National Longitudinal Survey of Public Health Systems

About the Survey

Since 1998, the National Longitudinal Survey of Public Health Systems (NALSYS) has followed a nationally representative cohort of U.S. communities in order to study the implementation and impact of multi-sector population health activities. The survey captures information about the types of health improvement activities that are implemented in U.S. communities, and the array of organizations that contribute to these activities. By collecting this information consistently in more than 600 U.S. communities over a span of 20 years, the NALSYS has become the nation's only **national, longitudinal** source of information about the actions that local communities undertake to protect and improve the health status of their residents.

Rather than focusing on a single type of organization or sector, the NALSYS measures the **network of organizations** that support health activities in local communities, tracking how these networks evolve and change over time in size and composition (Figure 1). Using the tools of network analysis, NALSYS data reveal which organizations and sectors are most influential in local population health networks, and how strongly connected organizations are to other network members.

The original NALSYS cohort largely comprises U.S. metropolitan areas containing at least 100,000 residents in 1998. Beginning in 2014, we added a second cohort of more than 300 communities sampled to be representative of nonmetropolitan and rural areas with fewer than 100,000 residents.

About the Measures

The NALSYS collects information on a set of 20 activities that federal consensus panels and professional associations have long recommended as essential elements of a comprehensive strategy to improve health status in the population at large (Figure 1). The activities measured by the survey reflect National Academy of Medicine recommendations regarding core functions and foundational capabilities for improving health, and recommendations for community health improvement processes. These measures also reflect recommendations of the U.S. Centers for Disease Control and Prevention (CDC) regarding community health improvement strategies, essential public health services, and the widely used Planned Approach to Community Health model. The NALSYS activities track closely with the standards and measures developed by the Public Health Accreditation Board for state and local public health agencies, and they also adhere closely to the collective impact framework recommended by the Aspen Institute and others.

By design, NALSYS does not measure the implementation of specific health interventions and programs, such as those recommended by the CDC's Guide to Community Preventive Services and by the U.S. Preventive Services Task Force. The ideal combination of interventions to implement in a given community necessarily depends on the distribution of health risks and resources in that community, and on the population groups most at risk. By contrast, NALSYS focuses on cross-

cutting capabilities that every community needs in order to successfully mobilize and manage health improvement activities for the population at large. These capabilities help communities reach decisions about how best to use their individual and collective resources under the real-world constraints of opportunity, uncertainty, competing incentives, and heterogeneous preferences.

The NALSYS was launched in 1998 with funding provided by the U.S. Centers for Disease Control and Prevention (CDC). The survey currently operates as a research initiative of the Robert Wood Johnson Foundation's Systems for Action national research program, based at the University of Kentucky. NALSYS data are used in the core set of national metrics for measuring progress in RWJF's Culture of Health Action Framework.

Figure 1: Activities measured in NALSYS

Selected Publications Using the Survey

Mays GP, Mamaril CB. Public health spending and Medicare resource use: a longitudinal analysis of U.S. communities. **Health Serv Res**. 2017;52 Suppl 2:2357-2377.

Mays GP, Mamaril CB, Timsina LR. Preventable death rates fell where communities expanded population health activities through multisector networks. **Health Affairs**. 2016;35(11):2005-2013.

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Smith SA, Mays GP, Felix HC, Tilford JM, Curran GM, Preston MA. Impact of economic constraints on public health delivery systems structures. **Am J Public Health**. 2015;105(9):e48-53. PMID: 26180988.

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Mays GP, Smith SA. Evidence links increases in public health spending to declines in preventable deaths. **Health Affairs.** 2011 Aug;30(8):1585-93. PMC4019932

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Mays GP, Halverson PK, Baker EL, Stevens R, Vann JJ. Availability and perceived effectiveness of public health activities in the nation's most populous communities. **Am J Public Health**. 2004;94(6):1019-26. PMCID: PMC1448383.

Mays GP, Halverson PK, Stevens R. The contributions of managed care plans to public health practice: evidence from the nation's largest local health departments. **Public Health Rep**. 2001;116 Suppl 1:50-67. PMCID: PMC1913663.

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Halverson PK, Mays GP, Kaluzny AD. Working together? Organizational and market determinants of collaboration between public health and medical care providers. **Am J Public Health**. 2000;90(12):1913-6. PMCID: PMC1446432.

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