Measuring Population Health

HSCRC Performance Measurement Workgroup

Tom Valuck, MD, JD
Framework for Measuring Population Health

- Definitions
- Principles
- Measure Selection
- Measure Types
- Phasing
What Is Population Health?

- **WHO**: A state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

- **NQF commissioned paper**:
  - Improving overall health status and health outcomes of interest to the clinical care system, the government public health system, and stakeholder organizations.
  - Influenced by physical, biological, social and economic factors in the environment, by personal health behavior, and by access to and effectiveness of healthcare services.

  Jacobsen and Teutsh (2012)
What Is Population Health?

PRIORITIES

- Health and Well-Being
- Prevention and Treatment of Leading Causes of Mortality
- Person- and Family-Centered Care
- Effective Communication and Care Coordination
- Patient Safety
- Affordable Care

HEALTHY PEOPLE/HEALTHY COMMUNITIES

AFFORDABLE CARE

BETTER CARE
What Is Population Health?

Clinical Care System
- Hospital inpatient, outpatient, emergency, and community services

Government Public Health
- Federal, state, and local public health policy, budget, and administration

Assess needs
- Health system regulation, monitoring, and reporting

Monitor health status
- Communication of health needs

Meet goals
- Granting for innovative community initiatives

Health screening and education
- Health education and awareness, school and workplace health, neighborhood outreach

Community Stakeholders
What Is Population Health?

- For hospitals, population health may include:
  - Entire geographic area in which hospital resides
  - Entire medical neighborhood of which the hospital is a part
  - Specific demographics within total population (e.g., elderly, children, chronically ill, low-income)
  - Measures of inpatient, outpatient, and community services
Hospitals and Population Health

- Hospitals have an interest in population health management:
  - Caregivers are passionate about promoting health.
  - Length of stay, readmissions, and complications are linked to health and wellness of patients before and after hospital stay.
  - Increased policy efforts to improve care coordination between hospitals, primary care, pharmacy, entire medical neighborhood.
  - Hospital data can be used to assess community health.
  - Community health initiatives build goodwill and reinforce non-profit status.
Measure Selection: IOM Logic Model

- **Resources & Capacity**: Including research
- **Interventions**: Policies, programs, services
- **Healthy Conditions**: Health behaviors, Public health and health care access/quality, Social/economic/education factors, Environments
- **Healthy Outcomes**: Long, healthy lives for all

Example: Influenza Vaccination

1. Goal- reduce morbidity/mortality from vaccine-preventable influenza
2. Initiative- support influenza vaccination at the community, provider, and individual levels
3. Measure- influenza vaccination rate
4. Outcome- increased number of vaccinated individuals in the community reduced risk of preventable disease in the population

Population Health Measure Types

- **Health Outcomes** - high-level indicators
- **Access** - availability and use of services
- **Healthy Behaviors** - choices by individuals and communities
- **Prevention** - screening and early intervention
- **Social Environment** - health literacy and attention to disparities
- **Physical Environment** - built infrastructure and natural resources
Population Health Measure Types - Health Outcomes

Examples

- Mortality
- Longevity
- Infant mortality; low birth weight; preterm birth
- Injuries; accidents; homicide
- Suicide rate
Population Health Measure Types - Access

- Health insurance status; primary care access; access to needed services; condition specific hospital admissions

Examples

- (NQF #1337) Children with Inconsistent Health Insurance Coverage in the Past 12 Months
- (NQF #718) Children Who Had Problems Obtaining Referrals When Needed
- (NQF #277) Heart Failure Admission Rate (PQI 8)
Population Health Measure Types - Healthy Behaviors

- Addictive substances assessment and counseling; weight assessment and physical activity counseling

Examples

- (NQF #2152) Preventive Care and Screening and Counseling: Unhealthy Alcohol Use
- (NQF #1656) Tobacco Use Treatment Offered at Discharge
- (NQF #1406) Risky Behavior Assessment or Counseling by Age 13 Years
- (NQF #421) Body Mass Index (BMI) Screening and Follow-Up
Population Health Measure Types - Prevention

- Disease and condition screening; immunizations; maternity care; newborn and child development

Examples

- (NQF #34) Colorectal Cancer Screening
- (NQF #1659) Influenza Immunization
- (NQF #278) Low Birth Weight Rate (PQI 9)
- (NQF #1385) Developmental screening using a parent completed screening tool
- (NQF #104) Adult Major Depressive Disorder: Suicide Risk Assessment
Population Health Measure Types - Social Environment

- Health literacy; education (e.g., graduation rate); community safety; poverty level; disparities-sensitive measures

- Example
  - (NQF #720) Children Who Live in Communities Perceived as Safe
Population Health Measure Types - Physical Environment

- Healthy food options, neighborhood walkability, air quality

- Example
  - \(\text{(NQF 1346) Children Who Are Exposed To Secondhand Smoke Inside Home}\)
Phasing

- Measure healthy behaviors and preventive services for hospital patients
- Assess community health needs and develop measurement strategy
- Collaborate with public health officials and community services on measuring progress in addressing community needs
Resources

- NQF commissioned paper: An Environmental Scan of Integrated Approaches for Defining and Measuring Total Population Health (2012)
Thank You