Population Health: The Role of the DNP

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TOPICS in Population Health

• Definitions
• Hopkins’ Conceptual Model
• Interventions
• Relationship to Data and Research
  – Intervention Research
• Roles for Nursing, DNP
• Discussion
Population Health Definitions

• Population Health:
  – A cohesive, integrated and comprehensive approach to health care considering the distribution of health outcomes within a population, the health determinants that influence distribution of care, and the policies and interventions that are impacted by the determinants.

• Population Health Management:
  – The process of addressing population health needs and controlling problems at the population level; strategies to address population health needs
Using all available data to understand morbidity, health priorities, health risk, and targets for intervention
How we understand morbidity and risk in a population: Factors that contribute to health outcomes
Based on identified population needs, design and implement appropriate interventions for each level of risk.
Engage all stakeholders, monitor program implementation, and seek to continuously improve programs to maximize health outcomes.
Defining Population Health Interventions

• Programs, policies, and resource distribution approaches that impact a number of people by changing the underlying conditions of risk and by facilitating health improvement or maintenance for the population as a whole.
  – Implemented within and outside of the health sector
  – Allows a comprehensive and multi-faceted approach to planning and delivering programs and interventions
Characteristics of Population Health Interventions

• Well-planned, well-placed, and well-conducted = Specificity

• Lead to increased efficiency and effectiveness through appropriate resource allocation to meet varying needs of the population and population sub-groups

• Adherence to Re-Aim
  
  - Reach
  - Effectiveness
  - Adoption
  - Implementation
  - Maintenance and cost (sustainability)

http://www.ncoa.org/improve-health/center-for-healthy-aging/content-library/IssueBrief_ReAim_Final-2.pdf
Merger of Public Health and Clinical Intervention Frameworks
Clinical Intervention Framework

Specificity and appropriateness

- Interventions to manage care for people with complicated and chronic health problems such as diabetes, heart disease, cancer, chronic pain. Aims to improve disease control, prevent further physical deterioration, and maximize quality of life.

- Interventions to halt or slow the progression of disease at its earliest stages.

- Interventions to protect people at risk from developing a disease or health condition (screenings).
Key Elements of Population Health Interventions within the Health Sector

- Collaborative, Team-Based Care
  - Integrated primary care
  - Coordinated care (including transition from inpatient to outpatient care)

- Inclusion of:
  - Case management (individual patient assessment and care plan)
  - Patient self-management support personnel and programs (health educators, coaches, use of assessment, care plan and intervention)
  - Flexible model of Specialist Integrated primary care

- Multiple delivery modalities and options
  - In-clinic
  - Telephone-based
  - Web-based

- Clinic-community partnerships
  - Community-based surveillance, health promotion and support using lay health agents

- Design and implementation of risk behavior protocols and programs (nutrition, fitness, weight management) that are flexible, adapted to address patients at different risk stratification levels
  - Eradicate the normal curve effectiveness approach
Examples of Population Health Interventions Outside of the Health Sector

- Introduction of organizational changes in workplace design
- Employee wellness initiatives targeting health behaviors and conditions of highest risk and prevalence in the population
  - Flexible to target primary and secondary prevention needs
- Implementation of health-related intervention programs within primary and secondary schools
- Design of neighborhoods and communities to facilitate physical activity
- Use of policy to tie benefits and incentives to health-promoting behaviors and penalties to risk behaviors
- Use of behavioral principles to influence design of restaurants, cafeterias to promote healthier eating
## Building the Workforce for Collaborative Care

- Conduct inventory of personnel delivering behavioral, psychosocial, and educational interventions
- Case Managers
- Nurse Educators
- Health Coaches
- Community Health Workers
- Social Workers
- Nutritionists/Dieticians
- Psychologists, Psychiatrists
- Pharmacists

### Delineate
- Scope of work/practice based on regulatory guidelines for the health professions.
- Roles of licensed/certified practitioner personnel vs. unlicensed personnel categories

### Promote and facilitate use of intervention approaches and protocols that are consistent with available practice standards and evidence-based care.

### Provide training for personnel in standardized protocols available for their scope of work within the collaborative care delivery system

## Standardization of Intervention Protocols

- Conduct inventory of intervention protocols and materials in use by personnel delivering behavioral, psychosocial, and educational interventions

### Evaluate sources of current protocols and materials, variability in approaches being used, usefulness, limitations, and content gaps

### Modify or develop protocols based on:
- Evidence of effectiveness, best practices
- NCQA requirements (case management)
- Behavioral and Psychosocial Practice Guidelines
- Available Patient Education Practice Guidelines for medical conditions
- Requirements for process and outcome reporting, indicators
- For services to be billed, content definitions from CMS procedure codes for patient education, nutrition, and health behavior assessments and interventions

### Prepare protocols for intended delivery modality(ies):
- Clinic-based
- Remote (web-based, telephone)
- Home- or community-based

## Implementation

- Medical provider and practice site orientation to collaborative care
- IT Infrastructure to support: EMR capacity for task assignments, referrals to behavioral personnel, and shared documentation of behavioral and case management services and progress
- Workforce deployment within the healthcare delivery system
1. Surveillance and assessment to determine population needs and patterns, and (over time) to track population-level health changes or trends resulting from interventions

2. Identification of population sub-groups in need of particular interventions (e.g. risk stratification)

3. Monitoring of intervention processes, procedures, and implementation

4. Evaluation of intervention effect on designated clinical, behavioral, community, health system, and economic outcomes
Population Health Intervention Research

• Research that involves the use of scientific methods to produce knowledge about policy and program interventions that operate within or outside of the health sector and have the potential to impact health at the population level.

– Population Health Research Initiative for Canada (http://www.cihr-irsc.gc.ca/e/38731.html)
Roles for Nursing

• **Big Data**
  – Data skills coupled with ability to understand clinical morbidity & health risks

• **Program Development**
  – Design of appropriate interventions within each level of risk
  – Incorporating a whole person perspective with factors that contribute to health outcomes (environmental, social/behavioral, genetic and biologic)

• **Population Health Policy**
  – Influencing International, Federal, State, payor policies regarding payment and service delivery supporting population health

• **Administrative/Leadership**
  – Leadership and Vision
  – Management
  – Training
Discussion

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