

University of Kentucky

From the Selected Works of Glen Mays

November 2, 2011

Disparities Research in Public Health PBRNs

Glen Mays, *University of Kentucky*



Available at: https://works.bepress.com/glen_mays/53/

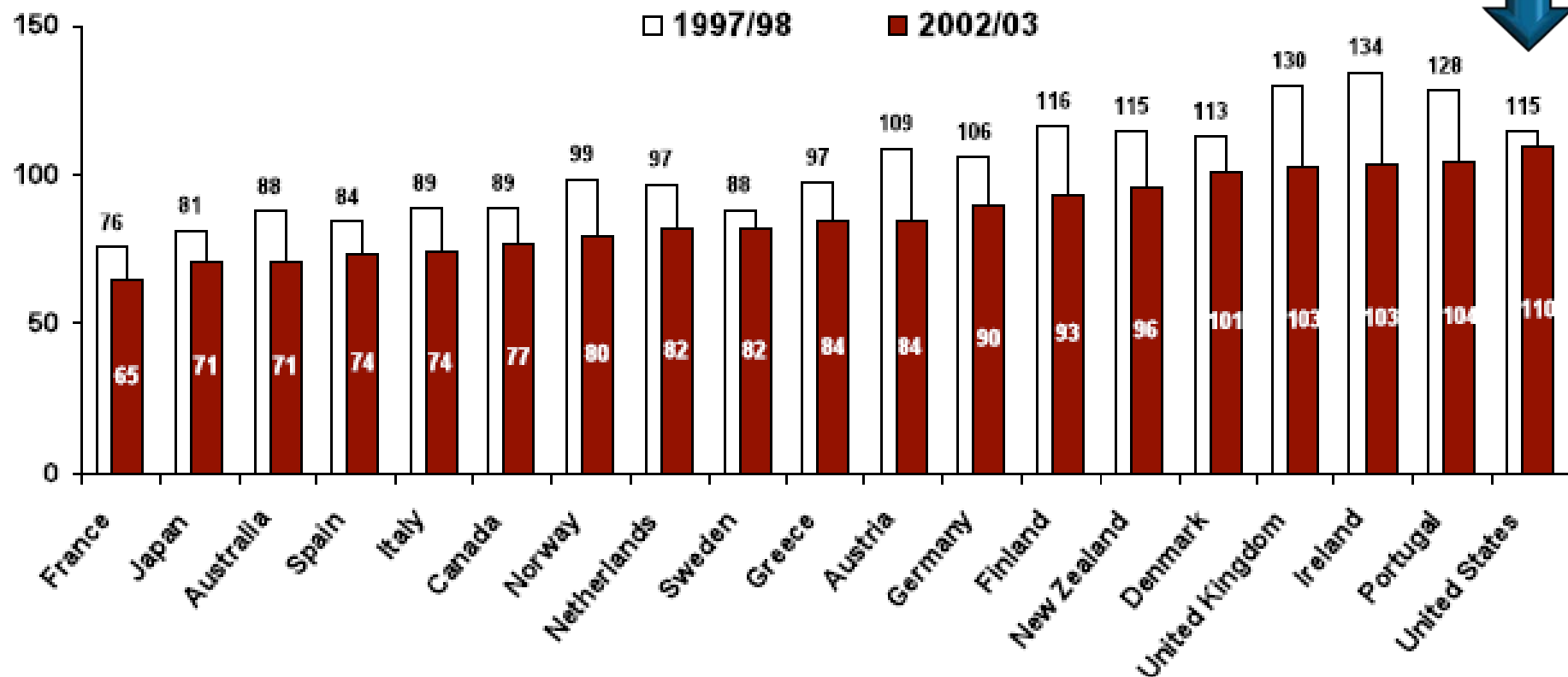
Disparities Research in Public Health PBRNs

Glen P. Mays, PhD, MPH
University of Kentucky

American Association for Dental Research Meeting • Washington, DC • 2 November 2011

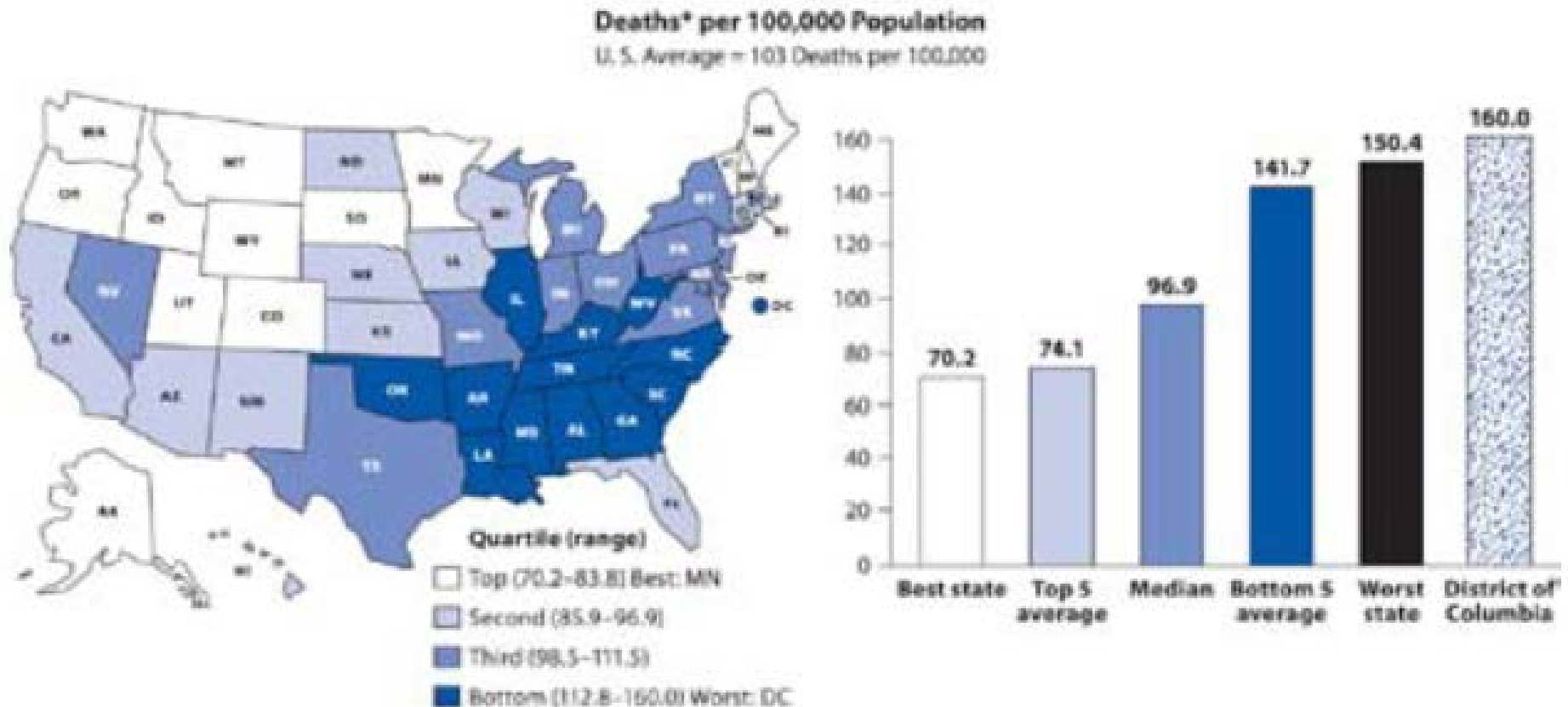
International Disparities in Population Health

Preventable Deaths per 100,000 population



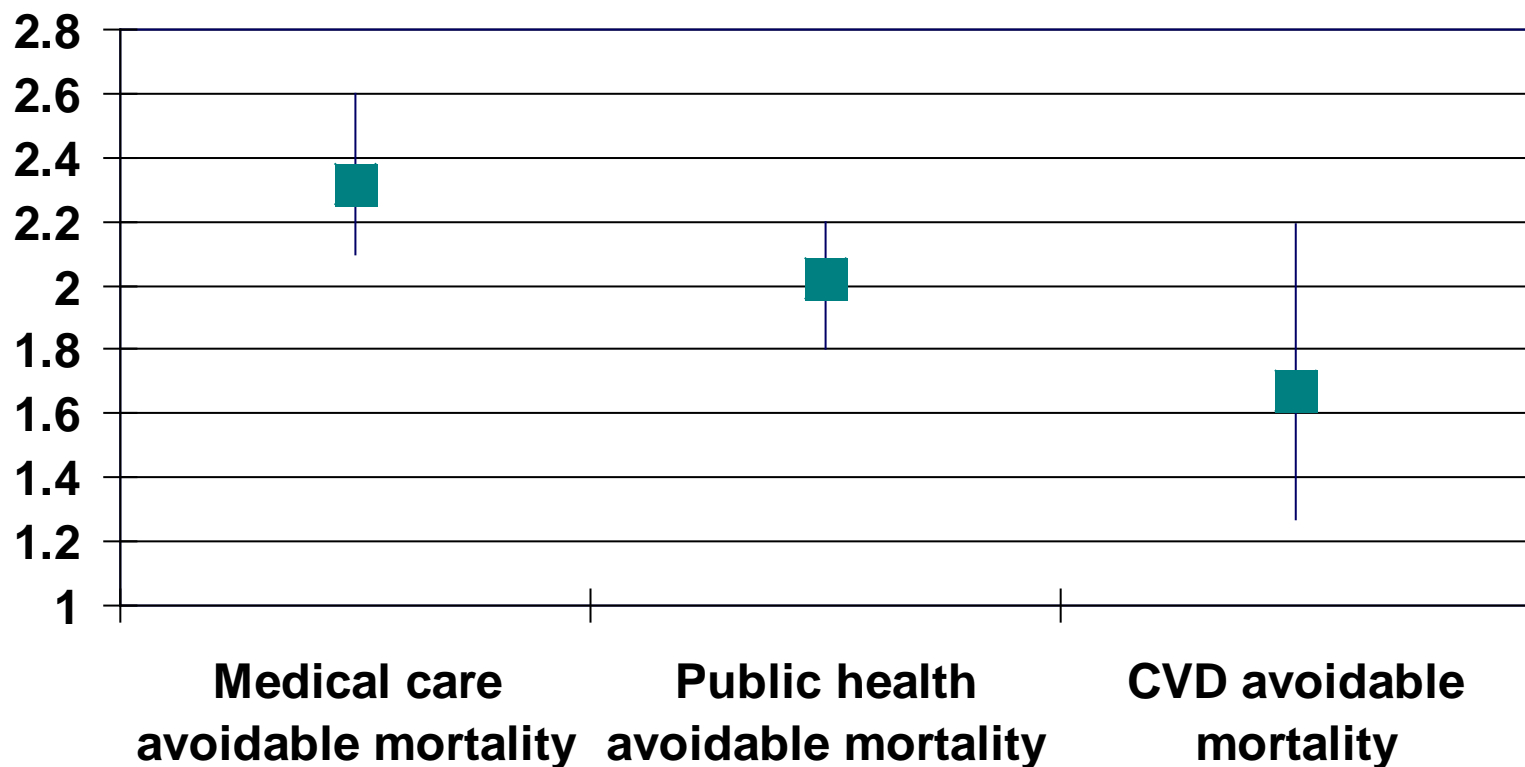
Countries' age-standardized death rates before age 75; including ischemic heart disease, diabetes, stroke, and bacterial infections. See report Appendix B for list of all conditions considered amenable to health care in the analysis.

Geographic Disparities in Preventable Mortality



Racial Disparities in Preventable Mortality

Black-white relative risks of preventable mortality



Why study public health delivery?

“The Committee had hoped to provide specific guidance elaborating on the types and levels of workforce, infrastructure, related resources, and financial investments necessary to ensure the availability of essential public health services to all of the nation’s communities. However, such evidence is limited, and there is no agenda or support for this type of research, despite the critical need for such data to promote and protect the nation’s health.”

—Institute of Medicine, 2003



The disconnect between discovery research and delivery research

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

What is Public Health Services & Systems Research?

A field of inquiry examining the ***organization***, ***financing***, and ***delivery*** of public health services at local, state and national levels, and the ***impact*** of these activities on population health

PHSSR in the policy stream

Patient Protection and Affordable Care Act of 2010

Subtitle D—Support for Prevention and Public Health Innovation

SEC. 4301. RESEARCH ON OPTIMIZING THE DELIVERY OF PUBLIC HEALTH SERVICES.

(a) **IN GENERAL.**—The Secretary of Health and Human Services (referred to in this section as the “Secretary”), acting through the Director of the Centers for Disease Control and Prevention, shall provide funding for research in the area of public health services and systems.

(b) **REQUIREMENTS OF RESEARCH.**—Research supported under this section shall include—

(1) examining evidence-based practices relating to prevention, with a particular focus on high priority areas as identified by the Secretary in the National Prevention Strategy or Healthy People 2020, and including comparing community-based public health interventions in terms of effectiveness and cost;

(2) analyzing the translation of interventions from academic settings to real world settings; and

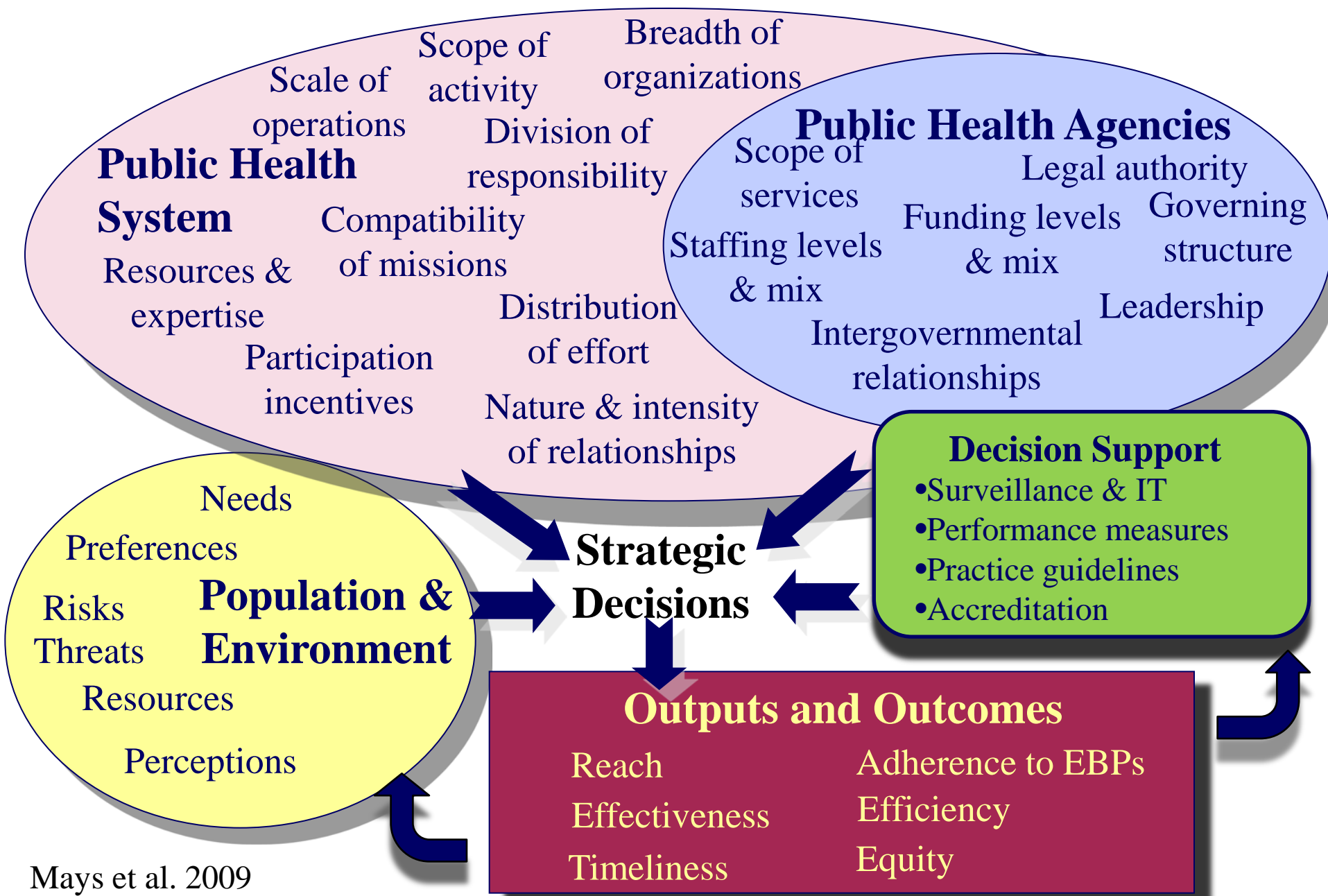
(3) identifying effective strategies for organizing, financing, or delivering public health services in real world community settings, including comparing State and local health department structures and systems in terms of effectiveness and cost.

Fundamental empirical questions

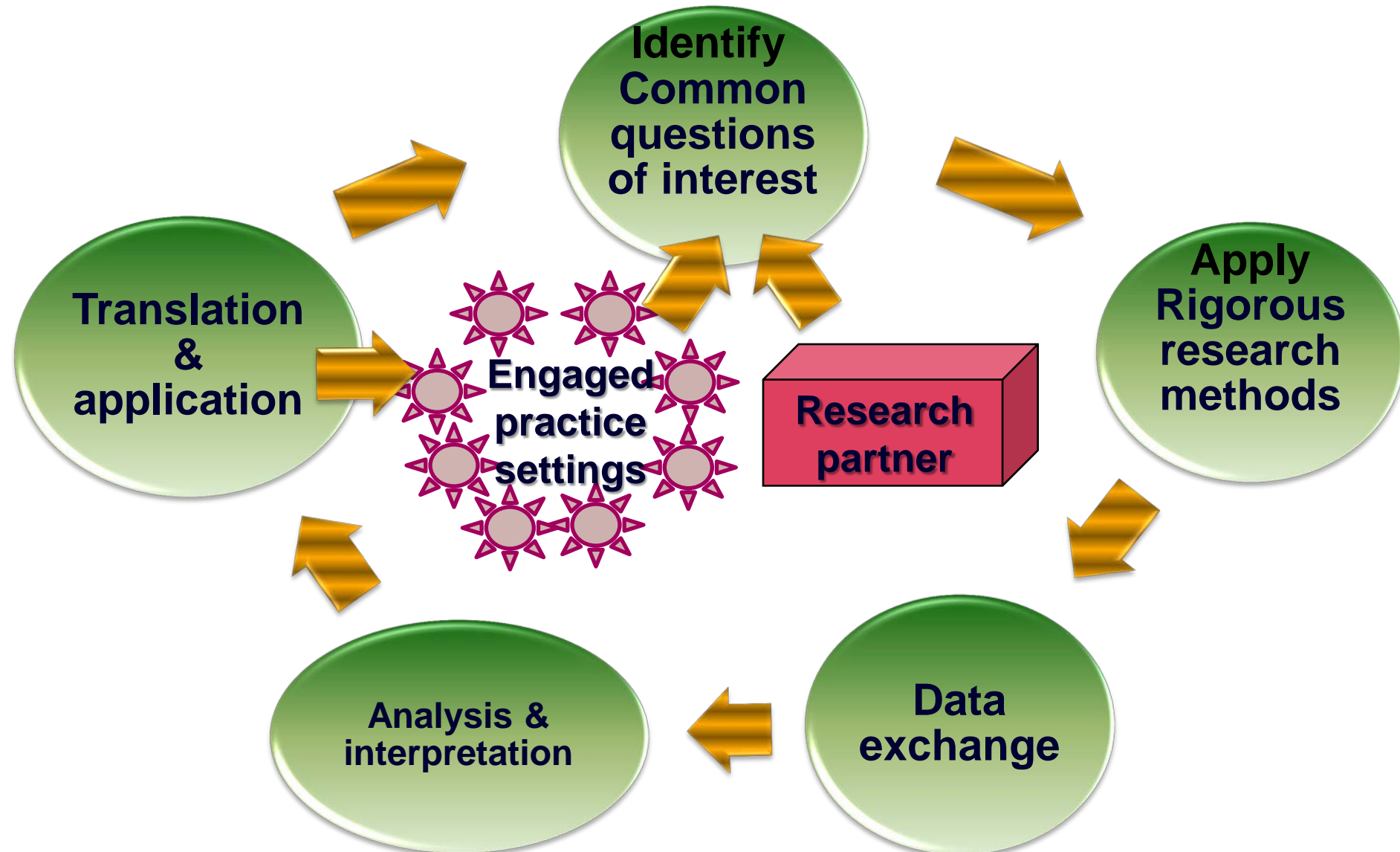


- Which programs, interventions, policies (***mechanisms***)....
- Work best (***outcomes***)...
- In which institutional & community settings (***contexts***)...
- For which populations (***equity/heterogeneity***)...
- And why?

Challenges: complexity in public health delivery systems

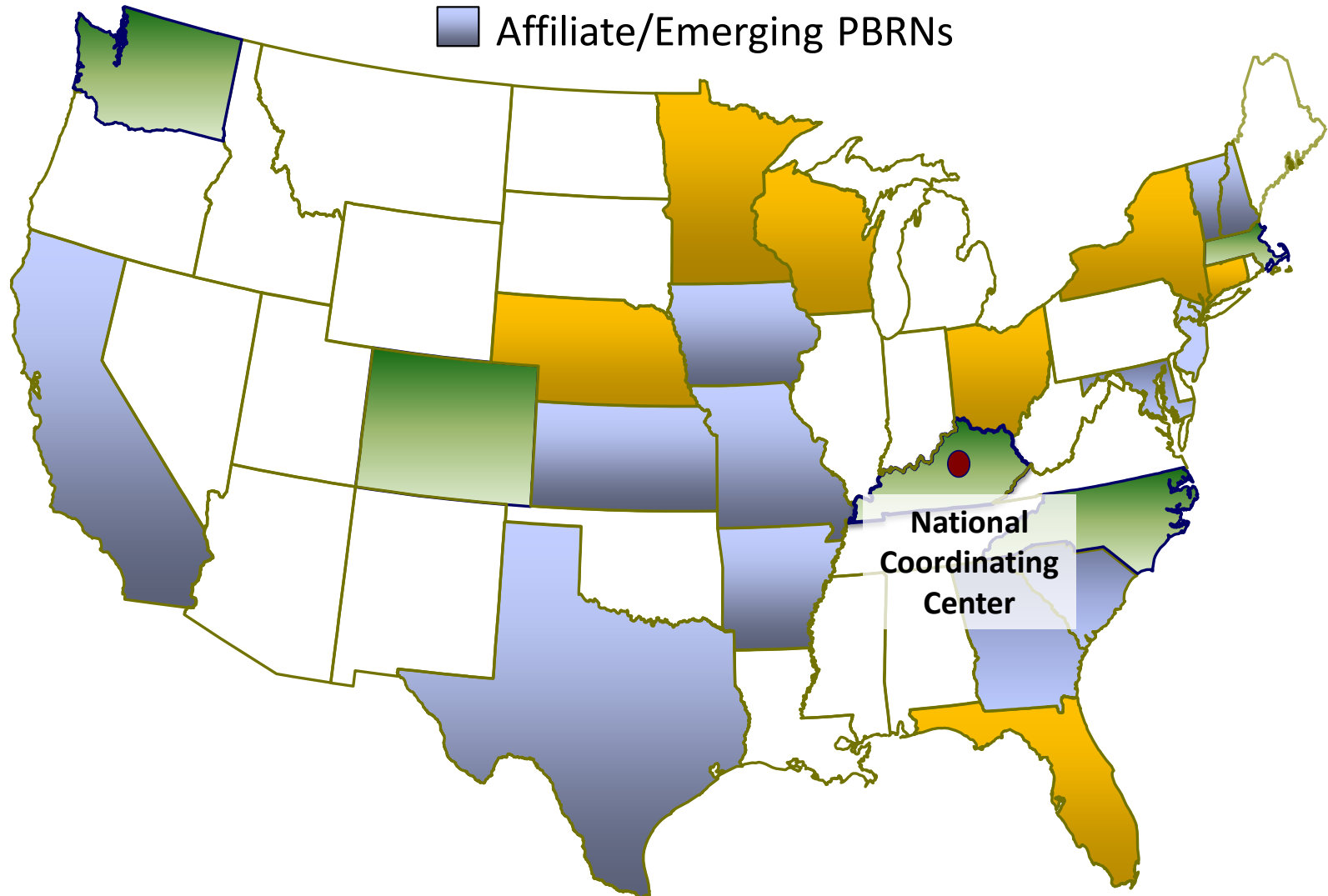


Solutions: Public Health PBRNs



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



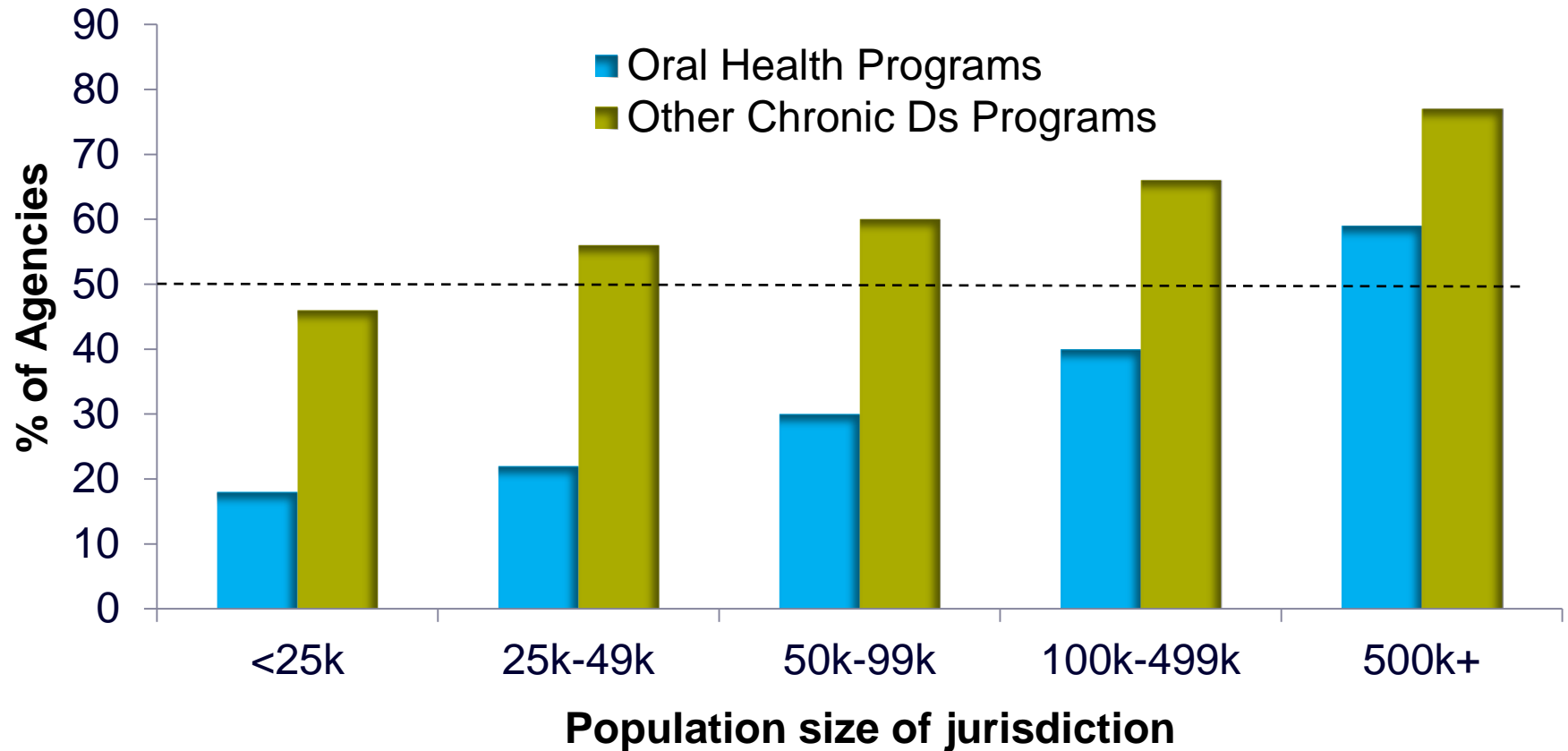
Examples of PBRN studies

- ***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

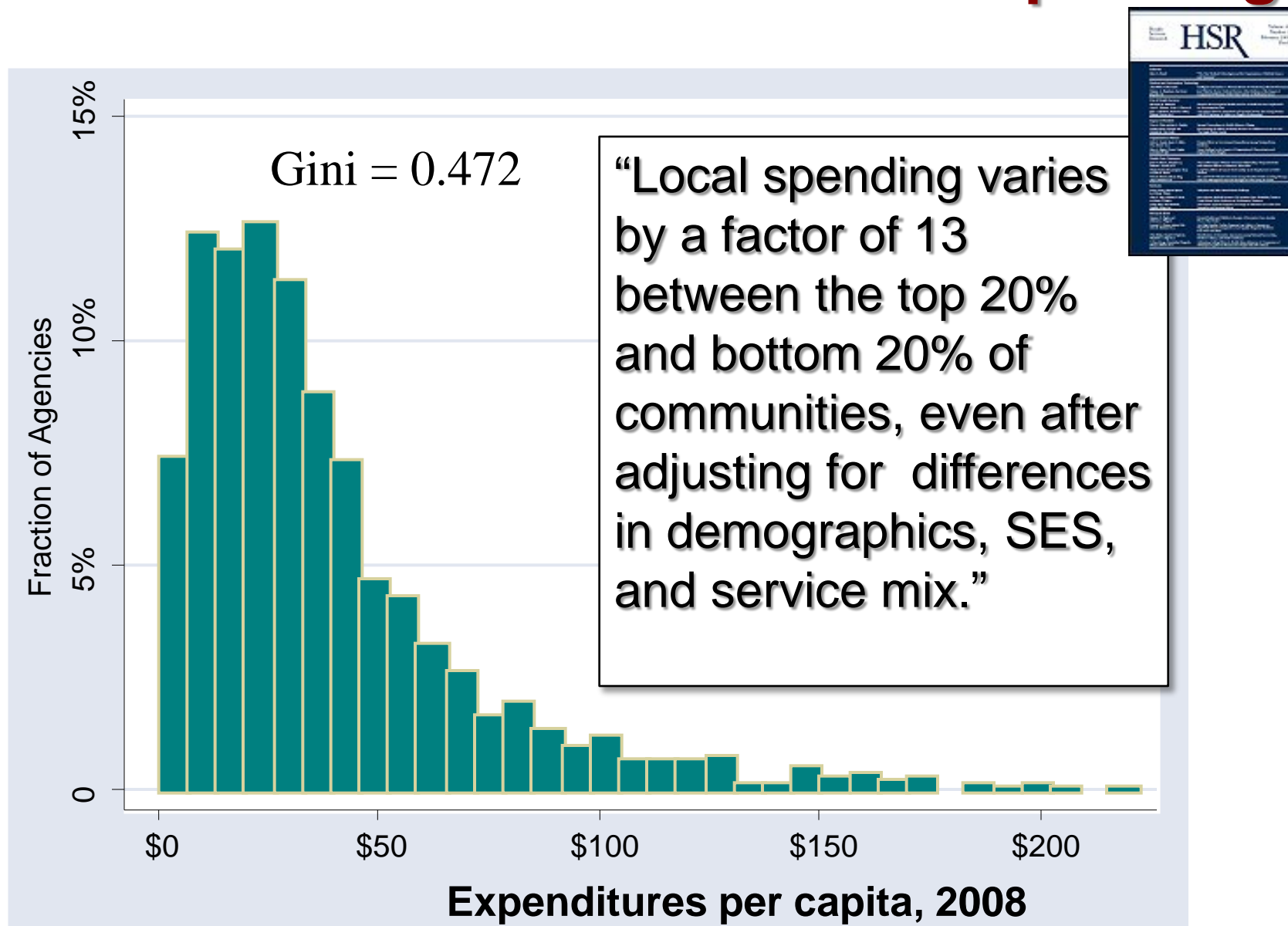
How public health system characteristics influence health disparities

- Differences in the resources invested in public health strategies across U.S. communities
- Differences in the size, composition, and competency of the public health workforce across U.S. communities
- Differences in the ability of public health providers to tailor public health strategies in culturally and linguistically appropriate ways to populations at risk
- Differences in the connectedness among community organizations that contribute to public health strategies (public health networks).

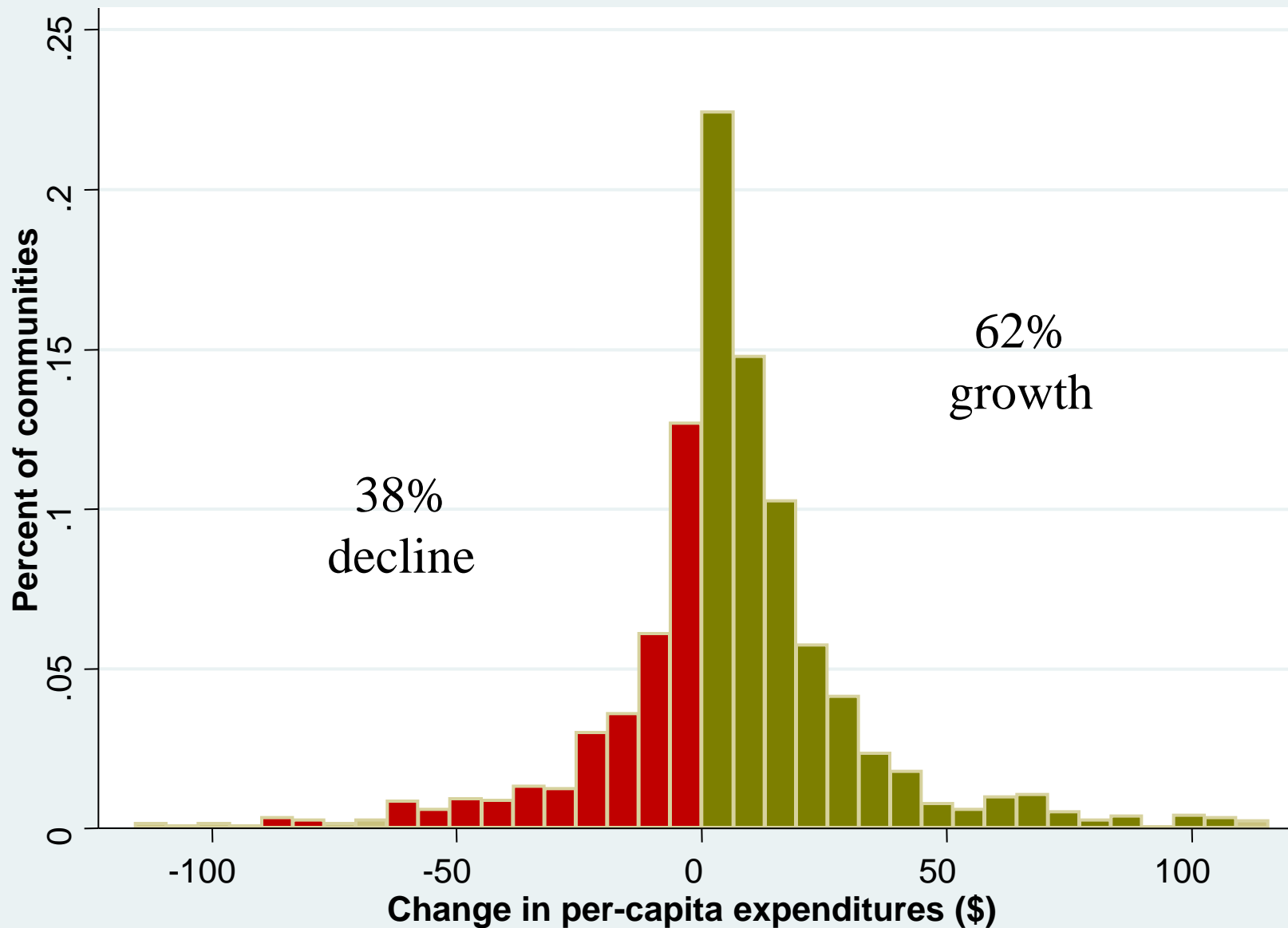
Variation in Delivery of Oral Health Programs by U.S. Public Health Agencies, 2010



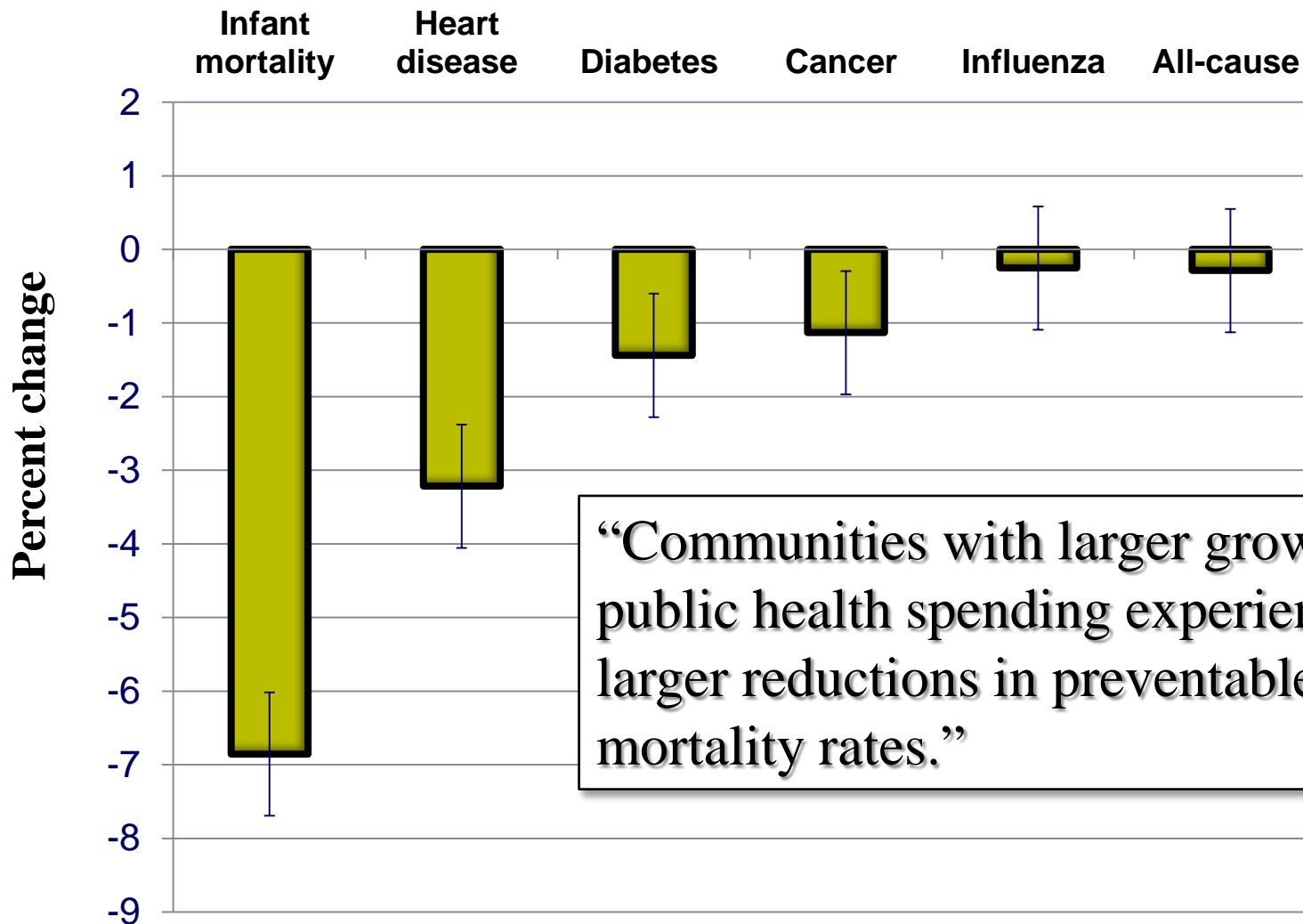
Variation in Local Public Health Spending



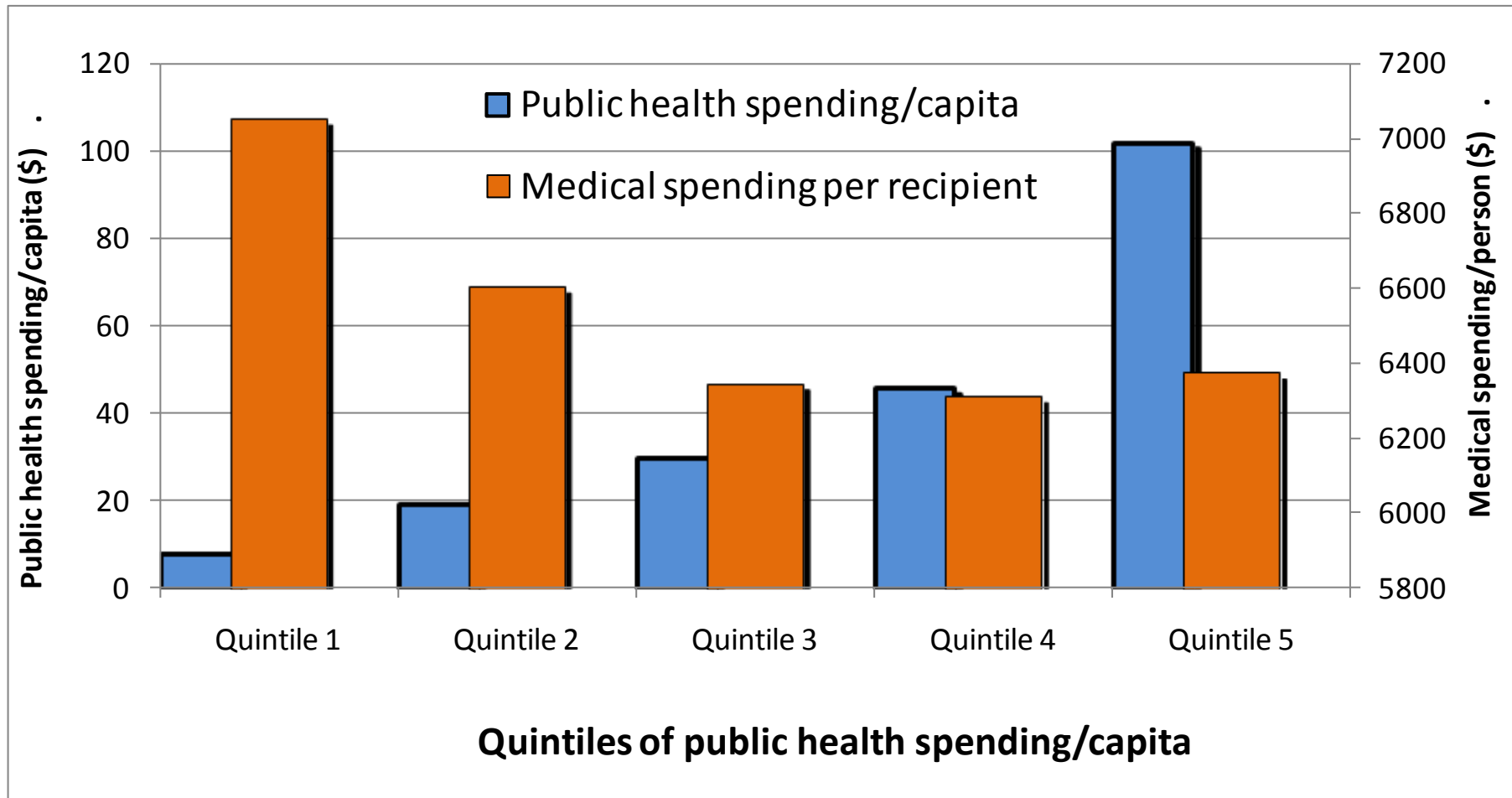
Changes in Local Public Health Spending 1993-2008



Reductions in preventable mortality attributable to public health spending



How public health spending influences medical care spending



Spending estimates adjusted for age, comorbidities, and service mix

Other Examples of Disparities-focused PBRN studies underway

- Variation in Local Public Health Actions to Address Health Inequities (Minnesota)
- Utilization and Effectiveness of a Health Equity Index in Mobilizing Local Public Health Action (Connecticut)
- Effects of Cultural Competency Training on Local Public Health Practice: A Randomized Trial (Kentucky)
- Local Health Department Workforce Reductions: Implications for Diversity and Health Disparities (Washington)
- Estimating the Comparative Effectiveness of Local Public Health Responses to Medicaid Payment Reductions (North Carolina)

Conclusions & Implications

- Variation in public health delivery results in inequities in prevention and risk protection
 - Particularly wide variation in oral health delivery
- PBRNs provide vehicles for understanding and reducing unwarranted variation in PH practice
- Practice-based research in public health can:
 - Expand evidence
 - Accelerate translation to practice
 - Inform policy to improve value of health investments

For More Information



Supported by The Robert Wood Johnson Foundation

Glen P. Mays, Ph.D., M.P.H.

Program Director

glen.mays@uky.edu

publichealthPBRN@uky.edu

www.publichealthsystems.org/pbrn

University of Kentucky College of Public Health

Lexington, KY