

Developing the Public Health Systems Research Agenda: CDC Experience

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STUDY OBJECTIVES: The recent report of Institute of Medicine (IOM) “The Future of the Public’s Health in the 21st Century” recommends that the “Centers for Disease Control and Prevention should develop a research agenda and estimate funding needed to build the evidence base that will guide policymaking for public health practice”. The goal of the study is to share CDC experiences in developing Public Health Systems¹ Research Agenda. This effort is led by the CDC Public Health Practice Program Office (PHPPO), Division of Public Health Systems Development and Research (DPHSDR).

STUDY DESIGN: The process of developing of Public Health Systems Research Agenda was based on several basic principles. First, it was agreed that the end-users of Public Health Systems research represented by associations of public health practitioners (NACCHO, ASTHO, NALBOH, and others) should have a strong voice in establishing the research agenda. Second, wide participation of all interested parties should be ensured. Third, participants are encouraged to propose research topics based on what they feel are priority needs of public health practitioners, rather than on what is currently feasible. Finally, top priority research themes have been identified through consensus-building mechanism based on voting.

MAIN STEPS: The process of development of Public Health Systems Research Agenda involved the following steps:

Step 1. A brainstorming session was held by staff of CDC/PHPPO / DPHSDR. During the session, a list of potential research topics related to Public Health Systems Research was developed. So that these discussions could build off of previous efforts, all participants were provided with articles, minutes or other documents related to previous public health systems research discussions.

Step 2. A small group of staff subsequently reviewed the research topics and subdivided them into the following four broad themes of Public Health Systems Research.

Step 3. A conference call was conducted with representatives of national partner organizations to solicit and record their input on the four themes and identify additional topics under each theme. The final list of four themes is as follows:
Theme #1: The public health system description and improvement
Theme #2: The public health agency role in the health system
Theme #3: Resources and capacity assessment for the health system

¹ The “Public Health System” is defined as all public, private and voluntary entities that contribute to public health in a given area.

Theme #4: Performance and health outcomes

Step 4. A 2-day Research Seminar of all parties interested in Public Health Systems Research was held on June 5-6, 2003. The first day was devoted to scientific presentations and was opened to staff from other CDC Centers, Institutes, and Offices. The second day was devoted to refinement of the Public Health Systems Research Agenda. The following procedures for developing of Public Health Systems Research Agenda were used:

1. On June 5, all participants were asked to write down and submit topics that they feel should be considered for the Public Health Systems Research Agenda. The list of these priority topics provided by the meeting participants have been compiled and merged with list of research topics brainstormed during the activities described in **Steps 1 and 3**. A total of approximately 100 potential priority research topics were identified.
2. A small group divided these potential research topics into the four themes finalized during **Step 3**.
3. On June 6, breakout sessions were held based on these four research themes. Two rounds of the four breakout sessions were held, of approximately 45 minutes each. Attendees were able to participate in discussions around two different topics and were allowed to self-select the breakout sessions in which they participated. A facilitator and recorder led the discussions for each breakout session. The facilitator-recorder teams in each group included one member each from CDC and one member each from a national public health organization.
4. During the first round of breakout sessions, the facilitator-recorder team led their group through a review of the topics that had been previously brainstormed and then collected additional ideas. The groups then began to categorize, compile, or revise the topics in order to reach a smaller set of polished topics
5. During the second set of breakout sessions, the facilitate-recorder team reviewed the results of the first group with their new group and then continued the brainstorming activities. Each breakout group resulted in a targeted list of 7-14 topics related to its theme.
6. The results of the work of each group were brought together into the main conference room and displayed on flip charts. The facilitator reviewed the results under each breakout theme with the entire group and invited discussion.
7. Each participant was given four voting dots of different colors. Depending on the color of the dot the number of votes varied from 1 to 4. All of the participants were asked to use their four votes in prioritizing the 40 research topics.
8. The number of votes were added up. Three sets of strongly-related topics were compiled. The entire group then reviewed and discussed the results. The group collectively agreed that the priority overarching themes should be limited to the top 14 topics.

Step 5. The results will be refined and shared at upcoming meetings, such as the Academy Health conference, the ASTHO/NACCHO Annual Conference, and the American Public Health Association (APHA) Annual meeting, and through publication opportunities.

PRINCIPAL FINDINGS: The list of 14 major themes (with number of votes) of Public Health Systems Research Agenda is attached.

IMPLICATIONS FOR POLICY, DELIVERY AND PRACTICE: The results of these activities provide a framework that can be used to identify and prioritize future activities related to Public Health Systems Research.

Participants in the June 6 Research Agenda Setting Discussions:

CDC: Steve Boedigheimer, Liza Corso, Joyce Essien*, Larry Green, Paul Halverson, Wade Hanna, Deborah Holtzman, Peggy Honore, Dennis Lenaway, Wayne Milligton, Ramal Moonesinghe, Natalie Perry, Suzanne Smith, Sergey Sotnikov, Kathy Witgert

APHA: Karlene Baddy, Barbara Hatcher, Colleen Hughes,

ASTHO: Kaye Bender, Laura Landrum, Mary Shaffran

NACCHO: Carol Brown, Scott Fisher, Patrick Lenihan, Patrick Libbey, Abby Long, Paul Wiesner

NALBOH: Fred Agel, Shep Cohen*, Tiffany Hinton, Harvey Wallace

NNPHI: Shep Cohen*, Chris Kinabrew, Trina Pyron

PHF: Ron Bialek, Jennifer Stanley

U of Kentucky: Michelyn Wilson Bhandari, Ann Kelly, Evelyn Knight, F. Douglas Scutchfield

Mathematica Policy Research, Inc: Glen Mays, Megan McHugh

U of North Carolina School of Public Health: Hugh Tilson

Emory University: Joyce Essien*

* Represents both organizations

Overarching Themes for the Public Health Systems Research Agenda

1. Determine how public health agency structure affects performance. (40)
2. Define and quantify dimensions of public health systems including interorganizational relationships (including the role of the agency within the public health system). (33)
3. Explore the relationship between performance and health outcomes (and the chain of impacts that leads from improved performance to improved health outcomes). (30)
4. Define the characteristics of high-performing local, state, and federal public health agencies. (29)
5. Explore the relationship between social determinants of health and system performance. (28)
6. Evaluate the costs to achieve and maintain acceptable / optimal levels of performance. (This activity includes exploring reasonable models to collect agency financial data). (27)
7. Explore the relationship between public health infrastructure / performance and the design, implementation, and impact / outcomes of categorical programs (including the use of evidence-based interventions). (27)
8. Conceptualize a framework for high-performing public health systems, which includes key elements. (26)
9. Identify, develop, and refine measures of health outcomes that are sensitive to public health systems capacity and performance. (26)
10. Explore models and outcomes of accreditation of public health agencies and/or public health systems as performance improvement methods. (21)
11. Evaluate how shifting policy and financial priorities affect performance of public health systems. (19)
12. Explore what factors and processes facilitate community involvement in using the NPHPSP in system improvement activities (quality improvement). (19)
13. Evaluate how and to what extent a highly performing public health system is indicative of preparedness. (19)
14. Explore the effectiveness (within the agency and the system) of local and state governance structures (16)