Public Health Services and Systems Research: A common meeting ground

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What is PHSSR?

- Public Health Services & Systems Research (PHSSR) is a field of study that examines the organization, financing, and delivery of public health services within communities, and the impact of these services on public health.
- PHSSR is a multidisciplinary field of study that recognizes and investigates system-level properties and outcomes that result from the dynamic interactions among various components of the public health system and how those interactions affect organizations, communities, environments, and population health status.
- The public health system includes governmental public health agencies engaged in providing the ten essential public health services, along with other public and private sector entities with missions that affect public health.
- The term “services” broadly includes programs, direct services, policies, laws, and regulations designed to protect and promote the public's health and prevent disease and disability at the population level.

  Scuttchfield, HSR V 44 5p2
What is Needed for PHSSR?

• Funding for Research
  – RWJF
  – CDC

• Methods
  – Economics
  – Systems Science, e.g., social network theory

• Data Bases
  – Harmonized Surveys
  – Performance

• Investigators, new and refurbished
National Coordinating Center for Public Health Services & Systems Research

• Five Pillars of Activity

  – Increased Research Funding-Natural Experiments
  – New Investigators
  – Improving Practitioners ability to use research
  – Increase the funding of PHSSR
  – Coordination, Dissemination & Communication of PHSSR Work
PHSSR Agendas

- PubMed search yielded 28 articles
- 9 contained an agenda, with 4 proposed agendas
  - CDC, Lenaway et al
  - PHF
  - System and Infrastructure Resources (150 items)
    - Workforce
    - Finance
  - General System Issues (65 items)
Setting the PHSSR Agenda

• Resources Going In
  – Review of RWJF products to date, publications and presentations
  – Systematic reviews of four areas
  – Yale meeting, small group discussions at AH and APHA
  – NNPHI Key Informant Survey

• Areas for Discussion and Decision
  – Workforce
  – Organization/Structure
  – Quality Improvement
  – Methods
  – Finance
Systematic Review on Methodology

• Make more use of study designs (e.g., longitudinal and experimental designs) that allow for the appropriate data collection and subsequent assessment of causation and change over time, especially given the unique opportunity PHSS R has to conduct natural experiments and use creative quasi-experimental designs (e.g., regression-discontinuity) as public health systems grow and change over time,

• Examine study power a priori where appropriate,

• Increase the testing of validity and reliability when new PHSSR instruments are developed, along with increasing the use of validated instruments,
Systematic Review on Methodology

• Utilize more advanced analytic strategies including systems methods and multilevel models that are appropriate for modeling the longitudinal, nested (e.g., programs within organizations, organizations within local systems, etc.), and other non-independent relationships that comprise public health systems,

• Include examinations of internal and external validity, and

• Continue efforts to collect, harmonize, and validate PHSSR---specific large national data sets.

Prepared by Dr. Jenine Harris
Systematic Review on QI

- We identified 12 studies reporting on 15 separate QI interventions.
- Studies fell naturally into 3 functional categories:
  - organization-wide QI,
  - program or service-specific QI, and
  - administrative or management function QI.
- Few of the studies linked their improvements directly to a health outcome or predictor of health outcomes.
- Studies were generally implemented in state-level or large local public health departments.
- Notably, all the QI studies engaged project teams, including agency leadership.

Prepared by Dr. Julia Dilley
Systematic Review on QI

- QI interventions are intended to be process improvements; thus, QI interventions published in research journals may not be representative of typical, smaller-scale QI activities.
- More research is needed to definitely “connect the dots” between QI efforts, resulting practice improvement and actual (or predictors of) health outcome improvements.
- Future studies should describe these associations in diverse public health systems.
- Collection and distribution of QI results associated with proven, effective public health interventions should be a goal.

Prepared by Dr. Julia Dilley
Implications for PBRN/PRC Collaboration

• Community Based Participatory Research
• PHAB, Accreditation and QI
• Translation of Categorical to General and Back
• Efficacy and Effectiveness Research, Fidelity
• Comparative Effectiveness
• Translation Research (from the community to the university and back, AHD)
• Natural Experiments
• Multi-Site Studies
That’s All Folks!
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Questions?