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The Affordable Care Act has created new resources and incentives for hospitals, local public health agencies, and others to contribute to disease prevention and health promotion activities. These policies may shift the structure of public health delivery systems and could expand the implementation of activities that improve population health. The aims of this study are to:

- Identify patterns of geographic variation and longitudinal change in the implementation of core public health activities in local communities across the U.S. during 1998-2014.
- Identify variation and change in the constellation of organizations that contribute to the implementation of core public health activities, which we define as public health system capital.
- Estimate the impact of public health system capital on rates of preventable mortality and on public health resource use.


- The availability of 20 recommended public health activities in the community, based on the Institute of Medicine’s core functions of assessment, policy development, and assurance.
- The range of organizations that contribute to each activity.
- The proportion of effort contributed by the local public health agency.
- The perceived effectiveness of each activity.

NLSPPH data are linked with public health agency data from the NAACCHO National Profile of Local Health Departments Survey; community characteristics from the HRSA Area Health Resources File; and county-level mortality rates from CDC’s Compressed Mortality File.

Rationale and Research Aims

Methods: Cluster and Network Analysis

We classify communities into one of seven categories of system capital based on communities over time using survey data collected initially in 1998 and again in 2006, 2012, and 2014. We also generate network visualization graphs to display connectedness in performing activities (density, degree and betweenness centrality) (Figure 1). We also generate network visualization graphs to display connectedness in performing activities (density, degree and betweenness centrality) (Figure 1).

Conclusions

- Comprehensive and highly-integrated public health systems appear to offer considerable health and economic benefits over time.
- Communities that move from non-comprehensive to comprehensive system structures over the 16-year period experience 10-40% larger reductions in preventable mortality rates compared to communities that remain non-comprehensive.
- Governmental public health resource use is approximately 15% lower in communities that move to comprehensive system structures.
- Low-income communities are less likely to achieve comprehensive public health system capital, as are communities without local governance structures. Failure to account for this selection leads to biased estimates of impact on health and resource use.

Policy Implications

- Strategies to improve population health and health system efficiency should include initiatives to build public health system capital.
- The ACA’s hospital community benefit provisions and the Institute of Medicine’s call for financing a minimum package of public health services are possible policy mechanisms for building system capital.

Appendix: Public Health Activity Measures

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