



Advancing Public Health Systems Research: Strategies for Moving Forward

2007 Building the Field: PHSR Stakeholder Meeting

To advance the field of public health systems research, Robert Wood Johnson Foundation (RWJF) sponsored a meeting, conducted by AcademyHealth, on June 29, 2007. The meeting convened stakeholders to evaluate the research base to date, assess the discipline's needs, and examine the PHSR research agenda. Participating stakeholders included representatives from national public health membership organizations, academic centers, private organizations that focus on public health, provider groups, and governmental public health agencies. Each of these stakeholders brought a unique focus and perspective to this effort.

Three white papers were commissioned for the meeting.

- "Understanding the Dimensions of Public Health Delivery Systems: Theory, Evidence, and Unanswered Questions." Glen P. Mays, Ph.D., M.P.H.
- "The Relationship Between Public Health System Performance and Social Determinants of Health, Public Policy, Governance Structure, and Preparedness." Leiyu Shi, Dr.P.H., M.B.A., M.P.A.
- "Public Health Performance." F. Douglas Scutchfield, M.D. and Michelyn W. Bhandari, Dr.P.H.

In addition to this document, important findings from this meeting can be found in *Advancing Public Health Systems Research: Research Priorities and Gaps* and *Advancing Public Health Systems Research: 2007 Stakeholder Meeting Summary*, and at <http://www.academyhealth.org/issues/phsr>.

The tragedy of 9/11 exposed the long-neglected public health infrastructure in the United States. Bioterrorism threats that followed, along with a series of natural disasters such as the hurricanes of 2004 and 2005 that devastated parts of Florida and the Gulf Coast, have further underscored the inadequacies of public health systems at all levels of government. This inadequacy was well documented in the 1988 Institute of Medicine (IOM) study, "The Future of Public Health," which characterizes the public health system as being in "disarray."

Since 9/11, the IOM has undertaken an additional series of studies relating to the future of public health, all of which reference the future educational needs of public health professionals and emphasize the demand for more and better information to support public health decision-making. The November 2002 IOM report, "The Future of the Public's Health in the 21st Century," called for "making evidence the foundation of decision-making" as one of six major recommendations for better assuring the health of communities. And, as part of the Centers for Disease Control and Prevention (CDC) "Futures Initiative," Director Dr. Julie Gerberding outlined six new directions for the Centers, including "strengthening our science through public health research." The field of Public Health Systems Research (PHSR) has emerged in responses to these calls for action.

Building consensus and setting an agenda

Participants at the 2007 Building the Field: PHSR Stakeholder Meeting shared ideas for the future of PHSR and recognized the discipline's accomplishments to date. As the

field moves beyond its infancy, research gaps exist and the need for this research remains strong.¹ Several themes emerged throughout the meeting and are highlighted below.

Data:

Data collection emerged as a major theme of the PHSR stakeholder meeting. In his paper, Glen P. Mays, Ph.D., prioritizes research that can be completed quickly and with existing data. Many stakeholders agreed that researchers must begin conducting studies with the data sets that are available—such as Healthy People, Environmental Public Health Tracking (EPHTI), 2005 National Association of County and City Health Officials (NACCHO) profile Survey Data, and census data. With this data, researchers can complete small and simple research studies that provide the foundation for future research. While existing datasets may limit the scope and complexity of current research studies, waiting for "perfect" data may be the greater evil if it further delays PHSR and the development of performance indicators.

Currently, stakeholders are collaborating on a data harmonization project, managed by the University of Kentucky, that provides a theoretical framework for data collection and encourages dialogue regarding data collection methods and content. Stakeholders from the three organizations funded by the CDC and Robert Wood Johnson Foundation (RWJF) to collect such data—NACCHO, National Association of Local Boards of Health (NALBOH), and Association of State and Territorial Health Officials (ASTHO)—as well as individuals with expertise in survey design, research methodologies, and data



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management, are coming together to evaluate and make recommendations for improvement upon current public health surveys conducted with boards of health and state and local agencies. Mining robust and longitudinal datasets with these surveys will allow researchers to improve the soundness of research results and the translation of research into practice.

Methods and Theories:

A variety of research methodology challenges exist as a result of the complex nature of the public health system. The numerous intertwining components that comprise the system often make it challenging for researchers to distinguish between causal and correlational effects. For example, Mays notes the difficulty in evaluating public health system financing arrangements due to the endogenous policy choices affecting the arrangement. A transition from correlational to causal research—which would require the formation of causal hypotheses and the creation of causal theories—would allow researchers to evaluate problems such as racism that have not yet been accounted for in PHSR and system performance. However, that type of research will require more robust data, including longitudinal data.

Mays also notes the lack of standardized methodologies for evaluating different aspects of the public health system. He suggests using different methodologies to assess how public health system characteristics impact performance. Such methodologies include longitudinal and parallel studies that examine factors such as consolidation and workforce characteristics respectively. Moreover, he recommends that researchers, public policymakers, and practitioners collaborate to identify opportunities to conduct natural experiments. One participant cautioned, however, that the field of PHSR is behind health services research in terms of research design and methodology, and researchers should therefore work to improve current methodologies before prematurely conducting more sophisticated research, such as interventional studies.

Performance Indicators:

When discussing public health system organization and performance measurement, participants debated the “system” definition. Mays’ paper focused on evaluating how characteristics of the govern-

mental, delivery, and causal public health system influence system performance, and F. Douglas Scutchfield, M.D., argued that evaluating variables of the public health system logic model and their relationship with system performance may provide a framework for future PHSR. Some participants argued, however, that the public health system is not a system but a compilation of discrete services or inputs. Because the public health system is so complex, improved system performance can not be directly attributed to a specific public health intervention or service. Alternatively, some believe that if we evaluate public health outside of the system context, we may hinder population health because systems, specifically the governmental system, are most accountable for providing public health services to all.

Researchers need to develop theoretically based performance indicators and measurement instruments that are specific to the public health system; at the same time, performance indicators and measurement tools used in health services research and other industries could be applied to PHSR. Doing so may glean best practices that have been tested in other sectors before being implemented in the public health system. Additionally, studying the delivery and performance of other industrialized countries—as suggested by Leiyu Shi, Dr.P.H.—that devote greater resources to their public health system, and developing countries that are able to achieve greater public health success with fewer resources, may inform improved public health system performance in the United States.

Linking research, policy, and practice:

Similarly to health services research, PHSR should provide public health practitioners with evidence-based best practices and decision support. In addition, PHSR should guide policymakers regarding community needs and appropriate interventions. To secure these relationships, however, researchers, practitioners, and policymakers must align interests, collaboratively determine public health priorities, and adopt a common lexicon that incorporates both social sciences and “pure” science. Failing to engage public health practitioners and policymakers in research may limit the ability of researchers to translate their findings into practice. Continued dialogue between public health practitioners

and researchers at forums such as the PHSR stakeholder meeting and through learning networks, practice-based research networks, and participatory research will facilitate alignment of stakeholders’ interests and expedite the translation of research to practice.² Together, public health systems researchers and practitioners can collaborate to complete the following tasks:

- Continue to identify and develop the most important research questions for the field
- Define key terms, such as public health and public health systems
- Determine whether it is best to evaluate public health system performance by service or function
- Reach a consensus about which logic models, indicators, and methodologies to use
- Target and harmonize data mining efforts to public health priorities

Essential to strengthening the PHSR infrastructure are efforts to develop its academic base. Like health services research, PHSR lacks complete support from the academic community. Researchers should advocate for designated academic departments and tenure requirements that allow public health systems researchers to conduct research that can be translated into practice. Developing the academic infrastructure may further encourage young researchers to enter the field of PHSR and provide opportunities to cross train young researchers and public health students in both research methodologies and social sciences.

Increasing public support for PHSR:

Stakeholders agreed that a lack of consensus regarding the definition, role, and scope of public health hinders the advancement of the public health agenda, both locally and nationally. Traditional public health entails invisibility: clean air, clean water, absence of disease. Thus, for decades, public health professionals have been content with the mantra: If we do our job well, no one will know we are here. However, in a post-bioterrorism world, the public often associates public health measures with emergency

preparedness. This newfound spotlight has resulted in enhanced scrutiny upon the public health system as a whole; yet, stakeholders recognize the opportunity for the field of public health to step out of the shadows. Broadening the term preparedness to include more traditional public health interventions such as prevention and safety may generate greater support and familiarity with the public health system.

All stakeholders agree that public health must be brought to the forefront of political discussion. The 2008 Presidential Election and politicians' emphasis on preventative care is an opportunity for public health stakeholders to promote the public health agenda and for public health systems researchers to demonstrate the economic and social impact that PHSR may have on public health system performance.

Stakeholders must immediately engage in the current debate. Strategies for doing so include presenting PHSR at national venues, such as at national policy conferences, or eliciting testimony from policymakers regarding the type of research they identify as valuable. By increasing awareness for public health initiatives, as well as prepared-

ness in a broad sense, necessary funding resources may be secured to support public health practitioners in delivering and improving public health services.

Funding PHSR

“This research field is imperative in building the evidence to help public health agencies improve the quality and efficiency of their performance, be accountable to the communities they serve, and ultimately help all Americans live healthier lives,” says James Marks, M.D., senior vice president of the Robert Wood Johnson Foundation. Central to the growth of this field, the Foundation has made a commitment to invest in PHSR by fostering junior researchers, improving data availability and quality, and advocating for informed public health decision making. The Foundation strategy aims to grow the evidence base and develop benchmarks in order to provide public health practitioners and policymakers the essential decision making tools needed to improve performance.

Additionally, the CDC recently designated the Office of the Chief of Public Health Practice to coordinate PHSR across the various Centers and Offices and work toward creating additional funding opportunities.

This, and the new core competency model for MPH degrees, the National Public Health Performance Standards Program, and the recently incorporated Public Health Accreditation Board, signals efforts by the public health community to enhance and improve public health training and practice. This current standards-setting, private investment, and federal agency attention has yielded a new, revitalized focus on the public health system. As this momentum continues, it is essential to build and enhance support for PHSR.

About the Author

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Endnotes

- 1 Prioritized research questions stemming from the meeting and its commissioned papers can be found in *Advancing Public Health Systems Research: Research Priorities and Gaps*.
- 2 Mays, G. “Understanding the Dimensions of Public Health Delivery Systems: Theory, Evidence, and Unanswered Questions,” a draft manuscript for 2007 Building the Field: PHSR Stakeholder Meeting, June 8, 2007



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