Understanding the Value of Multi-Sector Health System Interactions

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Data! Fostering Health Innovation in Kentucky and Ohio
Thursday, October 29, 2015
More than 75% of total U.S. health care costs derive from preventable conditions.

Less than 3% of total U.S. health expenditures are devoted to public health & prevention.

USDHHS. National Health Expenditure Accounts 2014
U.S. communities that increased investments in public health activities by 10% experienced an 8% reduction in preventable mortality rates over 15 years.

Mays GP, Smith SA. Evidence links increases in public health spending to declines in preventable deaths. *Health Affairs*. 2011
Every $10 invested in local public health infrastructure in the U.S. generated at least $9.2 in medical cost offsets over the next 15 years.

Of the core public health activities delivered in the average U.S. community, 62% are contributed by partners outside the public health sector.

Improving population health requires multi-organizational networks

- Designed to achieve large-scale health improvement: neighborhood, city/county, region
- Target fundamental and often multiple determinants of health
- Mobilize the collective actions of multiple stakeholders in government & private sector
  - Usual and unusual suspects
  - Infrastructure & support

Using data to overcome collective action problems

- Incentive compatibility → public goods
- Concentrated costs & diffuse benefits
- Time lags: costs vs. improvements
- Uncertainties about what works
- Asymmetry in information
- Difficulties measuring progress
- Weak supporting institutions & infrastructure
- Imbalance between resources vs. needs
- Stability & sustainability of funding

Ostrom E. 1994
Mapping who contributes to population health

National Longitudinal Survey of Public Health Systems

Node size = centrality of organization in network
Line size = % activities jointly contributed (tie strength)

Mays et al. Preventing Chronic Disease 2010
Understanding variation in partnership performance

National Longitudinal Survey of Public Health Systems, 2014

Percent of U.S. communities

Percent of activities performed
Classifying partnership configurations


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Comprehensive Systems
Conventional Systems
Limited Systems

Mays et al. *Milbank Quarterly* 2010
Estimating value: Comprehensive system partnerships do more with less

National Longitudinal Survey of Public Health Systems, 2014

Mays et al. 2015
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

Mays et al. 2015
The policy implications in our data

- Making the case: public health is a good buy
- Getting beyond gridlock: government vs. private sector
- Identifying shared interests and goals
- Peer pressure: benchmarking & comparisons
- Recognizing and rewarding collaboration
- Targeting areas for improvement
- Addressing inequities & disparities
For More Information

Systems for Action
Systems and Services Research to Build a Culture of Health

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