

# Population Health Management for Behavioral Health Organizations

Indiana Council

May 2015

# My Background

- Medicaid Director
- Previously DMH Medical Director – 20 years  
Practicing Psychiatrist  
    CMHCs – 10 years  
    FQHC – 18 years
- Distinguished Professor, Missouri Institute of Mental Health, University of Missouri St. Louis
- Adjunct Professor of Psychiatry – University of Missouri Columbia

# Celebrity Endorsements

- "He is not only dull himself, he is the cause of dullness in others."-Samuel Johnson
- "He uses statistics as a drunken man uses lamp-posts... for support rather than illumination." -- Andrew Lang
- "He can compress the most words into the smallest idea of any man I know." -- Abraham Lincoln

# Outline

- What Is Population health
- What is population health management
- Why do we need it
  - Good outcomes are dependent on patient behaviors
  - SMI are sicker
  - Psychiatry shortage
- Health home example

# Population Health Definitions

- The health of the population as measured by health status indicators and as influenced by social, economic and physical environments, personal health practices, individual capacity and coping skills, human biology, early childhood development, and health services. (Dunn and Hayes, 1999)
- A conceptual framework for thinking about why some populations are healthier than others as well as the policy development, research agenda, and resource allocation that flow from it (Young 2005)

# Factors that Affect Health

Smallest  
Impact

Counseling  
& Education

Clinical  
Interventions

Long-lasting  
Protective Interventions

Changing the Context  
*to make individuals' default  
decisions healthy*

Socioeconomic Factors

Largest  
Impact

Example

Eat healthy, be  
physically active

Rx for high blood  
pressure, high  
cholesterol, diabe

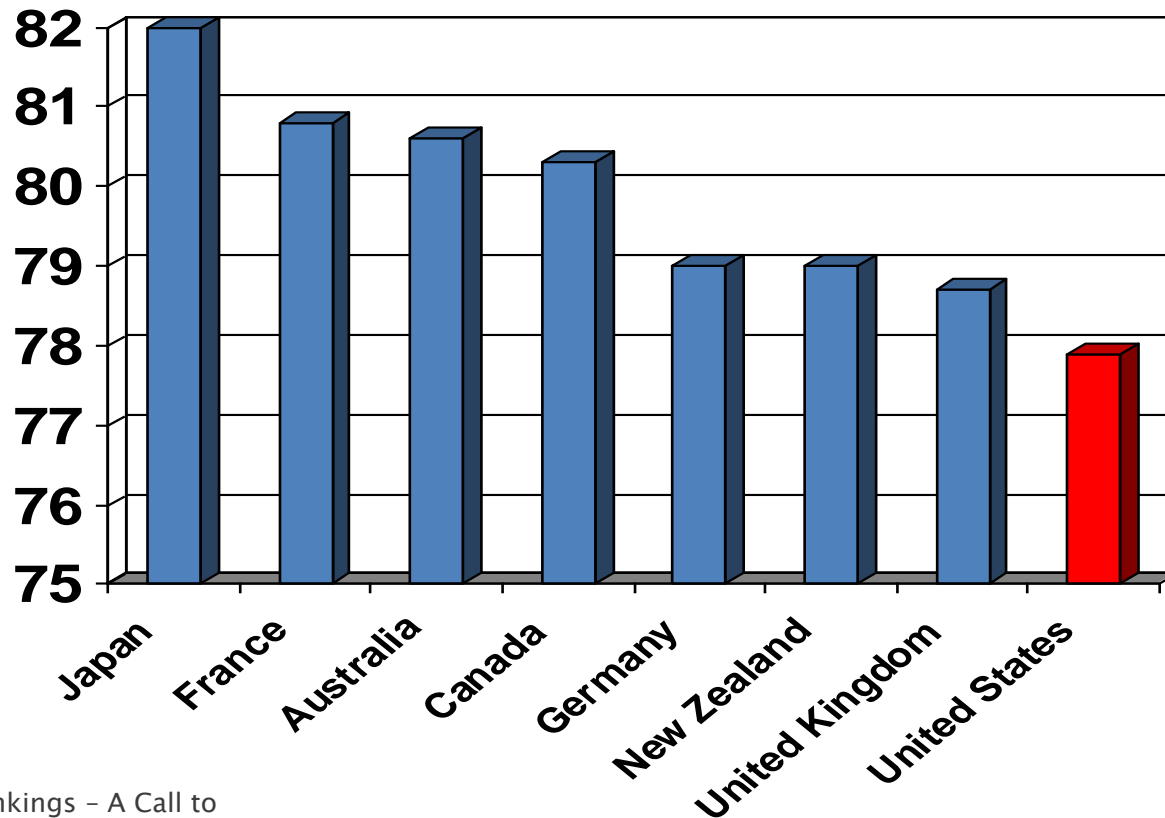
Immunizations, brie  
intervention, cessat  
treatment, colonosc

Fluoridation, 0g tra  
fat, iodization, smo  
free laws, tobacco

Poverty, education  
housing, inequality



# Health Rankings

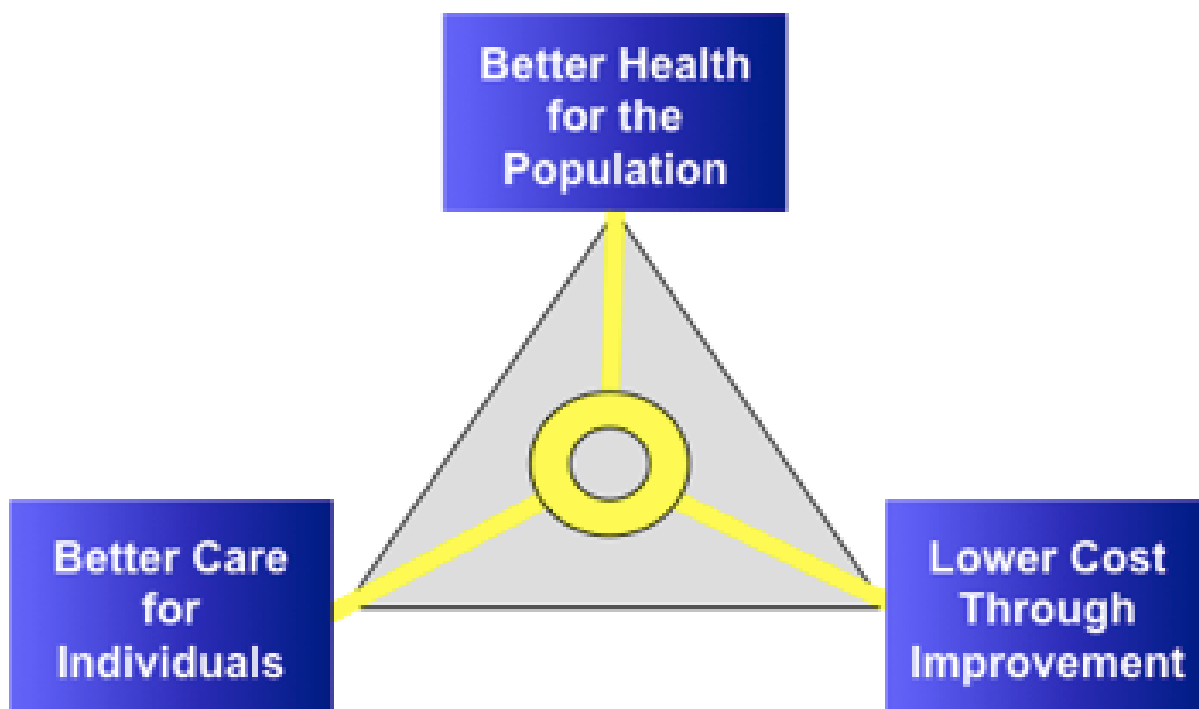


America's Health Rankings - A Call to  
Action for People & Their Communities  
United Health Foundation, 2007



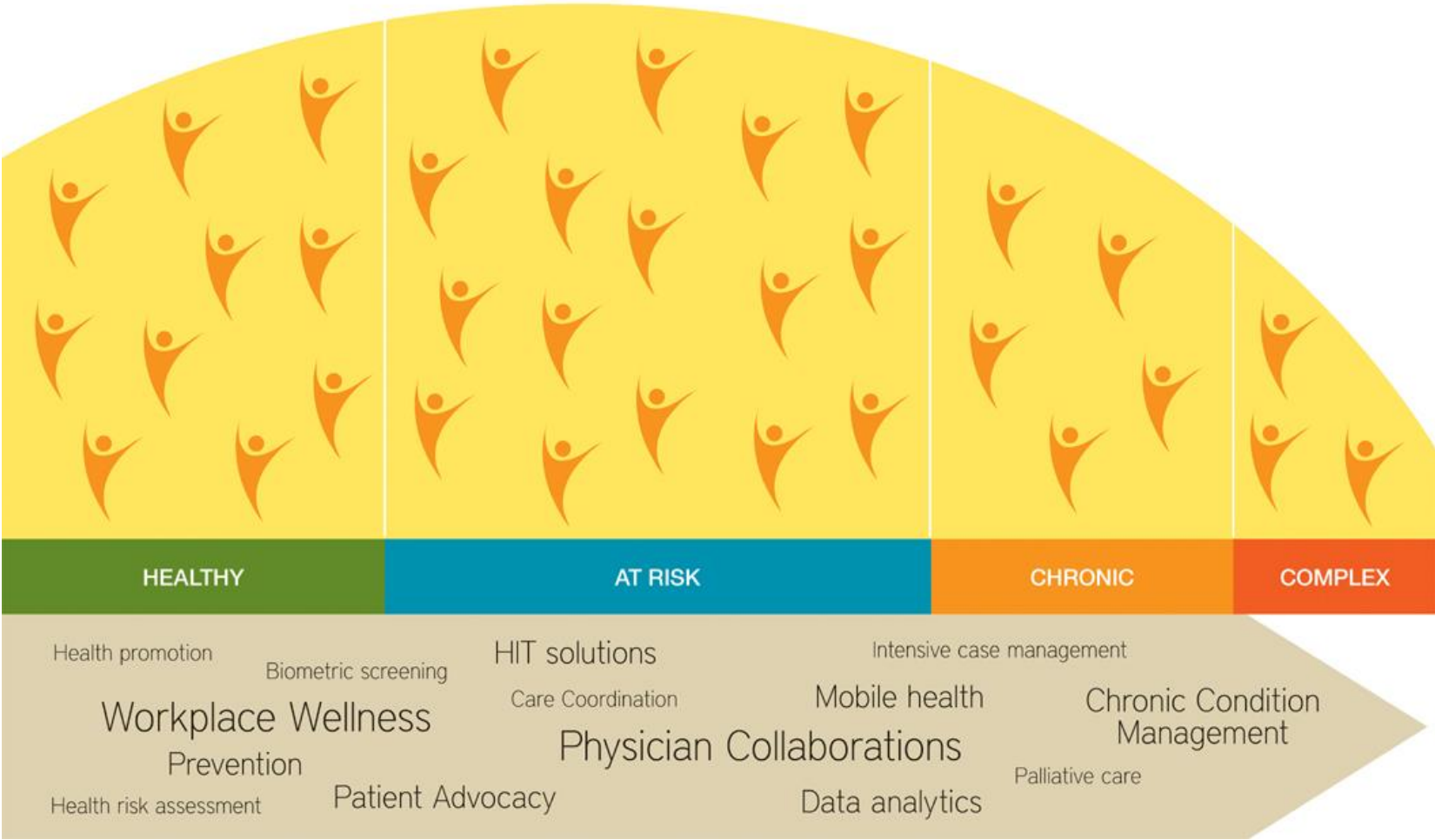
The IHI  
*Triple Aim*

Better Care for Individuals, Better Health for Populations, and Lower Per Capita Costs





# The Continuum of Care



# How do you deliver PHM in any Care Setting?

Assess

Stratify

Implement  
Solutions

Measure &  
Report

# Population Management Principles

- Population-based Care
- Data-Driven Care
- Evidence-based Care
- Patient Centered Care
- Addressing Social Determinates of Health
- Team Care
- Integration of Behavioral and Primary Care

# Population-Based Care

- Don't rely solely on patients to know when they need care and what care to ask for from whom - Use data analytics to outreach to on high need/high utilizer patients
- Don't focus on fixing all care gaps one patient at a time - Choose selected high prevalence and highly actionable individual care gaps for intervention across the whole population
- The population-based health care provider is the public health agency for their clinic population

# Data-Driven Care

- Patient Registries
- Risk Stratification
- Predictive Analytics
- Performance Benchmarking
- Data Sharing

# Population Management

- Selects those from whole population:
  - Most immediate risk
  - Most Actionable improvement opportunities
- Aids in planning :
  - Care for whole population
  - New Interventions and Programs
  - Early identification and Prevention
  - Choosing and Targeting Health Education

# Data Uses

- Aggregate Reporting – performance benchmarking
- Individual drill down – care coordination
- Disease Registry – care management
  - Identify Care Gaps
  - Generate to-do lists for action
- Enrollment Registry – deploying data and payments
- Understanding – planning and operations
- Telling your story – presentation like this

# Principles

- Use the Data you have before collecting more
- Show as much data as you can to as many partners as you can as often as you can
  - Sunshine improves data quality
  - They may use it to make better decisions
  - It's better to debate data than speculative anecdotes
- When showing data ask partners what they think it means
- Treat all criticisms that results are inaccurate or mis-leading as testable hypotheses



# More Principles

- Tell your data people that you want the quick easy data runs first. Getting 80% of your request in 1 week is better than 100% in 6 weeks
- Treat all data runs as initial rough results
- Important questions should use more than one analytic approach
- Several medium Data Analytic vendors/sources is better than on big one
- Transparent Bench Marking improves attention and increases involvement

# Most Important Principle

- Perfect is the Enemy of Good
- Use an Incremental Strategy
- If you try figure out a comprehensive plan first you will never get started
- Apologizing for a failed prompt attempt is better than is better than apologizing for missed opportunity



# PLANNING

MUCH WORK REMAINS TO BE DONE BEFORE WE CAN ANNOUNCE  
OUR TOTAL FAILURE TO MAKE ANY PROGRESS.

# Six Population Health Management Services

- *Care Management*
- *Care Coordination*
- *Managing Transitions of Care*
- *Health Promotion*
- *Individual and Family Support*
- *Referral to Community Services*

# Comprehensive Care Management

- Identification and targeting of high-risk individuals
- Monitoring of health status and adherence
- Identification and targeting care gaps
- Individualized planning with the patient

# Step 1 – Create Disease Registry

- Get Historic Diagnosis from Admin Claims
- Get Clinical Values from Metabolic Screening, clinical evaluation and management, care plans
- Combine into EHR Disease Registry (Central Data Registry, PROACT)
- Online Access available to all Providers

# Step 2 – Identify Care Gaps and ACT!

- Compare Combined Disease Registry Data to accepted Clinical Quality Indicators
- Identify Care Gaps
- Sort patients groups with care gaps into agency specific To-Do lists
- Nurse care manager helps team decide who will act
- Set up indicated visits and pass on info with request to treat

# Care Coordination

- Coordinating with the patients, caregivers and providers
- Implementing plan of care with treatment team
- Planning hospital discharge
- Scheduling
- Communicating with collaterals



# Allowable Uses - TPO

Core Health Care Activities for which health information can be used/shared with or without patient consent under HIPAA to avoid unnecessary interference with access to quality health care:

- **Treatment**
- **Payment**
- Healthcare **Operations**

# Treatment (45 CFR 164.5010)

- Treatment means the
  - provision,
  - coordination, or
  - management
- Of health care and related services by one or more health care providers, including
  - coordination or management of health care by a health care provider with a third party;
  - consultation between health care providers relating to a patient; or
  - referral of a patient for health care from one health care provider to another.

# Treatment

- Authorizations are not needed to use or disclose Personal Health Information (PHI) for treatment purposes.
- Treatment, by design, is broadly defined.
- Treatment covers the coordination or management of health care among providers or a third party “related service”.

# Treatment

- Treatment includes not just health care, but, also, “related services.”
- “Related services” can include social, rehabilitative or other services associated with health care.
- HHS believes disclosures for treatment purposes are appropriate for timely and quality treatment.

# Treatment

The following, when undertaken on behalf of a single consumer (not a population) are treatment activities:

- Case management;
- Care coordination;
- Disease management;
- Health promotion; and
- Outreach programs

# Surprising Truth about Treatment, Health Care Operations, and Payment

- Individuals have the right to request restrictions on how a covered entity will use and disclose PHI about them for treatment, health care operations, and payment.
- A covered entity is not required to agree to an individual's request for restriction, but is bound by any restrictions to which it agrees.  
(45 CFR 164.522(a))



# Why Behavioral Health Needs Population Management

- ACA Requires It
- SMI are sicker
- Population Management needs BH
- Psychiatry shortage



# Healthcare Reform

*Moving Toward an Accountable Health Care System*

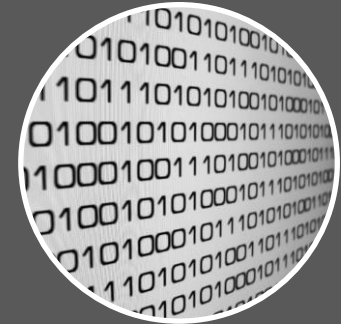


Coverage  
for All



Payment Reform

Align incentives  
Pay for Value  
Strengthen Primary Care



Improve Quality  
and Support  
Innovation

*Tools to Rebuild and Restructure Health Care*

# Population Health Management in the ACA

- Community Health Needs Assessment requirements
- Expansion of prevention and wellness services
- Hospital Readmissions Reduction Program
- Community-based Care Transitions Program
- Accountable Care Organizations
- Patient Centered Medical Homes
- Health Homes for Chronic Conditions
- Increased funding for health centers

# A Quick Overview of Assumption of Risk Models

## Model 1: Typical Self-Insured Employer

**Purchaser:** Employer- **Risk Stays Here**

**Payer:** Intermediary/TPA

**Billing Provider:** Provider/Network/System

**Health Care Worker:** Practitioner/Employees

# A Quick Overview of Assumption of Risk Models

## Model 2: Typical Uninsured

**Purchaser:** Patient-**Risk Stays Here**

**Payer:** None

**Billing Provider:** None

**Health Care Worker:** Practitioner/Employees

# A Quick Overview of Assumption of Risk Models

## Model 3: Typical Insurance

**Purchaser:** Employer/Taxpayer/Individual

↓  
**(Risk)**  
↓

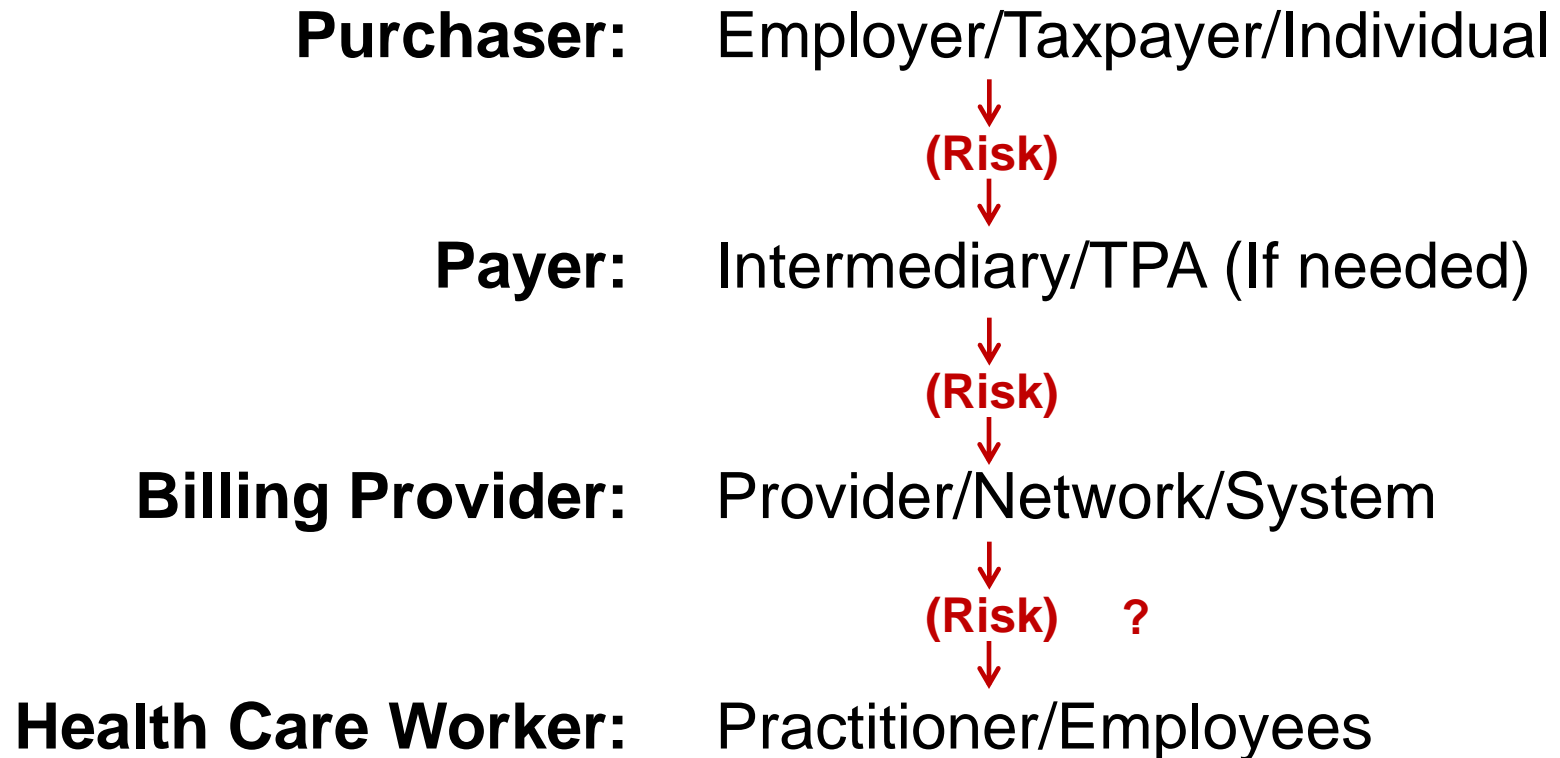
**Payer:** Insurance Company

**Billing Provider:** Provider/Network/System

**Health Care Worker:** Practitioner/Employees

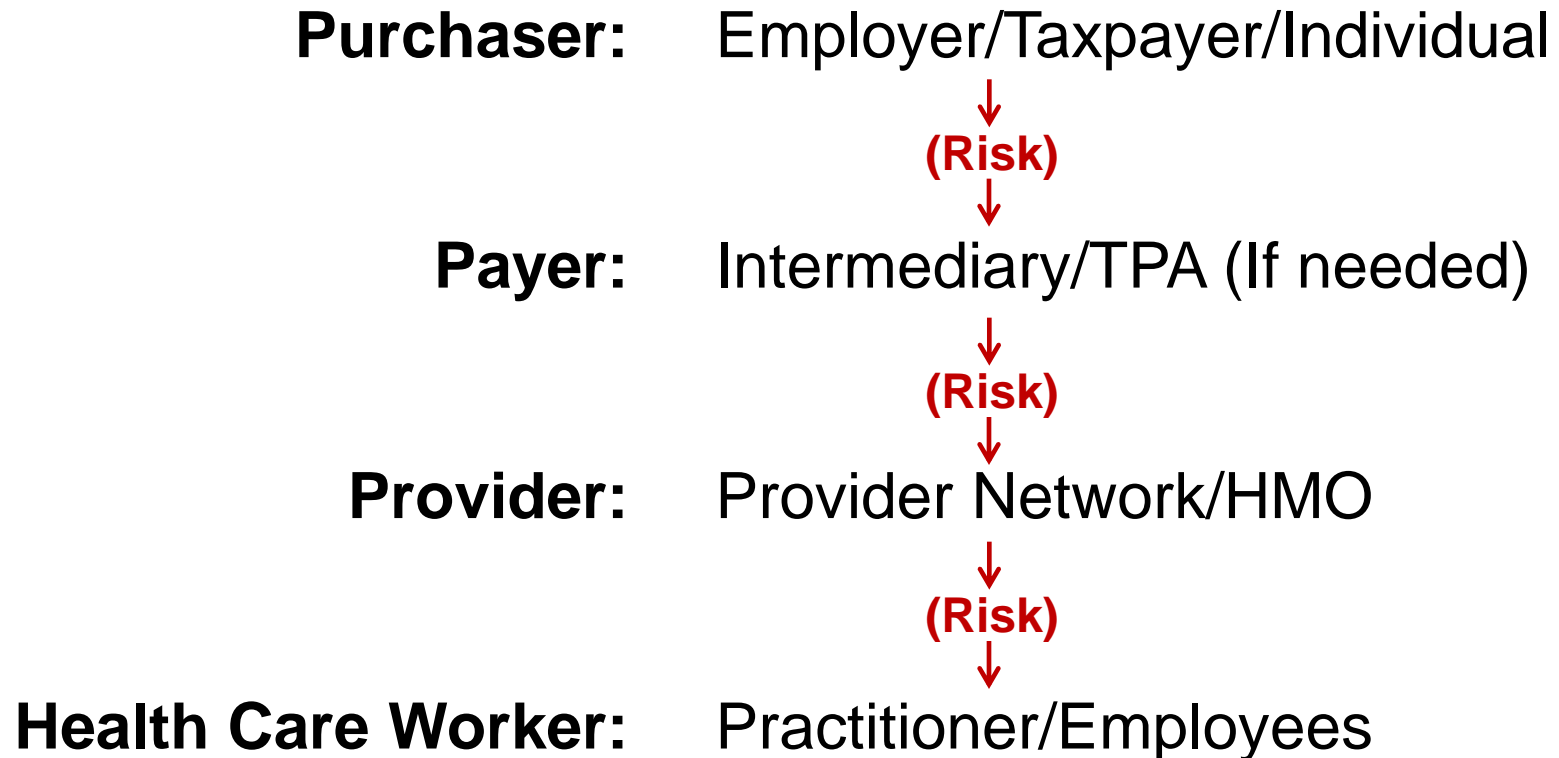
# A Quick Overview of Assumption of Risk Models

## Model 4: Accountable Care/Shared Savings

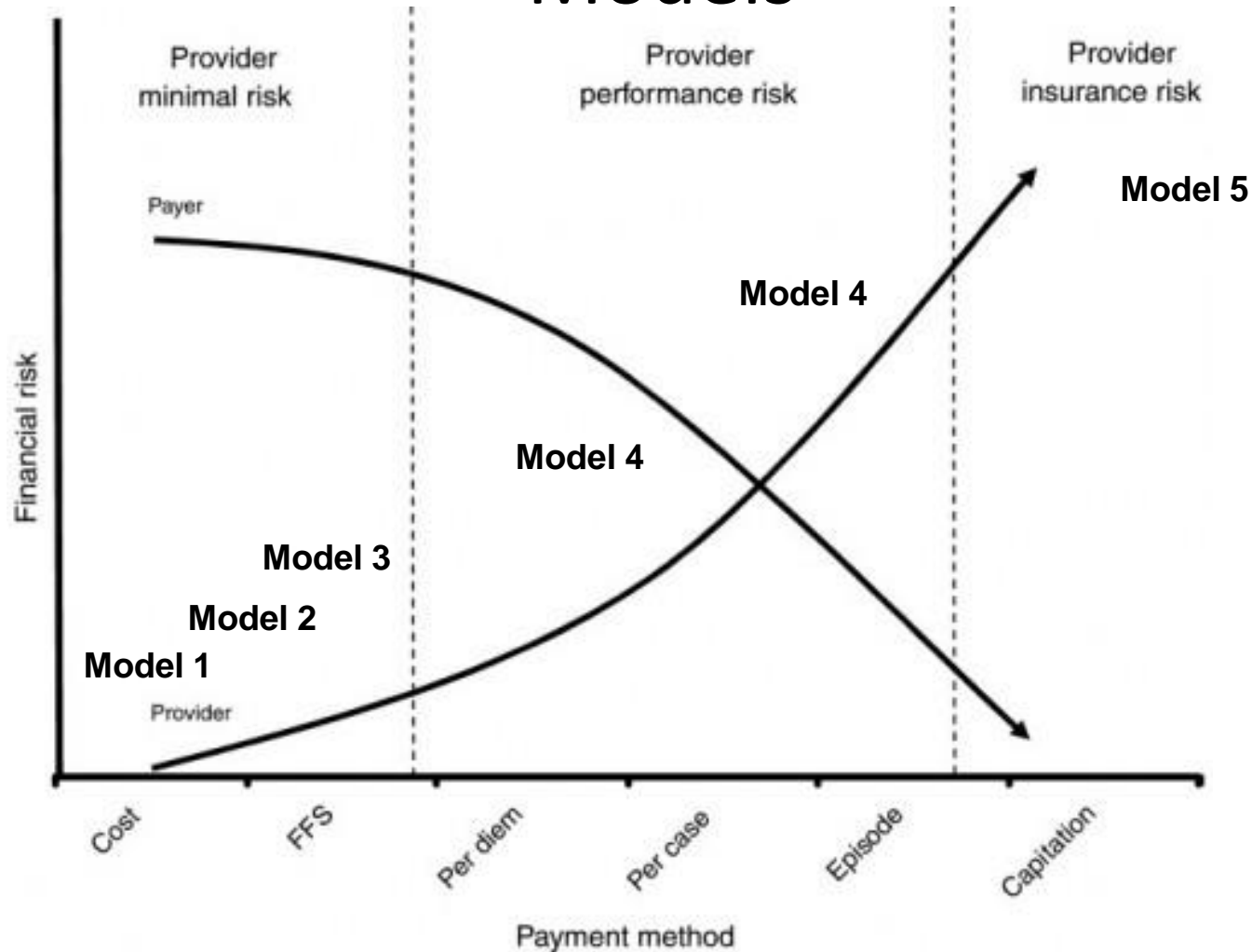


# A Quick Overview of Assumption of Risk Models

## Model 5: Typical HMO (Provider Side)

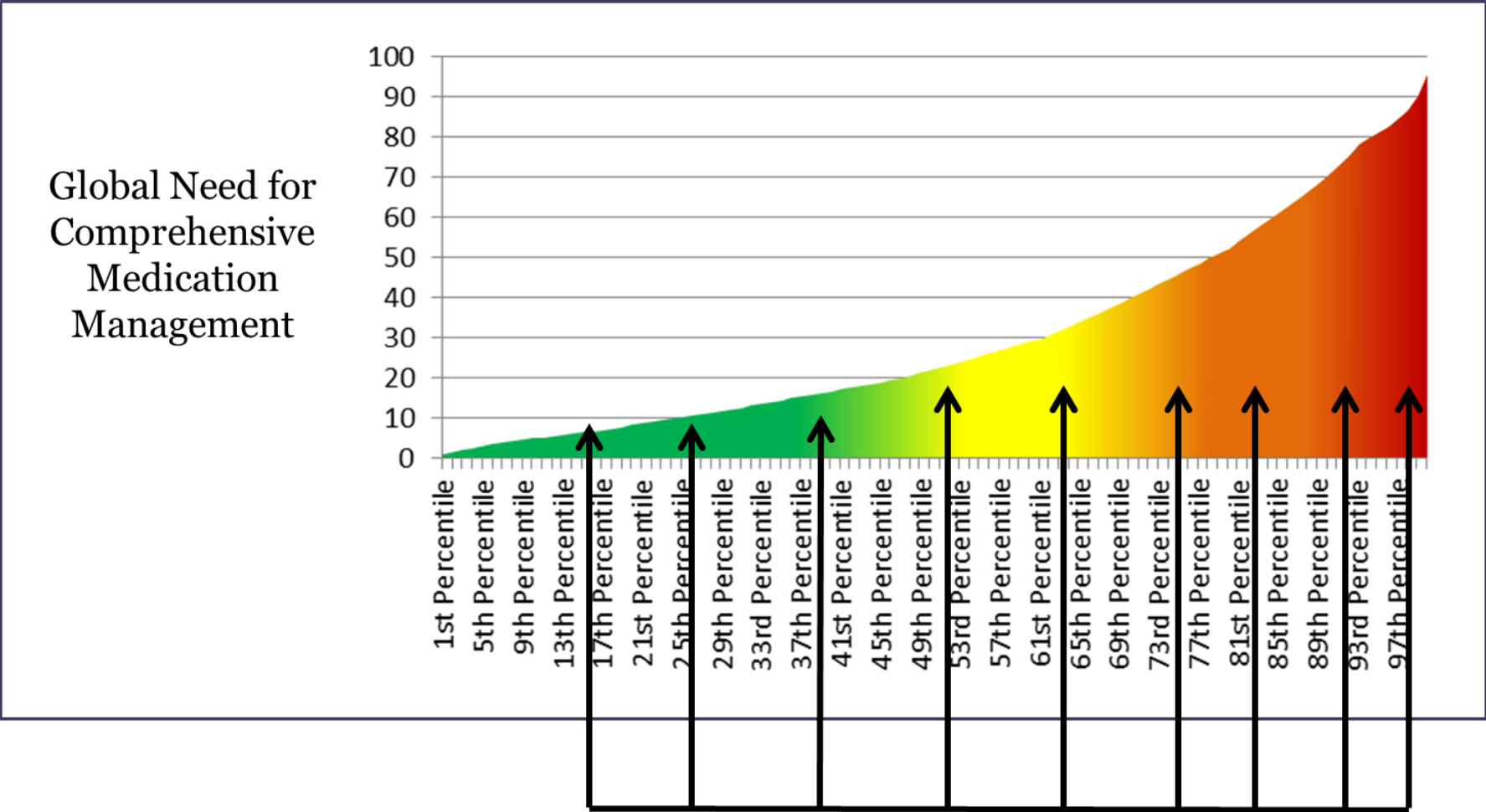


# A Quick Overview of Assumption of Risk Models





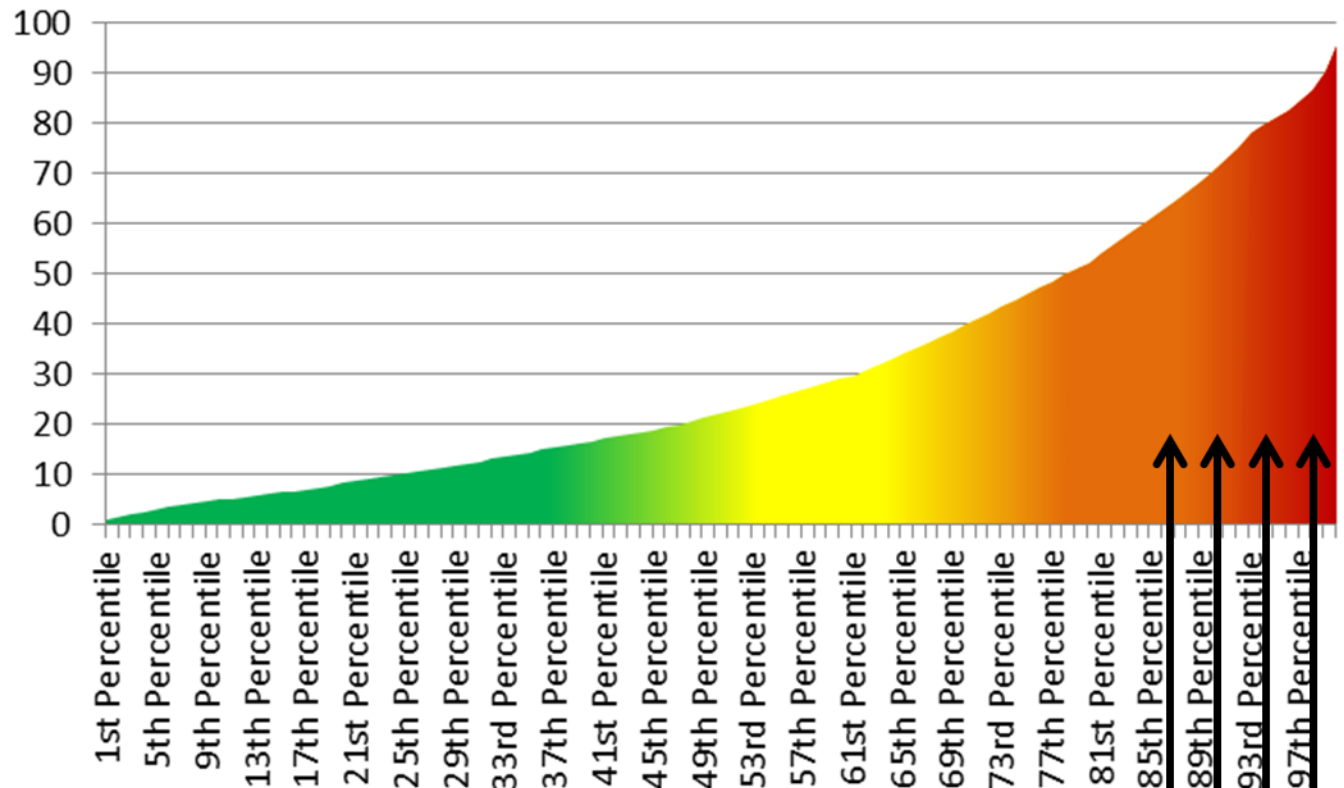
# View of Risk Distribution – FFS



Typical Focus in Traditional Fee for Service System without Value-Driven Service Provision

# View of Risk Distribution – ACO

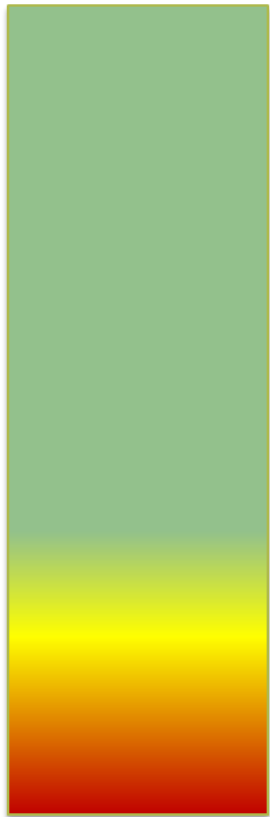
Global Need for Comprehensive Medication Management



Typical focus of Intervention based on Patient Need/Response

# Risk Time Horizon

Population  
Risk



Return on Intervention Investment in Years 6-80  
(e.g. Vaccines, Well Child Visits)

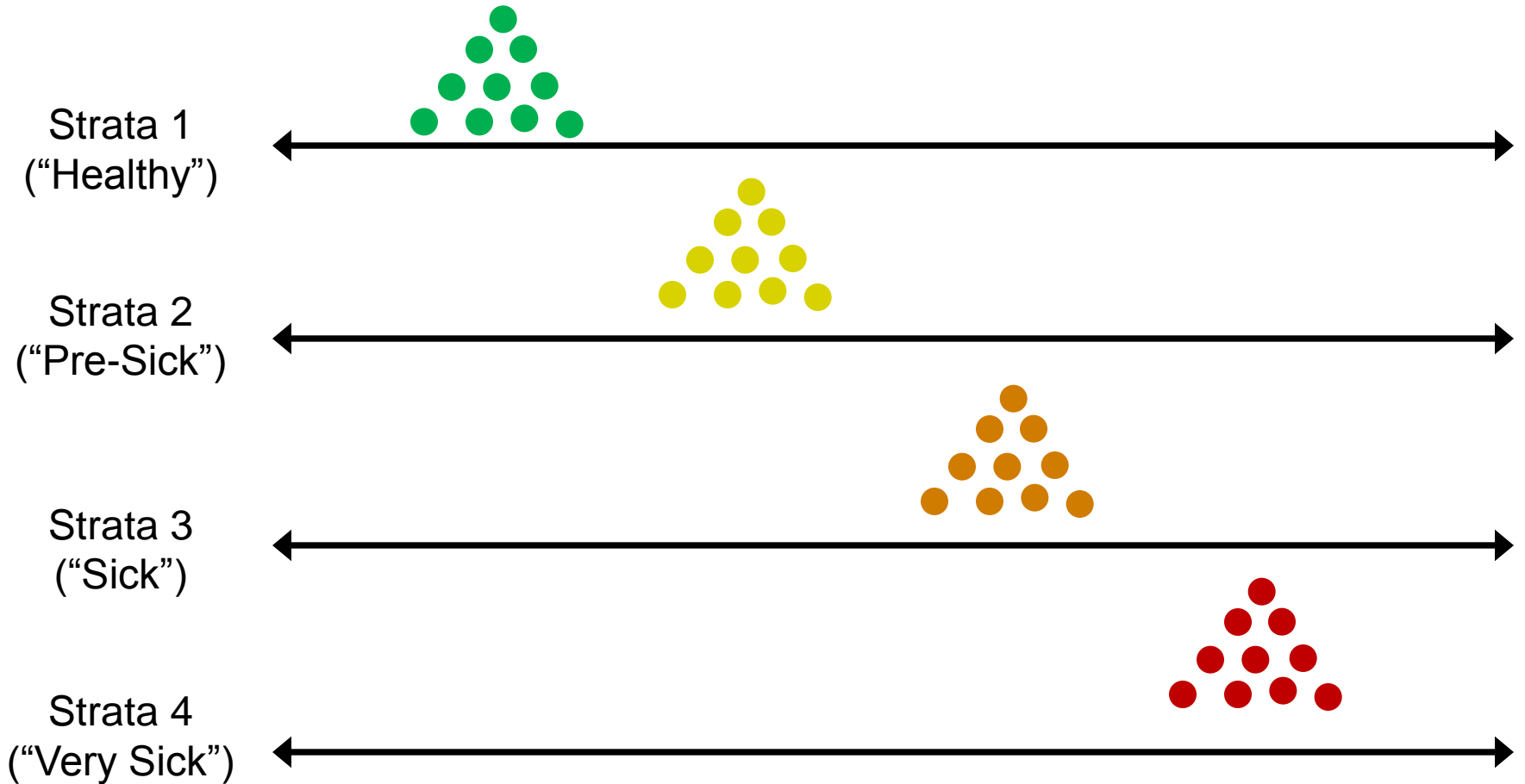
Return on Intervention Investment in Year 2-5  
(e.g. Care Gaps)

Return on Intervention Investment in Year 1  
(e.g. Transitional Care)

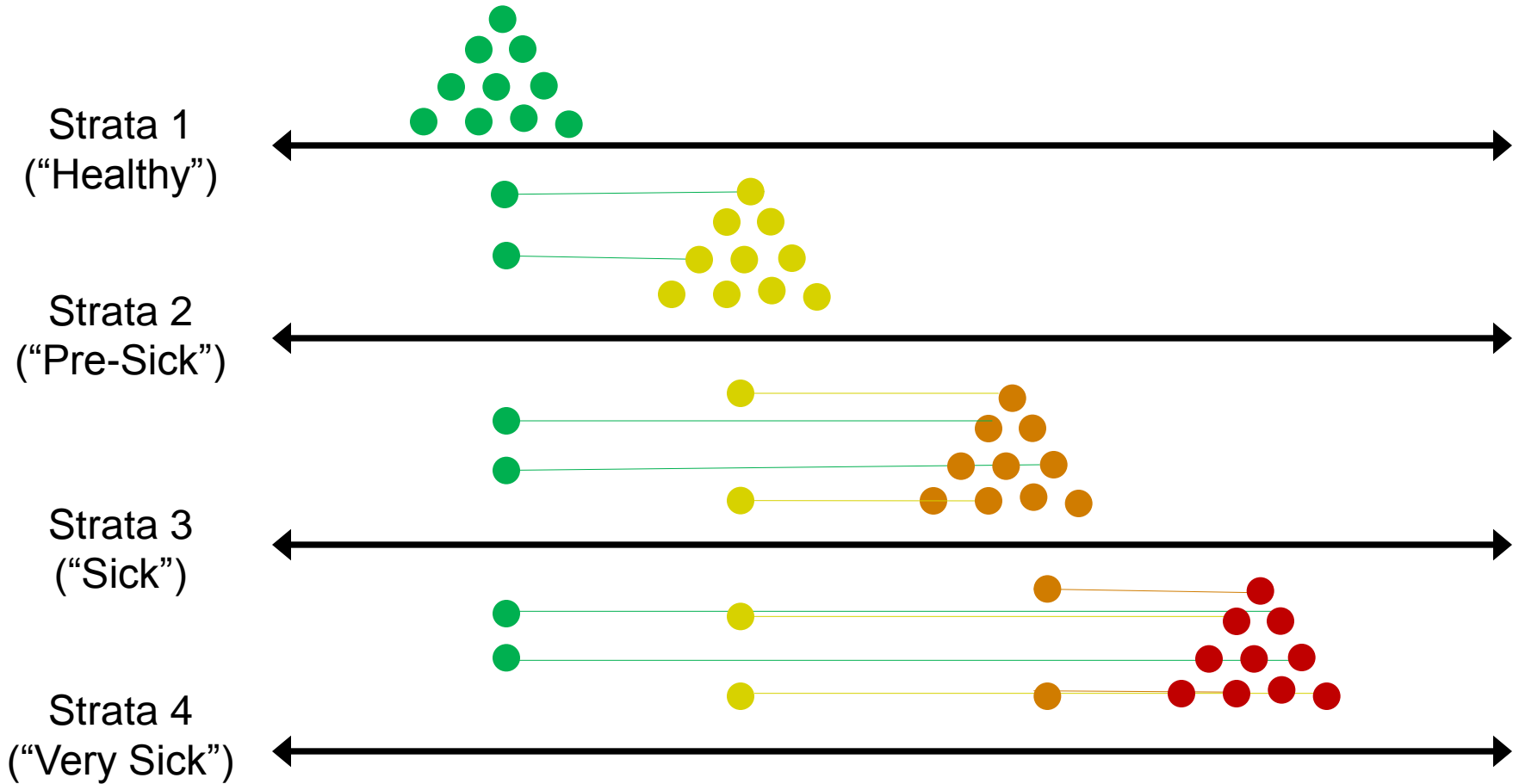
Quality of  
Care  
Efforts

Cost  
Savings  
Efforts

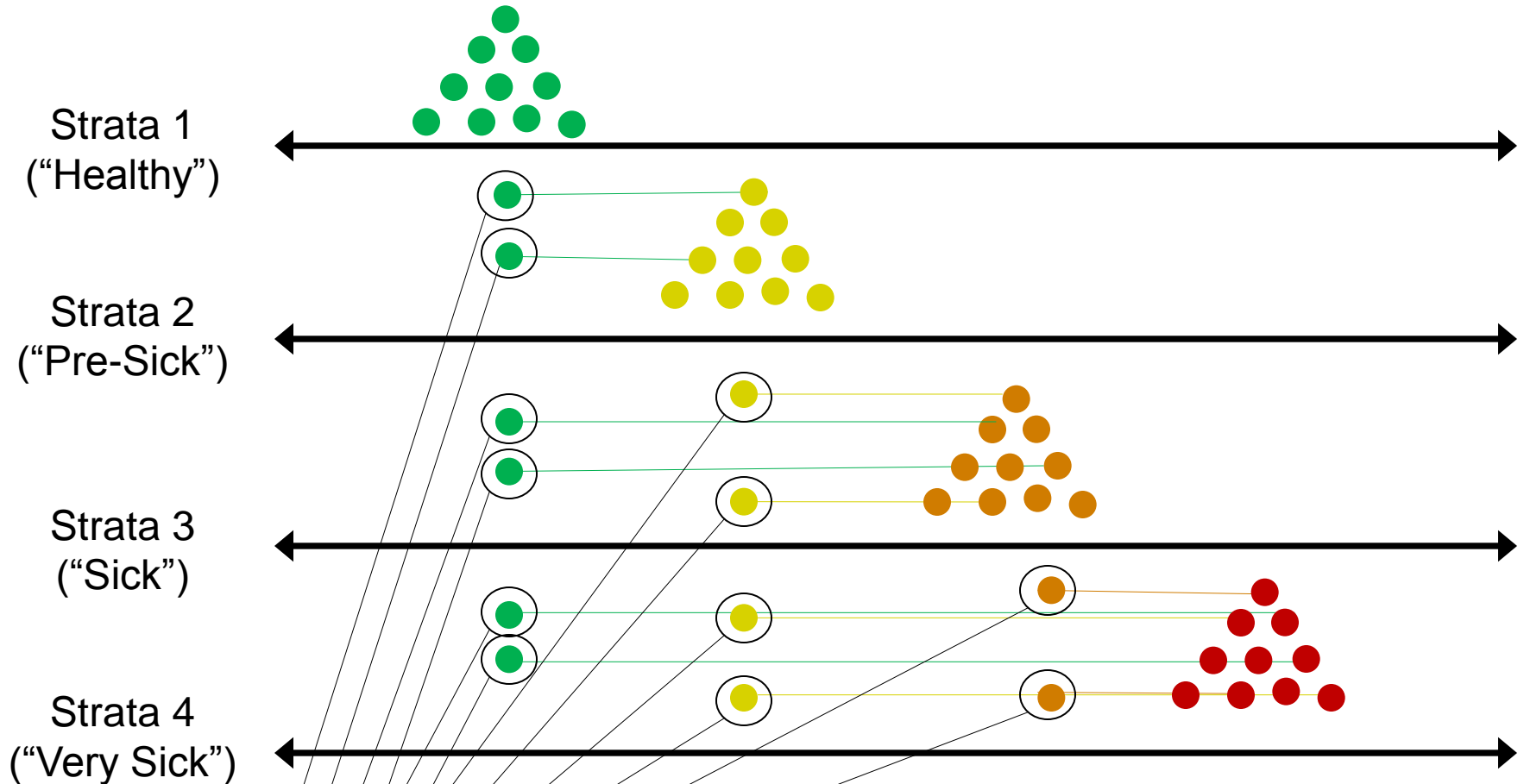
# Intrinsic Risk vs. Modifiable Risk



# Intrinsic Risk vs. Modifiable Risk



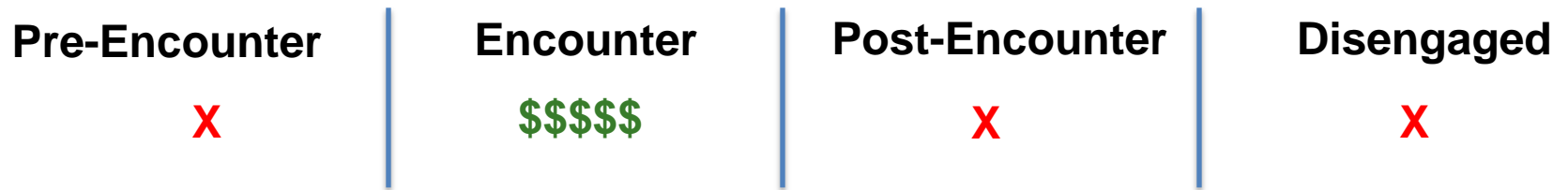
# Intrinsic Risk vs. Modifiable Risk



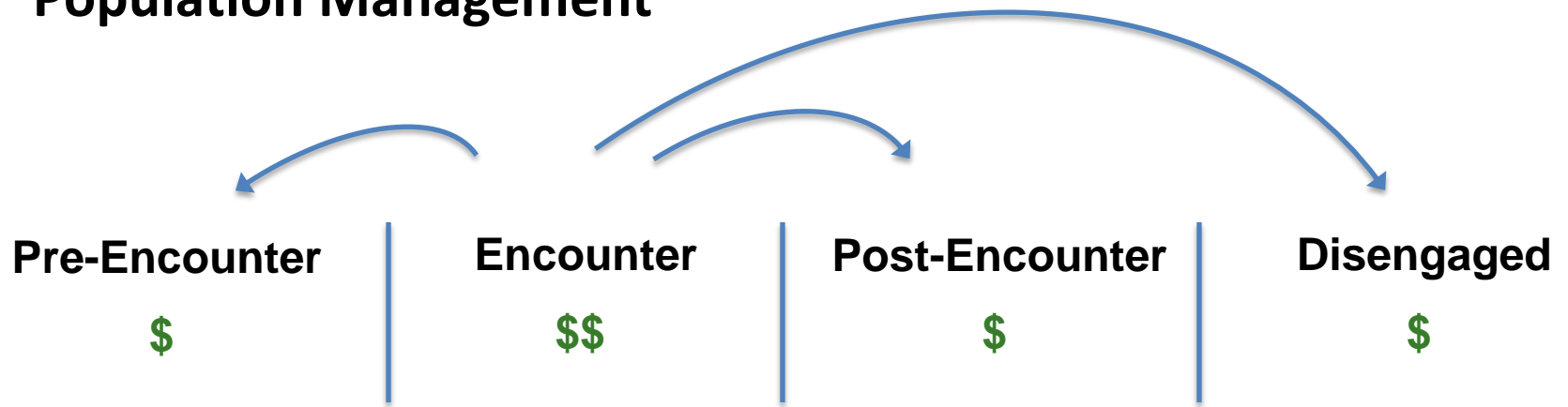
Patients in a Higher Utilization Strata than Their Inherent Risk

# ...from encounters...to ongoing management

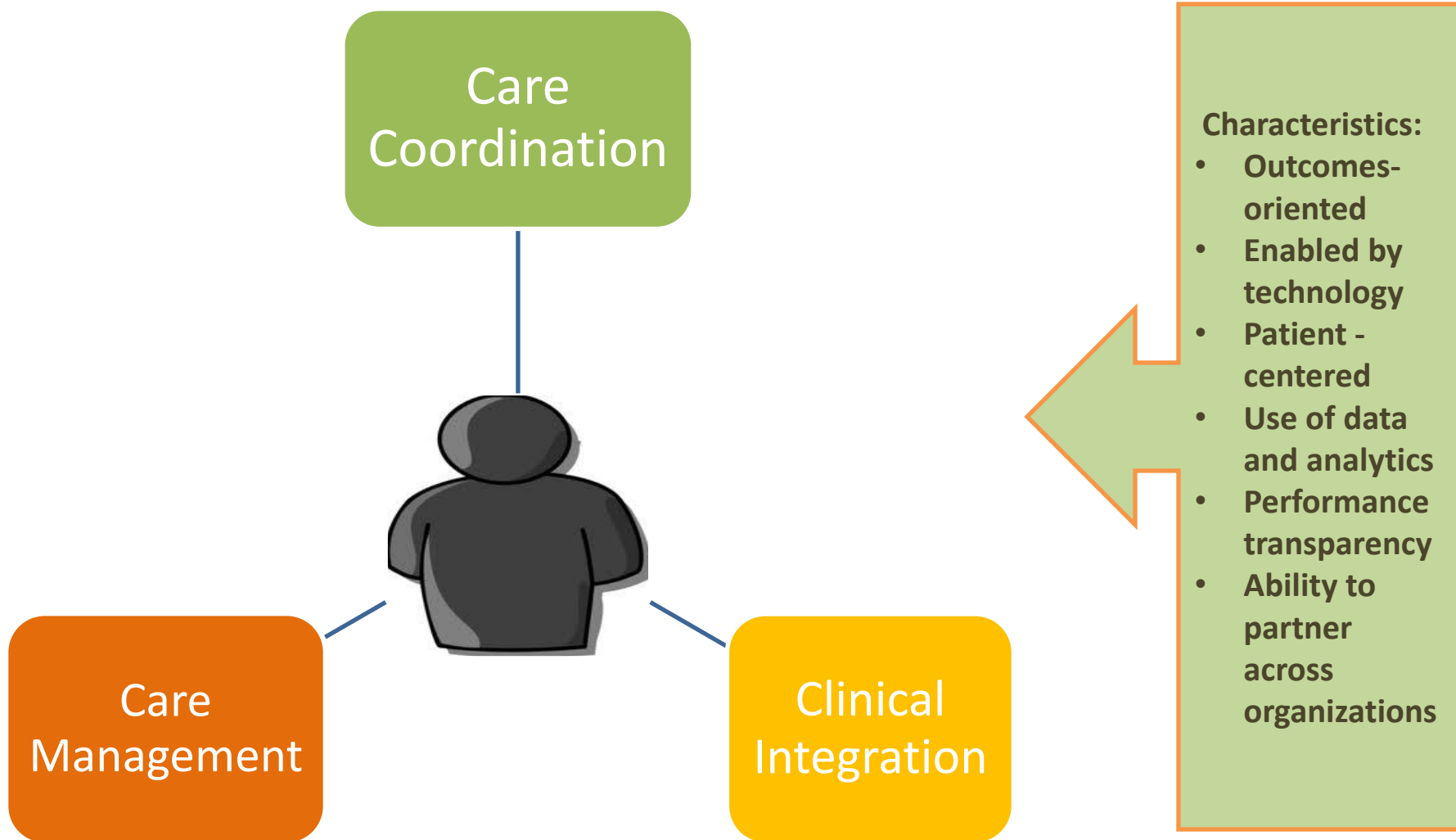
## Fee-For-Service



## Population Management

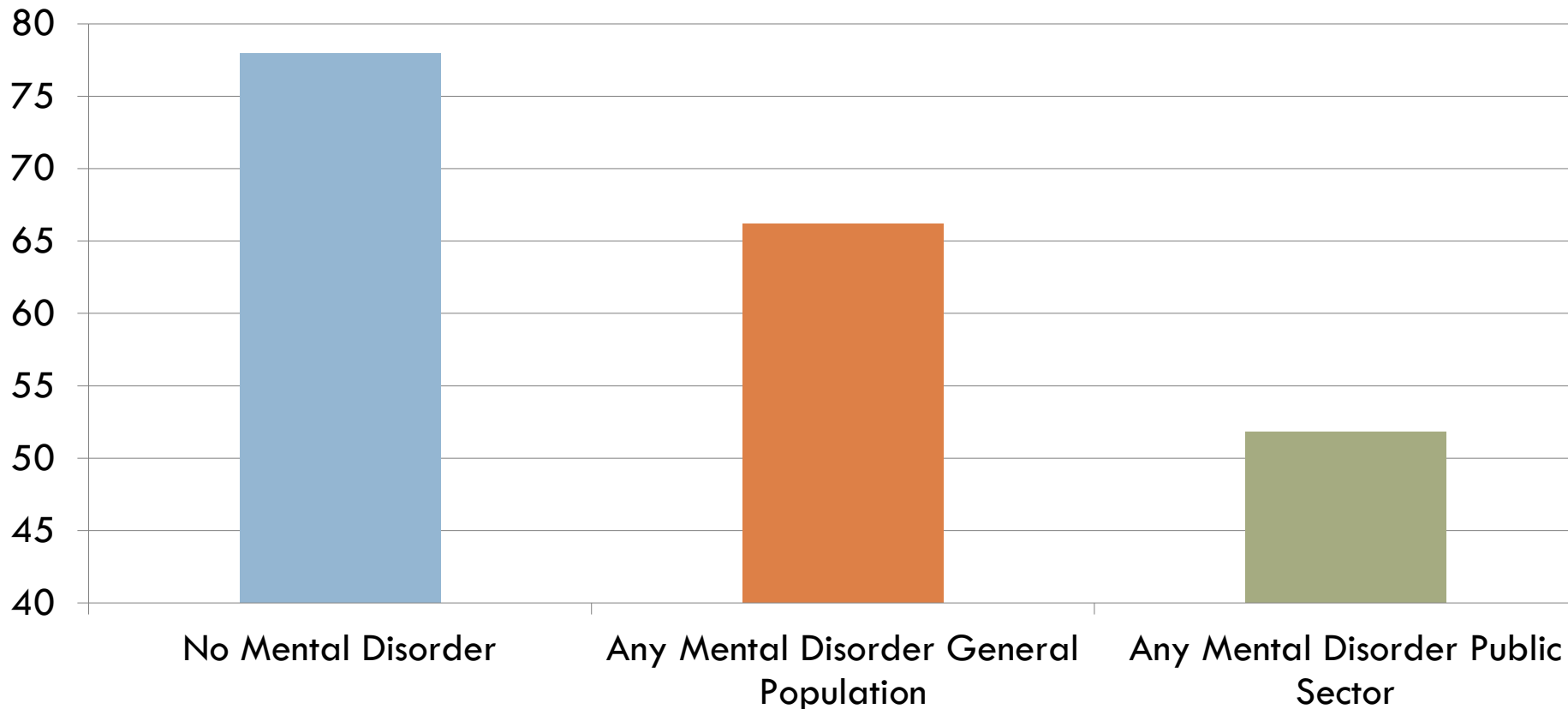


# Important Provider Competencies





# Life Expectancy



Bar 1 & 2: Druss BG, Zhao L, Von Esenwein S, Morrato EH, Marcus SC. Understanding excess mortality in persons with mental illness: 17-year follow up of a nationally representative US survey. *Med Care*. 2011 June;49(6):599-604

Bar 3; Daumit GL, Anthony CB, Ford DE, Fahey M, Skinner EA, Lehman AF, Hwang W, Steinwachs DM. Pattern of mortality in a sample of Maryland residents with severe mental illness. *Psychiatry Res*. 2010 Apr 30;176(2-3):242-5

## Comparison of Metabolic Syndrome Prevalence in Fasting CATIE Subjects and Matched NHANES III Subjects

	Males			Females		
	CATIE N=509	NHANES N=509	<i>p</i>	CATIE N=180	NHANES N=180	<i>p</i>
<b>Metabolic Syndrome Prevalence</b>	<b>36.0%</b>	<b>19.7%</b>	<b>.0001</b>	<b>51.6%</b>	<b>25.1%</b>	<b>.0001</b>
<b>Waist Circumference Criterion</b>	<b>35.5%</b>	<b>24.8%</b>	<b>.0001</b>	<b>76.3%</b>	<b>57.0%</b>	<b>.0001</b>
<b>Triglyceride Criterion</b>	<b>50.7%</b>	<b>32.1%</b>	<b>.0001</b>	<b>42.3%</b>	<b>19.6%</b>	<b>.0001</b>
<b>HDL Criterion</b>	<b>48.9%</b>	<b>31.9%</b>	<b>.0001</b>	<b>63.3%</b>	<b>36.3%</b>	<b>.0001</b>
<b>BP Criterion</b>	<b>47.2%</b>	<b>31.1%</b>	<b>.0001</b>	<b>46.9%</b>	<b>26.8%</b>	<b>.0001</b>
<b>Glucose Criterion</b>	<b>14.1%</b>	<b>14.2%</b>	<b>.9635</b>	<b>21.7%</b>	<b>11.2%</b>	<b>.0075</b>

Meyer et al., Presented at APA annual meeting, May 21-26, 2005.

McEvoy JP et al. Schizophr Res. 2005;80:19-32.

# The CATIE Study



**At baseline investigators found that:**

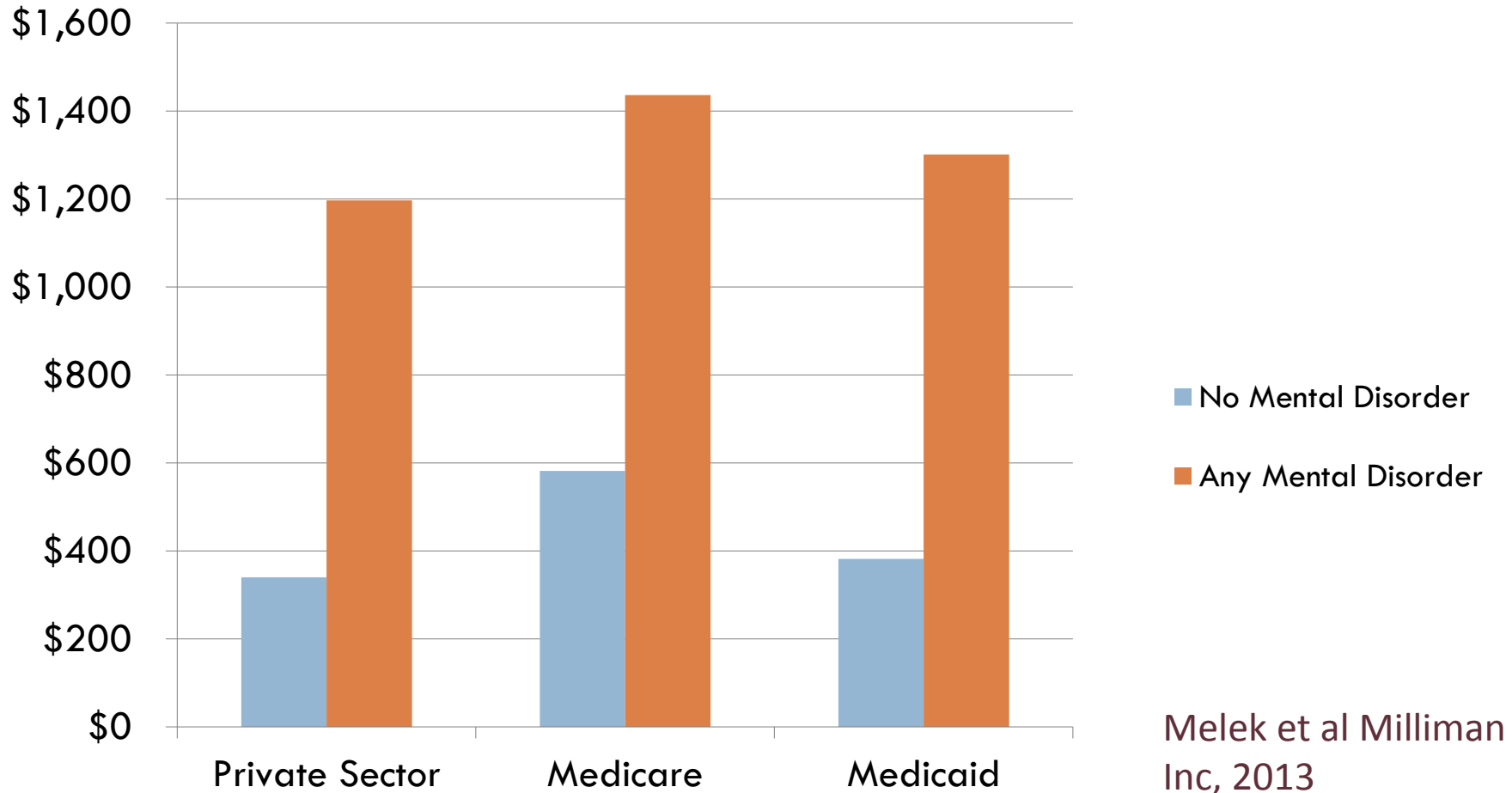
- **88.0%** of subjects who had dyslipidemia
- **62.4%** of subjects who had hypertension
- **30.2%** of subjects who had diabetes

**were NOT receiving treatment.**

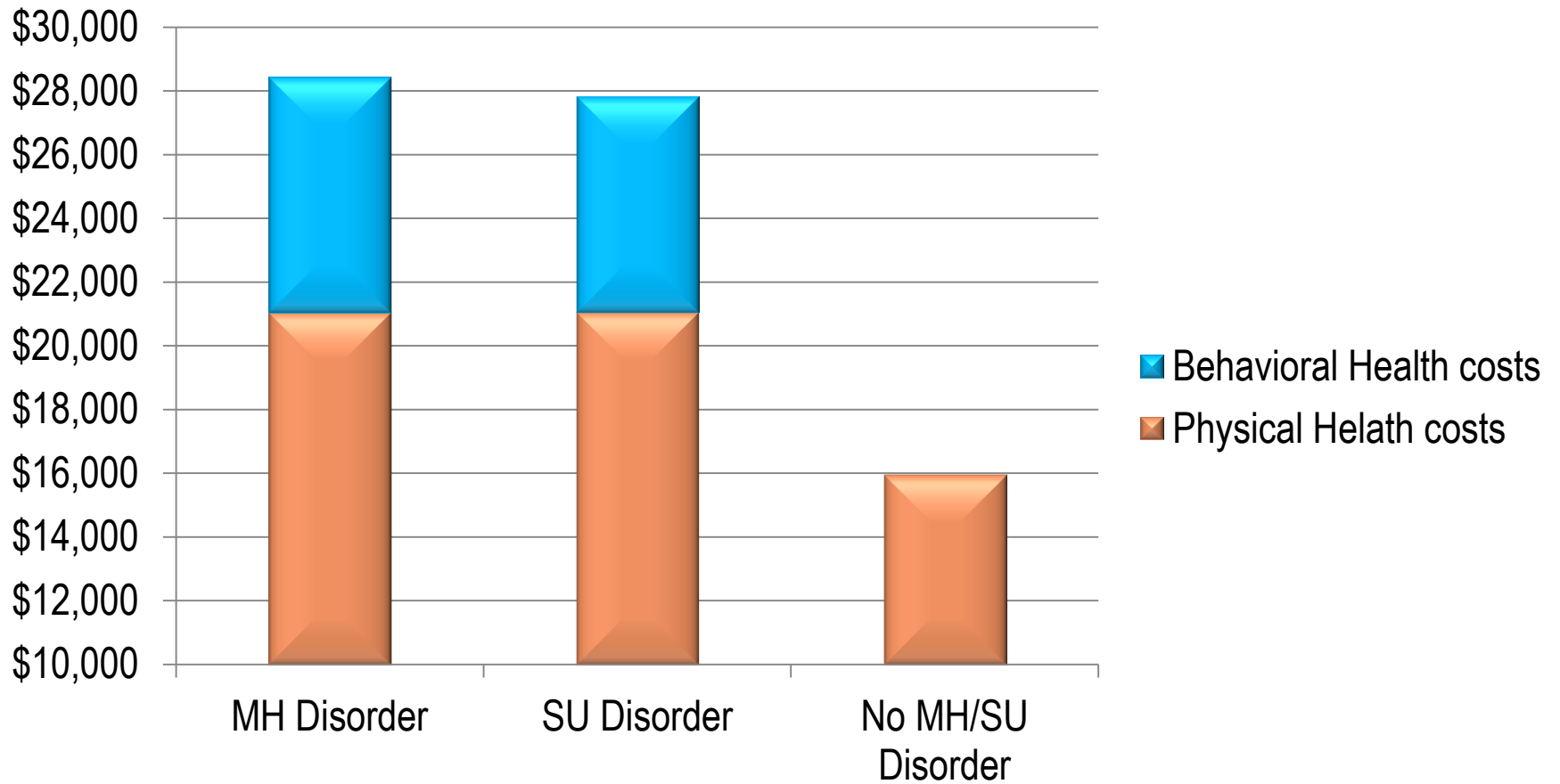
# Causes of Excess Mortality

- Smoking
- Obesity
- Inactivity
- Polypharmacy
- Under Diagnosis of Medical Conditions
- Inadequate Treatment of Medical Conditions

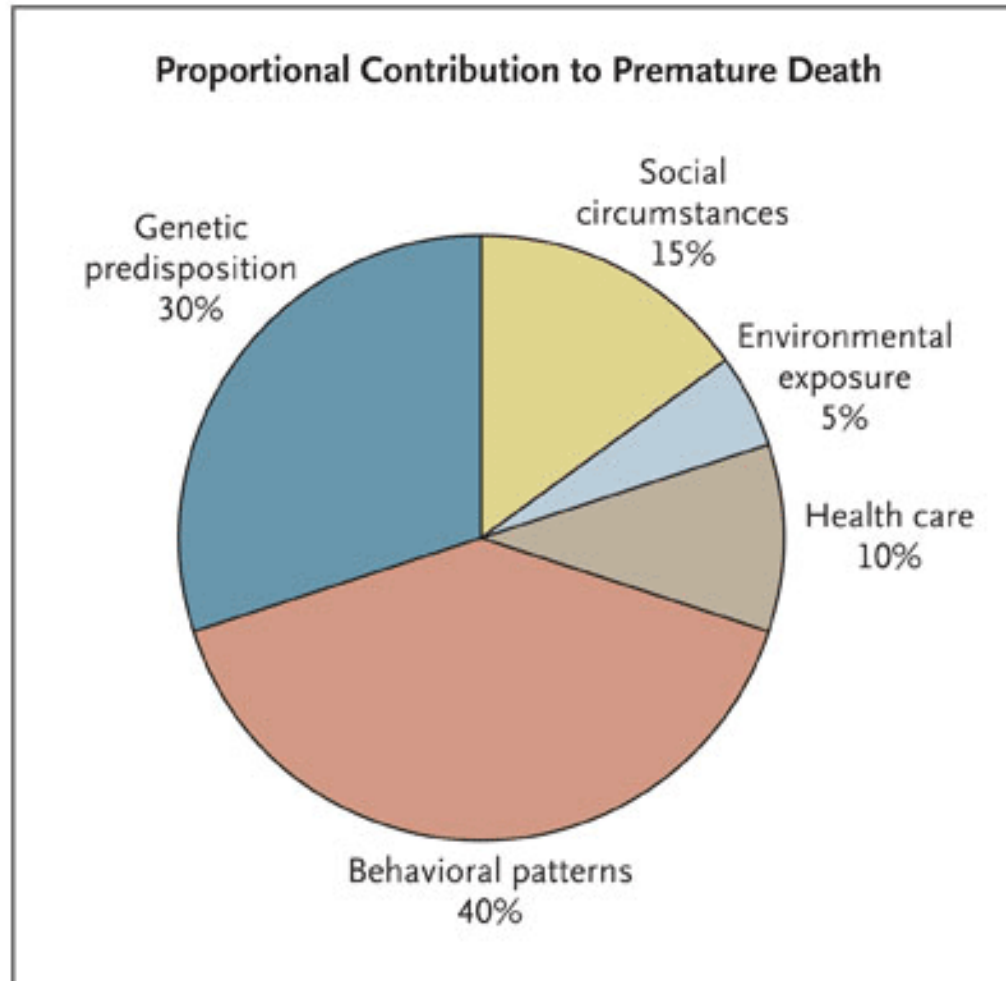
# Per Member Per Month Costs



# MH/SU costs in NY State's Medicaid Program



# Determinants of Health



*Determinants of Health and their Contribution to Premature Death, Adapted from McGinnis, et al., 2002*

# Drivers of Increased Demand

- Increased Coverage
  - Wellstone Domenici Parity Act
  - ACA
- Increased Demand
  - Stigma continues to drop releasing pent up demand
  - Press coverage of mass shootings - increasing mental health services is more popular than gun control
- Focus of High Utilizers
- Increased desire for integration by payers
- Shrinking Psychiatric Workforce



# What is a Health Home?



- Not just a Medicaid Benefit
- Not just a Program or a Team
- A System and Organizational Transformation

# Population Based

- Payments for HH services will be paid PMPM, not unit by unit
- Service needs will be identified by patient health history and status
- Outcomes will be measured by groups of clients (i.e., by organization, region, medication used, co-morbid conditions)

# Health Care Home Strategy

- Case management coordination and facilitation of healthcare
- Primary Care Nurse Care Managers
- Disease management for persons with complex chronic medical conditions, SMI, or both
- Behavioral Health management and behavior modification as related to chronic disease management for persons with Medical Illness
- Preventive healthcare screening and monitoring by MH providers
- Integrated Primary Care and Behavioral Healthcare

# Health Home Strategy

- Health technology is utilized to support the service system.
- “Care Coordination” is best provided by a local community-based provider.
- MH Community Support Workers who are most familiar with the consumer provide care coordination at the local level.
- Primary Care Nurse Care Managers working within each Health Home provide system support.
- Behavioral Health Consultants in each Primary Care Health Home
- Statewide coordination and training support the network of Health Homes.



# What is Different about Health Homes?

- Individual Practitioner
- Episodic Care
- Focus on Presenting Problem
- Referral to meet other Needs
- Managed Care
  - Manages access to care
  - Does not change clinical practice
- Integrated Primary/Behavioral Health Care Team
- Continuous Care
- Comprehensive Care Management
  - Coordinates care across the healthcare system
  - Data driven population management
  - Transforms clinical practice
  - Emphasizes healthy lifestyles and self-management of chronic health problems

Treatment as Usual

Health Homes

# Health Home

## Target Populations

- Patients with Diabetes
  - At risk for cardiovascular disease and a BMI > 25
- Patients who have two of the following
  - COPD/Asthma
  - Diabetes (also as single condition)
  - Cardiovascular Disease
  - BMI>25
  - Developmental Disabilities
  - Use Tobacco
- Individuals with a serious mental illness; or with other behavioral health problems who also have
  - Diabetes
  - COPD/Asthma
  - Cardiovascular Disease
  - BMI>25
  - Developmental Disabilities
  - Use Tobacco

Primary Care Health Homes

CMHC Healthcare Homes

# Missouri's Health Homes

- Providers
  - 18 FQHCs
    - 67 Clinics
  - 6 Hospitals
    - 22 Clinics
    - 14 Rural Health Clinics
- Enrollment
  - 15,526 adults
  - 428 children
  - 15,954 total

Primary Care Health Homes

- Providers
  - 28 CMHCs
    - 120 Clinics/Outreach Offices
- Enrollment
  - 16,611 adults
  - 2,387 children
  - 18,998 total

CMHC Healthcare Homes

# Health Home Team

- Nurse Care Managers (1FTE/250pts)
- Care Coordinators (1FTE/500pts)
- Health Home Director
- Behavioral Health Consultants (primary care)
- Primary Care Physician Consultant (behavioral health)
- Learning Collaborative training
- Next day notification of Hospital Admissions





# Six CMS Required Health Home Functions

- *Care Management*
- *Care Coordination*
- *Managing Transitions of Care*
- *Health Promotion*
- *Individual and Family Support*
- *Referral to Community Services*

# Hospital Admissions



- The importance of following up on hospital discharges
- A joint letter prepared by the Mo Hospital Association and Mo HealthNet was distributed to all hospitals describing the Health Home initiative and encouraging hospital cooperation.
- A draft Memorandum of Understanding has been distributed to your CMHC administration to use as a guide in developing an MOU with hospitals serving your area.

## HCH Responsibilities

# Hospital Admissions



- Hospitals are required by most payers, including Missouri Medicaid, to contact the payer at the time of admission to receive an Initial Authorization of Stay
- All-new authorizations for inpatient care are sent in an overnight flat file data transfer from the Inpatient Authorization Unit to the Health Home analytics unit
- An access database is used to automatically sort the patients by health home and generate an automated email listing those patients with new authorizations to each Health Home Director
- HCHs receive daily e-mails regarding hospital admissions

HCH Responsibilities

# Hospital Admissions



- HCH members discharged from the hospital must have a contact within 72 hours of discharge
  - This contact may be made by the individual's CSS, case manager, or NCM
- Nurse Care Managers must complete a medication reconciliation on HCH members discharged from the hospital
  - Information regarding the enrollees medications may be collected by the individual's CSS or case manager for review by the NCM

# Hospital Admissions

## Following Up is Complicated



- False Positives and Missing Data
  - Late notification
  - Appealing denials
  - Dual Eligibles
- Working with multiple hospitals
  - Barnes Hospital had admissions from half of the HCHs
  - Pathways had admissions to 38 hospitals in one month
  - BJC and Crider had admissions to 17 hospitals in one month

# Emergency Room Visits

- In response to the anthrax scare following 9/11 all emergency rooms were required to send a notification of every emergency room visit to the state health department
- All new ER visit notifications are sent in an overnight flat file data transfer from the State Health Department to the Health Home analytics unit
- An access database is used to automatically sort the patients by health home and generate an automated email listing those patients with new ER visits to each Health Home Director
- HCHs receive daily e-mails regarding ER visits

# Performance Progress

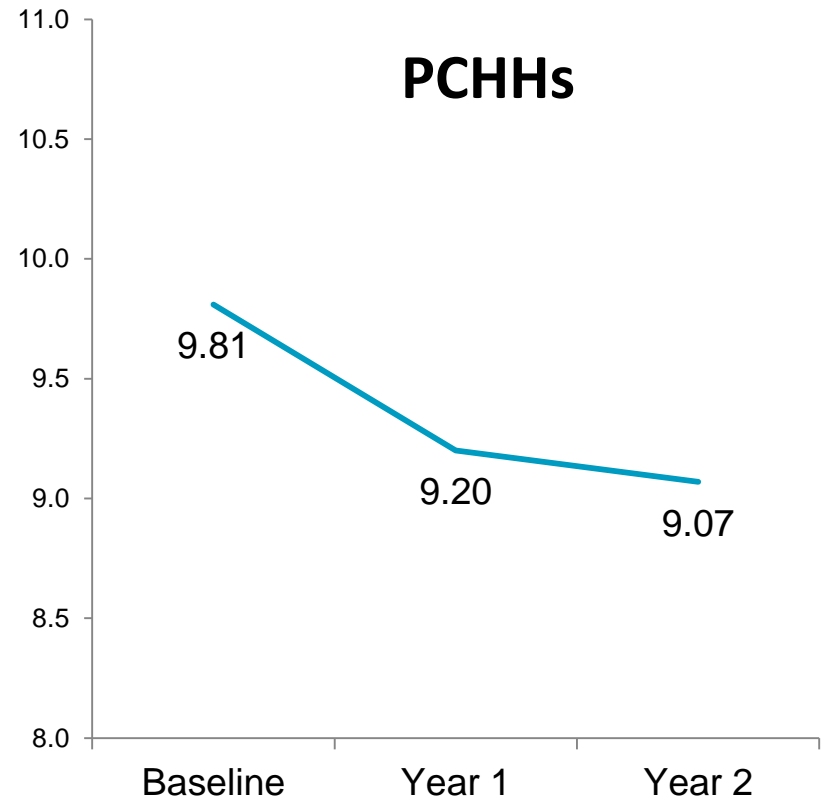
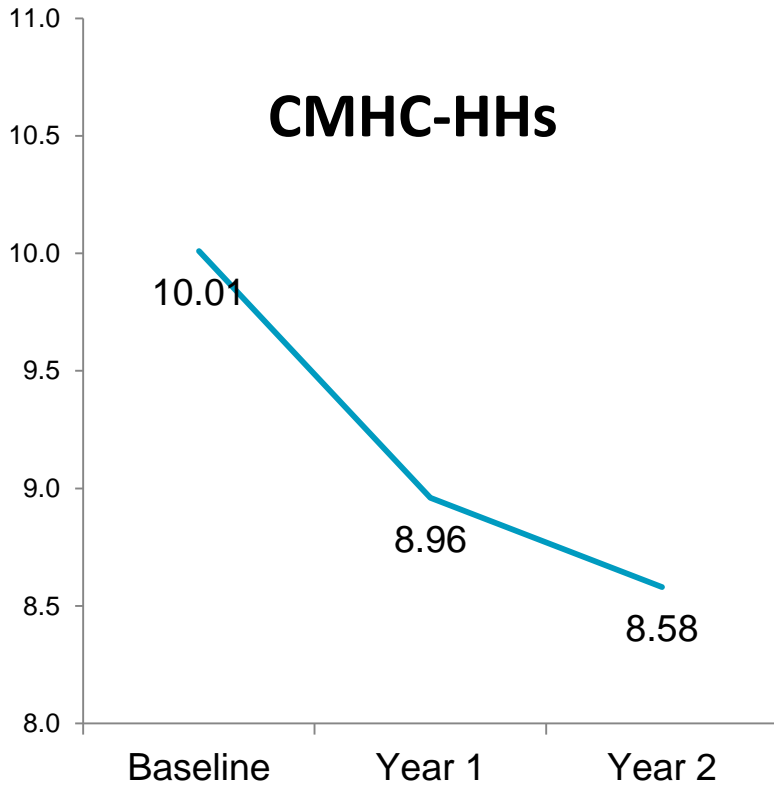
**A1c, LDL, and Blood Pressure**

# A1C Levels Over Time

**1 POINT DROP IN A1C**

About 7% had uncontrolled A1c levels

- **21% ↓ in diabetes related deaths**
- **14% ↓ in heart attack**
- **31% ↓ in microvascular complications**

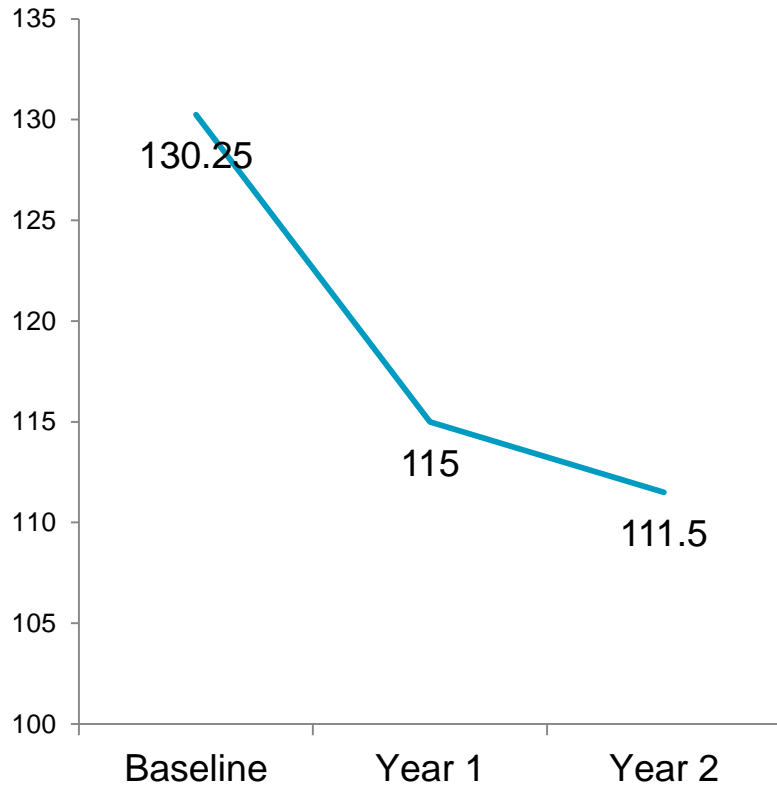




# LDL Levels Over Time

About 45% had uncontrolled LDL levels

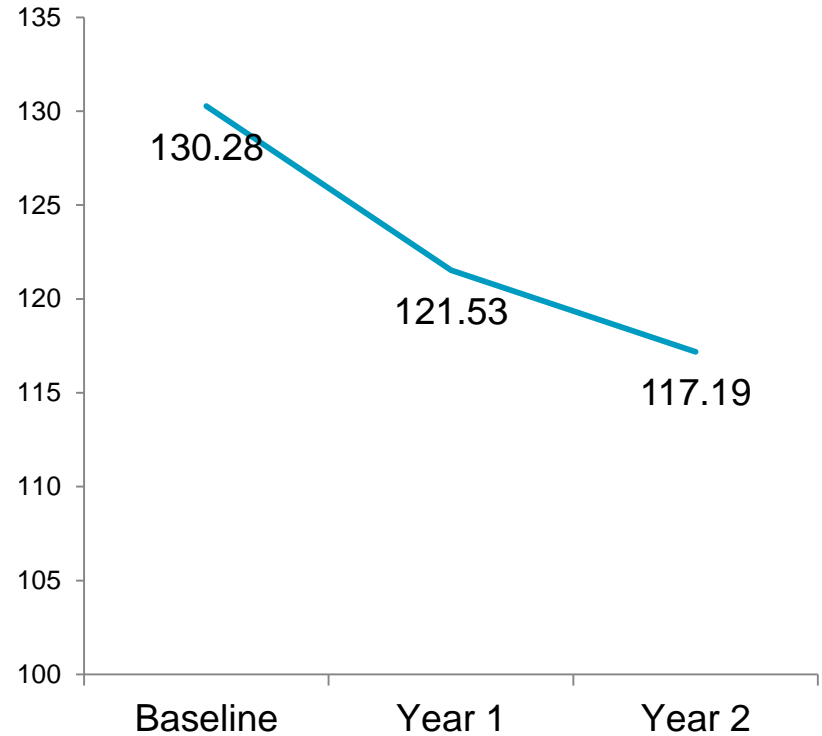
## CMHC-HHs



**10% DROP IN LDL LEVEL**

**30% ↓ in cardiovascular disease**

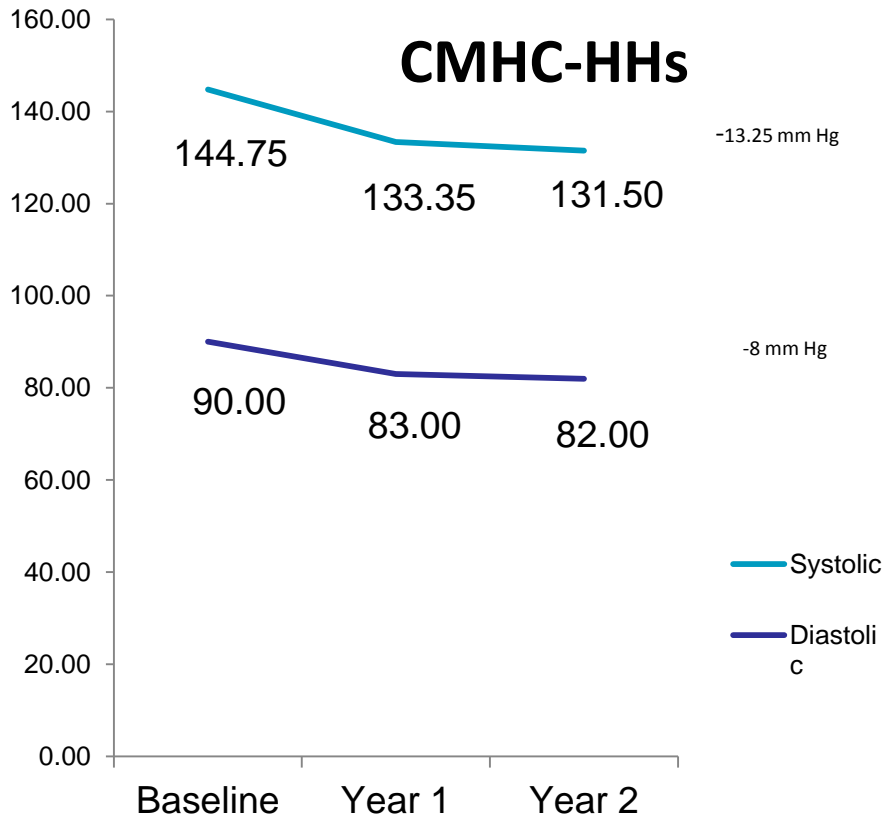
## PCHHs



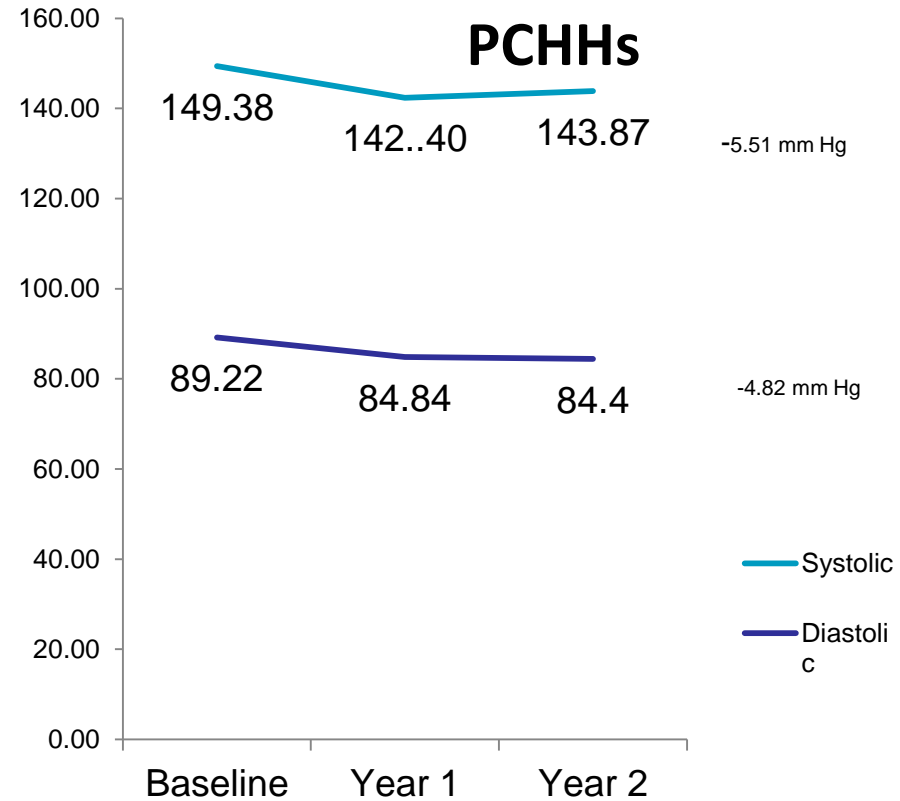
# BLOOD PRESSURE Changes Over Time

## 6 POINT DROP IN BLOOD PRESSURE

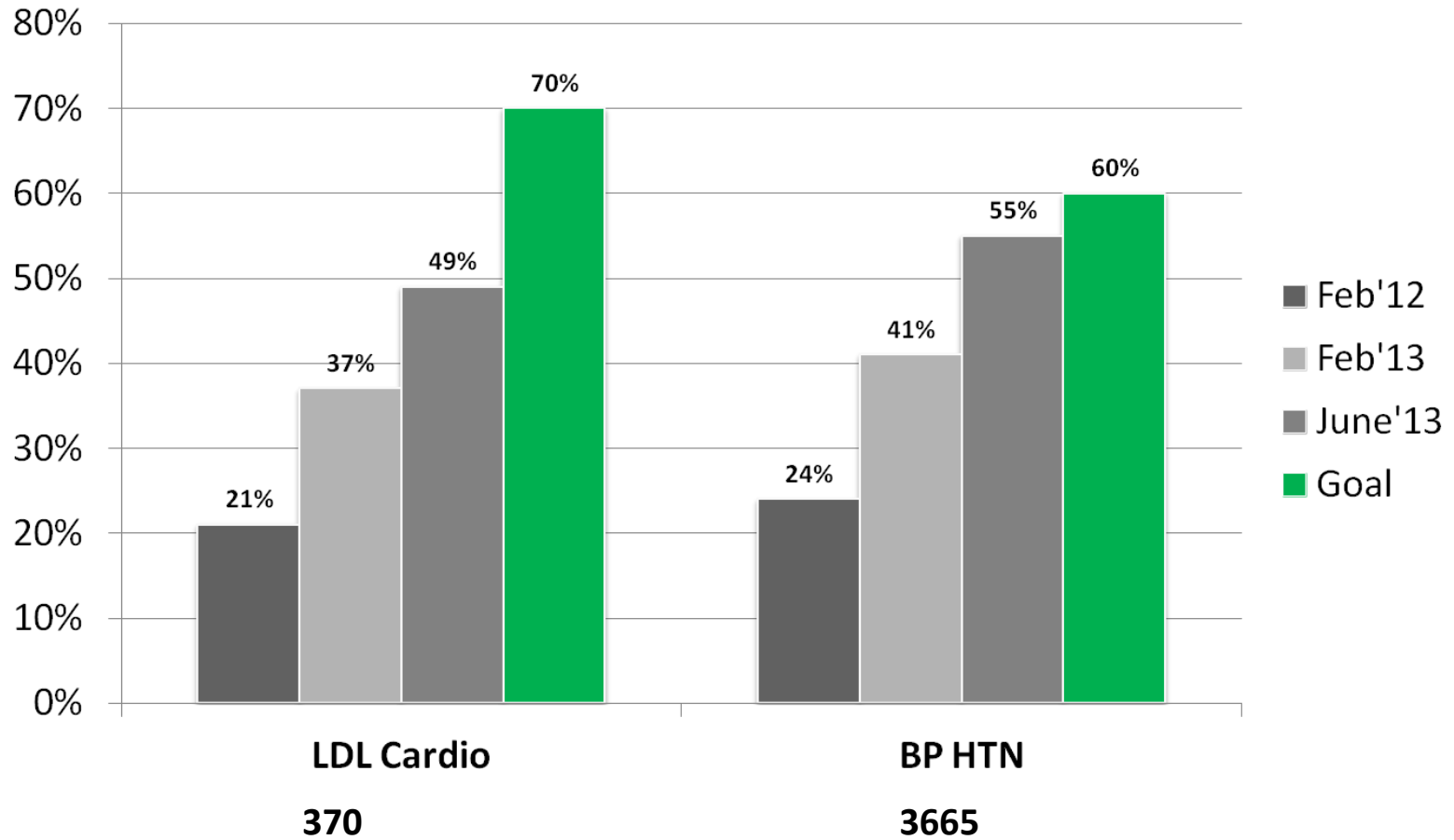
20%-24% had uncontrolled Blood Pressure levels



- 16% ↓ in cardiovascular disease
- 42% ↓ in stroke



# Hypertension and Cardiovascular Disease

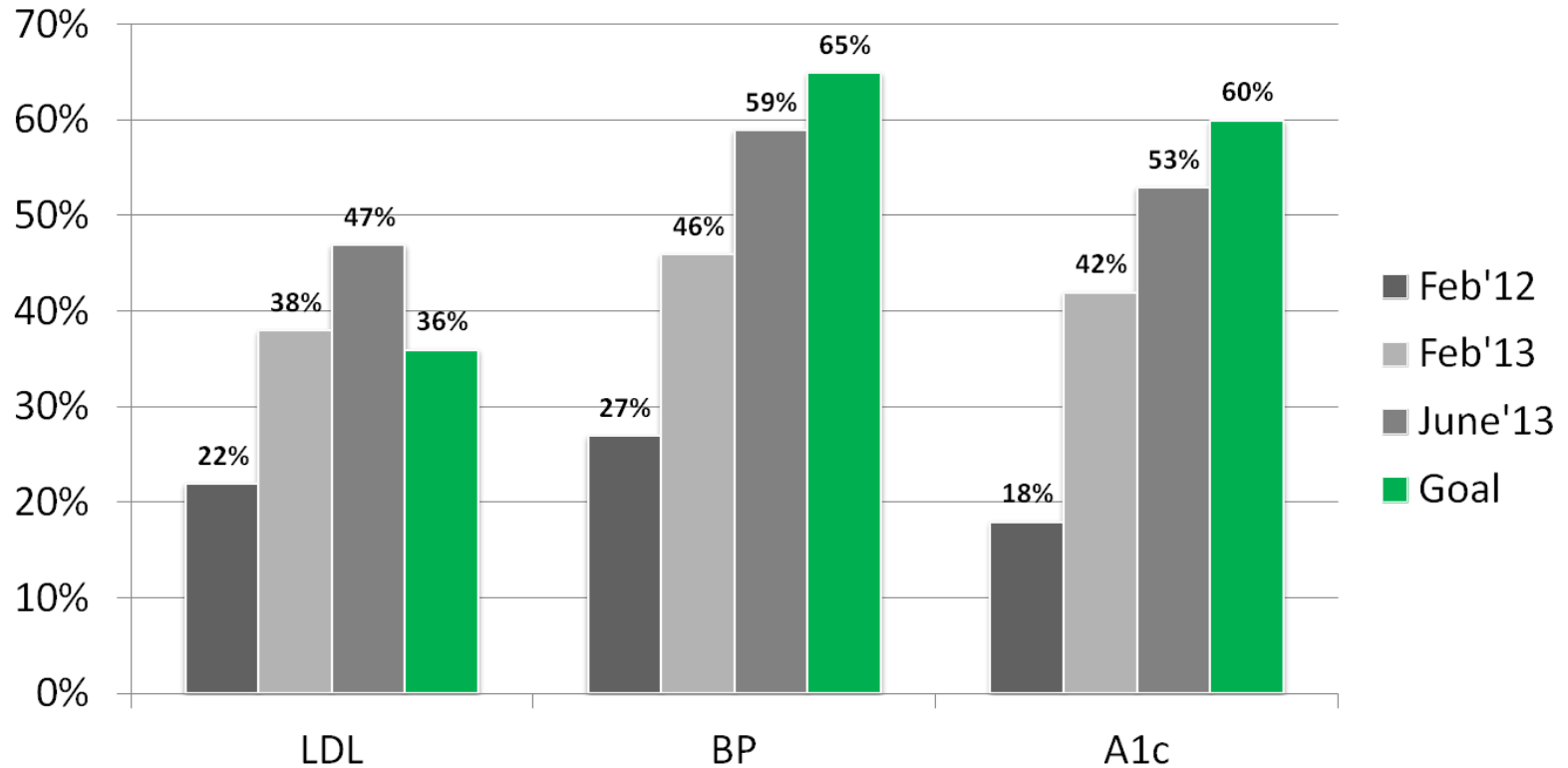


# Disease Management

## Diabetes

( 2822 Continuously Enrolled Adults)\*

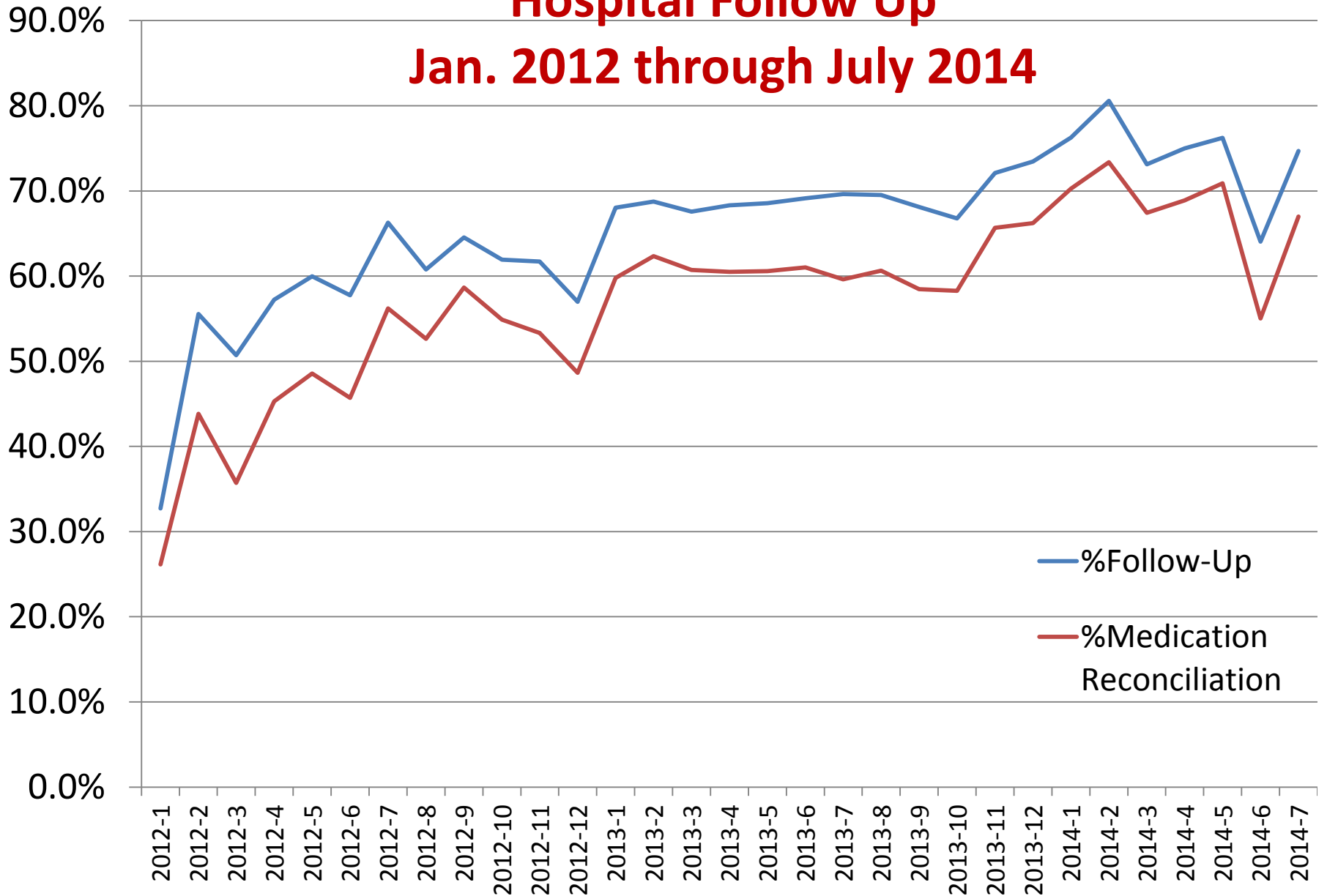
June, 2013



\*29% of continuously enrolled adults

# Hospital Follow Up

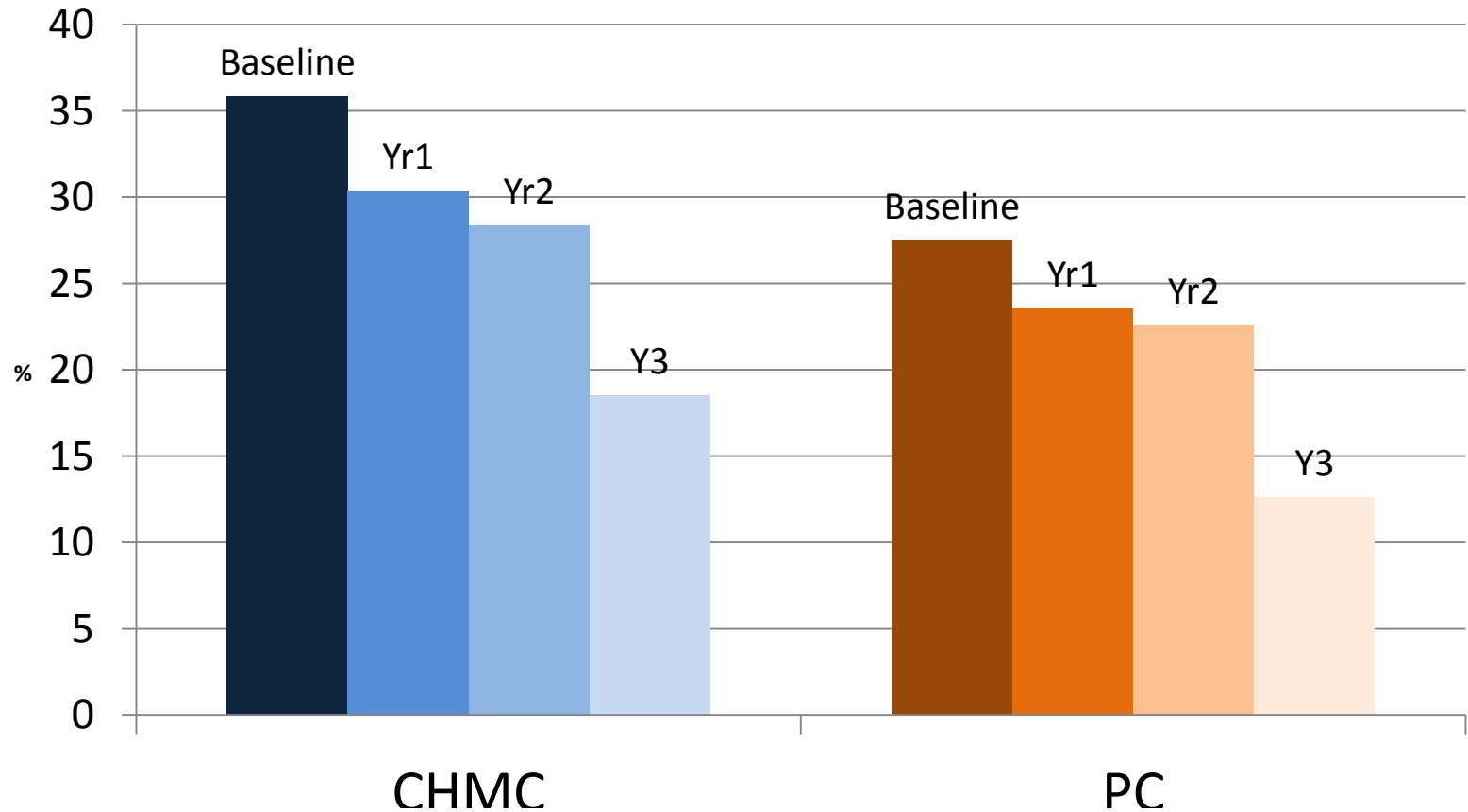
## Jan. 2012 through July 2014



# Outcomes

## Reducing Hospitalization

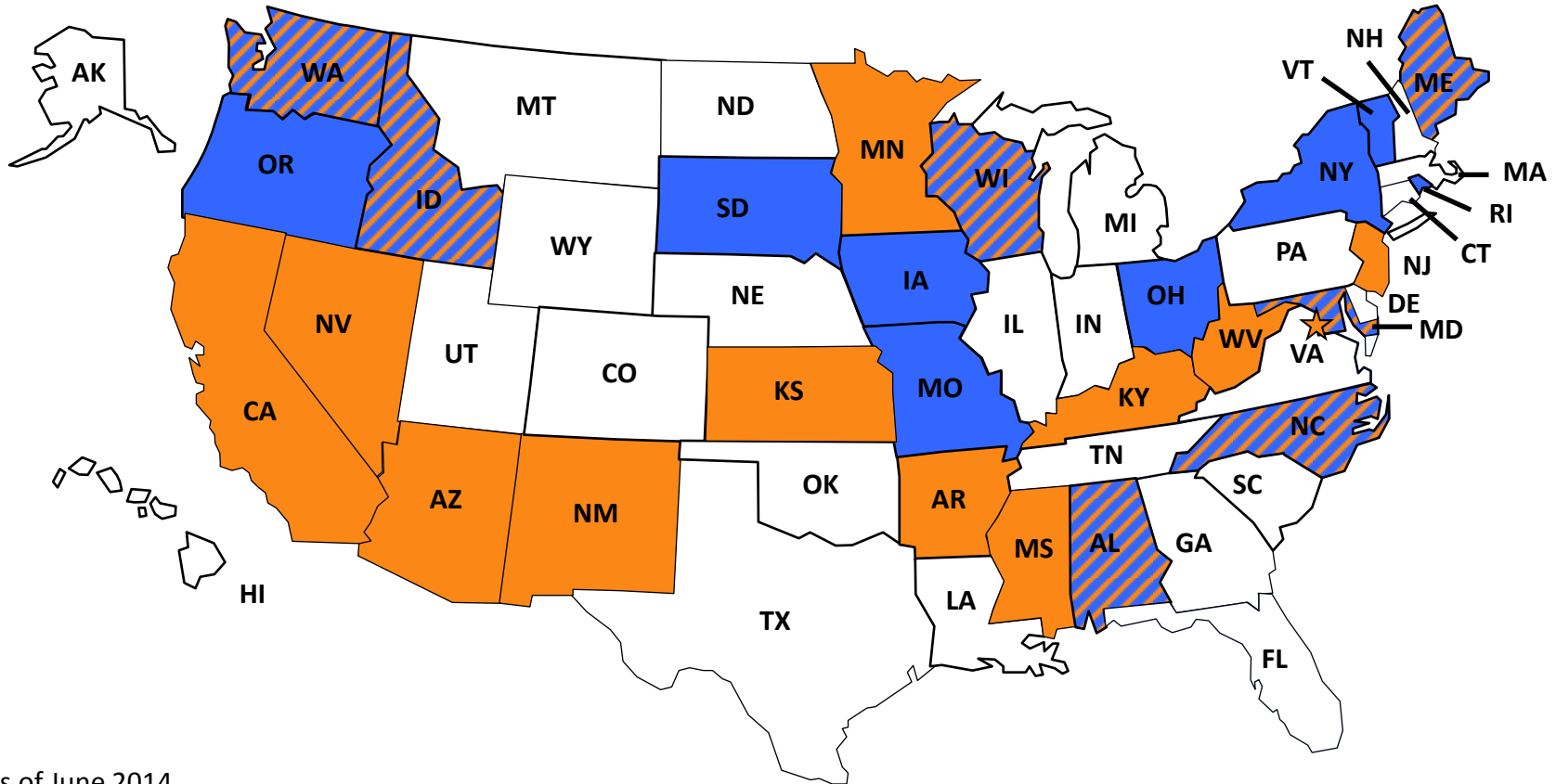
**% of patients with at least 1 hospitalization  
(non-duals, 9+ attestations)**



# Initial Estimated Cost Savings after 18 Months

- CMHC Health Homes
  - 20,031 persons total served (includes Dual Eligibles)
  - Cost Decreased by \$76.33 PMPM
  - Total Cost Reduction \$15.7 M
- PC Health Homes
  - 23,354 persons total served (includes Dual Eligibles)
  - Cost Decreased by \$30.79 PMPM
  - Total Cost Reduction \$7.4 M

# ACA Section 2703 Health Homes





- ✓ Requires a significant change in the way of thinking and the practice patterns of providers
- ✓ Caring for an entire population and not just for the individual patients who actively seek care
- ✓ Adopt a new way of doing business <sup>1</sup>

**“Health information technology is absolutely “necessary but not sufficient” for creating practice-based population health management; *committed executive and clinical leadership, care team development, and care coordination processes* are also critical success factors.”<sup>1</sup>**

<sup>1</sup> Population Health Management: A Roadmap for Provider-Based Automation in a New Era of Healthcare, Institute for Health Technology Transformation, Chase, Alide, et.al.

# What Makes it Possible?

- A Relationship of Basic Trust between:
  - Department of Mental Health
  - Mo HealthNet (medicaid)
  - State Budget Office
  - MO Coalition of CMHCs
  - MO Primary Care Association
- Transparent use of data instead of anecdotes to explore and discuss issues
- Willingness of all partners to tolerate and share risk
- Principled Negotiation and Motivational Interviewing





# DYSFUNCTION

THE ONLY CONSISTENT FEATURE OF ALL OF YOUR DISSATISFYING RELATIONSHIPS IS YOU.

S.M.R. Covey, The Speed of Trust

## Behaviors that Promote Trust

### > Character

- Talk Straight
- Demonstrate Respect
- Create Transparency
- Right Wrongs
- Show Loyalty

### > Competence

- Deliver Results
- Get Better
- Confront Reality
- Clarify Expectations
- Practice Accountability

### > Character & Competence

- Listen First
- Keep Commitments
- Extend Trust



# Partnership Principles

## DON'T

Talk about your need first

Expect to get something

Limit assistance to a project

Make it about this deal

Push a specific position

Withhold information

Let them take their lumps

## DO

Ask about their needs first

Give something

Assist wherever you can

Make it about the next 10

Pursue common interest

Reveal anything helpful

Take one for the team

# What BH Organizations Need to Evolve and Prosper

- A Role no one else wants or can do
- Data, Data, and more Data
- Willingness to Change
- Willingness to Risk
- Integration with the Rest of Health Care
- Training, Training, and more Training



# CHANGE

WHEN THE WINDS OF CHANGE BLOW HARD ENOUGH,  
THE MOST TRIVIAL OF THINGS CAN TURN INTO DEADLY PROJECTILES.

# WebSites

- Missouri CMHC Healthcare Homes

<http://dmh.mo.gov/mentalillness/mohealthhomes.html>

- Healthcare Home Source documents Page

<http://dmh.mo.gov/mentalillness/introcmhchch.html>

- NASMHPD Technical Reports

[www.nasmhpd.org/medicaldirector.cfm](http://www.nasmhpd.org/medicaldirector.cfm)