Best Practices in Public Health Systems Research: Resources and Gaps in Administrative Data to Identify Relevant Population Health Outcomes

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Measuring Relevant Population-based Outcomes of Public Health Systems

- Interest in population-based health status measures to judge the effectiveness of public health systems

- HP 2010 focuses on overarching goals of (1) increasing quality and years of life, and (2) eliminating health disparities

- Controversy over appropriate outcomes for accountability; role of medical, public health and social determinants, effective ways of intervening
Sources of Population Based Health Measures

- National Vital Health Statistics System
- Communicable disease reporting
- Immunization surveys, environmental data
- Cancer and other disease registries
- Population surveys (BRFSS, others)
- Claims based data (e.g., hospital discharges)
- Categorical program data
Study funded by Robert Wood Johnson Foundation through Health Care Financing and Organization

Two-part study: (1) national inventory of capacity to measure disparities on leading health indicators at the state and local level and (2) case studies of relevant initiatives in North Carolina and Washington state

Draw also from my broader experience
Leading Health Indicators

- 10 measures with 26 indicators identified in Healthy People 2010

- Range of conditions: Physical activity, obesity, tobacco use, substance abuse, responsible sexual behavior, mental health, injury and violence, environmental quality, immunization, access to health care

- Eight apply to entire population, 10 to adults only and 8 to youth, including young children and adolescents
Do LHI Measures Exist in States?

- Aggregate state estimates available for 24 of 26 leading indicators
- Some definitions differ from national ones and some states excluded (e.g., YRBS)
- Estimates often not available for localities
- Data from mainly a few federal/state systems: BRFSS, YRBSS, NVSS
- States supplement with: immunization registries, tobacco and other surveys
Can States Identify Disparities? I

- HP 2010 lists: sex, race/ethnicity, income, education, disability, geography, sexual orientation
- We focused on BRFSS, YRBS, NIS, and NVSS
- All collect age, sex, race/ethnicity; none collects sexual orientation routinely
- Only BRFSS has disability, NVSS has only education
Power is a major issue, especially for survey based data

- 10 states--insufficient BRFSS power to develop estimates for nonhispanic blacks (low prevalence)
- Race/ethnic data more limited for YRBS (28 of 43 states)
- Few states report NIS estimates by race

NVSS has sufficient (no sampling) but quality of race/ethnic coding uneven across states and particularly problematic for deaths
States Vary in Use of Available Data

- NVSS data available online in all 50 states, often with more timely data than the federal site but 2 only had 2000 data (in mid 2007)
- 27 states had an interactive data base and 6 included interactive mapping or GIS
- Half the states had published Healthy People 2010 reports online in past 5 years, 15 for 2005 or more recently. Measures vary and do not include all LHIs
Environmental scan shows most state efforts are still in their “infancy.”

States employ diverse strategies and modify national goals in light of state or local priorities.

We developed case studies of such use in two leading states—North Carolina and Washington State—using documents and telephone interviews with staff and involved stakeholders.
Engaging multiple stakeholders (inside and outside of government) is key to political support.

Data gaps are an issue, though states and counties have developed workarounds.

Evidence-based action is impeded by limited information on effective strategies to eliminate disparities.

Creative interventions are still needed.
HP 2010 has served as a catalyst for state and local champions of public health but universal buy in to a fixed set of outcome measures does not exist

Multi-stakeholder work critical to moving forward, with available data used

Evidence to support outcome/intervention linkages (logic model) key but often weak
More systematic tracking/analysis of state experience and common metrics

Vehicles for states to share lessons

Tool kits addressing challenges: building coalition infrastructure, developing data, return on investment (ROI)

Research on what makes for effective interventions; areas with greatest payoff

Resources: staff and money
Where to Find More Information
