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Driving QI with Research: Findings from Public Health PBRNs

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Driving QI with Research: Findings from Public Health PBRNs

Glen P. Mays, PhD, MPH
University of Kentucky

Multi-State Learning Collaborative Open Forum on Quality Improvement in Public Health
Washington, DC • 12 December 2011

Missed opportunities in public health practice

Less than 50% of the population at risk is reached by:

- Smoking cessation
- Aspirin use
- Influenza vaccination
- Hypertension control
- Nutrition and physical activity programming
- HIV prevention
- Family planning
- Substance abuse prevention
- Interpersonal violence prevention
- Home visitation for high-risk mothers and infants



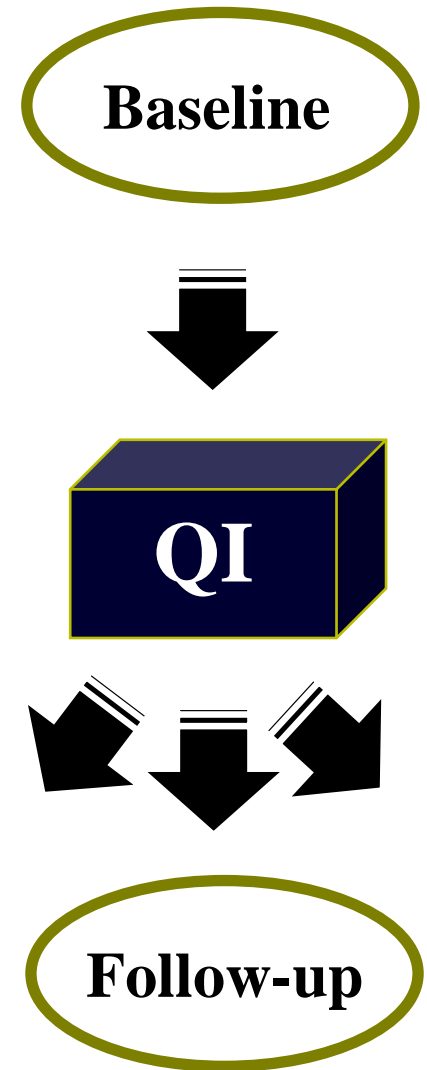
Public Health
Prevent. Promote. Protect.

The disconnect between discovery research and delivery research

For every \$100 in federal health research spending, <\$1 is devoted to delivery system research.

Critical research issues in QI

- Did “it” work?
- Are you sure that it worked?
- For whom did it work (and for whom not)?
- How did it work (or why did it not)?
- What were the active ingredients?
- Were there unintended effects?
- Were the effects worth the costs?
- How long can the effects be sustained?
- Can it be replicated in other settings?
- Comparison to other QI methods (CER)?



Research challenges in QI

Design and attribution: are changes due to QI?

- Hawthorne effects
- Other temporal changes
- Regression to the mean
- The counterfactual?



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Measurement

- Are we measuring the right things?
- Sensitivity & specificity
- Is there enough time to observe changes?

The QI Intervention

- Fidelity
- Implementation cost
- Comparative effectiveness of alternative QI strategies
- Dose-response
- Context-specific effects (treatment heterogeneity)

How can PBRNs help?

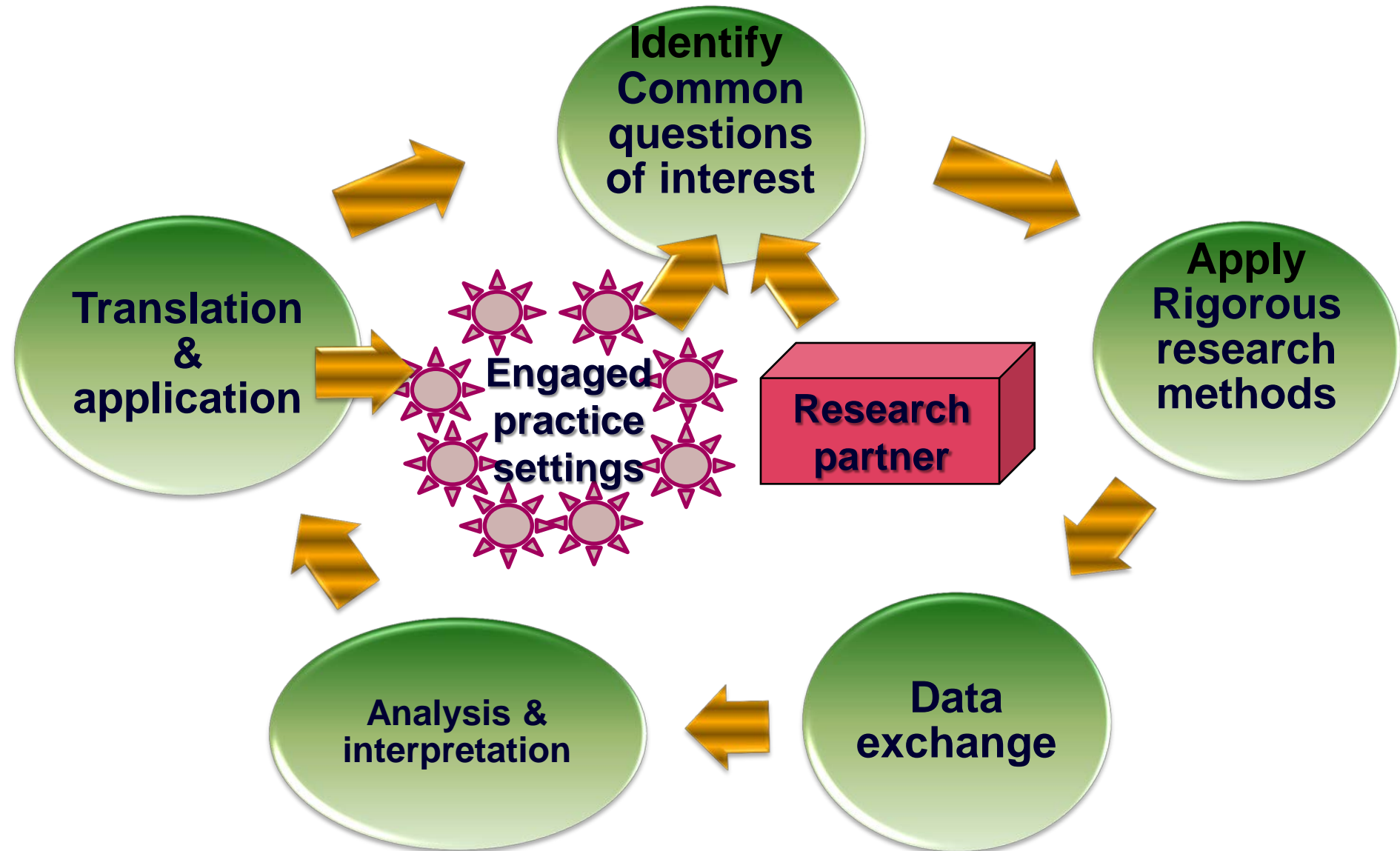
- Practice partners to help design, tailor, and implement QI
- Multiple practice settings for analysis and comparison
- Research partners to help design studies that balance rigor, relevance, feasibility
- Collaborative interpretation of results in context
- Translating results to timely practice and policy actions



What are Public Health PBRNs?

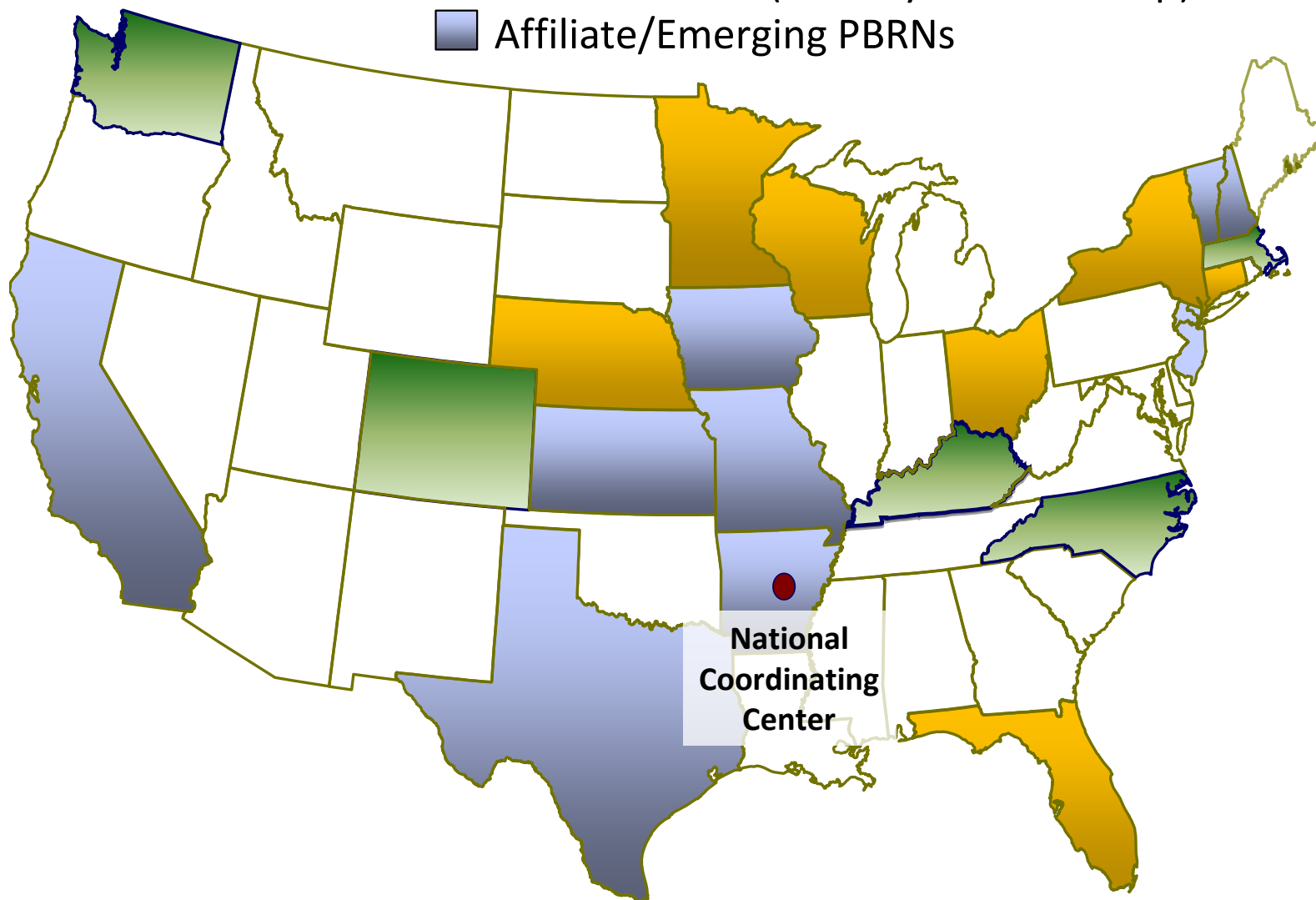
A collection of ***public health agencies*** and their ***partner organizations*** engaged in an ongoing collaboration with an ***academic research center*** to conduct rigorous, applied studies of strategies for organizing, financing, and/or delivering public health services in ***real-world community settings***.

The PBRN Model



The Robert Wood Johnson Foundation's Public Health PBRN Program

- First cohort (December 2008 start-up)
- Second cohort (January 2010 start-up)
- Affiliate/Emerging PBRNs



Types of PBRN studies

- ***Comparative case studies***: document processes, identify scope and scale of problems, examine innovations
- ***Large-scale observational studies***: document practice variation across public health settings; identify causes & consequences of variation
- ***Adoption/diffusion studies***: identify the pace and patterns through which evidence-based practices are adopted, and factors that facilitate and inhibit adoption
- ***Quality improvement studies***: evaluate strategies for improving program operations & outcomes
- ***Policy evaluations and natural experiments***: monitor effects of key policy and administrative changes

QI Quick Strike Research Projects

- Local QI Responses to the County Health Rankings (Florida)
- Implementation of QI Collaboratives for Small and Rural Public Health Settings (Georgia)**
- Effects of Public Health Accreditation on QI Philosophy (Missouri)
- Taxonomy of QI Methods, Techniques and Results in Public Health (Minnesota)**
- QI Strategies and Regional Public Health Structures (Nebraska)**
- Evaluation of a QI Initiative to Improve Workforce Diversity (Washington)

**Featured on today's panel

Cross-Cutting Themes

- Variation in public health delivery results in inequities in prevention and risk protection
- QI provides mechanisms for understanding and reducing unwarranted variation in PH practice
- Practice-based research in public health can:
 - Expand evidence on QI
 - Accelerate translation of QI to practice
 - Inform policy regarding value of QI

For More Information



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