Toward Quality Measures for Population Health and the Leading Health Indicators

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IOM Committee on Quality Measures for the Healthy People Leading Health Indicators
About the Institute of Medicine

The Institute of Medicine (IOM) is the health arm of the National Academy of Sciences and was founded in 1970.

The National Academy of Sciences was established by Congressional charter in 1863.

IOM serves as adviser to the nation to improve health.
About this study

The committee was convened at the request of the Office of the Assistant Secretary for Health (OASH) in the Department of Health and Human Services (HHS), which commissioned the study.
The OASH/HHS charge to the committee

Using the nine aims for improvement of quality in public health (population-centered, equitable, proactive, health promoting, risk reducing, vigilant, transparent, effective, and efficient) as a framework to identify quality measures for the Healthy People Leading Health Indicators (LHIs) ...

Part 1:

• Review existing literature on the twelve Leading Health Indicator topics and the 26 LHIs
• Identify quality measures for the LHIs that are aligned with the nine aims
• Note alignment with the six Priority Areas for Improvement of Quality in Public Health
The charge, continued

Part 1, continued
• Address data reporting and analytical capacities that must be available to capture the measures and for demonstrating the value of the measures to improving population health

Part 2:
Provide recommendations for how the measures can be used across sectors of the public health and health care systems.
Committee members

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Approach to meeting the charge

1. A logic model to guide measure identification
2. Developed a set of recommended criteria for measure selection
3. Described aspects of a system to manage measures (for coherence, harmonization, parsimony, and efficiency)
4. Described need for a measure endorsement process
5. Described potential uses and a variety of users of measures of quality
Context to the committee’s work

Long, healthy lives for all
• The common goal of public health practice and health care delivery in the U.S.
• The overarching goal of Healthy People 2020
• A goal of the Affordable Care Act

Importance of quality in the multisectoral health system to achieve that goal

Quality in clinical care is main focus of the national conversation
Quality in public health

“[T]he degree to which policies, programs, services, and research for the population increase desired health outcomes and conditions in which the population can be healthy” (Public Health Quality Forum, 2008)
Quality of the multisectoral health system

- Health is shaped by multiple interacting factors and the contributions of many sectors beyond clinical care services
- A multisectoral health system
- Central role of governmental public health agencies and obvious role of health care delivery, BUT ...
- Also need to include education, housing, transportation and other sectors
Recommendation 1-1

The committee recommends that all partners in the multisectoral health system should adopt as their explicit purpose to continually improve health outcomes of the entire population and the conditions in which people can be healthy. The extent to which this purpose is achieved reflects the overall quality of the health system.

(inspired by Recommendation 1 in Crossing the Quality Chasm)
Finding 2-1 and Recommendations 2-1 to 2-4

The committee finds that partners in the multisectoral health system currently use a vast and complex array of measures of quality in a manner that seems uncoordinated. To address this need the committee offers a suite of 4 recommendations
Recommendation 2-1

The committee recommends that HHS and its partners in population health improvement (e.g., public health agencies, health care organizations, communities) adopt a portfolio of measures of the quality of the multisectoral health system. The portfolio of measures should

(a) include summary scores reflecting population-level healthy outcomes and healthy conditions

(b) balance parsimony with sufficient breadth

(c) inform assessment, improvement and accountability of the multisectoral health system.
Criteria for selecting measures

• Review of several sources of sample criteria including HHS (for LHI), NQF, AHRQ, and prior IOM reports.
• Developed a set of criteria that indicate characteristics that are more relevant for population health (in contrast to the clinical setting)
• Criteria useful to a wide range of practitioners, organizations, and sectors involved in quality improvement
Recommendation 2-2

The committee recommends that HHS and other relevant organizations adopt the following set of criteria for selecting and prioritizing measures of quality for use in population health improvement, including the LHIs:

Criteria for conditions or outcomes to be measured
(a) Reflective of a high preventable burden (high burden x effectiveness of existing interventions)
(b) Actionable at the appropriate level for intervention

Criteria for the measures
(c) Timely
(d) Usable for assessing various populations
(e) Understandable
(f) Methodologically rigorous
(g) Accepted and harmonized
Recommendation 2-3 and 2-4

2-3: HHS should ensure the implementation of a systematic approach to develop and manage a portfolio of measures of quality for the multisectoral health system. HHS also should establish or designate a non-governmental and appropriately equipped entity to endorse measures of quality.

2-4: The Department of Health and Human Services should develop, implement, and support data collection, analysis, and dissemination mechanisms and infrastructure for the portfolio of quality measures so they are usable for health assessment and improvement at the national, state and local levels.
Health outcome logic model

Influenced by the Donabedian framework (*structure, process, outcomes*)

Reflects the definition of quality in public health

Focuses on the *outcome* segment of the Donabedian framework and Conditions and Outcomes from the PHQF definition

- **HEALTHY CONDITIONS**
  - Health behaviors
  - Public health and health care access/quality
  - Social/economic/educational factors
  - Environments

- **HEALTHY OUTCOMES**
  - Long, healthy lives for all

**RESOURCES and CAPACITY**
- Including research

**INTERVENTIONS**
- Policies, programs, services
Health outcome logic model

Can be used to:
• Organize how we think about measures of quality
• Illustrate the pathways from structure to outcomes and the relationships among causal factors
• Help identify candidate measures for the 12 LHI topics and the 26 LHIs

Was applied to four LHI topics to illustrate the model’s use and to identify sample measures
Finding 3-1

The committee finds that

a. Many of the LHIs are measures of health outcomes or of conditions that can directly affect health outcomes and are, therefore, measures of the quality of the multisectoral health system.

b. The LHIs that meet the definition above of a quality measure can be used for assessment, improvement, and accountability. To be used thus, they must be relevant and measurable at the national, state, and local levels.

c. The LHIs reflect conditions or outcomes that directly contribute to the Healthy People 2020 foundation measures (e.g., general health status, healthy-related quality of life) and the ecologic model that underlies it, even if these are not explicitly represented among the LHIs.
Case studies: four LHI topics

Applied the health outcome logic model to four of the 12 LHI topics

- Tobacco
- Maternal, infant, and child health
- Environmental quality
- Nutrition, physical activity, and obesity
Applying the logic model to LHI topic Tobacco Use
Using the quality measures

Potentials users of measures of quality

- Accountable Care Organizations
- Business, philanthropies, etc.
- Community based organizations
- Government agencies
- Hospitals
- Health care systems
- Local government
Using the measures of quality

Uses of the measures of quality

• Community health assessments by health departments
• Community health needs assessments to meet IRS community benefit requirement for non-profit hospitals
• Three-Part Aim Efforts (CMS and other HHS; health care and community partnerships)

Requirements for effective use of measures in practice settings

• Local relevance of measures
• Equity
Finding 4-1 and Recommendation 4-1

The committee finds that the concept of a Three-Part Aim described in the National Quality Strategy could play a growing and important role in the process of establishing population health as an essential area of focus in transforming health care and health in the U.S. The committee also finds that additional development is needed by users of the Three-Part Aim to incorporate evidence-based measures representing social and environmental determinants of health, equity, and the concept of total population health.

The committee recommends that HHS convene stakeholders to facilitate the use of measures of quality for the multisectoral health system and their integration into all activities under the Three-Part Aim with a special focus on the social and environmental determinants, equity and the concept of total population health.
Thank you for your interest!

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