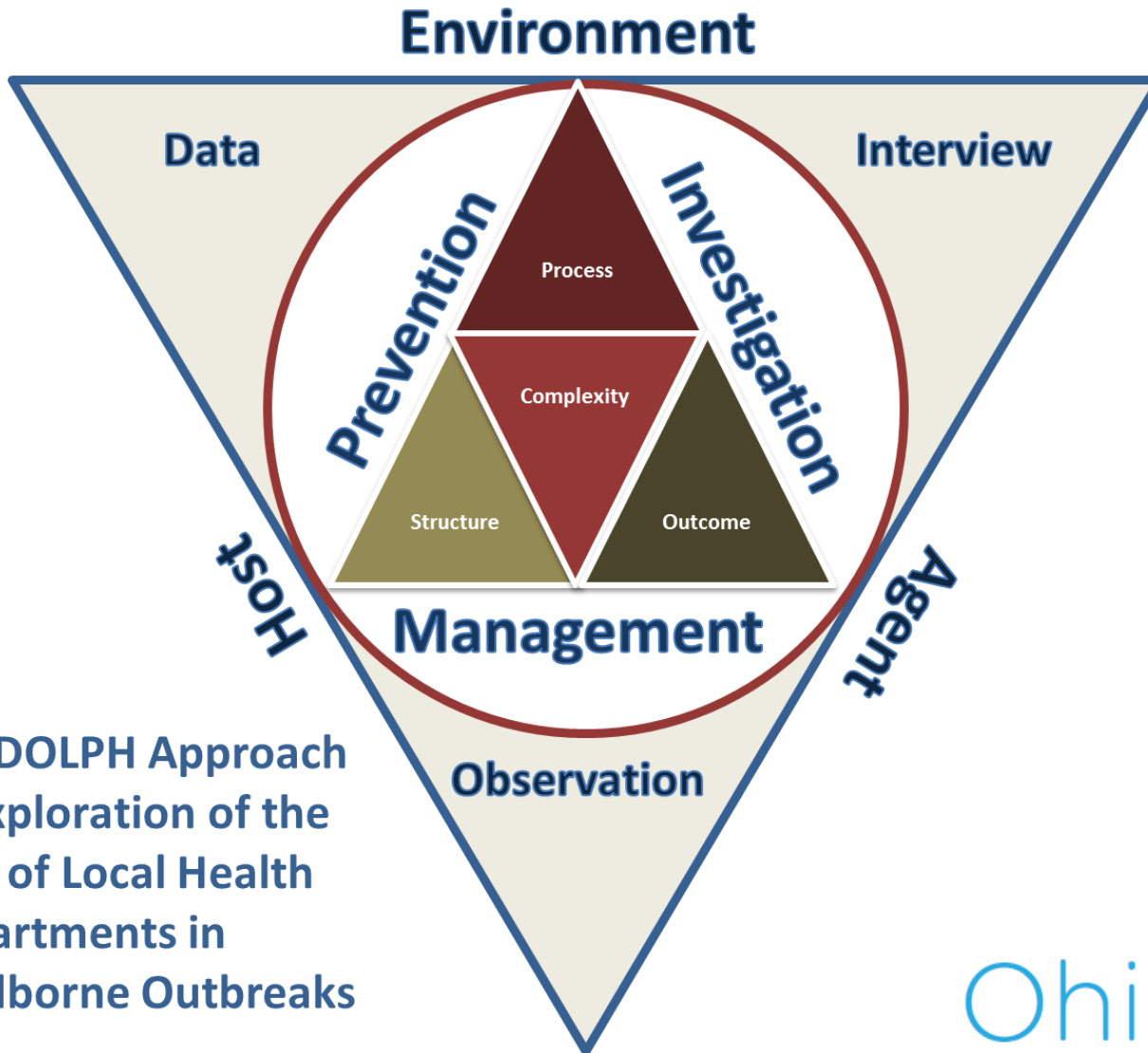




# Direct Observation of Local Public Health Methods

- 🌳 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

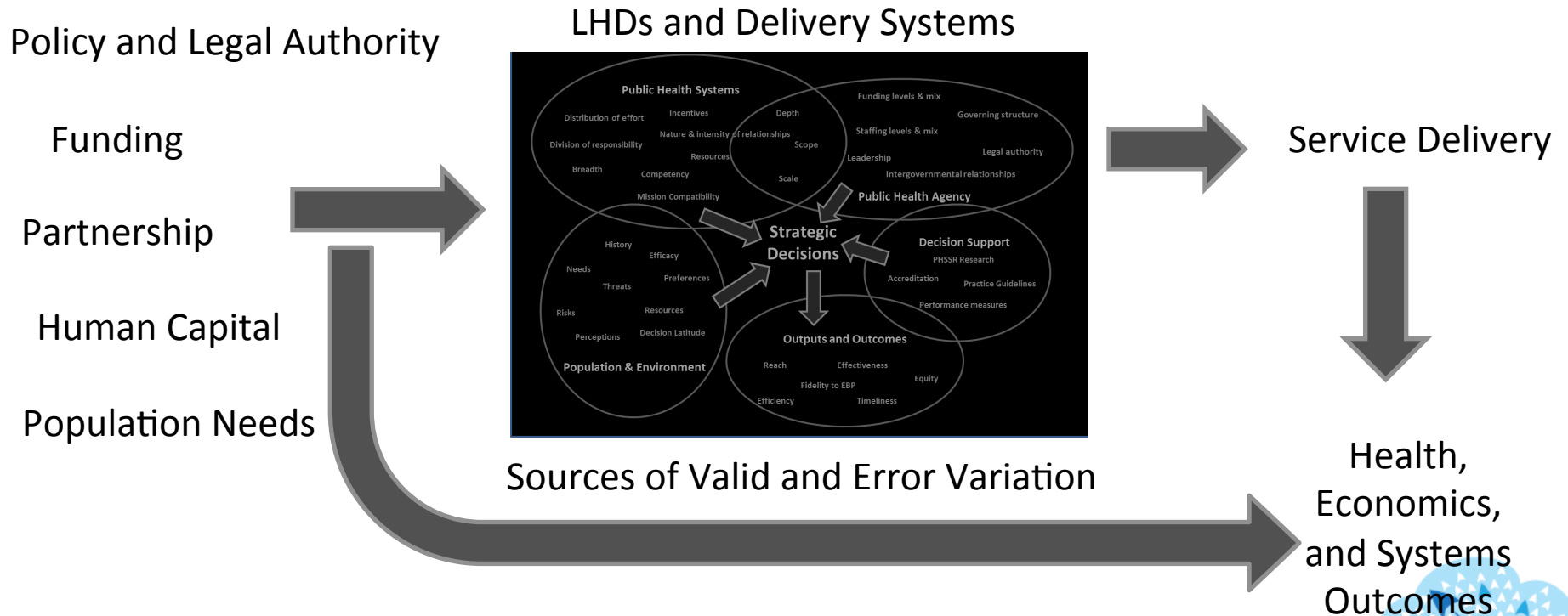




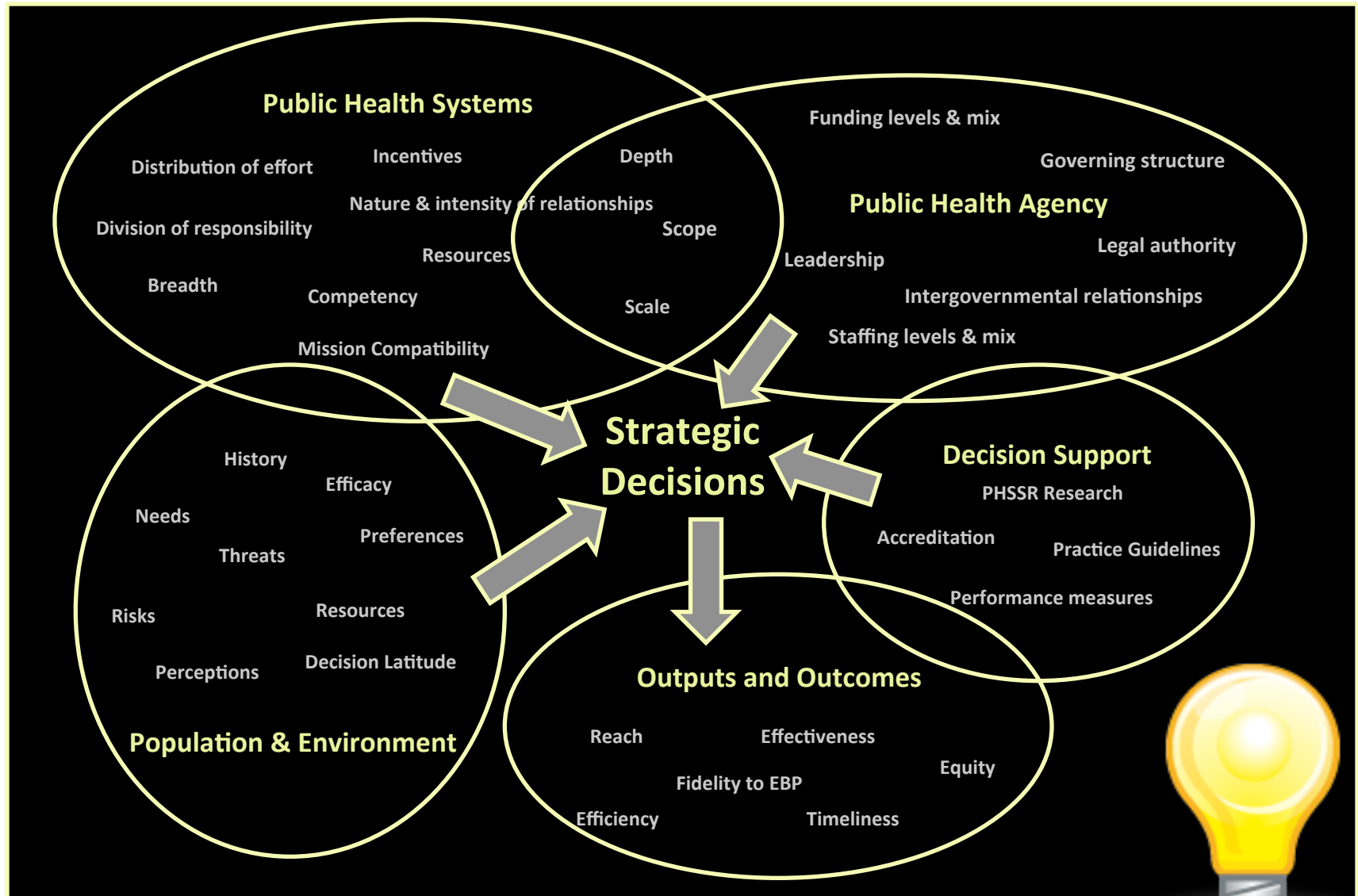
The DOLPH Approach to Exploration of the Role of Local Health Departments in Foodborne Outbreaks




# Black Box of Local Public Health



# Illuminating the Black Box of Local Public Health



# DOLPH Tools

-  LHD Profile
-  Sanitarian Profile
-  LHD Disease Investigation Team Profile
-  Jurisdictional Profile
-  Direct Observation Protocol

# 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



# DOLPH Observational Protocol Validity and Inter-Rater Reliability

Variable	N	Percent Correct	Gold Standard
RS accompanied by PIC	25	88.9%	(No)
PIC voiced raised	27	96.3%	(No)
RS voiced raised	26	92.6%	(No)
PIC cooperative	27	100%	(Yes)
PIC engagement	27	96.3%	(Engaged)
PIC thank RS	26	96.3%	(Yes)
RS thank PIC	26	96.3%	(Yes)
PIC question RS judgment	27	96.3%	(No)
PIC question RS fairness	27	100%	(No)
PIC question RS authority	27	100%	(No)
Electronic record used	24	88.9%	(No)

N=Number of Trained Observers

PIC=Person in Charge; RS=Registered Sanitarian



# Registered Sanitarian Profile (n=29)

- 🌳 Average age 38 years
- 🌳 52% male
- 🌳 10% African American
- 🌳 8 years in current position
- 🌳 11 years working as a Sanitarian
- 🌳 66% Generalist
  - Among those with experience in both roles 60% preferred functioning as a generalist



# Registered Sanitarian Profile

## Time allocation

- 61% of time spent conducting food inspections
- 21% of time with paperwork
- 10% Nuisance inspection
- 6% School inspection
- 7% Swimming pool
- 4% Water/Septic
- 9% other



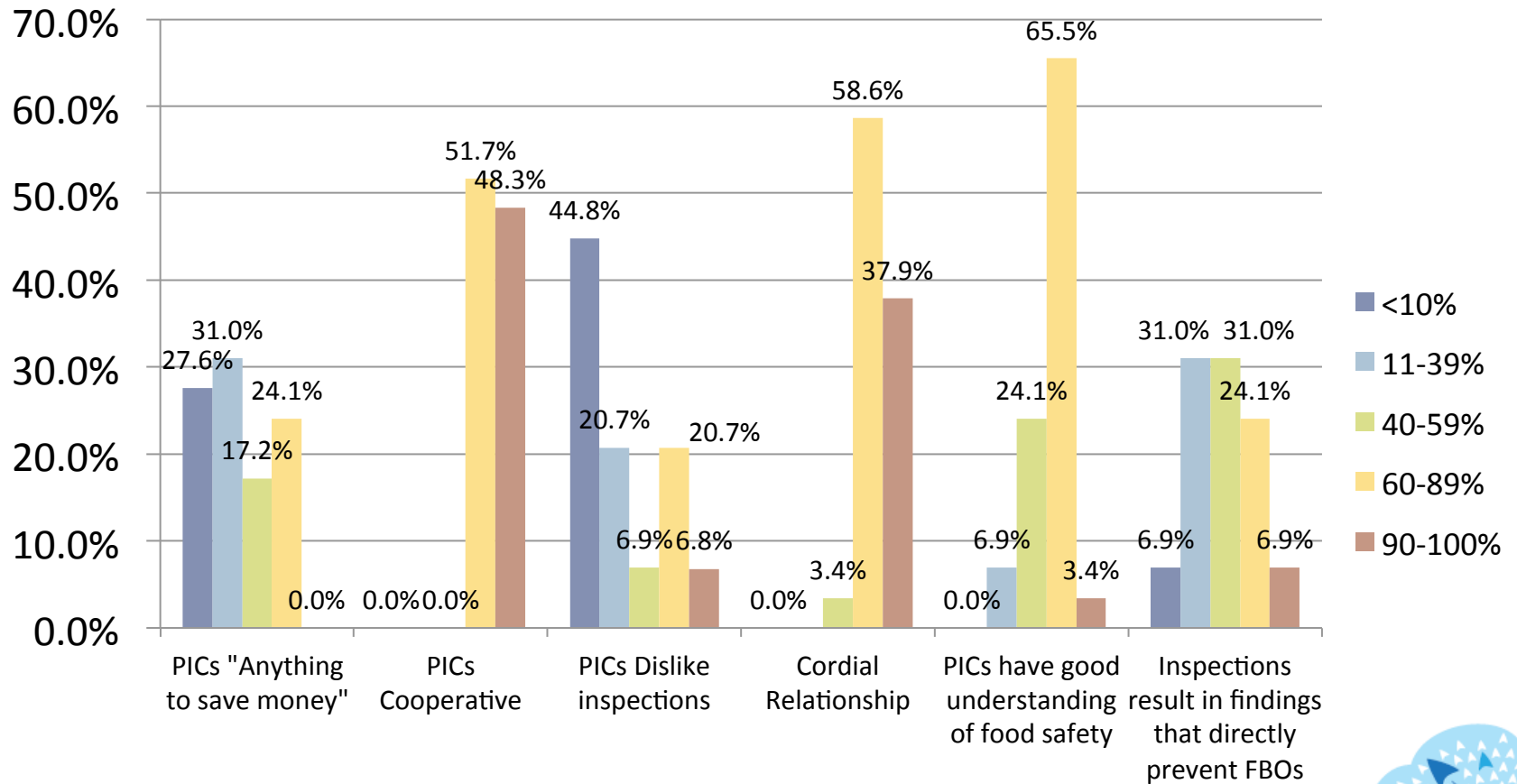
# Registered Sanitarian Profile

- 🌳 83% have experience with suspected foodborne outbreaks
- 🌳 70% have experienced verified foodborne outbreaks
- 🌳 45% consider their job very demanding
- 🌳 64% perceive limitation in food inspection time because of competing demands

# Registered Sanitarian Profile

- 🌳 25% like investigating FBOs
- 🌳 59% don't mind paperwork (0% like)
- 🌳 59% like conducting food inspections
- 🌳 69% like interacting with PICs (0% dislike)
- 🌳 76% like doing food safety education during inspections
- 🌳 69% like doing continuing education

# Sanitarian Perceptions of PICs



# Pre-Inspection Interview

- 🌳 92% had inspected this FSE previously
- 🌳 66% of those related a positive history (4% negative)
- 🌳 7.1% “Heart Sink” inspections
- 🌳 FSE risk category
  - 1 or 2: 10%
  - 3: 40%
  - 4: 50%



# Starting the Inspection

- 🌳 58.5% addressed the PIC by name or title
- 🌳 66% introduced themselves (85.5% by first name)
- 🌳 40% shook hands
- 🌳 91% washed hands before the inspection started
- 🌳 90% interacted with more than just the PIC
- 🌳 20% interacted with patrons
- 🌳 88% spent 1 to 5 minutes speaking with the sanitarian to start the inspection
- 🌳 10% of the time PICs appeared to be stalling the start of inspections

# RS-PIC Interaction: RS Behavior






- 🌳 Admitted uncertainty 11% (15)
- 🌳 Used humor 60% (81)
- 🌳 Interrupted the PIC 29% (39)
- 🌳 Used unexplained jargon 4% (6)
- 🌳 Offered positive feedback 73% (92)
- 🌳 Offered feedback in negative fashion 14% (20)
- 🌳 Threatened punitive action 4% (6)
- 🌳 Accepted no favors

# RS-PIC Interaction: PIC Behavior

- 🌳 Admitted uncertainty 48% (67)
- 🌳 Used humor 68% (94)
- 🌳 Interrupted the PIC 22% (30)
- 🌳 Argumentation/conflict 3.5% (5)
- 🌳 Feedback occurred privately 62% (85)
- 🌳 Feedback interrupted 9% (12)
- 🌳 Offered “favors” 14% (19)



# Inspection Tools Utilized

-  Flashlight 13%
-  Probe thermometer 83%
-  Laser thermometer 58%
-  pH paper 54%
-  Educational handouts 16%

# Areas Inspected

- 🌳 Shelves/cupboards 83%
- 🌳 Sinks 96%
- 🌳 Preparation area 94%
- 🌳 Cooking area 87%
- 🌳 Trash 89%
- 🌳 Water temperature 87%
- 🌳 Food labels 86.5%

# Sanitarian Actions

- 🌳 Squat or bends 4.2/inspection (14% not at all)
- 🌳 Looks under or behind 2.6/inspection (12.5% not at all)
- 🌳 Check cold temperatures 8.0/inspection (6% not at all)
- 🌳 Check hot temperatures 1.9/inspection (47% not at all)
- 🌳 Gives advice or direction 2.8/inspection (10% not at all)

# Sanitarian Actions: Checked...

- 🌳 Refrigeration 100%
- 🌳 Dishwasher 75%
- 🌳 Ice machine 73%
- 🌳 Food storage 100%
- 🌳 Food holding time or temp 89%
- 🌳 Sanitizing fluids 84%
- 🌳 Hand washing facilities 97%
- 🌳 Cleanliness of cloths, surfaces, sponges 98%
- 🌳 Date stamping 83.5%
- 🌳 Cross contamination control measures 90%
- 🌳 Disposal of food waste 70%








# Check out

- 🌳 Spoiled foodstuff discarded 16%
- 🌳 Clear feedback and assessment 99%
- 🌳 Discuss improvement plan 91%
- 🌳 Offer food safety education 78%
- 🌳 Elicit questions 85%
- 🌳 Violations dealt with:
  - During inspection 58%
  - Follow up schedule 23%%
  - No follow up schedules 19%

# Check out

- 🌳 Citation given in 66% of inspections
- 🌳 Verbal corrections given in 89% of inspections
- 🌳 PIC voice raised in anger 1%
- 🌳 RS voice raised in anger 2%
- 🌳 PIC Cooperative 99%
- 🌳 PIC Engaged 12.8%
- 🌳 PIC thanked the RS 92% of the time
- 🌳 RS thanked the PIC 89% of the time

# Check Out

-  PIC questioned RS knowledge 2%
-  PIC questioned RS judgment 3%
-  PIC questioned RS fairness 1%
-  PIC questioned RS authority 1%
-  Hand on the doorknob syndrome 12.3%

# Check Out

## Duration of checkout

- 1-5 minutes 47%
- 6-10 minutes 36%
- 11-20 minutes 14%
- 21-40 minutes 1.5%



# Post Inspection Interview

- 🌳 How hard was the inspection?
  - Difficult 8%
  - Average 21%
  - Easy 45%
  - Very Easy 26%
- 🌳 How hard were the interpersonal interactions
  - Very difficult 1%
  - Difficult 8%
  - Average 17%
  - Easy 39%
  - Very Easy 35.5%



# Post Inspection Interview




## How satisfied?

- Very dissatisfied 2%
- Dissatisfied 4%
- Average 15%
- Satisfied 57%
- Very satisfied 22%

## How concerned?

- Very 5%
- A little 22%
- Not 73%

# Limitations

-  Student observer influence actions 7%
-  Preliminary findings
-  Tests of association not done

# Strengths

- 🌳 Good inter-rater reliability
- 🌳 Different approach
- 🌳 Detailed data available
- 🌳 Geographic spread
- 🌳 Ability to combine original research with publicly available data in the future
- 🌳 Decreased error variation

 Thanks!

 And, Questions or Comments



# Other Meeting Agenda Items

## Other PBRN Research Updates

- Progress on the MPROVE study
- RACE Studies – one-year mark
- New Quick Strike studies starting
- New “Natural Experiments” studies announced

## Research Funding Updates

- Second round of funding opportunities at PCORI
- Public Health Law Research: strategic and targeted research program
- Next round of PHSSR mini-grants to launch soon

## Program Monitoring Updates

- Quarterly progress interviews with PBRN leads
  - RWJF/Urban Institute PHSSR Evaluation
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# Other Meeting Agenda Items

## Dissemination Updates

- PBRN presentations at APHA
- Frontiers special issue on PBRN Research: scheduled for October release
- JPHMP special issue on PBRNs/PHSSR: November/APHA release
- AJPM PBRN theme issue: early 2013 release
- RE-ACT podcasts: inaugural release

## Upcoming meetings

- October 27-31: APHA Annual Meeting, San Francisco, CA
- AcademyHealth Webinars: Oct 25-Policy Communication, Oct 31-Electronic Data Methods, Nov 5-Mobile Health Solutions for HSR, Nov 8-Participatory Approaches, Nov 14-Rapid Cycle Evaluation of Health System Information, on-demand-PCORI funding

## Other Meeting Agenda Items

### Grants Administration Update: RWJF Electronic Submission Standards

- E-mail electronic versions of reports, bibliographies, and products to RWJF at [grantreports@rwjf.org](mailto:grantreports@rwjf.org) copy [PublicHealthPBRN@uky.edu](mailto:PublicHealthPBRN@uky.edu)
- Subject line
  - 12345Report
  - 12345Bibliography
  - 12345Product
- Multiple reports or products in a single e-mail for same grant ID#
- Single award ID# per e-mail
- Total size should not exceed 10 megabytes (>10mgbytes Zip)
- File formats
  - PDF (one document/product in each file)
  - Audio (aac, mp3, mpeg4, wav, wma)
  - Image (bmp, gif, jfif, jpe, jpeg, jpg, pip, pjp, pjpeg, tif, tiff)
  - MS PowerPoint (pot, potm, potx, ppam, pps, ppsm, ppsx ppt, pptm, pptx)
  - Shockwave swf
  - Video (avi, mpe, mpeg, mpegv, mpg, mpv, vbs, wmv, mp4)



**Continued:**

## **Grants Administration Update: RWJF Electronic Submission Standards**

- **Report Naming Standards “gggggdddyypp.ext” 12345ANRY1.pdf**
  - **ggggg = award ID #**
  - **ddd = document type**
    - **ANR - Annual Narrative Report**
    - **FNR – Final Narrative Report**
    - **BIB - Bibliography**
    - **AFR – Annual Financial Report**
    - **FFR – Final Financial Report**
  - **yy = year number of grant (y1, y2)**
  - **pp = period number, for documents submitted periodically (first 6 months = p1)**
  - **ext = file extension**

**Continued:**

**Grants Administration Update: RWJF Electronic Submission Standards**

- **Product Naming Standards “gggggGPddd\_nn.ext” 12345GPmeeting\_04.pdf**
  - **gggg** = award ID #
  - **GP** = Grantee product
  - **ddd** = document type
    - **article**
    - **bookchpt**
    - **comm**
    - **education**
    - **meeting**
    - **reports**
  - **nn** = number of files in category
  - **ext** = file extension

## Product Type: Articles

Composition on a specific topic, forming an independent part of a journal, newspaper, magazine or internet publication by project or program staff

### What to Submit

- Journal articles and abstracts
  - Magazine, newspaper and newsletter articles
  - Editorial, Commentary, Letter to the Editor
  - Special Issue or Supplement
  - Manuscripts submitted for publication
- 
- Special Instructions: see guidelines
  - Document Type           GParticle
  - File Naming Example   55222GParticle\_01.ext

What NOT to Submit –please see guidelines



## **Product Type: Books or Chapters**

**When published, will have an ISBN or LC, or be part of a publication with an ISBN or LC**

### **What to Submit**

- **Books, including manuscripts if not yet published**
- **Book Chapters, including manuscripts if not yet published**
  
- **Special Instructions: see guidelines**
- **Document Type           GPbookchpt**
- **File Naming Example   55222GPbookchpt\_01.ext**

**What NOT to Submit-please see guidelines**



**Product Type: Communications or Promotion**

**Materials to communicate the project's/program's findings, results, recommendations or solutions to the media and broader public, and to advocate for change**

### **What to Submit**

- **Media/press kits**
- **Press releases, video news releases, interviews, reviews of books**
- **Web site URLs**
- **Videos**
- **TV and radio coverage**
- **Blogs**
- **Photographs**
- **Advertisements**
- **Awards**
- **Unique promotional materials**
  
- **Special Instructions: see guidelines**
- **Document Type**                    **GPcomm**
- **File Naming Example**        **55222GPcomm\_01.ext**

**What NOT to Submit-please see guidelines**



**Product Type: Education or Toolkit**

**Materials created by the project/program and used to instruct or deliver educational content**

**What to Submit**

- **Guides, manuals, toolkits, tool boxes**
- **Curricula and class materials**
- **Educational documentary or retrospective (TV, radio, electronic)**
- **Training / educational software**
- **Evaluation tool**
  
- **Special Instructions: see guidelines**
- **Document Type           GPeducation**
- **File Naming Example   55222GPeducation\_01.ext**

**What NOT to Submit-please see guidelines**



## Product Type: Meetings or Conferences

### Description

- Proceedings, transcripts, supporting materials from project or program sponsored meetings/workshops
- Presentations made by project/program staff at outside conferences

- Testimony given to government legislative or regulatory bodies

### What to Submit

- Grant-sponsored conference or workshop
- Proceedings of a sponsored meeting or workshop
- Background Papers
- Presentation or testimony materials containing research findings, results, recommendations

- Special Instructions: see guidelines
- Document Type GPmeeting
- File Naming Example 55222GPmeeting\_01.ext

What NOT to Submit-please see guidelines

## **Product Type: Reports**

**Description** Analysis, synthesis, evaluation, research findings, results of the work, conclusions, recommendations, strategy, lessons learned, data analysis

## **What to Submit**

- **Reports, Monographs**
- **Executive Summary of report**
- **Syntheses, case studies, issue briefs, policy briefs, fact sheets, literature review, thesis**
- **Charts and data reports**
- **Maps that include data**
- **Newsletters**
- **Survey instruments**
  
- **Special Instructions-see guidelines**
- **Document Type** GPreport
- **File Naming Example** 55222GPreport\_01.ext

**What NOT to submit-please see guidelines**





# 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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