The Multi-Network Practice and Outcome Variation Examination (MPROVE) Study

Presentation to New Jersey Medical School Department of Preventive Medicine and Community Health Preventive Medicine Residency Program, Residents and Faculty

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MPROVE Study Overview

•UMDNJ School of Public Health, in partnership with the New Jersey Department of Health's Office of Local Public Health, is participating in this six-state descriptive study of **geographic variation of public health service delivery.**

•MPROVE is organized through the Robert Wood Johnson Foundation-funded **Public Health Practice-Based Research Network (PH PBRN) program.**

MPROVE Study Overview

- The study entails collecting a set of measures of public health service activity that are associated with population health and examining how their delivery varies within and across the PH PBRNs.

- The results of the study will be useful for the strategic planning and funding of public health activities.

- MPROVE is first project to utilize multiple PH PBRNs.

Public Health Practice-Based Research Networks (PH PBRN)

- The PH PBRN Program joins state and local public health agencies with academic research partners to conduct public health practice research in "real-world" settings.

- The program was launched in 2008 and has 24 networks.

- The program is funded by the Robert Wood Johnson Foundation and is coordinated by the National Coordinating Center (NCC) at the University of Kentucky College of Public Health.

- Co-Principal Investigators of the New Jersey PH PBRN are Dr. Tina Tan, State Epidemiologist of the New Jersey Department of Health and Dr. Pauline Thomas of UMDNJ School of Public Health.

Examples of PH PBRN Research

- The Ohio PH PBRN examined variation in local enforcement of the state's smoke-free air law. The study, profiled in *Public Health Reports*, found that an estimated 77% of LHDs lose money on enforcement, illustrating the compelling need for adequate funding .

- The Minnesota PH PBRN found that LHD funding levels were positively associated with successful implementation of evidence-based strategies for chronic disease prevention.

Overview of Study Activity

- **Phase I: May – December 2012**
  - Selection and specification of measures to collect

- **Phase II: January – April 2013**
  - Data collection
  - Pooling data across networks

- **Phase III: May – September 2013**
  - Data analysis
  - Dissemination
  - Planning for future and follow-up studies

MPROVE Study Objective

To quantify and characterize geographic variation, within and across the six participating PH PBRNs, of a set of public health services that are associated with population health.

MPROVE Study Methods

- The **Study population** consists of state and local health agencies of the following six PH PBRNs.
  - Colorado
  - Florida
  - Minnesota
  - New Jersey
  - Tennessee
  - Washington
- Total of 349 local health agencies

MPROVE Study Methods

- **Public Health Service Measure Criteria**
  - Three domains of measurement
    - Chronic Disease Prevention
    - Communicable Disease Control
    - Environmental Health Protection

MPROVE Study Methods

- **Public Health Service Measure Criteria**
  - Selection Criteria for Candidate Measures (abridged list)
    - Domain: Chronic Disease, Communicable Disease, Environmental Health
    - Relevance/Control: Authority to implement?
    - Expected Health Impact: Degree of improvement in population health
    - Expected Feasibility: Feasibility of obtaining data
    - Expected Validity: Degree to which measure characterizes the public health activity of interest
    - Expected Reliability: Degree to which measure characterizes the public health activity consistently across different settings.

MPROVE Study Methods

- **Selection Process of Measures**
  - Initial submission of measures: Each participating PBRN submitted candidate measures resulting in 322 measures
  - Rating Survey: All 322 candidate measures were rated on a scale of 1 to 5 for each selection criterion by each PBRN via a web-based survey. Ratings were scored using a Delphi process.
  - In-person meeting in Denver: PBRN representatives reviewed Delphi ratings and selected a shortened list of 51 measures.
  - After a second rating survey on the shortened list of measures, the final set of 27 measures was selected.

MPROVE Study Methods

- **Selection Process of Measures**
  - The final set of measures consist of ten "bundles" of public health activity
    - Tobacco Prevention and Control
    - Obesity Prevention
    - Oral Health (optional)
    - Immunization
    - Enteric Disease
    - Sexually Transmitted Infection
    - Tuberculosis Control
    - Lead Protection
    - Food Protection
    - Water System Protection (optional)

MPROVE Study Methods

- Presently, the study is in the early stages of **Data Collection.**
  - Utilizing the relationships of entities within the PBRN facilitates data acquisition, particularly for New Jersey Department of Health secondary data.
  - A Data Use Agreement between UMDNJ SPH and NJDOH will be used for all data acquired from NJDOH.
    - Protected Health Information will not be accessed.
    - Data will be used exclusively for MPROVE.
  - A web-based survey with telephone follow-up will be used for primary data collection from local health departments.

MPROVE Study Methods

- **Data Collection**
  - Data from all PBRNs will ultimately be pooled in a common dataset at the NCC.

Next Steps of MPROVE Study Activity

- Data analysis
- Dissemination