Whose Health Is It, Anyway?
Fundamentals of Population Health

ACP Illinois: Internal Medicine 2016
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Nothing to disclose
Objectives

1. How does Population Health fit in the whole scheme of health care?
2. What does “Population Health” really mean?
3. How does Population Health work in practice?
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The Triple Aim
Care, Health, and Cost


Improving the
Health of Populations

Improving the
Individual Experience of Care

Reducing the Per Capita Costs of Care
for Populations
The Triple Aim
Care, Health, and Cost

Specifying a population of concern

Examples:

- all diabetics in Massachusetts
- all people in Maryland living at <300% of the poverty level
- all citizens of a county
- all of Dr. X’s patients

Health Care System Initiatives Related to Population Health

• Community Health Needs Assessments
  – All not-for-profit hospitals, every three years
• Accountable Care Organizations (ACO’s)
• MACRA, MIPS, APMs
• Center for Medicare and Medicaid Innovation
  – Example: Accountable Health Communities
    • Health system screens patients and refers to social services
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Population Health

An inconsistently applied term

- The whole population in an area or community?
- Those identified by the health system, somehow?
- Those with disparities of health or SES?
- A measure? Or an outcome? Or a process?
Definitions

- Population Health (at a health care entity) (aka Population Health Management, or Population Medicine): specific activities of the medical care system that, by themselves or in collaboration with partners, promote population health beyond the goals of care of the individuals treated.
  - Typically means “attributable” or “enrolled” patients of a health care entity.
  - Typically uses information from the health system to identify and drive interventions, some of which may involve community-based efforts.
  - Typically focuses on health system outcomes (ER visits, reduced expenses).

http://www.improvingpopulationhealth.org/blog/2012/06/is-population-medicine-population-health.html
Risk Stratification for Defining Patient Management

Managing Three Distinct Patient Populations

- **High-Risk Patients**: 5% of patients; usually with complex disease(s), comorbidities
  - Trade high-cost services for low-cost management

- **Rising-Risk Patients**: 15-35% of patients; may have conditions not under control
  - Avoid unnecessary higher-acuity, higher-cost spending

- **Low-Risk Patients**: 60-80% of patients; any minor conditions are easily managed
  - Keep patient healthy, loyal to the system

Source: Health Care Advisory Board interviews and analysis
Definitions

- **Population Health (at the community or public health level)** (aka “Total Population Health”): the health outcomes of a group of individuals, including the distribution of such outcomes within the group. Population Health also encompasses *the multiple determinants of health* that produce these outcomes.
  - Typically means everyone in a geographic region or community.
  - Typically uses community, health system, and government sources of information.
  - Typically uses community level interventions, including social determinants of health (+/- health system involvement). Commonly focuses on disparities.
  - May include public health agency activities and community development.

http://www.improvingpopulationhealth.org/blog/2012/06/is-population-medicine-population-health.html
Factors that Affect Health

Examples
- Eat healthy, be physically active
- Rx for high blood pressure, high cholesterol, diabetes
- Immunizations, brief intervention, cessation treatment, colonoscopy
- Fluoridation, 0g trans fat, iodization, smoke-free laws, tobacco tax
- Poverty, education, housing, inequality

Socioeconomic Factors

Changing the Context to make individuals’ default decisions healthy

Long-lasting Protective Interventions

Clinical Interventions

Counseling & Education

Smallest Impact

Largest Impact
Definitions

- **Public Health**: the science of protecting and improving the health of families and communities through promotion of healthy lifestyles, research for disease and injury prevention and detection and control of infectious diseases.
  - Also, local public health department services (varies by locale and issue) to protect or promote the health of the community or special populations, taxpayer or grant funded
  - Typically uses data from broadly collected community, regional, or national sources
  - Illinois Project for Local Assessment of Needs (IPLAN)

http://www.cdcfoundation.org/content/what-public-health
 Centers for Disease Control and Prevention

HI-5

HEALTH IMPACT IN 5 YEARS

www.cdc.gov/hi5

Office of the Associate Director for Policy
Centers for Disease Control and Prevention
14 Evidence-Based, Community-Wide Interventions

**Address the Social Determinants of Health**
- Early Childhood Education
- Clean Diesel Bus Fleets
- Public Transportation System Introduction or Expansion
- Home Improvement Loans and Grants
- Earned Income Tax Credits
- Water Fluoridation

**Change the Context: Making Healthy Choice the Easy Choice**
- School-Based Programs to Increase Physical Activity
- School-Based Violence Prevention
- Safe Routes to School (SRTS)
- Motorcycle Injury Prevention
- Tobacco Control Interventions
- Access to Clean Syringes
- Pricing Strategies for Alcohol Products
- Multi-Component Worksite Obesity Prevention
Integration of Primary Care and Public Health
Position Paper 2015

American Academy of Family Physicians
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Population Health = Risk Mitigation

- Financial Risk
- Performance Risk
- Administrative Risk
- Population Risk
MHP Cost and Utilization Control

Identify and Stratify
Outreach & Engage
Intervene
Outcomes

Courtesy of Jay Roszhart, VP of Ambulatory Networks at MHS
# Outreach, Engagement & Care Management

## MCCS Scorecard

<table>
<thead>
<tr>
<th>Outreach &amp; Engagement Process</th>
<th>Targets Reached</th>
<th>Targets Agreed to Participate</th>
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<tbody>
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*Last Update September 20, 2016*

**Select Focus:** All Health Plans

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*Courtesy of Jay Roszhart, VP of Ambulatory Networks at MHS*
### MCCS Scorecard

Select Focus: **All Health Plans**

Last Update: September 20, 2016

#### Outreach & Engagement Process

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- **All Targets Reached**: 2923 (84%)
- **All Targets Agreed to SV/Intake Visit**: 1201 (41%)
MHP Cost & Utilization Outcomes

Goal: Manage Risk; Prevent Complications.
Goal: Lower Risk; Reduce Spending.

~$300 avg PMPM reduction = >$3M/year overall

>40% reduction in ER visits

Courtesy of Jay Roszhart, VP of Ambulatory Networks at MHS
Community-Wide Cardiovascular Disease Prevention Programs and Health Outcomes in a Rural County, 1970-2010

N. Burgess Record, MD; Daniel K. Onion, MD, MPH; Roderick E. Prior, et al. JAMA. 2015;313(2):147-155

• Franklin County, Maine:
  – The Franklin Cardiovascular Health Program
  – Low income rural area, pop. 22,444
  – Hospital led multisector health coalition with multiple interventions, for 40 yrs
  – Comparisons to prior decade, other Maine counties, and entire state
  – Outcomes:
    • Risk factor outcomes for hypertension, lipids, tobacco
    • Morbidity: hospitalization rates
    • Mortality: overall, cardiovascular-related, age and income adjusted
Community-Wide Cardiovascular Disease Prevention Programs and Health Outcomes in a Rural County, 1970-2010

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- 1966: **Community health workers** introduced
- 1970: **Integration of medical and social service resources**
- 1974: **Hypertension focus**: health coaches across clinics, community, worksites; nurse managed protocols
- 1986: **Cholesterol focus**; similar to Hypertension
- 1988: **Coordinated tobacco program** in schools, clinics, community
- 1990: **Diet/activity** across all sectors, including restaurants, stores, college
- 2000: Community **diabetes prevention** and management program
Franklin County mortality rates have declined and, on average, have been lower than statewide mortality rates.
Adjusted for income, Franklin County has a significantly lower rate of hospitalizations compared to other Maine Counties.

$R^2 = 0.72$, 95% CI, 0.33-0.90; $P < .001$
Franklin County has shown significantly improved rates of hypertension and cholesterol treatment and control compared to baseline; and equal or higher rates of smoking quit rates than other Maine Counties or the US.

N. Burgess Record, MD¹; Daniel K. Onion, MD, MPH²,³; Roderick E. Prior, et al. JAMA. 2015;313(2):147-155
Community Development: Spartanburg, S.C. Northside Initiative
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- Northside: low income, high crime neighborhood near downtown
- Partners:
  - Northside Development Corp.
  - City of Spartanburg
  - Housing Authority, HUD
  - Spartanburg Regional Hospital
  - New osteopathic med school
  - Wofford college
  - Spartanburg County Foundation
  - Public Schools
  - Public Health Dept.
Community Development: Spartanburg, S.C. Northside Initiative

- Spartanburg Regional Med Center
- 500 beds, multispecialty safety net hospital system
- Engagement with Northside Initiative
  - Local clinical services
  - Employment preferences
  - Training opportunities
  - Loan program for home ownership
  - Support for Community Center, Healthy Food Hub
Population Health is an evolving part of the transformation of how we provide and pay for health care, from volume to value.

Population Health can mean many things, depending on who the population is, who is managing the effort, and what outcomes are being sought.

Using good data, multisector collaboration, and attention to outcomes, Population Health efforts can reduce disparities and improve the health of people in your health care system and across your community.
Thank you.

Questions/comments?

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