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New Directions in Public Health Systems Research: The U.S. Context

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New Directions in Public Health Systems Research: the U.S. Context

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www.systemsforaction.org

Where we've been: 1998-2015

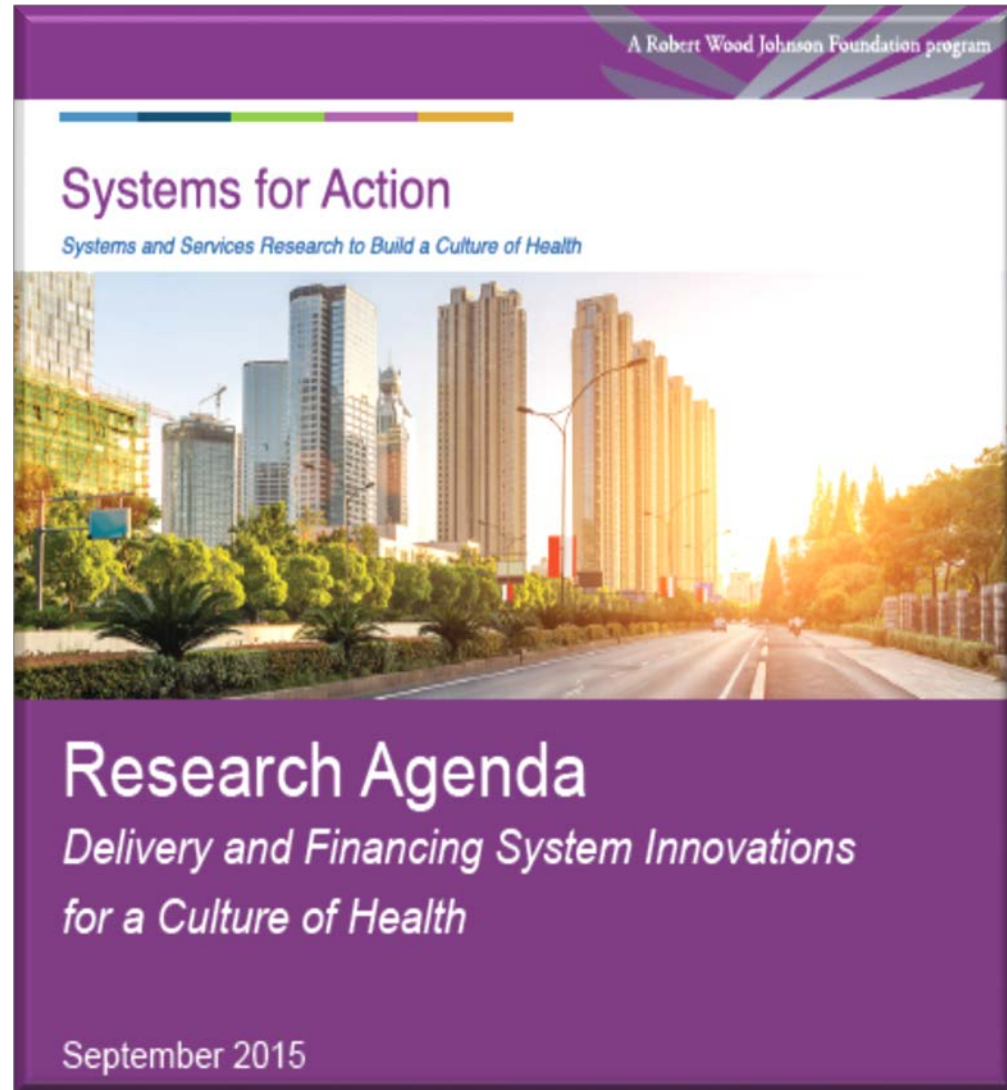
- Measuring variation in the performance of core public health functions
- Exploring causes of variation
 - Spending
 - Staffing
 - Governance and organizational structures
- Exploring consequences of variation
 - Health outcomes
 - Medical expenditures
 - Health disparities

Where we're headed: 2016 and beyond

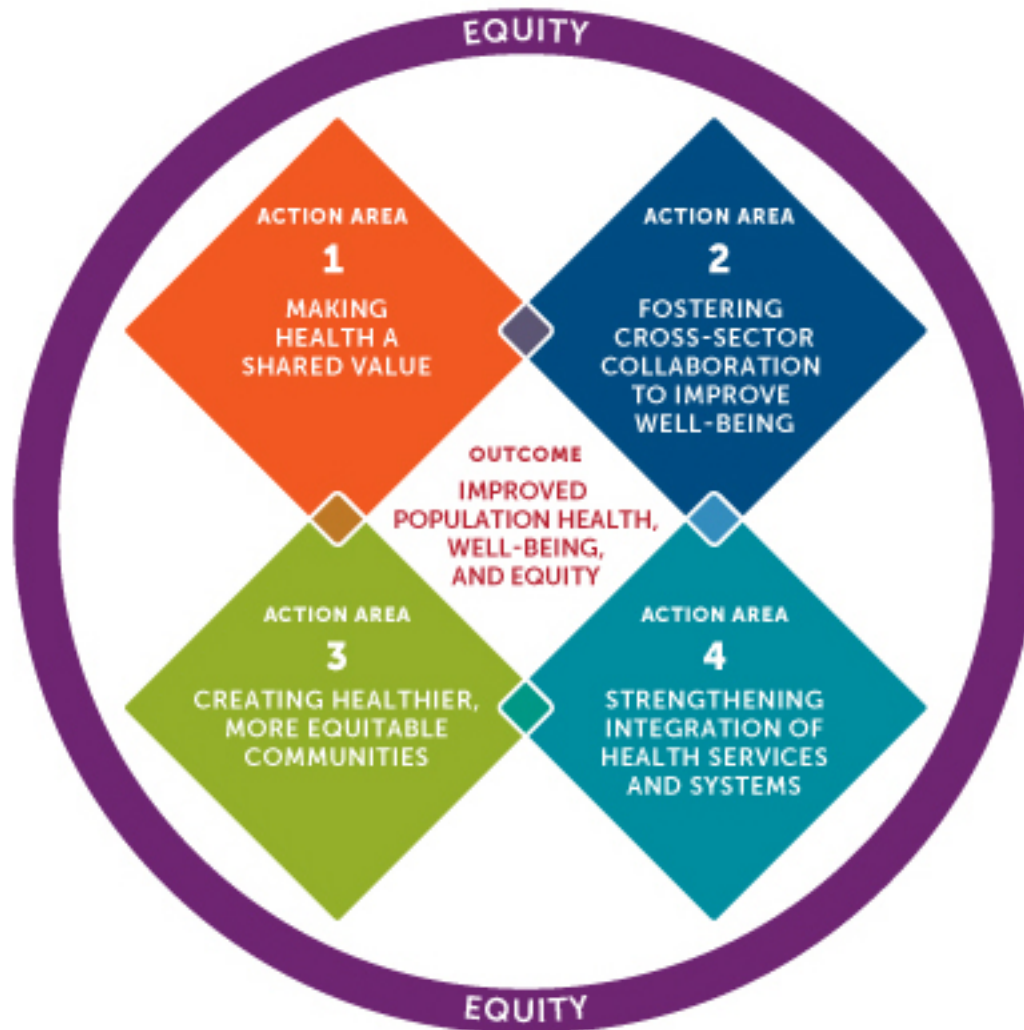
Identify strategies to align delivery and financing systems for **public health**, **medical care**, and **social services** in ways that improve population health

- Health and well-being
- Equity
- Efficiency

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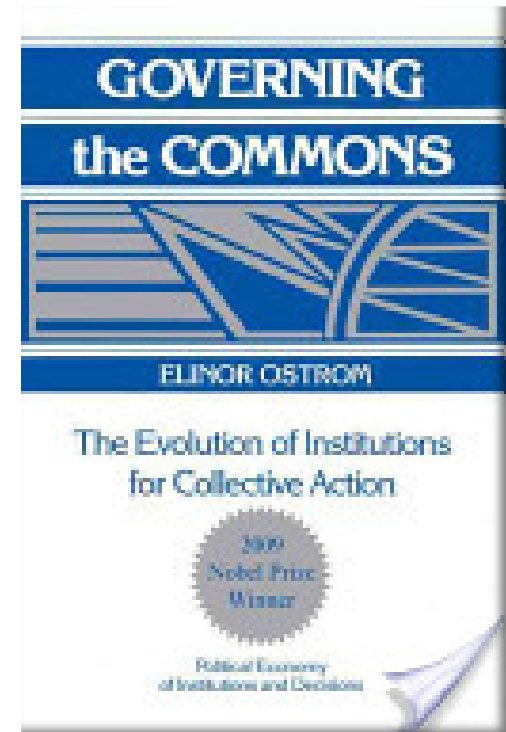
The Culture of Health Action Framework



What **Foundational Capabilities** support collective actions in health?

Public health as **chief health strategist** for the system:

- Articulate population health needs & priorities
- Engage community stakeholders
- Plan with clear roles & responsibilities
- Recruit & leverage resources across sectors
- Develop and enforce policies
- Ensure coordination across sectors
- Promote equity and target disparities
- Support evidence-based practices
- Monitor and feed back results
- Ensure transparency & accountability



Comprehensive Public Health Systems

One of RWJF's 40 Culture of Health National Metrics

- **Broad scope** of Foundational Capabilities
- **Dense network** of multi-sector relationships
- **Central actors** to coordinate actions

Access to public health

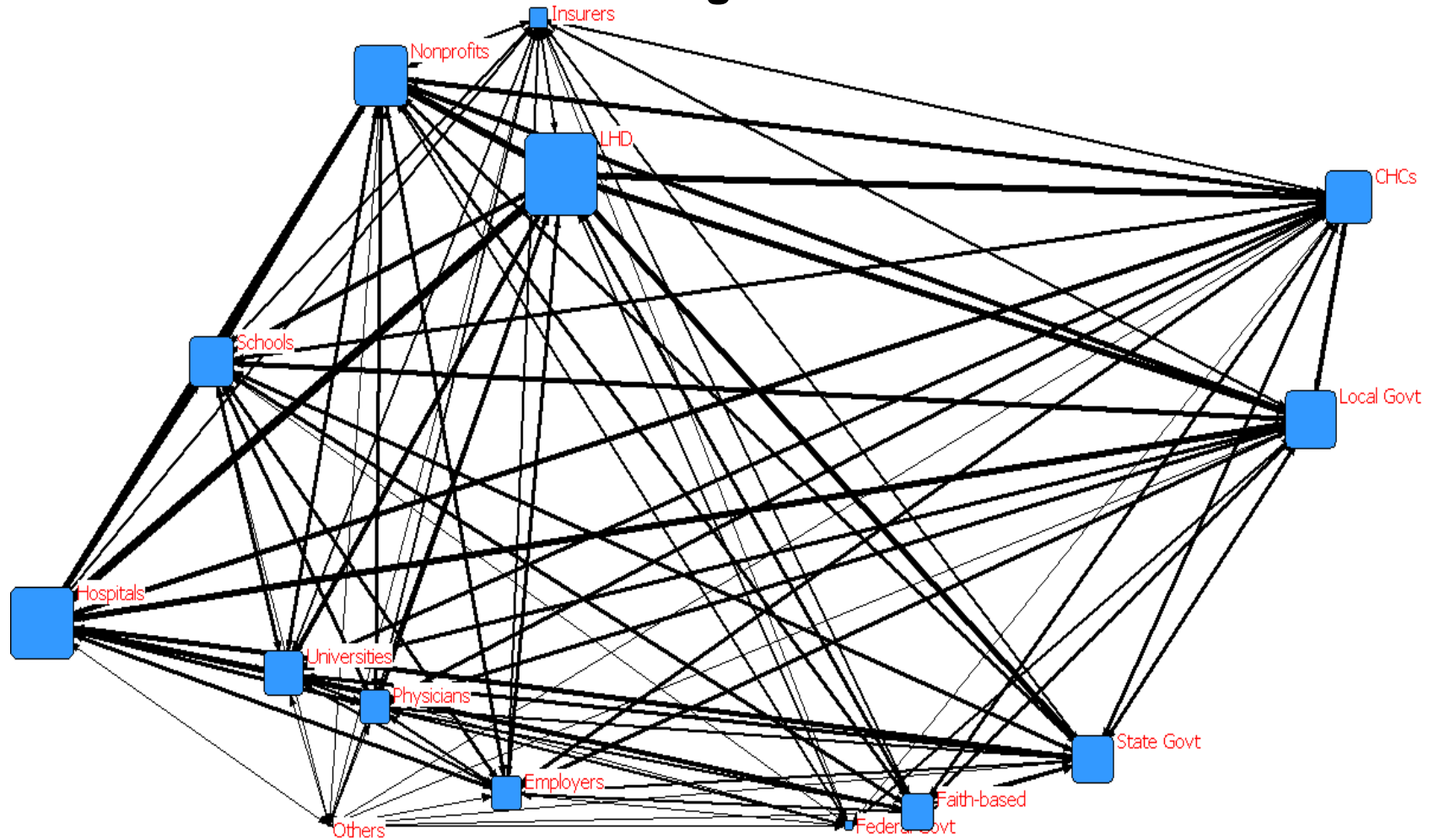
Overall, 47.2 percent of the population is covered by a comprehensive public health system. Individuals are more likely to have access if they are non-White (51.5 percent vs. 45.5 percent White) or live in a metropolitan area (48.7 percent vs. 34.1 percent in nonmetropolitan areas).

47.2%

of population served by a
comprehensive public
health system

Comprehensive Public Health Systems

U.S. Average in 2014



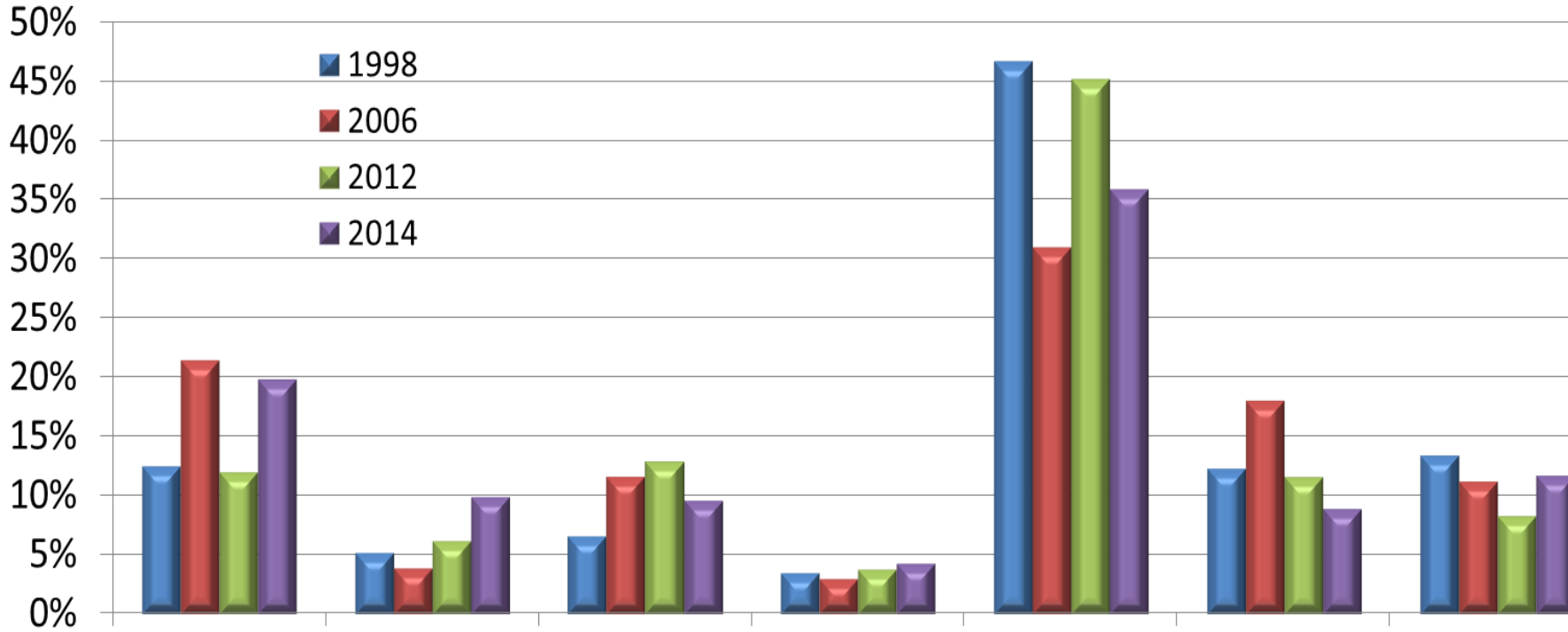
Node size = degree centrality

Line size = % activities jointly contributed (tie strength)

What do we know about the benefits of Comprehensive Public Health Systems?

- Greater concordance with national recommendations
 - IOM Core Functions
 - Essential Public Health Services
 - PHAB national accreditation standards
 - Foundational Public Health Services
- Fewer governmental resources per capita: more for less
- Over time, larger gains in population health

Prevalence of Public Health System Configurations 1998-2014



Scope
Centrality
Density

Cluster 1 Cluster 2 Cluster 3 Cluster 4 Cluster 5 Cluster 6 Cluster 7

High	High	High	Mod	Mod	Low	Low
Mod	Low	High	High	Low	High	Low
High	High	Mod	Mod	Mod	Low	Mod

Comprehensive
(High System Capital)

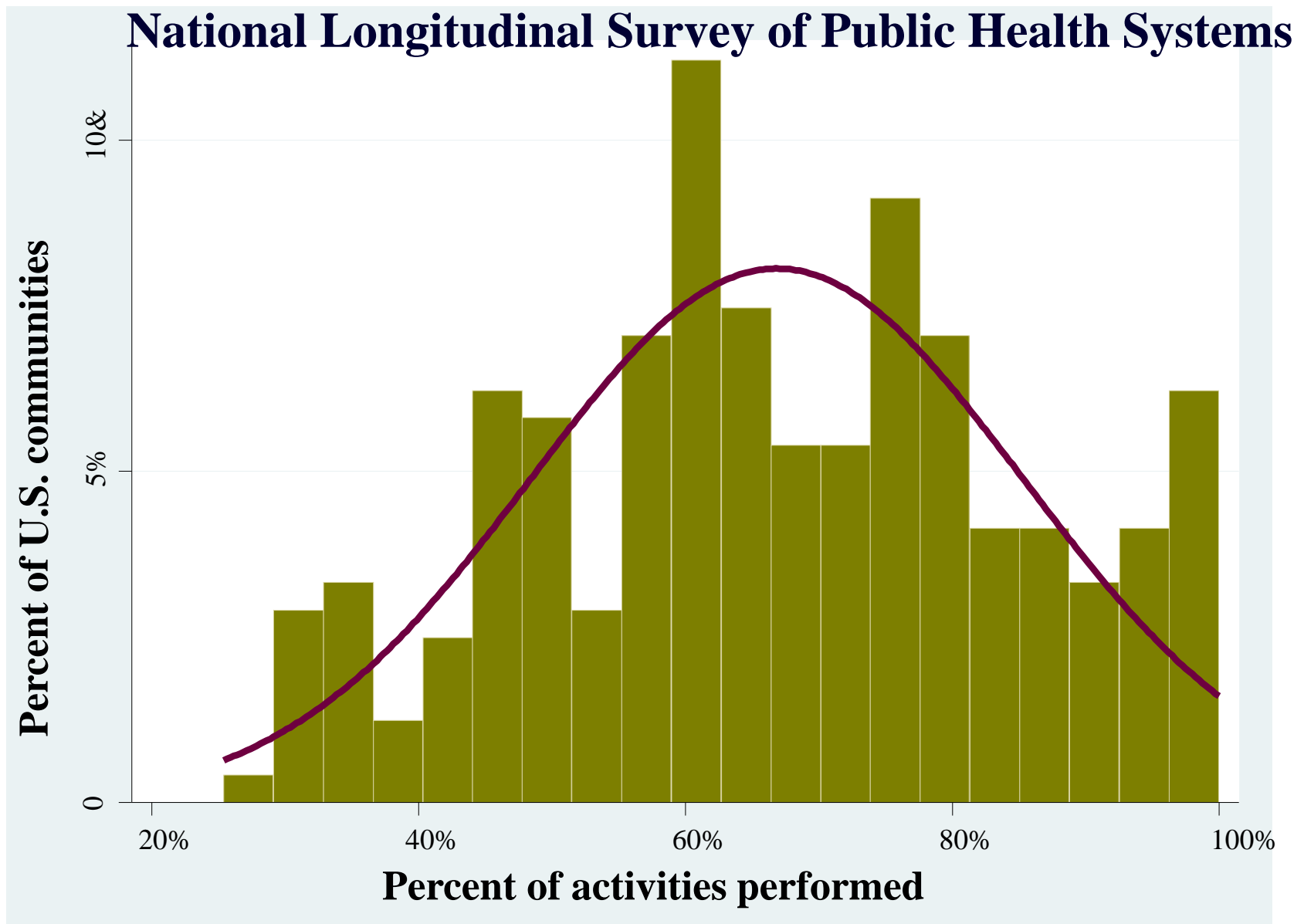
Conventional

Limited

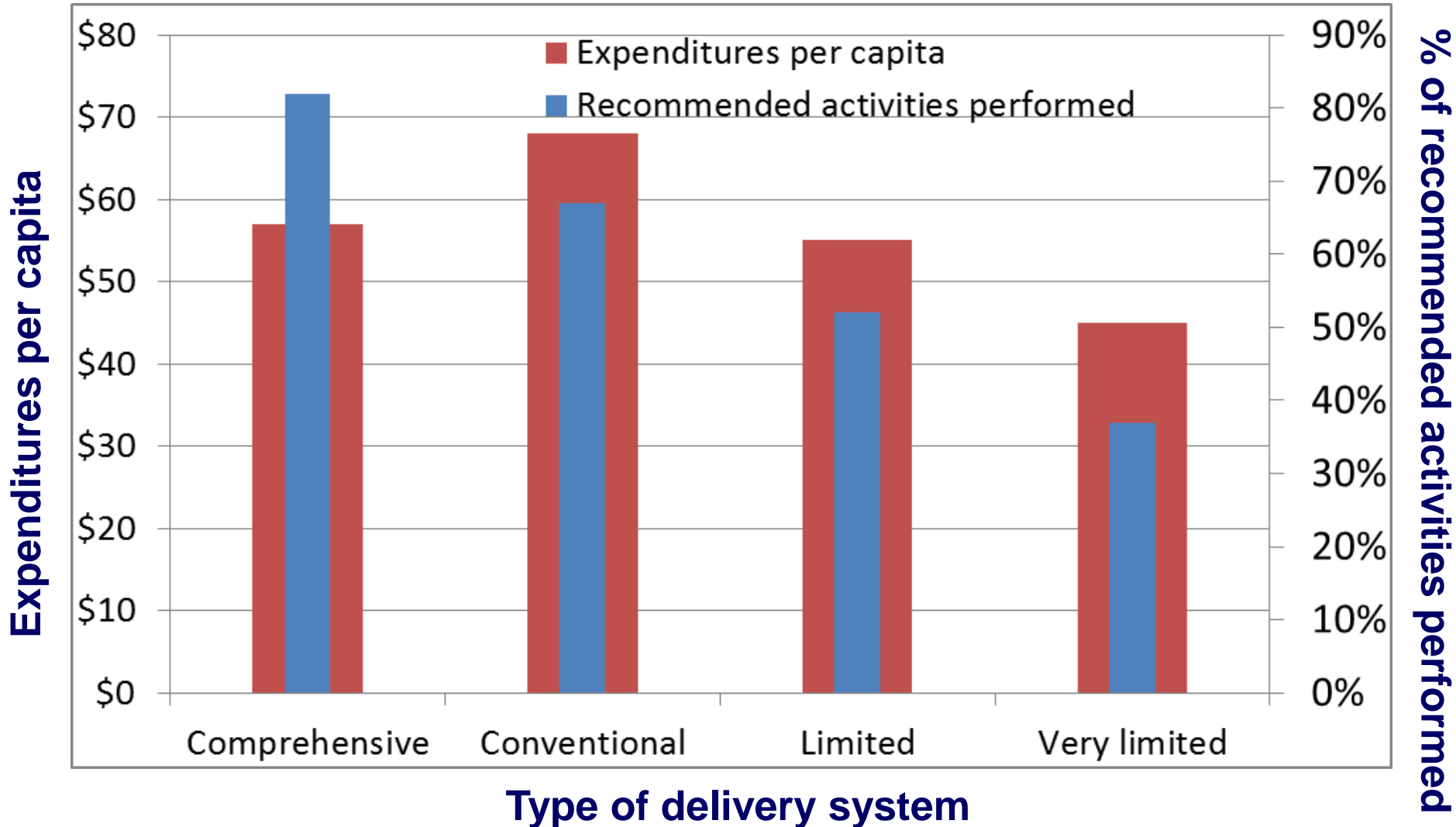
Changes in system prevalence and coverage

System Capital Measures	1998	2006	2012	2014	2014 (<100k)
Comprehensive systems					
% of communities	24.2%	36.9%	31.1%	32.7%	25.7%
% of population	25.0%	50.8%	47.7%	47.2%	36.6%
Conventional systems					
% of communities	50.1%	33.9%	49.0%	40.1%	57.6%
% of population	46.9%	25.8%	36.3%	32.5%	47.3%
Limited systems					
% of communities	25.6%	29.2%	19.9%	20.6%	16.7%
% of population	28.1%	23.4%	16.0%	19.6%	16.1%

Variation in public health implementation

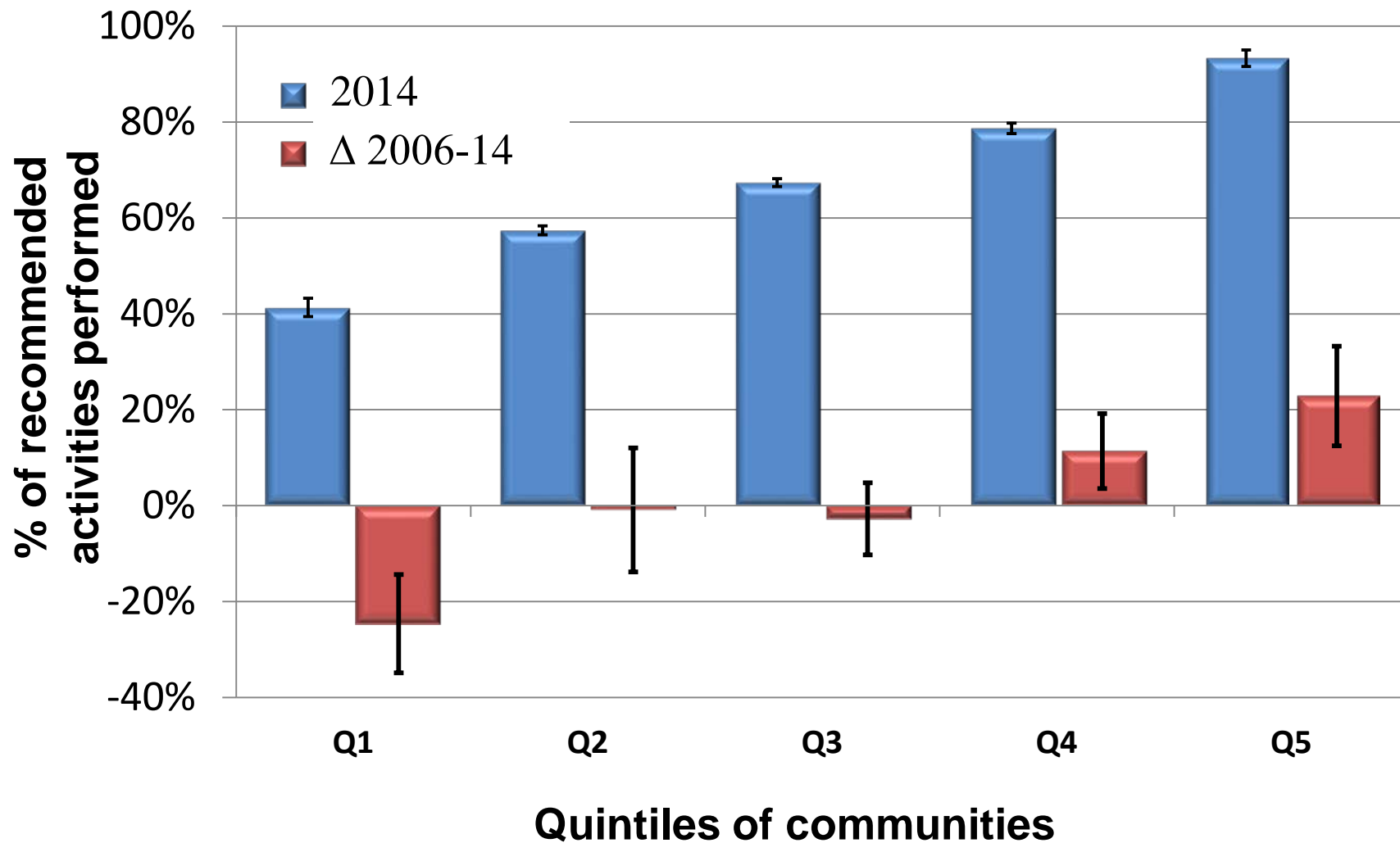


Comprehensive systems do more with less

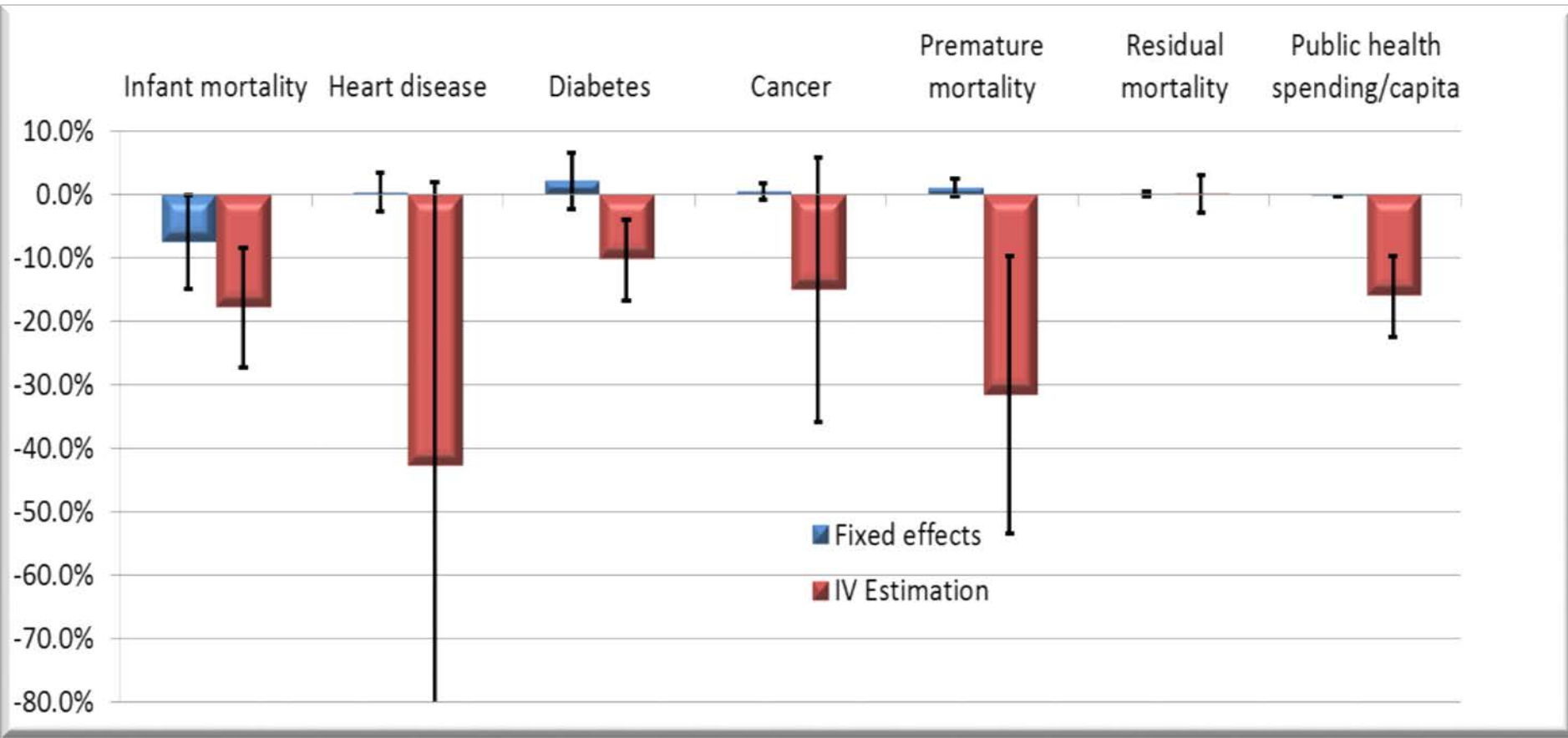


Equity in public health implementation

Delivery of recommended public health activities, 2006-14



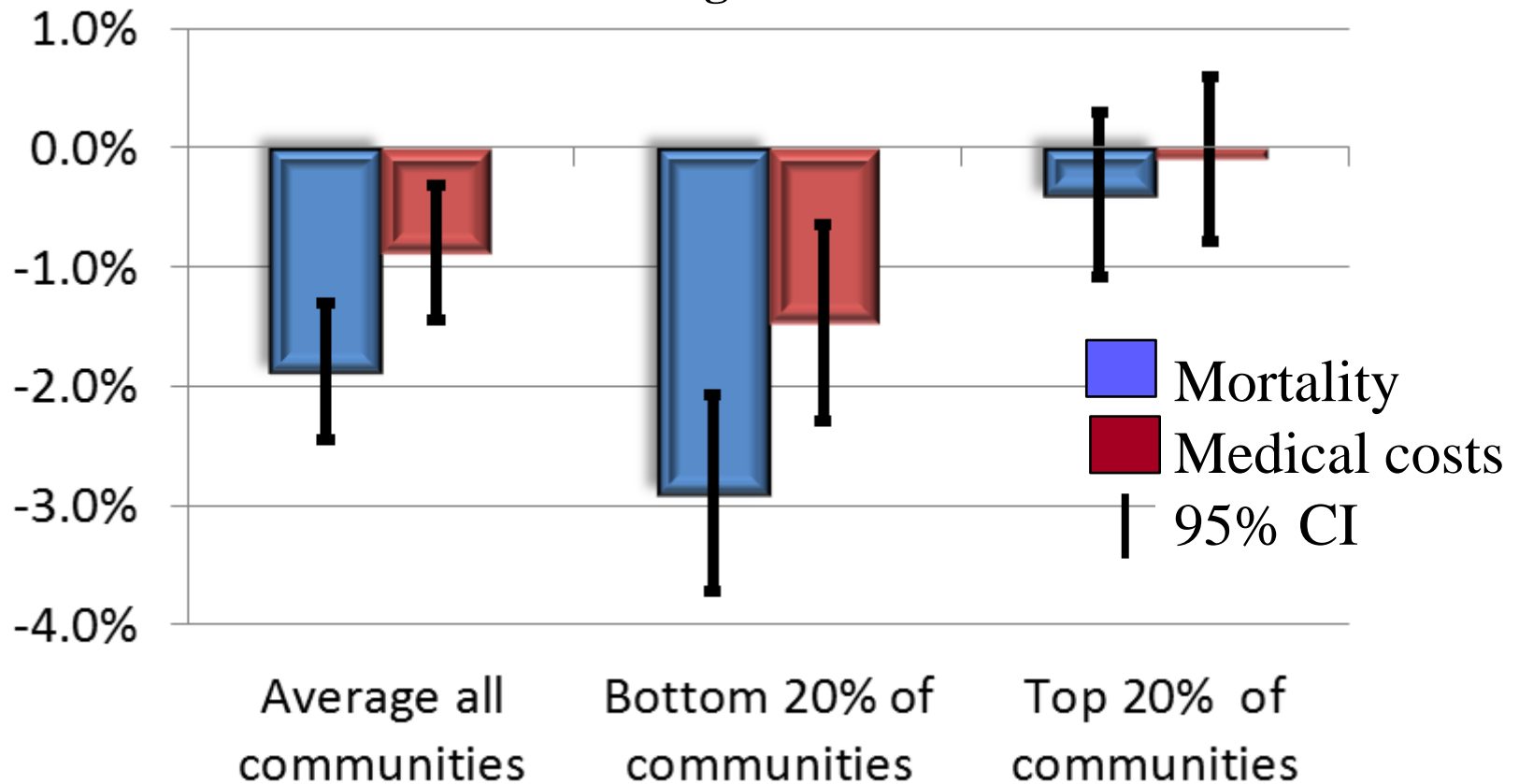
Health and economic impact of comprehensive systems



Models also control for racial composition, unemployment, health insurance coverage, educational attainment, age composition, and state and year fixed effects. N=779 community-years **p<0.05 *p<0.10

Making the case for equity: larger gains in low-resource communities

Effects of Comprehensive Public Health Systems in Low-Income vs. High-Income Communities



Log IV regression estimates controlling for community-level and state-level characteristics

Opportunities on the horizon

- Deeper exploration of system capabilities for intervening on **social & economic determinants**
- Advancing **implementation science** in public health systems: scale and spread successes
- Learning from **cross-national comparisons** of system structures and performance

For More Information

Systems for Action

National Coordinating Center

Systems and Services Research to Build a Culture of Health

Supported by The Robert Wood Johnson Foundation

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Journal: www.FrontiersinPHSSR.org

Archive: works.bepress.com/glen_mays

Blog: publichealtheconomics.org



For more information

- ◆ Defining Comprehensive Public Health Delivery Systems
https://works.bepress.com/glen_mays/198/
- ◆ CPHS methodology: Milbank Quarterly 2010
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2888010/>
- ◆ Health/economic benefits of comprehensive systems:
AJPH 2015
<http://www.ncbi.nlm.nih.gov/pubmed/25689201>
- ◆ Longitudinal Survey of Public Health Systems
http://works.bepress.com/glen_mays/38/
- ◆ Customized system feedback report
http://works.bepress.com/glen_mays/67/