



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

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POPULATION HEALTH

What is it?

Why is it important?

How does it happen?

Who will do it?

Objectives

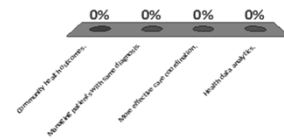
- Describe how population health is defined and implemented by health systems.
- Describe the challenges facing healthcare executives in demonstrating the value of the services they provide to their patients, payers, and the larger community.
- Discuss challenges facing healthcare executives in prioritizing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



What is 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 (pəpyə lăSHən)

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.


New Oxford American Dictionary
Third Edition

New Oxford American Dictionary 3rd edition © 2010 by Oxford University Press, Inc. via Apple dictionary.

Health (helTH)

*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

New Oxford American Dictionary 3rd edition © 2010 by Oxford University Press, Inc. via Apple dictionary.



Why I Hope to Die at 75

An argument that society and families—and you—will be better off if nature takes its course swiftly and promptly

By Ezekiel J. Emanuel

By Samuel Masiter [CC BY 3.0 (http://creativecommons.org/licenses/by/3.0)], via Wikimedia Commons The Atlantic, SEPTEMBER 17, 2014.

Population Health *Twin perspectives*

30,000 feet 3 feet




Imagery ©2015 Google, Map data ©2015 Google By English: Petty Officer 2nd Class Daniel Viviamortel, U.S. Navy (www.defenses.gov) [Public domain], via Wikimedia Commons

Population Health

(from 30,000 ft.)

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

What is Population Health?

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

ACHIEVING THE VISION

Population health is a complex, multi-disciplinary endeavor that requires the integration of clinical care, public health, and policy. It is a shared responsibility of all those who care for patients and communities.

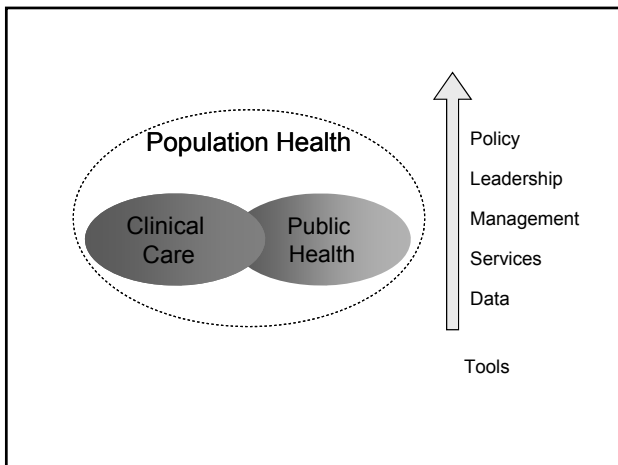
What is Population Health. D. Kindig & G. Stoddart. *Am J Public Health*. 2003;93:380-383.

Population Health


(from 3 ft.)

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

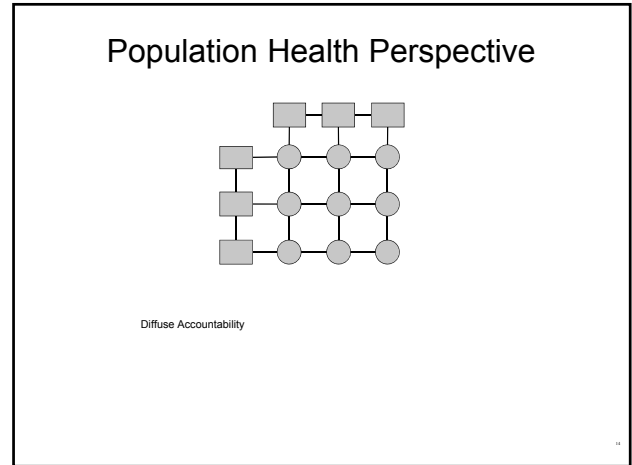
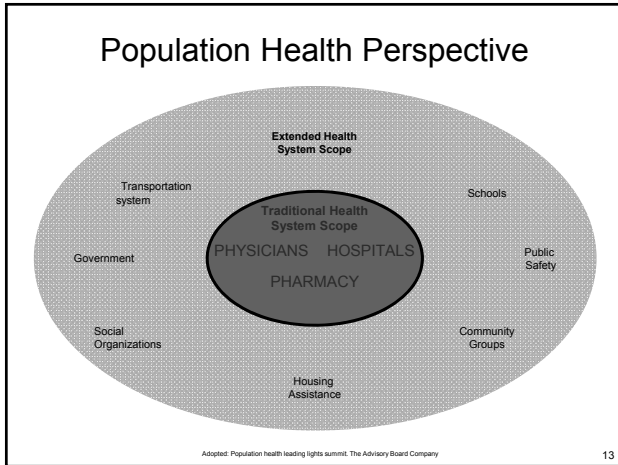
-- Laura Spurr, Director of Medical Group Operations
Aurora Health Care



Population Health Perspective



BROADER VIEW



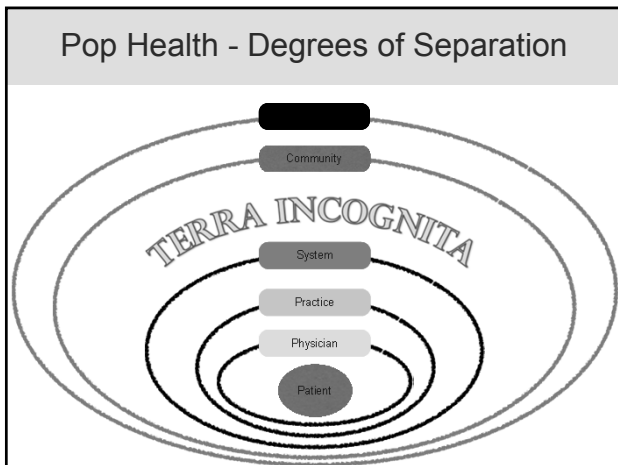
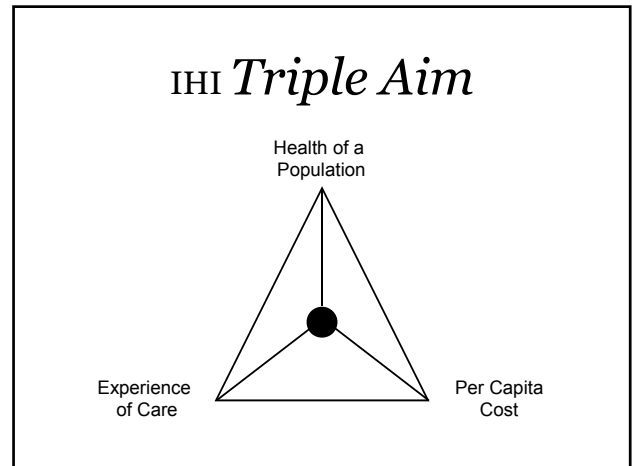
Population Health

(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

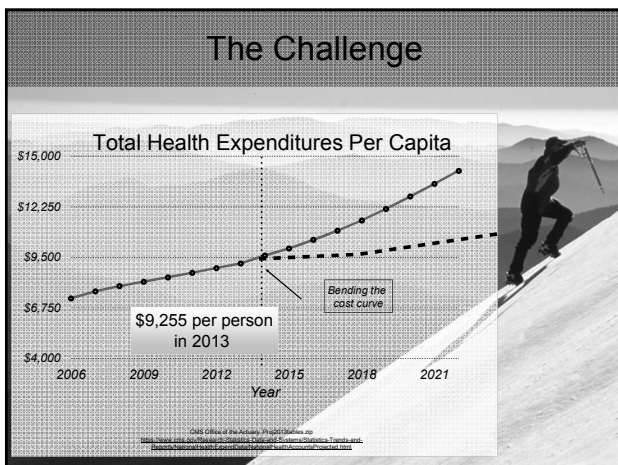
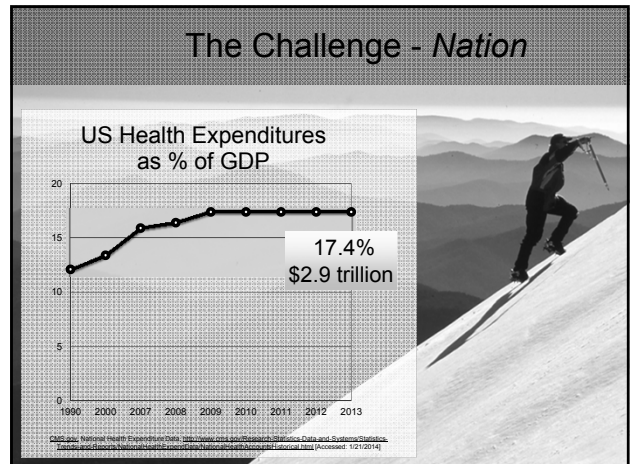
*Population Health Management in Physician Practice: A call to action. * Care Continuum Alliance, State of the Industry Report, October 2012
By English, P. et al. (2012) Class Daniel Vismontes, U.S. Navy (www.defense.gov) [Public domain], via Wikimedia Commons



Population Health Paradigm

	Conventional Healthcare	Population Health
Purpose	Curing disease	Preventing disease Keeping people healthy & well
Values	Diagnosis, treatment & cure Physician's expertise Unlimited access to healthcare* *if you can afford it	Prevention of disease Emphasis on wellness Timely & high-quality cost-effective care Agency and self-efficacy Medical home
Methods	Diagnosis & treatment Fee-for-service	Personalized wellness plans Community engagement & prevention Global payments Shared health information

Population Health Paradigm		
	Conventional Healthcare	Population Health
Constraints	Cost Continuity of care Lack of access Administrative burdens Limited patient contact	Implementation cost Politics Culture
Opportunities	Greater autonomy	Cost effectiveness Evidence-based & personalized medicine Increase quality & reduction of errors
Assumptions	System "rescue" patients. Doctor center of authority	Patient is responsible for health & wellness Doctor center of care team



Ranking	Country	\$ per capita
1	France	4
2	Italy	11
3	San Marino	21
4	Andorra	23
5	Malta	37
6	Singapore	38
7	Spain	24
8	Oman	62
9	Austria	6

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

"30% of all Medicare provider payments to be in alternative payment models ... tied to how well providers care for their patients ... by 2016...50% by 2018"

—Burwell, HHS

The Challenge - Patients

Out-of-pocket costs

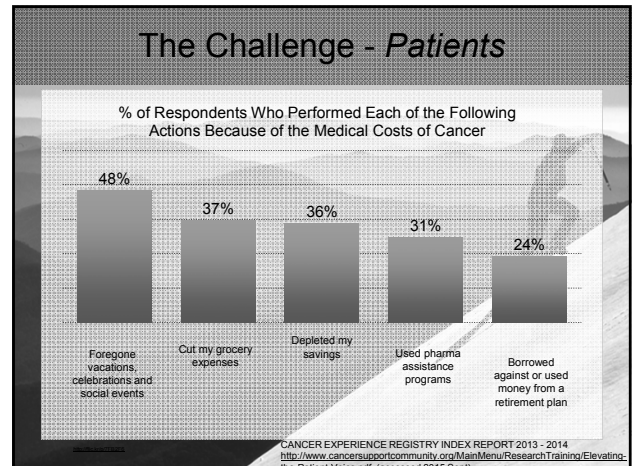
Empowerment

Engagement

Activation

Personal technology



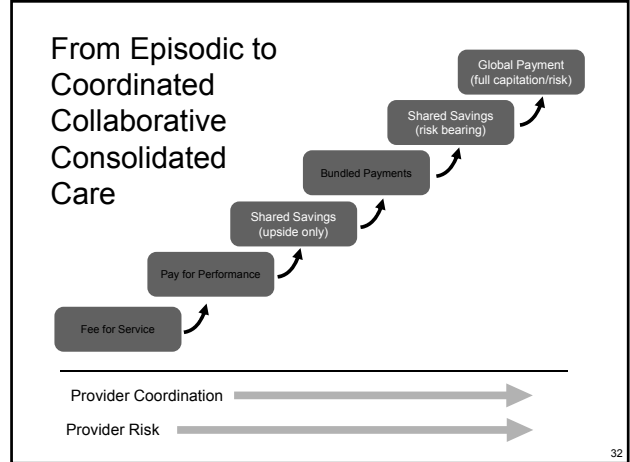
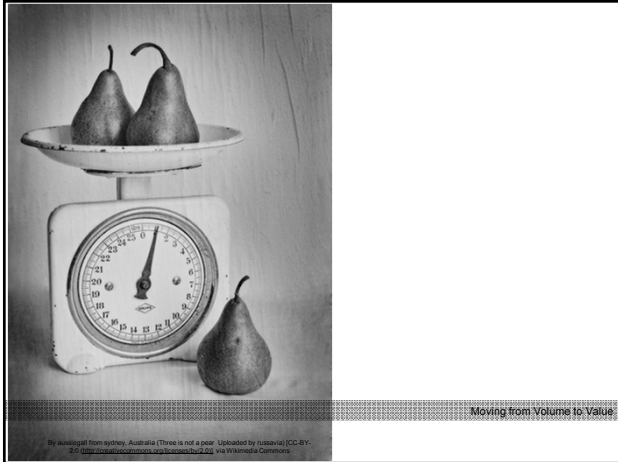


The Rx Challenge

- ~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

The Express Scripts 2014 Drug Trend Report
<http://lab.express-scripts.com/~media/12a8469de9234f5bbcc3f8a91ec46bb1.ashx>. (Accessed 2015 Sept).





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.

0% Not at all
0% We only talk about it
0% Important marketing strategy
0% Vital to improving outcomes

By George J. Ighan, Donna J. Zimmerman, David A. Kridg, and Gary W. Henseth

INNOVATION PROFILE

HealthPartners Adopts Community Business Model To Deepen Focus On Nonclinical Factors Of Health Outcomes

ABSTRACT Clinical care contributes only 20 percent to overall health outcomes, according to a population health model developed at the University of Wisconsin. Factors contributing to the remainder include lifestyle behaviors, the physical environment, and social and economic forces—all generally considered outside the realm of care. In 2010 Minnesota-based HealthPartners decided to target nonclinical community health factors as a formal part of its strategic business plan to improve public health in the Twin Cities area. The strategy included creating partnerships with businesses and institutions that are generally unaccustomed to working together or considering how their actions could help improve community health. This article describes efforts to promote healthy eating in schools, reduce the stigma of mental illness, improve end-of-life decision making, and strengthen an inner-city neighborhood. Although still in their early stages, the partnerships can serve as encouragement for organizations inside and outside health care that are considering undertaking similar efforts in their markets.

Governments, policy makers, foundations, and community organizations are paying increased attention to improving community health across the United States. As a nation, US health outcomes lag behind those of most other developed countries by a wide margin, despite substantially more investment. A population health model developed at the

Community Health Needs Assessment

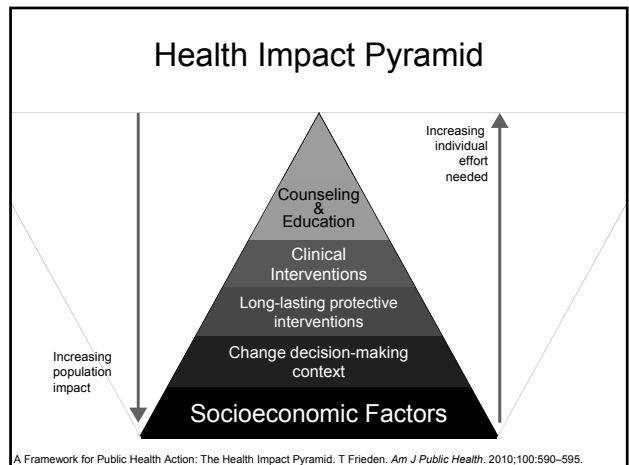
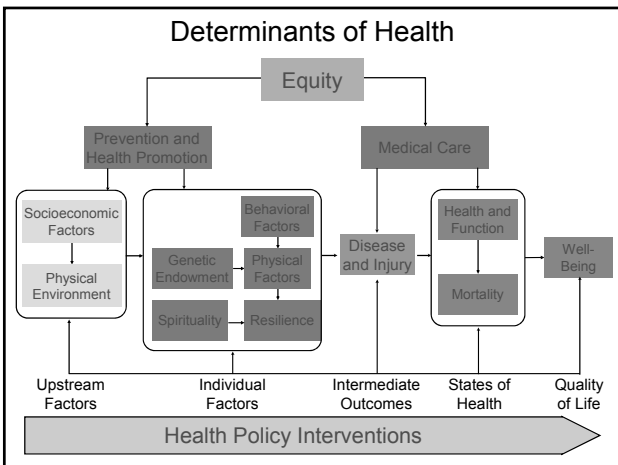
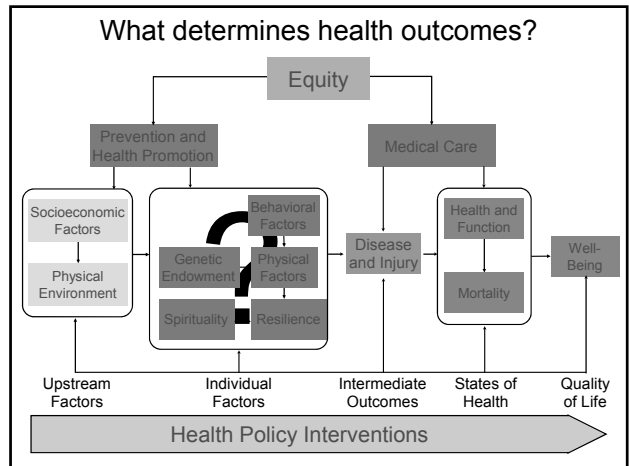
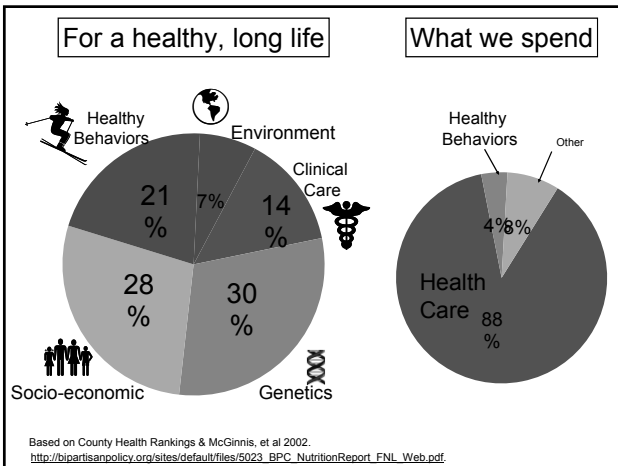
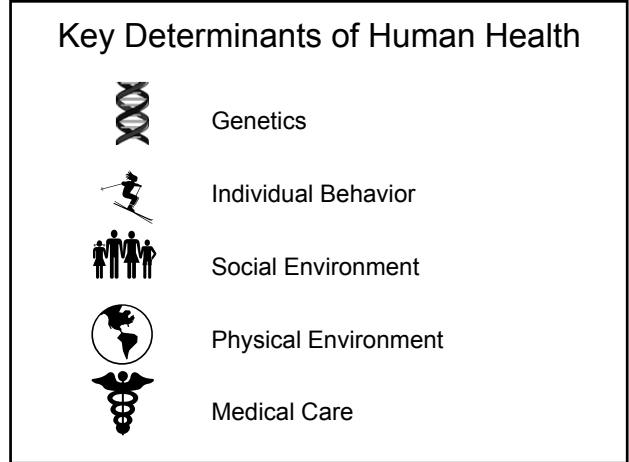
COMPILATION OF PATIENT PROTECTION AND AFFORDABLE CARE ACT
[As Amended Through May 1, 2010]
INCLUDING
PATIENT PROTECTION AND AFFORDABLE CARE ACT
HEALTHCARE WORKERS OF THE HEALTH CARE AND EDUCATION RECONCILIATION ACT OF 2010

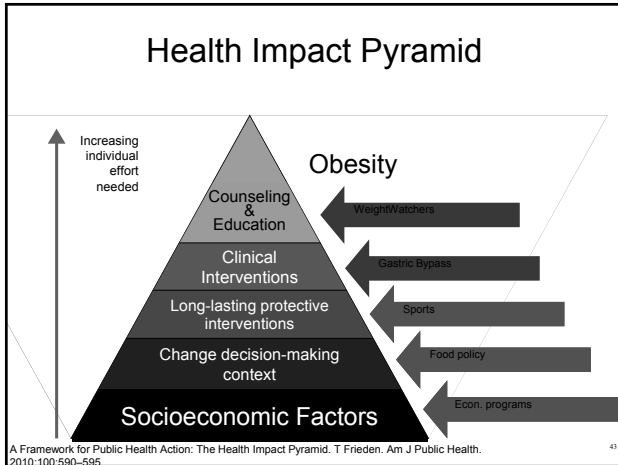
PREPARED BY THE
Office of the Legislative Counsel
FOR THE USE OF THE
U.S. HOUSE OF REPRESENTATIVES

MAY 2010

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."





Asthma PEDIATRICS

Official Journal of the American Academy of Pediatrics

African American children:

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

Role of Financial and Social Hardships in Asthma Racial Disparities
Andrew F. Beck, Bin Huang, Jeffrey M. Simmons, Terri Moncrief, Hadley S. Sauer, Chen Chen, Patrick H. Ryan, Nicholas C. Newman and Robert S. Kahn
Pediatrics 2014;133:e431; originally published online February 2, 2014; DOI: 10.1542/peds.2013-2437

CONSEQUENCES OF DIABETES

By Hilary K. Seligman, Ann F. Bolger, David Guzman, Andrea López, and Kirsten Bibbins-Domingo

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.

DOI: 10.1073/pbm.2013.1006
HEALTH AFFAIRS 33
NOV 15 2014
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"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

National Library of Medicine, NIH
UNC Southern Historical Collection at the Louis Round Wilson Library
http://www.lib.unc.edu/medhist/images/0473_3.jpg
<http://www.nlm.nih.gov/ghp/foodbook.html>

Sutton's Law

Why do we care about health determinants?

"Because that's where the money is."

William "Willie" Sutton

Public domain via Wikimedia Commons



The Washington Post

"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

Care Coordination in the Community

HEALTH AFFAIRS JUNE 2012 31:6

Six Features Of Medicare Coordinated Care Demonstration Programs That Cut Hospital Admissions Of High-Risk Patients

... Health Quality Partners, reduced hospitalizations by **30 per 100 beneficiaries** (33 percent; $p=0.02$)

... The demonstration program with the largest effects, at Health Quality Partners, was very data-driven, tracking care coordinators' performance and continually assessing the effectiveness of newly introduced interventions component and refinements to existing ones ..."

Effect of a Community-Based Nursing Intervention on Mortality in Chronically Ill Older Adults: A Randomized Controlled Trial

Kenneth D. Coburn, Sherry Marcantonio, Robert Lazansky, Maryellen Keller, Nancy Davis

... Overall, a **25% lower relative risk of death** (hazard ratio [HR] 0.75 ... the adjusted HR was 0.73 [95% CI 0.55-0.98, $p=0.033$]."

Brown R, Peikes D, Peterson G, et al. *Health Aff.* June 2012; 31:1156-66;
Coburn, K. D., Marcantonio, S., Lazansky, R., Keller, M., & Davis, N. (2012). Effect of a Community-Based Nursing Intervention on Mortality in Chronically Ill Older Adults: A Randomized Controlled Trial. *PLoS Medicine*, 9(7), e1001265. <http://doi.org/10.1371/journal.pmed.1001265>.

7/26/13 "Accountable Care" Helping Hospitals Keep Medical Costs Down - NYTimes.com

The New York Times

April 23, 2013

A Health Provider Strives to Keep Hospital Beds Empty

By ANNIE LOWREY

"...on the phone with patients with heart ailments, asking them not to shovel snow."

30-day Readmissions

Readmissions lead to \$41.3B in additional hospital costs

AHRQ report concludes that readmission drivers vary between payers

April 20, 2014 | By Ron Shinkman

Hospitals spent \$41.3 billion between January and November 2011 to treat patients readmitted within 30 days of discharge, according to the Agency for Healthcare Research and Quality (AHRQ).

Some 1.8 million readmissions cost the Medicare program \$24 billion; 600,000 privately insured patient readmissions totaled \$8.1 billion; and 700,000 Medicaid patient readmissions cost hospitals \$7.6 billion, according to the AHRQ.

<http://www.fiercehealthfinance.com/story/readmissions-lead-413b-additional-hospital-costs/2014-04-20>. (Accessed 2015 Sept)

30-day Readmissions

Safety Net Hospitals Hit Hardest by Medicare Fines

February 28, 2015
By Ronald Campbell

<http://centerforhealthreporting.org/article/safety-net-hospitals-hit-hardest-medicare-fines>

30-day Readmissions

National Medicare Readmission Rates Started to Fall in 2012

Performance (measurement) Time Period	Heart Failure (%)	Heart Attack (%)	Pneumonia (%)
July 2005 - June 2008	24.5	19.9	18.2
July 2006 - June 2009	24.7	19.9	18.3
July 2007 - June 2010	24.8	19.8	18.4
July 2008 - June 2011	24.7	19.7	18.5
July 2009 - June 2012	23.0	18.3	17.6
July 2010 - June 2013	22.7	17.8	17.3

NOTES: National readmission rates include Medicare fine for service unplanned hospitalizations for any cause within 30 days of discharge from an initial hospitalization for either heart failure, heart attack, or pneumonia. Rates are risk adjusted for certain patient characteristics, such as age and other medical conditions.
SOURCE: Kaiser Family Foundation analysis of CMS Hospital Compare data files.

Effect of a Pharmacist Intervention on Clinically Important Medication Errors after Hospital Discharge: A Randomized Controlled Trial

Sunil Kripalani, MD, MSc^{1,2}, Christianne L. Rounie, MD, MPH^{2,3,4}, Anuj K. Dalal, MD^{5,6,7}, Courtney Cawthon, MPH², Alexandra Businger, BA⁵, Svetlana K. Eden, MSc⁸, Ayumi Shintani, PhD, MPH⁹, Kelly Cunningham Sponsler, MD¹, L. Jeff Harris, MD⁴, Cecelia Theobald, MD⁴, Robert L. Huang, MD, MPH⁴, Danielle Scheurer, MD, MSc⁹, Susan Hunt, MD¹⁰, Terry A. Jacobson, MD¹¹, Kimberly J. Rask, MD, PhD^{11,12}, Viola Vaccarino, MD, PhD¹³, Ann L. ...

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."

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 transitions of care.

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%.
*Now is the time to act. FAPHA, FACHE, Vice President of Corporate Support Services at Commonwealth Health Corporation in Bowling Green, KY, during a session at the 2013 APHA Annual Meeting & Exposition in Los Angeles. Comprehensive medication reviews, patient and caregiver education, medication therapy management, and pre- and postdischarge counseling by pharmacists can reduce readmission rates for patients, she noted.

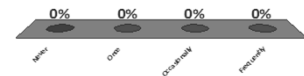
<http://www.pharmacist.com/targeting-transitions-pharmacists-critical-reducing-readmissions>



Have you ever testified before a legislative body?



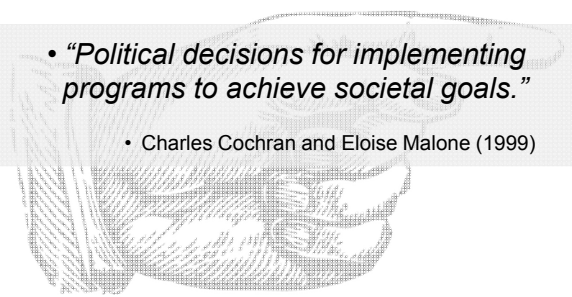
- A. Never
- B. Once
- C. Occasionally
- D. Frequently



Policy

• *"Political decisions for implementing programs to achieve societal goals."*

• Charles Cochran and Eloise Malone (1999)

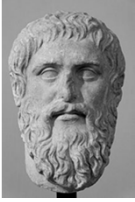


Public Policy

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



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



-Plato


J Epidemiol Community Health 2013;67:427-431 doi:10.1136/jech-2012-201301

Research report

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

Dayna S Alexander^{1,2}, Larissa R Brunner Huber¹, Crystal R Piper¹, Amanda E Tanner³

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



The NEW ENGLAND JOURNAL of MEDICINE

HOME ARTICLES & MULTIMEDIA ISSUES SPECIALTIES & TOPICS FOR AUTHORS CME

Perspective

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

Kelly M. Doran, M.D., M.H.S., Elizabeth J. Misa, M.P.A., and Nirav R. Shah, M.D., M.P.H.
N Engl J Med 2013; 369:2374-2377 | December 19, 2013 | DOI: 10.1056/NEJMo1310121

Show them a sign, and teens cut down on sugary drinks



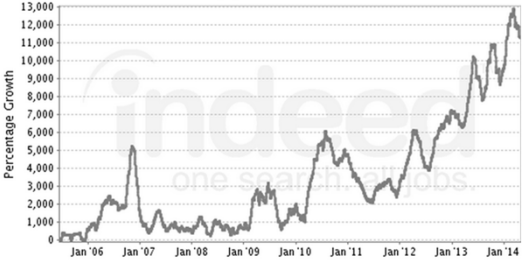
When researchers in Baltimore posted signs in corner markets showing how much of a caloric hit that sugary drink really is, teens bought fewer sodas and sports drinks, and purchased more water and diet soda.

POPULATION HEALTH



Population Health Careers

Job Trends from Indeed.com
— "population health"



Year	Percentage Growth
Jan '06	~1,000
Jan '07	~5,000
Jan '08	~1,000
Jan '09	~2,000
Jan '10	~6,000
Jan '11	~4,000
Jan '12	~7,000
Jan '13	~10,000
Jan '14	~12,000

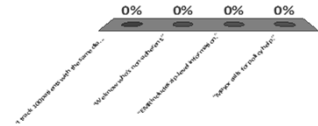
Role of Pharmacists

- 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