Building Evidence-Based Decision Making Capacity in Local Health Departments:

An Evaluation of Training and Technical Assistance Efforts in Four U.S. States

PREVENTION RESEARCH CENTER in St. Louis
Promoting Healthy Communities

Robert Wood Johnson Foundation

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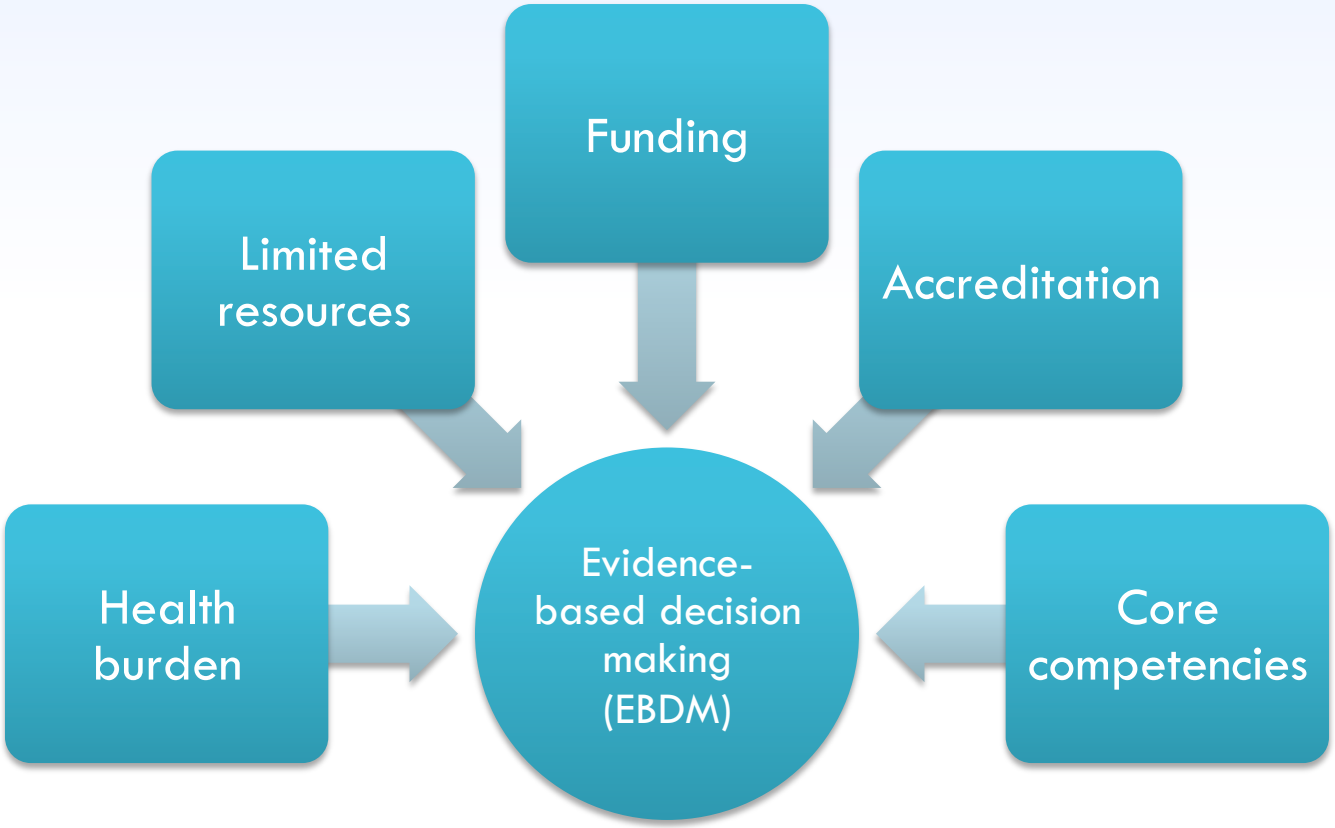
Local Evidence Affecting Decisions in Public Health

Project Aims:

1. Describe the evidence-base for local evidence-based decision making (EBDM) in the United States
2. **Test the effectiveness of local-level EBDM capacity building in 4 states**
3. Describe a range of local models in EBDM
4. Translate and disseminate findings to stakeholders

Increasing calls for EBDM in public health

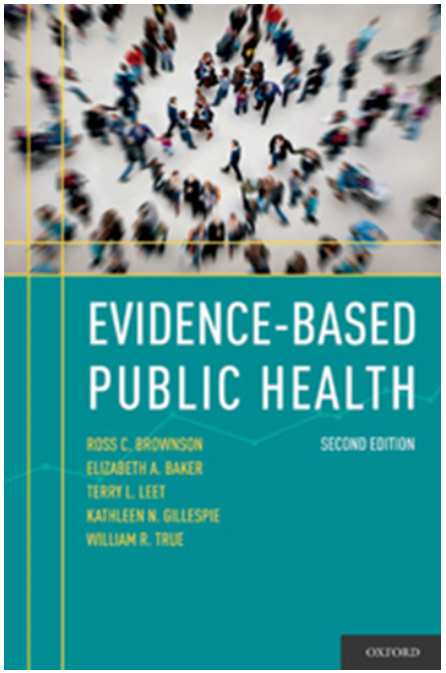


What is EBDM?

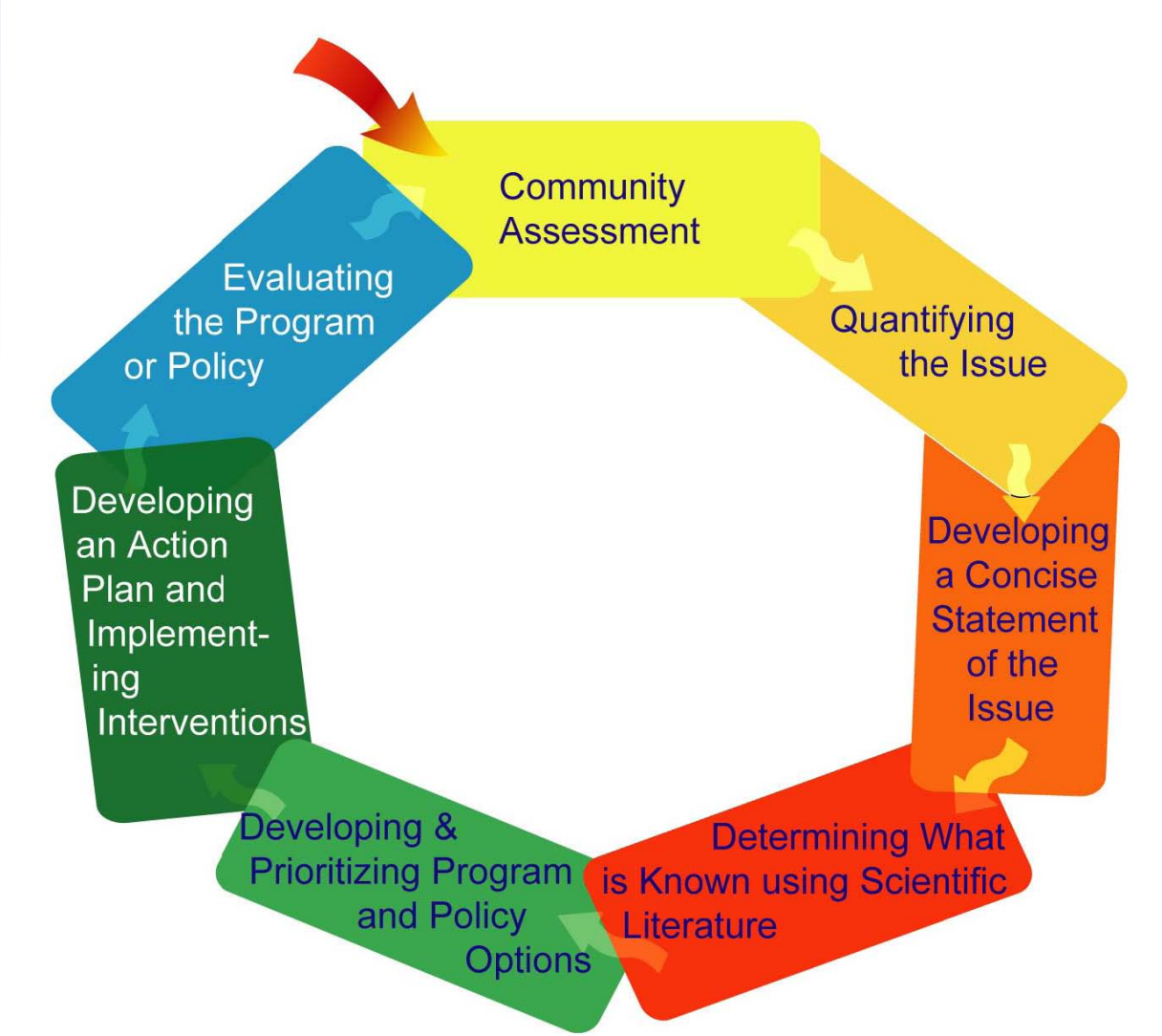
- Making decisions based on the best available scientific evidence
- Applying program planning and quality improvement frameworks
- Engaging the community in assessment and decision making
- Conducting sound evaluation

Evidence-Based Public Health (EBPH) course

- Developed in 1997
- Supported by CDC, WHO, NACDD
- Reached over 1,240 participants from:
  - All 50 U.S. states
  - 2 U.S. territories
  - 34 countries
  - 4 continents



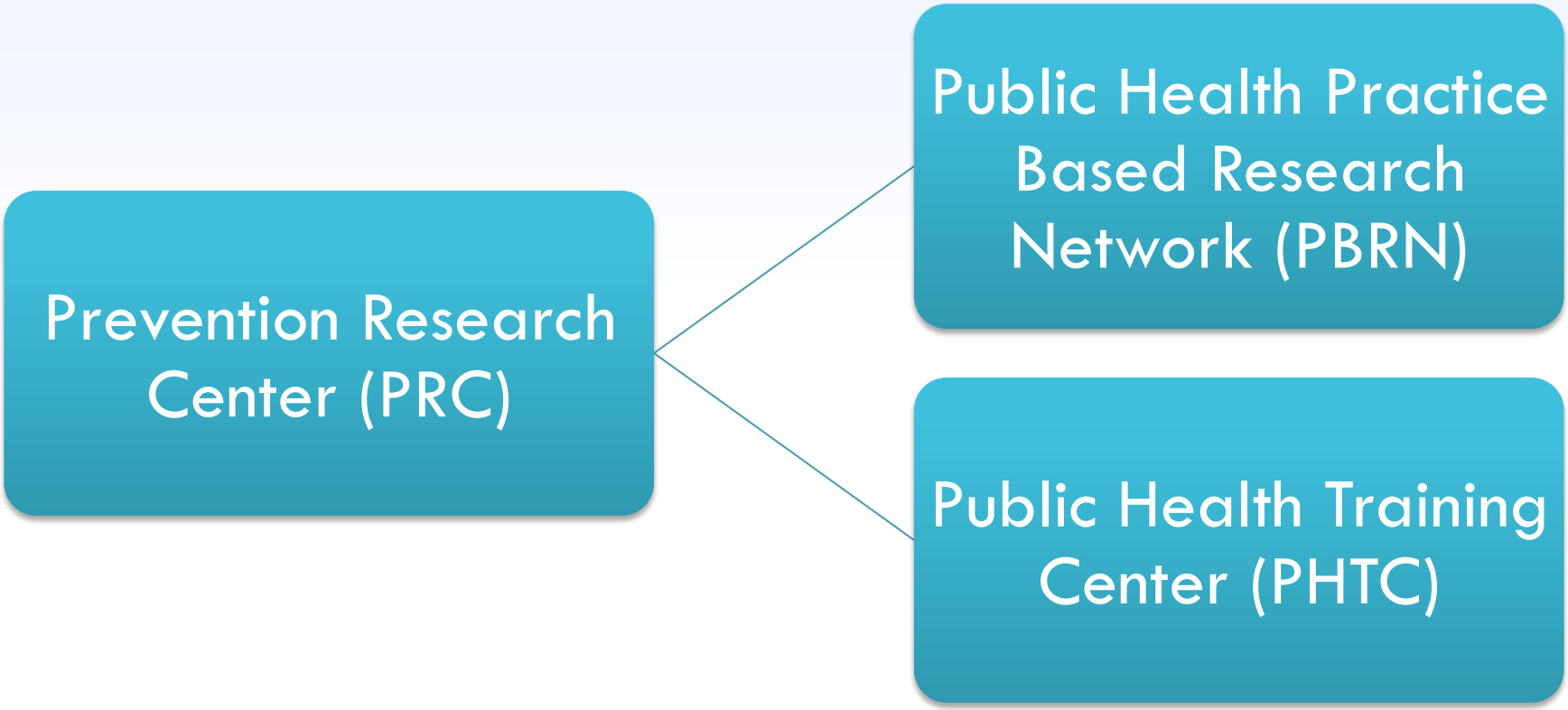
EBPH framework



Previous EBPH evaluations

- Pre/post course evaluations of 11 measures of knowledge, skill and ability
- Long-term follow-up surveys
- Qualitative evaluations

State selection



State selection

1. University of Michigan PRC; Michigan PHTC
2. University of North Carolina at Chapel Hill Center for Health Promotion and Disease Prevention; Southeast PHTC
3. Case Western Reserve University PRC for Healthy Neighborhoods; Ohio PBRN
4. University of Washington Health Promotion Research Center; Northwest Center for Public Health Practice, PHTC

Train-the-trainer process

- Representatives traveled to St Louis for 2.5 day workshop
- Reviewed EBPH course curriculum and administrative process
- Encouraged to tailor materials using local examples

Course format

- Traditional in-person trainings (OH, NC)
- In-person + webinars (MI, WA)

Control group selection

- Pretest data available for 517 LHD directors and 332 LHD program managers (overall response rate 57%)
- Restricted to localized (decentralized) LHD governance structure
- Eliminated anyone who attended training or had colleague who attended
- Stratified remaining group by job position and population of jurisdiction and selected to parallel intervention group's stratification at 3:1 ratio

EBDM competencies

1. **Prioritization:** *Understand how to prioritize program and policy options.*
2. **Adapting interventions:** *Understand how to modify programs and policies for different communities and settings.*
3. **Evaluation designs:** *Understand the different designs that are useful in program or policy evaluation.*

EBDM competencies

4. **Quantifying the issue:** *Understand the uses of descriptive epidemiology (e.g., concepts of person, place, time) in quantifying a public health issue.*
5. **Quantitative evaluation:** *Understand the uses of quantitative evaluation approaches (e.g. surveillance, surveys).*

EBDM competencies

6. **Qualitative evaluation:** *Understand the value of qualitative evaluation approaches (e.g. focus groups, key informant interviews) including the steps involved in conducting qualitative evaluations.*
7. **Action planning:** *Understand the importance of developing an action plan for how to achieve goals and objectives.*

EBDM competencies

8. **Community assessment:** *Understand how to define the health issue according to the needs and assets of the population/community of interest.*
9. **Communicating research to policy makers:** *Understand the importance of effectively communicating with policy makers about public health issues.*
10. **Economic evaluation:** *Understand how to use economic data in the decision making process.*

Survey questions

Prioritizing health issues: Understand how to prioritize program and policy options.

Unimportant	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	Very Important
Not Available	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	Very Available

Adapting interventions: Understand how to modify programs and policies for different communities and settings.

Unimportant	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	Very Important
Not Available	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	Very Available

Evaluation designs: Understand the various designs useful in program or policy evaluation.

Unimportant	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	Very Important
Not Available	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○	Very Available

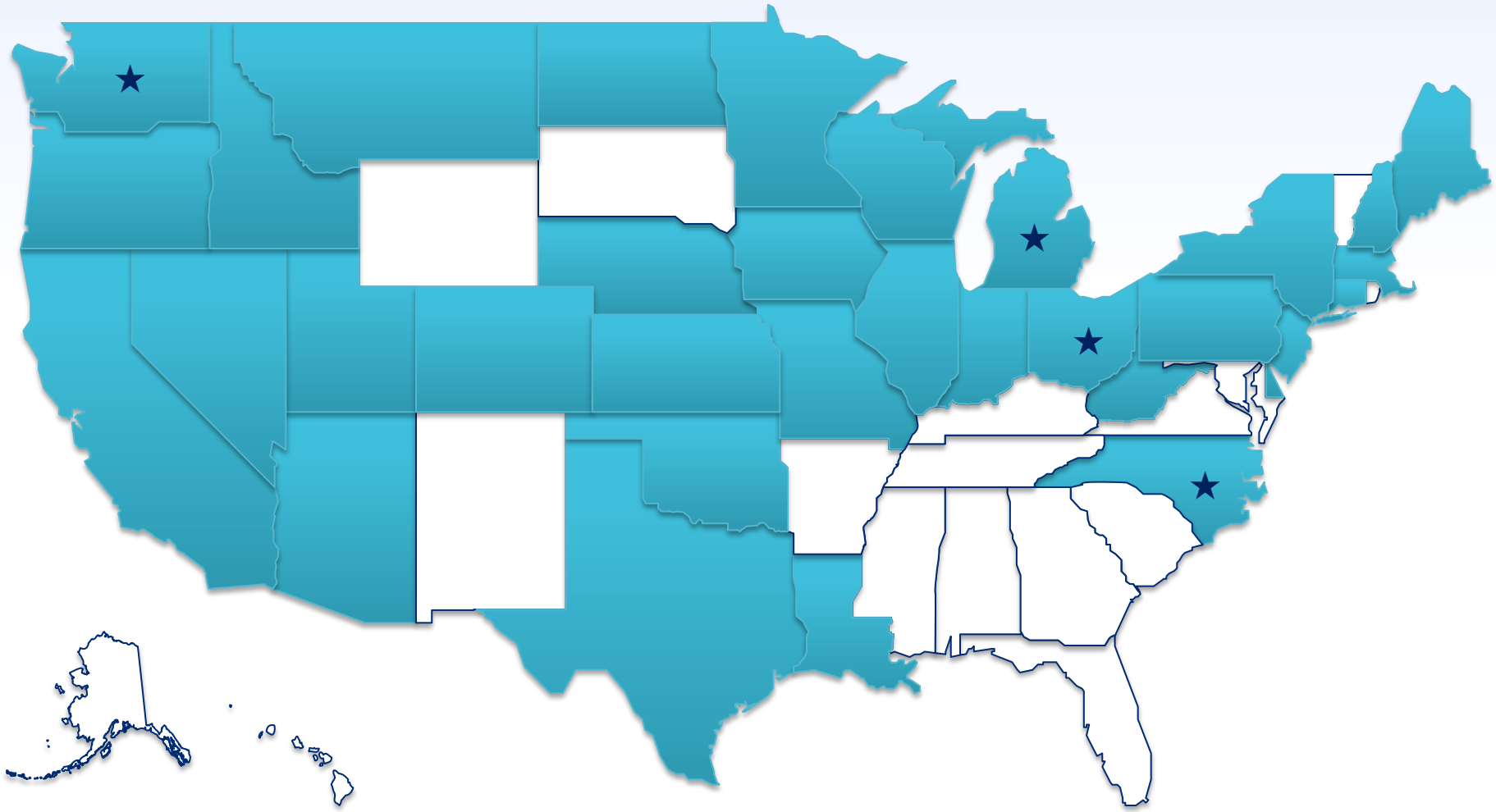
Sample characteristics

	Control (n=214)	Intervention (n=82)
Job position		
Top executive, health officer, administrator, deputy	44%	20%
Manager of a division or program	37%	33%
Program coordinator, technical expert, other	20%	48%
Population of jurisdiction		
<25,000	11%	7%
25,000-49,999	24%	15%
50,000-99,999	20%	22%
100,000-499,999	35%	45%
500,000+	9%	11%
Gender		
Male	34%	11%
Female	66%	89%

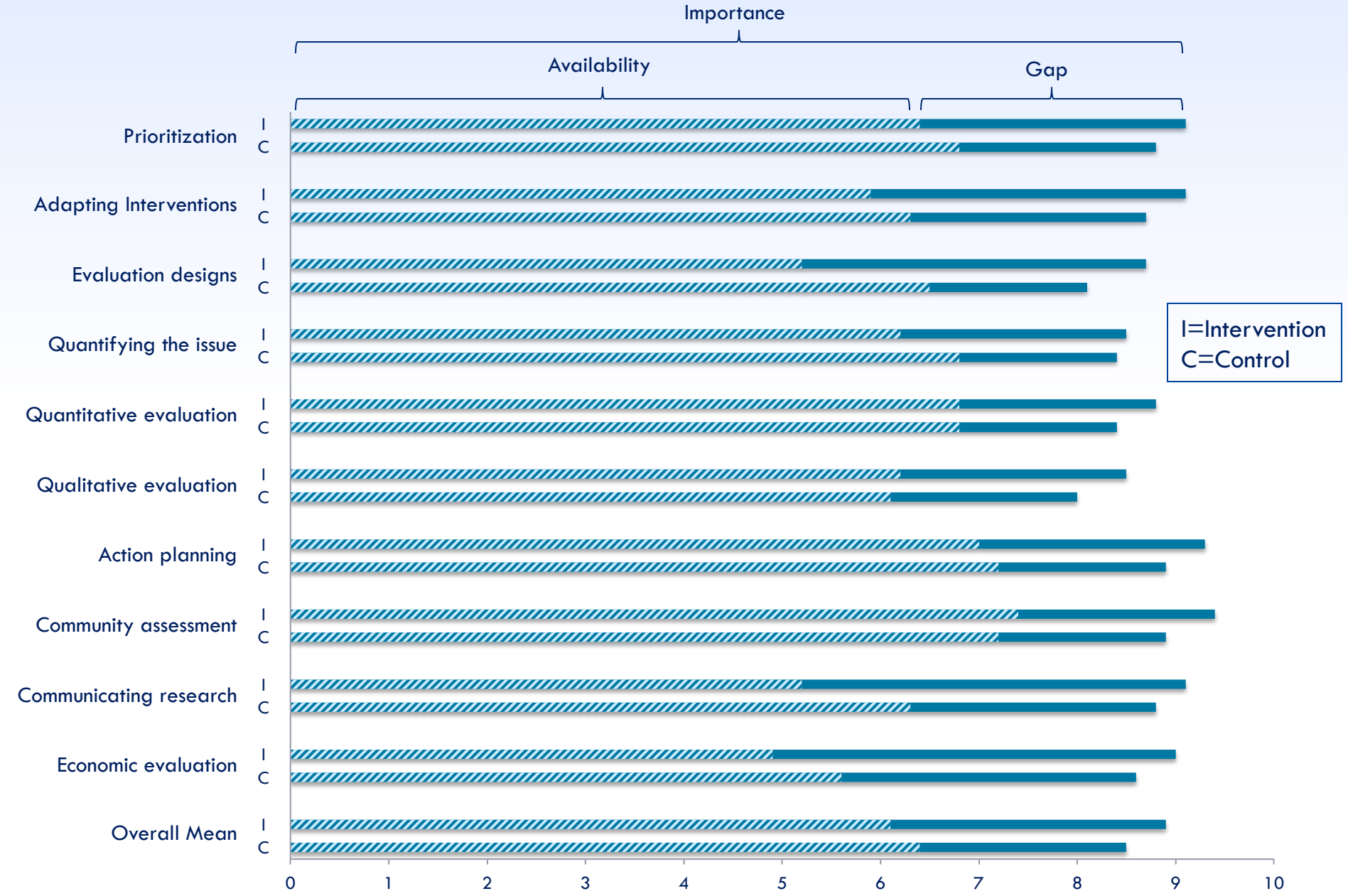
Sample characteristics

	Control (n=214)	Intervention (n=82)
Highest degree		
Doctoral	8%	0%
Master of Public Health	19%	29%
Other masters degree	27%	35%
Nursing	20%	5%
Bachelors degree or less	28%	31%
Age		
20-29	4%	12%
30-39	13%	37%
40-49	24%	18%
50-59	37%	32%
60+	22%	1%
Years in public health (mean)	18.0	12.4

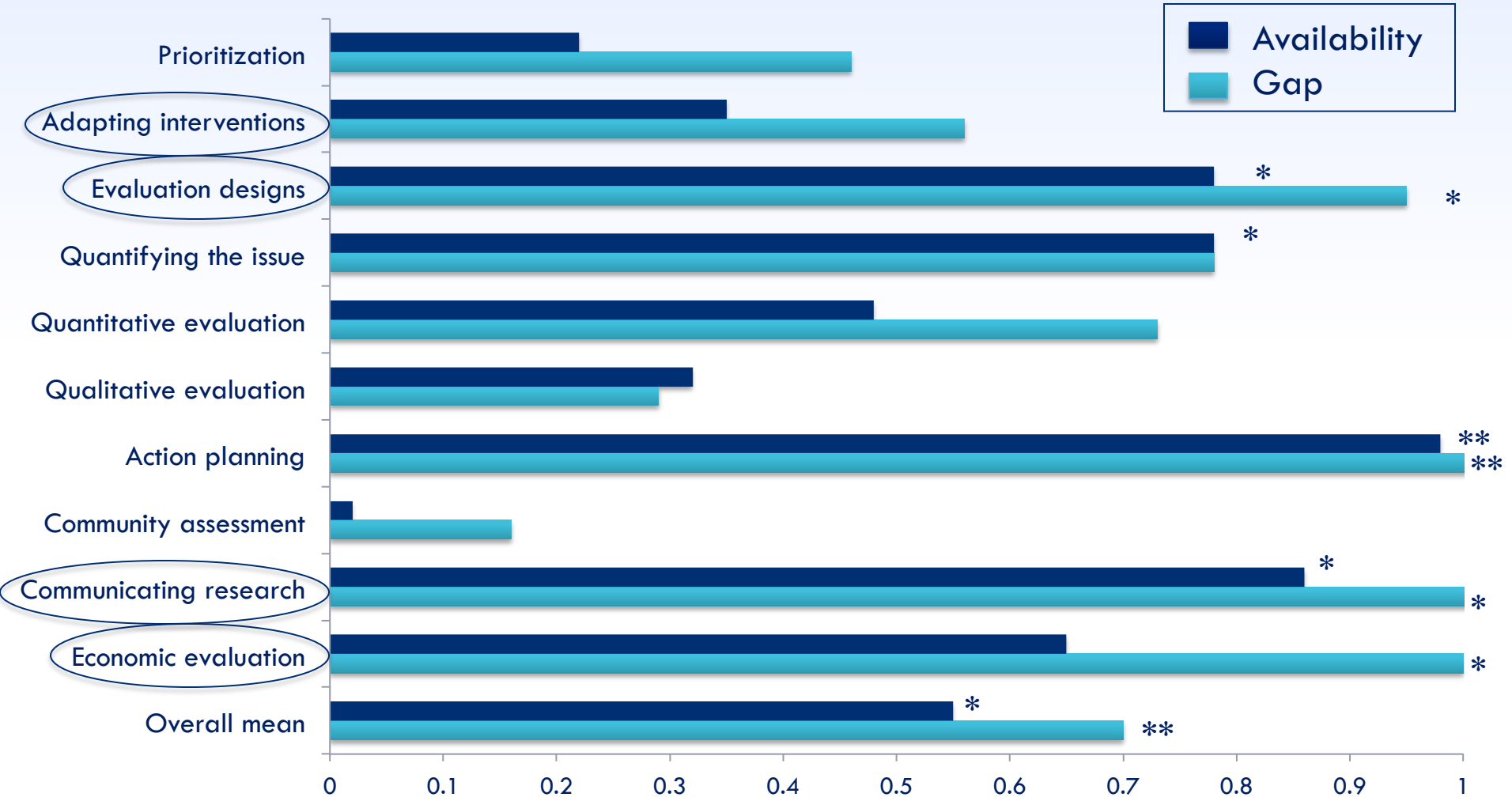
Geographic distribution of sample



Pre-test means



Intervention effects



Unstandardized regression coefficient of group assignment for multiple linear regression model
(Absolute values are shown for "gaps"; **p-value≤0.01 *p-value ≤0.05)

Use of EBPH materials/skills

On average, every quarter since the EBPH course I have:	
Searched the scientific literature for information on programs	74%
Used the EBPH materials/skills in planning a new program	69%
Used the EBPH materials/skills in modifying an existing program	68%
Used the EBPH materials/skills in evaluating a program	65%
Referred to the EBPH readings that were provided	61%
Used the EBPH materials/skills for grant applications	37%

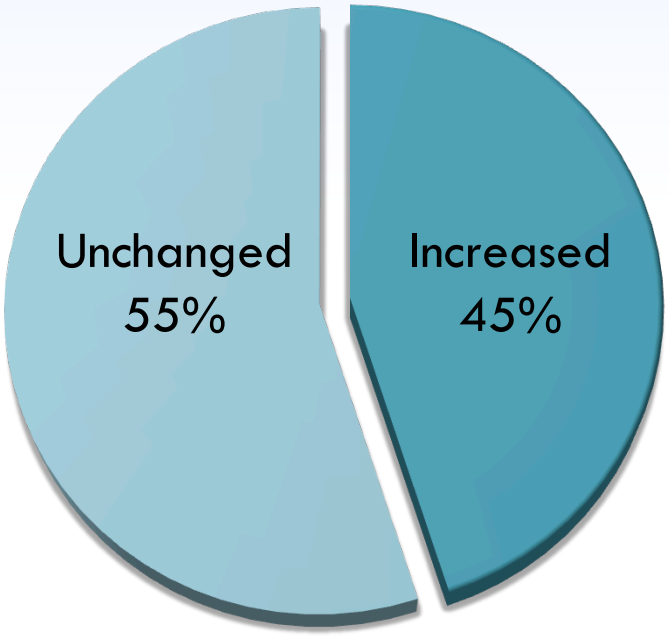
Benefits of EBPH course

The EBPH course content helped me:	
Become a better leader who promotes evidence-based decision making.	87%
Make scientifically informed decisions at work.	81%
Communicate better with co-workers.	65%
Adapt an intervention to a community's needs while keeping it evidence based.	63%
Develop a rationale for a policy change.	62%
Teach others how to use/apply the information in the EBPH course.	61%
Identify and compare the costs and benefits of a program or policy.	60%

Barriers to using EBPH content

I have not used the EBPH course content as much as I would like because:	
The people I work with do not have EBPH training.	49%
There is not enough funding for continued training in EBPH.	41%
I do not have enough time to implement EBPH approaches.	41%
Within my agency there are no incentives to use EBPH.	21%
I still lack sufficient skills in EBPH.	17%
My organization does not have a culture that supports the use of EBPH approaches.	11%

Effect on agency's EBDM



"It helped raise awareness about evidence based decision-making among agency leadership, paving the way for those of us who completed the training to discuss, promote and facilitate integration of it in our public health programming, services, grant writing etc. and receive increased support to do so. It assisted in it becoming part of a common organizational language."

Lessons learned

- Variety of experience and skill level among participants
- Webinars beneficial but in-person supported interaction/collaboration
- More real-life examples
- More guidance on economic evaluation
- Beneficial to have groups of 2-3 per agency

Next steps

- Investigate effectiveness of webinar format vs. in-person training
- Identify more partnerships/collaborators to "scale up" and reach more of the 2,565 LHDs in the U.S.
- Develop trainings targeted to LHD leaders

Thank you!

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EBPH course slides available at:

http://prcstl.wustl.edu/training/Pages/EBPH-Course-Information.aspx