Population Health Management

Population Health Colloquium
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February 27, 2012

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Learning Objectives

1. Define the characteristics of the population health perspective.

2. Understand the determinants of health.

3. Explain at least two methods for managing population health.

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Course Overview

- **Definition of Population Health**
- Health Education, Health Promotion, and Disease Prevention
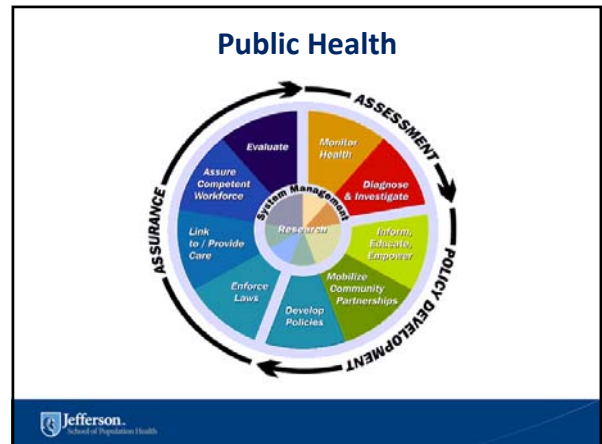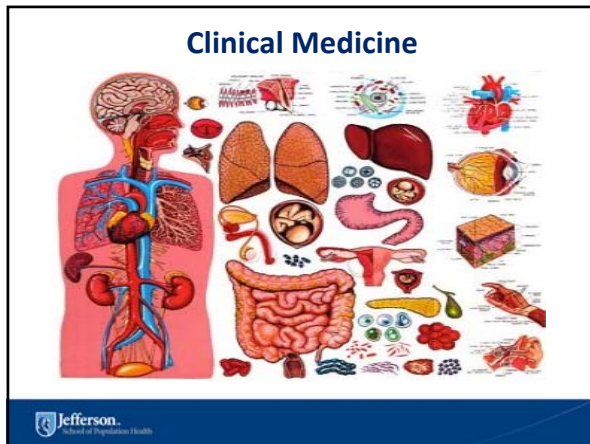- Strategies for Population Health Management

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Clinical Medicine

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Public Health

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Traditional Gaps in Focus

Clinical Medicine

- Clinicians play primary role

- Focus on individual health

- Treatment of disease

- "Art" of medicine

Public Health

- Responsibility for health is diffuse

- Focus on health of communities

- Prevention of disease

- Evidence-based practice

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Definition of Population Health

The distribution of health outcomes within a population, the determinants that influence this distribution, and the policies and interventions that impact these determinants.

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Population Health Focus

Improve systems for personal and public health

Promote healthy behavior

Prevent and reduce diseases and disorders

Eliminate health disparities

Health for all

Increase quality and years of healthy life

Promote healthy communities
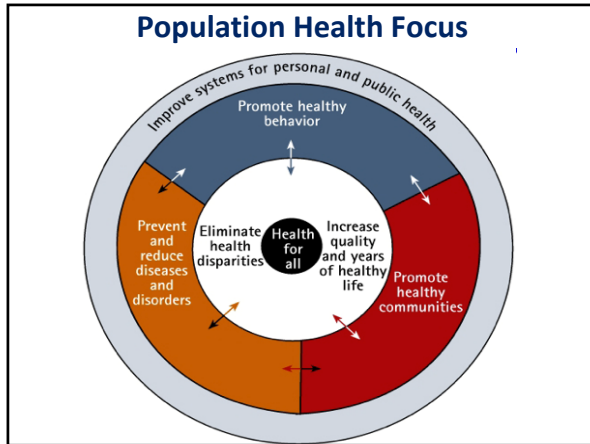
Characteristics of the Population Health Perspective

- More than the sum of individual parts
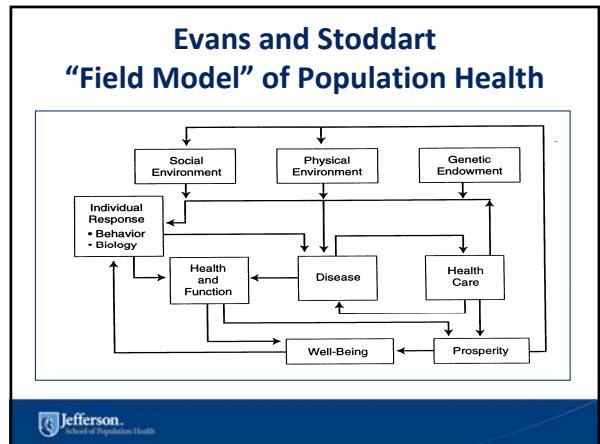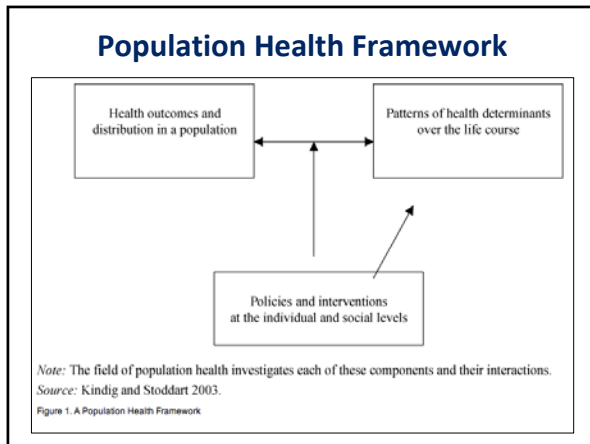- More than a cross-sectional perspective
- Broader array of the determinants of health than in traditional public health
- Recognition that responsibility for health is diffuse

Population Health Framework

Health outcomes and distribution in a population

Patterns of health determinants over the life course

Policies and interventions at the individual and social levels

Note: The field of population health investigates each of these components and their interactions.
Source: Kindig and Stoddart 2003.
Figure 1. A Population Health Framework

Evans and Stoddart "Field Model" of Population Health

Social Environment

Physical Environment

Genetic Endowment

Individual Response
• Behavior
• Biology

Health and Function

Disease

Health Care

Well-Being

Prosperity

Kindig's Expanded Population Health Model
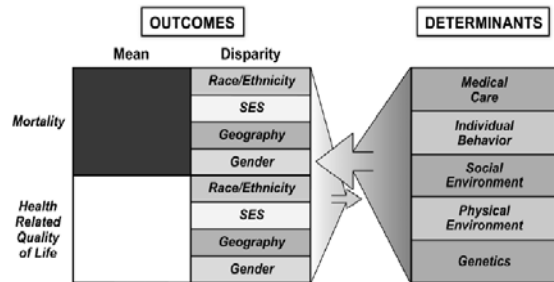
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- Definition of Population Health
- **Health Education, Health Promotion, and Disease Prevention**
- Strategies for Population Health Management

Health Education

"Any combination of learning experiences designed to facilitate voluntary actions conducive to health."
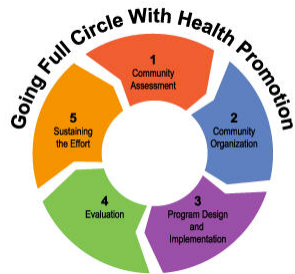(Green & Kreuter, 1999)

Health Promotion

"The combination of educational and ecological supports for actions and conditions of living conducive to health."
(Green & Kreuter, 1999)

Health Promotion

Going Full Circle With Health Promotion

1 Community Assessment
2 Community Organization
3 Program Design and Implementation
4 Evaluation
5 Sustaining the Effort

Approaches to Health Promotion

- Medical Approach
- Behavioral Change Approach
- Empowerment Approach
- Social Change Model

Relationship of Health Education to Health Promotion

- Health Education...focus on individual
  - Giving individuals knowledge needed to make change
- Health Promotion...focus on supports for action
  - Educational and environmental
  - Emerged out of HE...How make healthier choices easier choices?
- Public health emerged from HP...focus on populations

Levels of Prevention

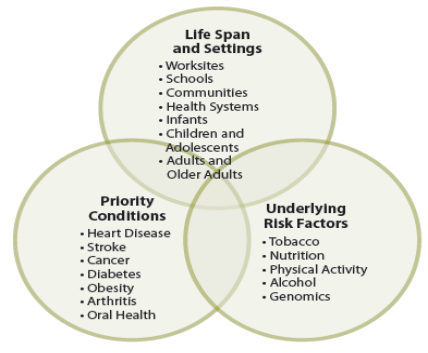| Level	Definition
Primary prevention	Primary prevention strategies intend to avoid the development of disease. Most population-based health promotion activities are primary preventive measures.
Secondary prevention	Secondary prevention strategies attempt to diagnose and treat an existing disease in its early stages before it results in significant morbidity
Tertiary prevention	These treatments aim to reduce the negative impact of established disease by restoring function and reducing disease-related complications.
Quaternary prevention	This term describes the set of health activities that mitigate or avoid the consequences of unnecessary or excessive interventions in the health system

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Assumptions of Health Promotion

- Health status can be changed
- Disease occurrence theories understood
- Appropriate prevention strategies developed for identified health problem
- Individual's health affected by many factors
- Changes in behavior will positively affect health status
- Responsibility for health changes behaviors

Top 5 Causes of Death for 2010

Cause of Death (ICD-10)	Number	Death Rate	2010 Age-Adjusted Death Rate
All Causes	2,465,932	798.7	746.2
Diseases of the Heart	595,444	192.9	178.5
Malignant Neoplasms	573,855	185.9	172.5
Chronic Lower Respiratory Diseases	137,789	44.6	42.1
Cerebrovascular Disease	129,180	41.8	39.0
Accidents (Unintentional Injuries)	118,043	38.2	37.1

Framework for Preventing Chronic Disease and Promoting Health

Life Span and Settings
- Worksites
- Schools
- Communities
- Health Systems
- Infants
- Children and Adolescents
- Adults and Older Adults

Priority Conditions
- Heart Disease
- Stroke
- Cancer
- Diabetes
- Obesity
- Arthritis
- Oral Health

Underlying Risk Factors
- Tobacco
- Nutrition
- Physical Activity
- Alcohol
- Genomics

http://www.cdc.gov/chronicdisease/index.htm

Course Overview

- Definition of Population Health
- Health Education, Health Promotion, and Disease Prevention
- **Strategies for Population Health Management**

Management of Population Health

- Epidemiological approach
- Emphasis on disease prevention/health promotion
- Systems focus (includes accountability)
- Establish/nurture partnerships

Lifestyle Management

- Health promotion to improve health through behavior change
  - Education
  - Motivation
  - Training
  - Marketing

Demand Management

- Self-care and triage support to help individuals manage their care and symptoms
- Goal: reduce perceived need and use of unnecessary services while improving health status
- Influences on demand:
  - Morbidity
  - Perceived need
  - Patient preferences
  - Non-health Motives
- Predicting Demand
  - Questionnaire-based health assessments
  - Claims-based data assessment

Strategies for Demand Management

- Health risk management
- Health plan and provider selection
- Symptomatic and urgent care controls
- Elective treatment choices
- Acute condition management
- End-of-life planning

Disease Management

- System of **coordinated** healthcare interventions and communications for populations with conditions in which self-care efforts are significant
- Supports practitioner-patient relationship and plan of care
- Emphasizes prevention of complications through EBM and patient empowerment
- Evaluates clinical, humanistic, and economic outcomes

(DMAA, 2002)

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Continuous Improvement

- Standards of care set
- Protocols are developed and implemented to meet standards
- Outcomes measured
- Systems of care are improved

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Catastrophic Care Management

- Infrequent and unpredictable, but account for a large percentage of health care costs
- Consistent with QI approaches to reduce variability in processes and outcomes
- Emerged from
  - Disease management companies
  - Insurance and reinsurance companies for better risk management

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Characteristics of Catastrophic Care Management

- Immediate referral
- Development of a care plan
- Patient management expertise
- Individualized management
- Patient and program satisfaction

(DM Carve-outs, 1998)

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Disability Management

- Work-related Disability
  - Injuries
  - Chronic Conditions
  - Mental and Behavioral Problems
  - Medical and Nonmedical Factors
- Disability Management Programs
  - Prevention
  - Early Intervention
  - Case Management
  - Transitional Work Programs
  - Ergonomics
  - Employee Assistance Programs
  - On-site Rehabilitation Programs
  - Absence Management

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Questions?