Population Health
The “Primary” Opportunity Facing the U.S. Healthcare System

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Objectives

• Describe how population health is defined and implemented by health systems.
• Describe the challenges facing healthcare executives in demonstrating the value of the services they provide to their patients, payers, and the larger community.
• Discuss challenges facing healthcare executives in prioritizing resources and identifying opportunities to be successful in population health.

What is it?

Why is it important?

How does it happen?

Who will do it?

What is your definition of Population Health?

A. Community health outcomes.
B. Managing patients with same diagnosis.
C. More effective care coordination.
D. Health data analytics.

Population

(pop'ə-lā'shən)

1. All the inhabitants of a particular town, area, or country.
2. A particular section, group, or type of people or animals living in an area or country.

Health

(hel' th)

The state of being free from illness or injury.
A person’s mental or physical condition.
Health is a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.

World Health Organization
**Population Health**

**Twin perspectives**

30,000 feet  
3 feet

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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...[M]aking data actionable in order to produce meaningful results that help patients live well.

-- Laura Spurr, Director of Medical Group Operations, Aurora Health Care

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**Population Health Perspective**

B R O A D E R V I E W
Population Health Perspective

Traditional Health System Scope
- Physicians
- Hospitals
- Pharmacy

Extended Health System Scope
- Population health leading lights summit. The Advisory Board Company

Population Health (from 3 ft.)
Key components of population health management include:
✓ Population identification
✓ Health risk assessment
✓ Tailored and targeted interventions combined with patient engagement
✓ Shared decision making, health coaching, & online education
✓ Evaluation of program impact

IHI Triple Aim
- Health of a Population
- Experience of Care
- Per Capita Cost

Population Health Paradigm

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Conventional Healthcare</th>
<th>Population Health</th>
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<tbody>
<tr>
<td></td>
<td>Curing disease</td>
<td>Preventing disease</td>
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<tr>
<td></td>
<td>Keeping people healthy &amp; well</td>
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<tr>
<td>Values</td>
<td>Diagnosis, treatment &amp; cure</td>
<td>Prevention of disease</td>
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<tr>
<td></td>
<td>Physician’s expertise</td>
<td>Emphasis on wellness</td>
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<td></td>
<td>Unlimited access to healthcare*</td>
<td>Timely &amp; high-quality cost-effective care</td>
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<td></td>
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<td>Agency and self-efficacy</td>
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<td>Medical home</td>
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<tr>
<td>Methods</td>
<td>Diagnosis &amp; treatment</td>
<td>Personalized wellness plans</td>
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<tr>
<td></td>
<td>Fee-for-service</td>
<td>Community engagement &amp; prevention</td>
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<td></td>
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<td>Global payments</td>
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<td>Shared health information</td>
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*If you can afford it
The Challenge - Nation

US Health Expenditures as % of GDP

- 17.4%
- $2.9 trillion

World Health Rankings

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Country</th>
<th>$ per capita</th>
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<tbody>
<tr>
<td>1</td>
<td>France</td>
<td>4</td>
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<tr>
<td>2</td>
<td>Italy</td>
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<td>3</td>
<td>San Marino</td>
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<td>Andorra</td>
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<td>Spain</td>
<td>24</td>
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<td>8</td>
<td>Oman</td>
<td>82</td>
</tr>
<tr>
<td>9</td>
<td>Austria</td>
<td>6</td>
</tr>
</tbody>
</table>
The Challenge - Providers

Volume to Value
Community Health Needs Assessment (CHNA)
Physician Quality Reporting Systems
Meaningful Use
ICD-10
Delivery System Reform Incentive Payment (DSRIP)

Volume to Value
ACA changes incentives by rewarding outcomes rather than fee for service
- Medicare Share Savings Programs
- 30-day readmission penalties
- Accountable Care Organizations
- Patient-centered Medical Homes

The Challenge - Patients

Out-of-pocket costs
Empowerment
Engagement
Activation
Personal technology

The Challenge - Patients

% of Respondents Who Performed Each of the Following Actions Because of the Medical Costs of Cancer

- Foregone vacations, celebrations and social events: 48%
- Cut my grocery expenses: 37%
- Debilitating weight loss: 36%
- Used pharma assistance programs: 31%
- Borrowed against or used money from a retirement plan: 24%

The Rx Challenge

- ~600,000 Americans have annual Rx costs > $50,000
- The number of U.S. patients taking at least $100,000 worth of prescription drugs tripled in 2014
- Majority of these patients take at least 10 medications from at least 4 different prescribers
- Comorbidities, Polypharmacy complicate Care
- Costs driven by Hepatitis C, Cancer and Compounded Treatments

POPULATION HEALTH
20th Annual ASHP Conference for Pharmacy Leaders
The “Primary” Opportunity Facing the U.S. Healthcare System

From Episodic to Coordinated Collaborative Consolidated Care

Moving from Volume to Value

From Episodic to Coordinated Collaborative Consolidated Care

Fee for Service

Pay for Performance

Shared Savings (risk bearing)

Bundled Payments

Global Payment (full capitation/risk)

Provider Coordination

Provider Risk

Is community engagement a core strategy for your system?

A. Not at all.
B. We only talk about it.
C. Important marketing strategy.
D. Vital to improving outcomes.

Community Health Needs Assessment

PPACA mandates all tax-exempt hospitals conduct Community Health Needs Assessments (CHNA)

- "takes into account input from persons who represent the broad interests of the community served by the hospital facility, including those with special knowledge of or expertise in public health; and"
- "is made widely available to the public.

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The “Primary” Opportunity Facing the U.S. Healthcare System

Key Determinants of Human Health
- Genetics
- Individual Behavior
- Social Environment
- Physical Environment
- Medical Care

For a healthy, long life
- Healthy Behaviors: 21%
- Environment: 7%
- Clinical Care: 14%
- Genetics: 30%
- Socio-economic: 28%

What we spend
- Health Care: 88%
- Other: 4%

What determines health outcomes?
- Prevention and Health Promotion
- Medical Care
- Health and Function
- Well-Being
- Mortality
- Quality of Life
- Equity

Determinants of Health
- Upstream Factors
- Individual Factors
- Intermediate Outcomes
- States of Health
- Quality of Life

Health Policy Interventions

Health Impact Pyramid
- Counseling & Education
- Clinical Interventions
- Long-lasting protective interventions
- Change decision-making context
- Socioeconomic Factors


- Increasing individual effort needed
- Long-lasting protective interventions
- Change decision-making context
- Socioeconomic Factors

Asthma

- African American children:
  - Twice as likely to be readmitted as white children
  - Hardships explained >40% of this disparity

Exhaustion of Food Budgets At Month’s End And Hospital Admissions For Hypoglycemia

- For low-income: Hypoglycemia admissions increased 27% from the first to last week of the month.

“Because that’s where the money is.”

William “Willie” Sutton

Sutton’s Law

“The last time we looked in the book, the specific therapy for malnutrition was food.”

- J. Geiger, MD

- Jack Geiger & John Hatch, Founders
- Delta Health Center - Mound Bayou, Mississippi
- Farm co-operative
“Medicine has been so focused on what doctors can do in the hospital that it has barely even begun to figure out what can be done in the home.” – Ezra Klein

"...on the phone with patients with heart ailments, asking them not to shovel snow."
Effect of a Pharmacist Intervention on Clinically Important Medication Errors after Hospital Discharge: A Randomized Controlled Trial
Sunil Kripalani, MD, MSc1,2, Christianne L. Roumie, MD, MPH2,3,4, Anuj K. Dalal, MD4,5,6, Courtney Cavathan, MPH2, Alexandria Businger, BA1, Svetlana K. Eden, MSc7, Ayumi Shintani, PhD, MPH7, Kelly Cunningham Spooner, MD7, L. Jeff Horrie, MD8, Cecelia Thambir, MD9, Robert L. Huang, MD, MPH9, Danielle Schueren, MD, MSc9, Susan Hunt, MD10, Terry A. Jackson, MD10, Kimberly J. Reish, MD, PhD11,12, Vida Vecserini, MD, PhD13, An E. 10
Pharmacist Intervention for Low Literacy in Cardiovascular Disease (PILLCVD)… “A health literacy-sensitive pharmacist intervention that included post-discharge telephone follow-up did not improve medication safety overall.”

Policy
- “Political decisions for implementing programs to achieve societal goals.”
  - Charles Cochran and Eloise Malone (1999)

Public Policy
- Tool for changing local health context
- Leverages strengths of health care systems
- Opportunity to change the rules of the reimbursement game.

Have you ever testified before a legislative body?
A. Never
B. Once
C. Occasionally
D. Frequently

Targeting transitions: Pharmacists critical to reducing readmissions
July 01, 2013
Pharmacists can take the lead in reducing hospital readmissions. Reducing avoidable rehospitalizations is on the radar of every hospital and health system in the country. Under the Affordable Care Act, Medicare has begun to financially penalize hospitals on 30-day readmission rates for certain conditions such as acute myocardial infarction, heart failure, and pneumonia. The idea is to encourage hospitals to reduce readmissions, which correlates to an increase in the quality of care. This new chapter in health care provides many opportunities for pharmacists to take the lead in readmission reduction programs both within the hospital and during follow up: REACH (Reconciliation, Education, Access, Counseling, Healthy Patient at Home) program cut the health system’s readmissions for patients with heart failure within 30 days of discharge by 50%.


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Why get involved?
One of the penalties for refusing to participate in politics is that you end up being governed by your inferiors.

- Plato

The association between recreational parks, facilities and childhood obesity: a cross-sectional study of the 2007 National Survey of Children's Health

Dayna S Alexander1,2, Larissa R Brunner Huber1, Crystal R Piper1, Amanda E Tanne3

“Children with access to parks and facilities had decreased prevalence of obesity as compared to children without access.”

Perspective
Housing as Health Care — New York’s Boundary-Crossing Experiment

When researchers in Baltimore posted signs in corner markets showing how much of a caloric hit that sugary drink really is, teens bought fewer sodas and sports drinks, and purchased more water and diet soda.

POPULATION HEALTH

Population Health Careers

Job Trends from Indeed.com

“population health”
Role of Pharmacists

- Moving from individual pharmacotherapy to population level impact
- Pharmacists are an underutilized resource
- Examples
  - Population-based care
  - Disease Prevention and Medication Safety
  - Health education
  - Collaboration & coalition building with community agencies & non-traditional partners

Where is your system on the Population Health spectrum?

A. “I track 100 patients with the same diagnosis.”
B. “We know who’s non-adherent.”
C. “EMR includes zip-level information.”
D. “Mayor calls for policy help.”

The Road Ahead

- Population Health
- Response to significant challenges in health system
- Great opportunity to improve health outcomes
- Drives down demand for care
- Well-suited for value-based reimbursement models
- Early adopters will likely dominate