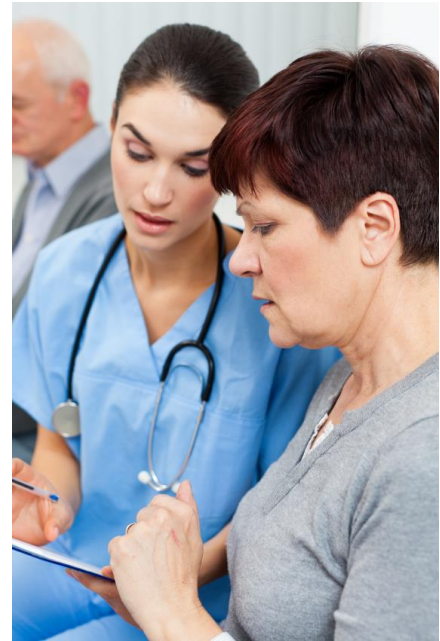


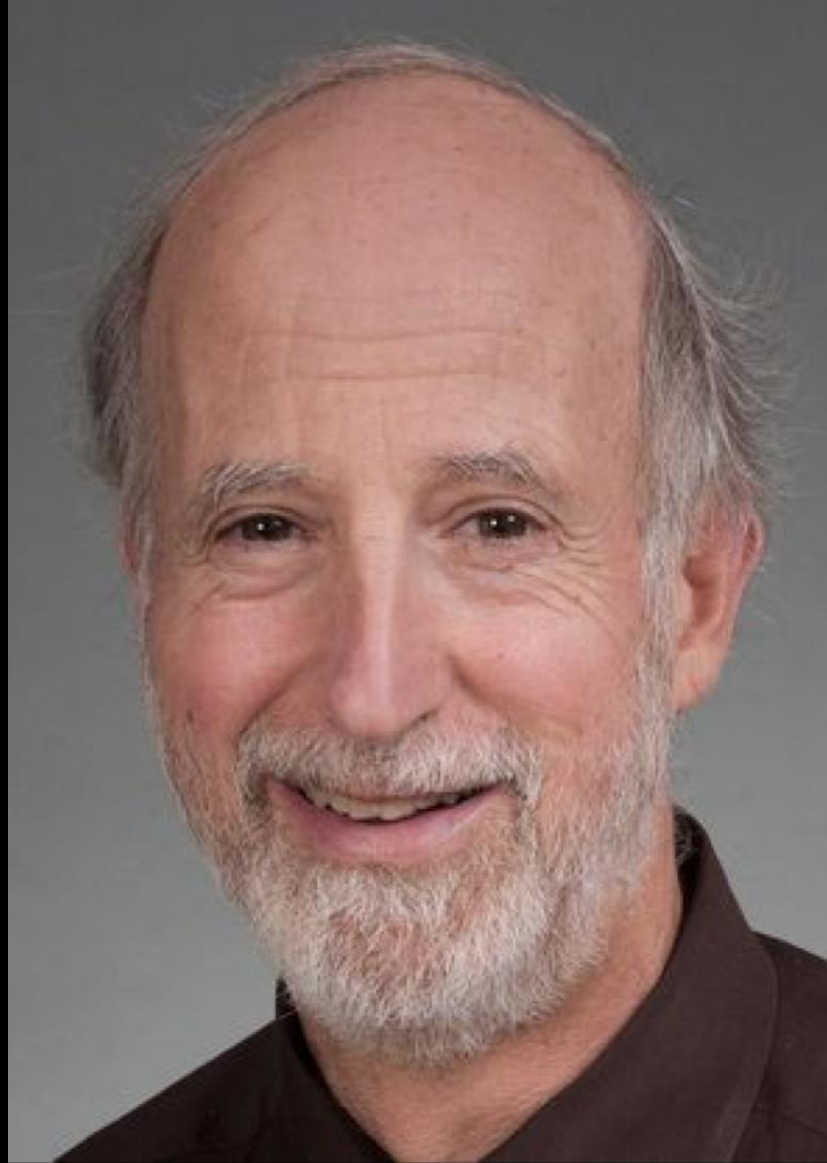
# Effectively Implementing Medical-Behavioral Integration



Paul Ciechanowski, MD, MPH  
Chief Medical Officer, Samepage Health  
Clinical Associate Professor  
University of Washington  
Seattle, WA

Phil Baty, MD  
Medical Director of Clinical Integration and Quality Improvement  
Affinia Health-Grand Rapids and Mercy Health Physician Partners  
Grand Rapids, MI

*In Memory of Wayne Katon, M.D.*



# True or False

- Diabetes is the number one cause of new onset adult blindness, non-traumatic lower extremity amputation and kidney failure?
- Poorly controlled Diabetes is the number one cause of new onset adult blindness, non-traumatic lower extremity amputation and kidney failure.
- Well controlled Diabetes is the number one cause of

NOTHING...

# RR

- 62 year old widowed male truck driver
- A1c = 10.2% (goal <7%)
- Blood Pressure = 180/100 (goal <140/90)
- Cholesterol LDL = 180 (goal moderate statin)
- Depression PHQ-9 = 20 (goal < 5)
- Medications:
  - Metformin 1000 mg twice a day
  - Simvastatin 20 mg once a day
  - Glipizide XL 10 mg once a day
  - Fluoxetine 20 mg once a day



# Usual care



- See patient in office
  - Address patient major concern (foot pain)
  - Maybe adjust one or two chronic disease medicines
- Schedule follow up in 3 months
- Repeat
- Experience frustration because he is negatively impacting my P4P outcomes in Diabetes care

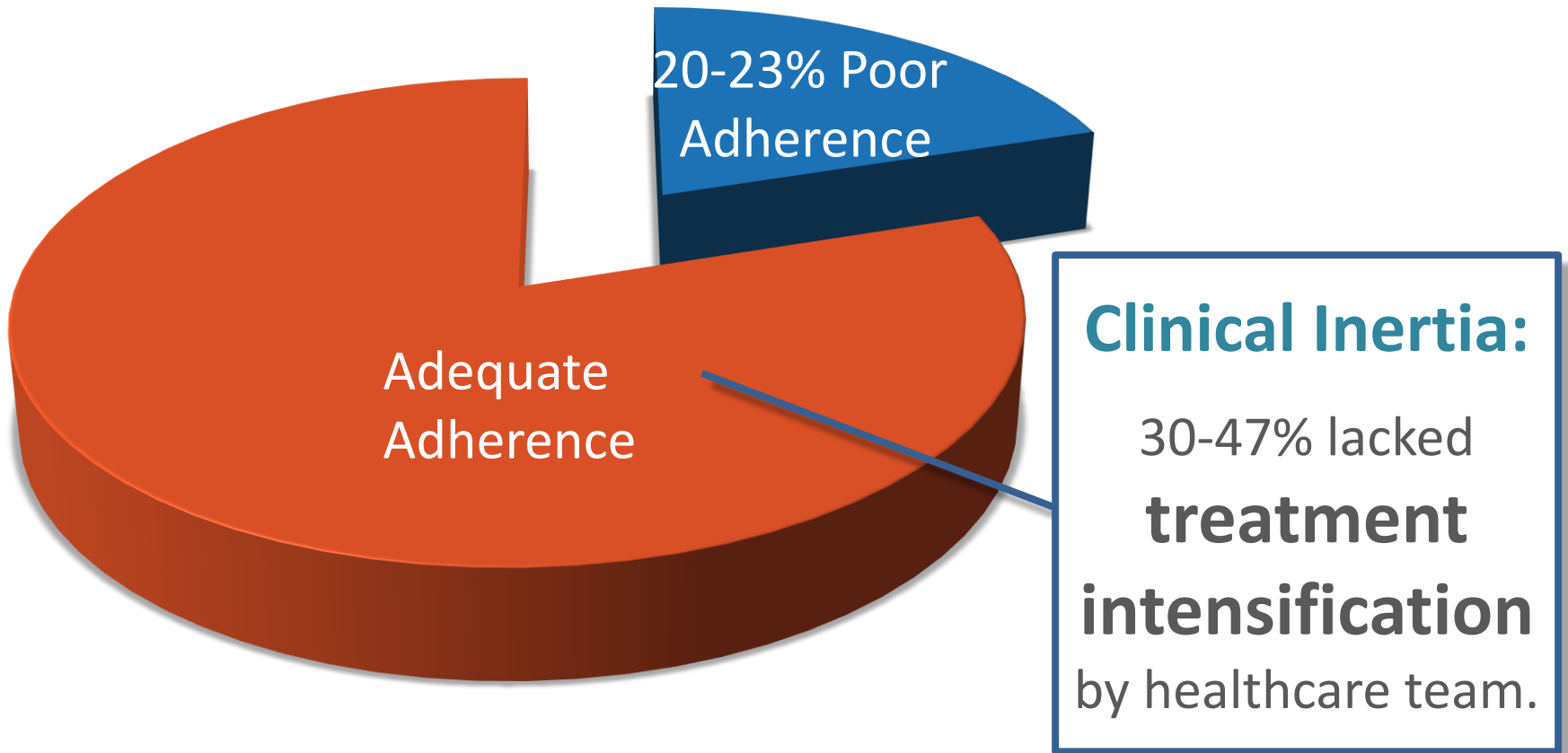
# Clinical Inertia

- defined as lack of treatment intensification in a patient not at evidence-based goals for care.
- a major factor that contributes to inadequate chronic disease care in patients with diabetes mellitus, hypertension, dyslipidemias, depression, coronary heart disease, and other conditions.

# Study: 161,697 Patients

- HbA<sub>1c</sub> > **7%**
- Systolic blood pressure > **130 mmHg**
- LDL > **100 mg/dL**

# Study: 161,697 Patients



Schmittiel et al., J Gen Intern Med. 2008; 23(5): 588–594.





can't control my blood sugars - I can't lose weight -  
I have to apply for a new job - I have bills to pay -  
I have to pay off my loans - I am alone -  
I can't pay - I have to pay - I can't pay -



- X Glucose control
- X Blood pressure
- X Cholesterol

**“Bundled  
benchmark”**



**81% of those  
with diabetes**

**FAIL TO ACHIEVE**

**the bundled benchmark**



- X Glucose control
- X Blood pressure
- X Cholesterol

## **“Bundled benchmark”**

Achieving the bundled benchmark, healthcare systems...  
**“...will require improved methods to increase adherence to prescribed medications, physical activity, healthy dietary choices, and access to support, including motivation and maintenance of behavior change.”**

# Literature Review

## Challenges with patients:

- Poor collaboration
- Non-adherence
- Missed appointments
- Dissatisfaction with care
- Go-it-alone approach
- Poor self-care
- Stress, anxiety and depression

# Clinicians?

## Challenges with patients:

- Poor collaboration
- Non-adherence
- Missed appointments
- Dissatisfaction with care
- Go-it-alone approach
- Poor self-care
- Stress, anxiety and depression

# HealthAffairs

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## The Triple Aim: Care, Health, And Cost

The remaining barriers to integrated care are not technical; they are political.

by **Donald M. Berwick, Thomas W. Nolan, and John Whittington**

“Improving the experience of care, improving the health of populations, and reducing per capita costs of health care.”

and macro system integration. [Health Affairs 27, no. 3 (2008): 759-769, 10.1377/hlthaff.27.3.759]

## From Triple to Quadruple Aim: Care of the Patient Requires Care of the Provider

Thomas Bodenheimer, MD<sup>1</sup>  and Christine Sinsky, MD<sup>2,3</sup>

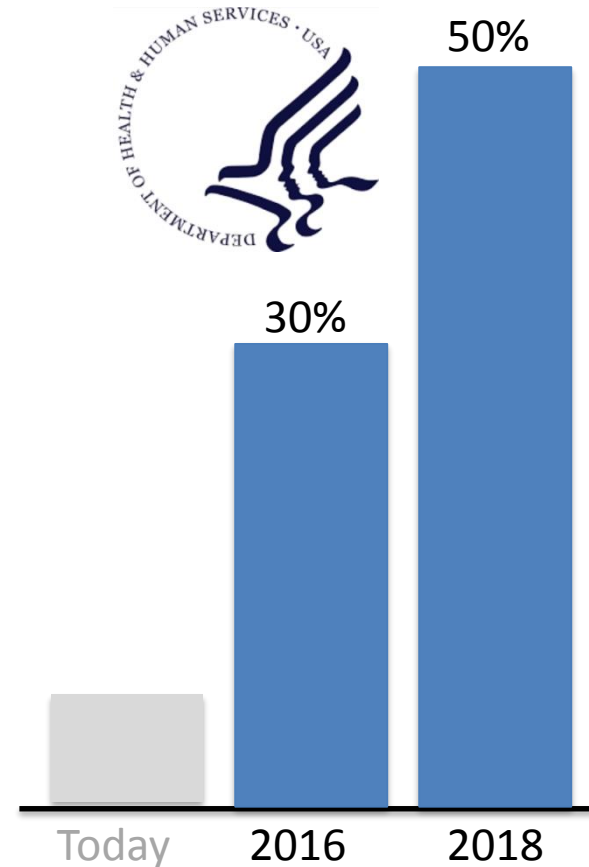
“This article recommends that the Triple Aim be expanded to the Quadruple Aim, adding the goal of improving the work life of health care providers, including clinicians and staff.”

performance. Yet physicians and other members of the health care workforce report widespread burnout and dissatisfaction. Burnout is associated with lower patient satisfaction, reduced health outcomes, and it may increase costs. Burnout thus imperils the Triple Aim. This article recommends that the Triple Aim be expanded to a Quadruple Aim, adding the goal of improving the work life of health care providers, including clinicians and staff.

# Value-Based Care Delivery to Become a “New Normal”

- By 2020, potentially half of all \$3T US health spend could be paid under a risk/quality contract
- Every major health system and MCO actively investing in population health cost management

HHS Target for Percent of Care Tied to Quality or Value





Collaborative Care [*kuh-lab-uh-rey-tiv* kair]:

# Collaborative Care [kuh-lab-uh-rey-tiv kair]:

## Mental Health Care

"Broad array of services & treatments to help people with mental illnesses & those at particular risk of developing them—to suffer less emotional pain and disability and live healthier, longer, more productive lives. A variety of caregivers in diverse, independent, loosely coordinated facilities & services—public and private—often referred to collectively as the de facto MH service system (Regier et al., 1978; Regier et al., 1993).

- *Specialty MH sector*: MH professionals trained specifically to treat people with mental disorders in public or private practices, psychiatric units, general hospitals or tx centers
- *General medical PC sector*: Healthcare professionals such as physicians and NP's in clinics, hospitals, nursing homes.
- *Human services sector*: Social services, school-based counseling, residential rehab, vocational rehab, criminal justice/prison-based services, religious professional counselors.
- *Voluntary support network sector*: Self-help groups such as 12-step programs, peer counselors"

SAMHSA.mentalhealth.samhsa.gov/features/surgeongeneralreport/chapter6/sect1.asp

## Chemical Dependency / SA Care

Services, treatments, and supports to help people with addictions and substance abuse problems suffer less emotional pain, family and vocational disturbance, physical risks, and live healthier, longer, more productive lives.

Provided by 1) specialty addictions or substance abuse clinicians or counselors in SA tx clinics or settings, 2) clinicians or counselors in general medical or hospital settings, and 3) human services contexts such as schools, rehabilitation centers, criminal justice system or religious-based counseling and 4) the voluntary support networks such as 12-step programs and peer counselors.

(Adapted from SAMHSA def. for MH Care)

## Behavioral Health Care

Care that addresses a client's behavioral issues bearing on health (not only mental illnesses) via clinicians such as psychiatrists, psychologists, social workers, psychiatric nurse practitioners, marriage & family counselors, professional clinical counselors, licensed drug/alcohol abuse counselors & other MH professionals. (McGraw-Hill Concise Dictionary of Modern Medicine, 2002)

## Co-located Care

BH and PC providers (i.e. physicians, NP's) delivering care in same practice; describes where services are provided rather than being a specific service. However, co-location employs a referral process, which may begin as medical cases are transferred to BH (Blount 2007)

## Shared Care

Predominately Canadian usage—PC & MH professionals (typically psychiatrists) working together in a shared system, maintaining 1 treatment plan addressing all patient health needs in a shared med record (e.g. Craven & Bland, 2006)

## Collaborative Care\*

An overarching term describing ongoing relationships between clinicians (e.g., BH and PC) over time (Doherty, McDaniel, & Baint, 1996). Not a fixed model, but a larger construct consisting of various components which when combined create models of collaborative care. (Craven & Bland, 2006; Peck, 2007).

## Consultation / Liaison

Activities of psychiatry, psychology, or nursing that specialize in the interface between medicine & MH, usually in a hospital or medical setting. Role is to see patients in medical settings by request of medical clinicians as a "consult". (Adapted from Wikipedia)

## Coordinated Care\*

BH providers and PCPs practice separately within their respective systems. Info regarding mutual patients exchanged as needed, and collaboration is limited outside of the initial referral (Blount 2007)

## Primary Care Behavioral Health

"... Recent term for new relationships emerging between specialty MH services and PC. *Primary behavioral healthcare* refers to at least three related activities: 1) behavioral healthcare delivered by PC clinicians, 2) specialty behavioral healthcare delivered in the PC setting, and 3) innovative programs that integrate elements of PC and specialty behavioral healthcare into new formats. ..."

(Sabin JE & Borus JF; 2009. Changing Roles in Primary Behavioral Healthcare. Chap in "Textbook of administrative psychiatry: New concepts for a changing behavioral health system", JA Talbot & RE Hales, Eds)

## Integrated Primary Care

Combines medical & BH services for the spectrum of problems that patients bring to primary medical care. Because most patients in PC have a physical ailment affected by stress, problems maintaining healthy lifestyles or a psychological disorder, it is clinically effective & cost-effective to make BH providers part of PC. Patients can feel that for any problem they bring, they have come to the right place. Teamwork of MH & medical providers is an embodiment of the biopsychosocial model. (Blount, www.integratedprimarycare.com)

## Integrated Care\*

Tightly integrated, on-site teamwork with unified care plan. Often connotes organizational integration as well, perhaps involving social & other services (Blount, 2003; Blount et al., 2007).

"Altitudes" of integration (SAMHSA):

- *Integrated treatment*: Interactions between clinicians to address pt. needs combining interventions for MH disorders in a primary treatment relationship or service setting.
- *Integrated program*: An organizational structure that ensures staff & linkages with other programs to address all patient needs.
- *Integrated system*: Organizational structure that supports array of programs for individuals with different needs through funding, credentialing, licensing, data collection/reporting, needs assessment, planning, and other operational functions.

## Care Management\*

Specific type of service, often disease specific (e.g. depression, congestive heart failure) whereby a BH clinician, usually a nurse or other non-physician, provides assessment, intervention, care facilitation, and follow up (e.g., Behap et al., 2006).

## Patient-Centered Medical Home

"An approach to providing comprehensive PC for children, youth and adults—a health care setting that facilitates partnerships between individual patients and their personal physicians, and when appropriate, the patient's family" (*Core Principles of PCMH* 2007)

## Family-Centered Medical Home

Family-centered version of "medical home"; emphasize parents and families who play a large role in child health and mental health and who are also "the client" in child / pediatric settings.

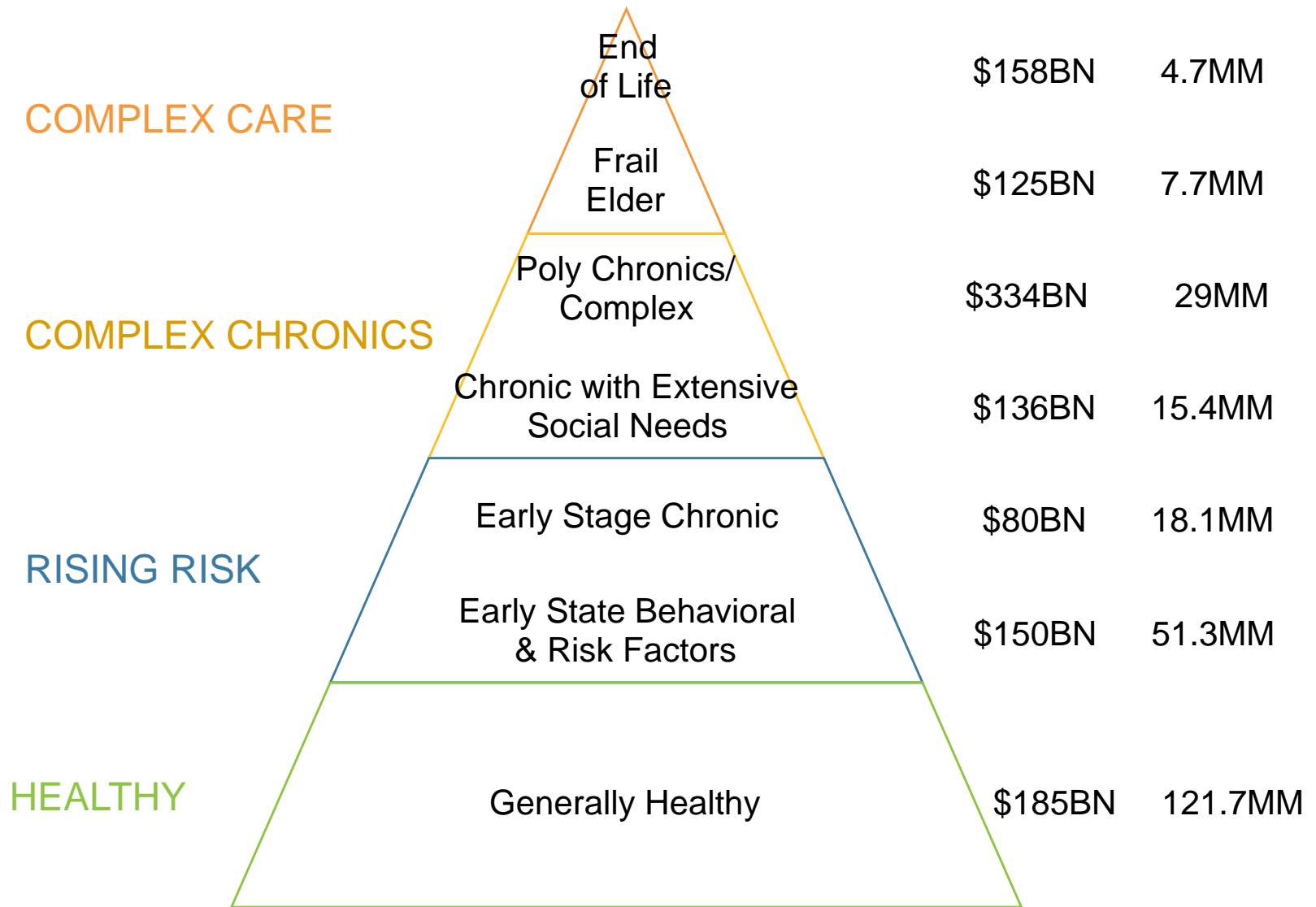
## Patient-Centered Care

"Care that is respectful of and responsive to individual patient preferences, needs, and guides all clinical decisions" (Institute of Medicine, 2001)

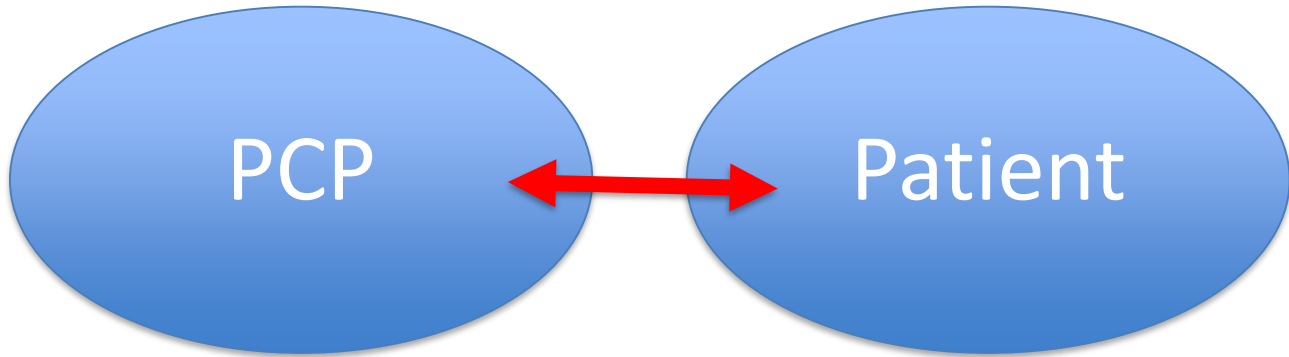
\* A special case or subset of a much larger concept in use across the larger field of healthcare.

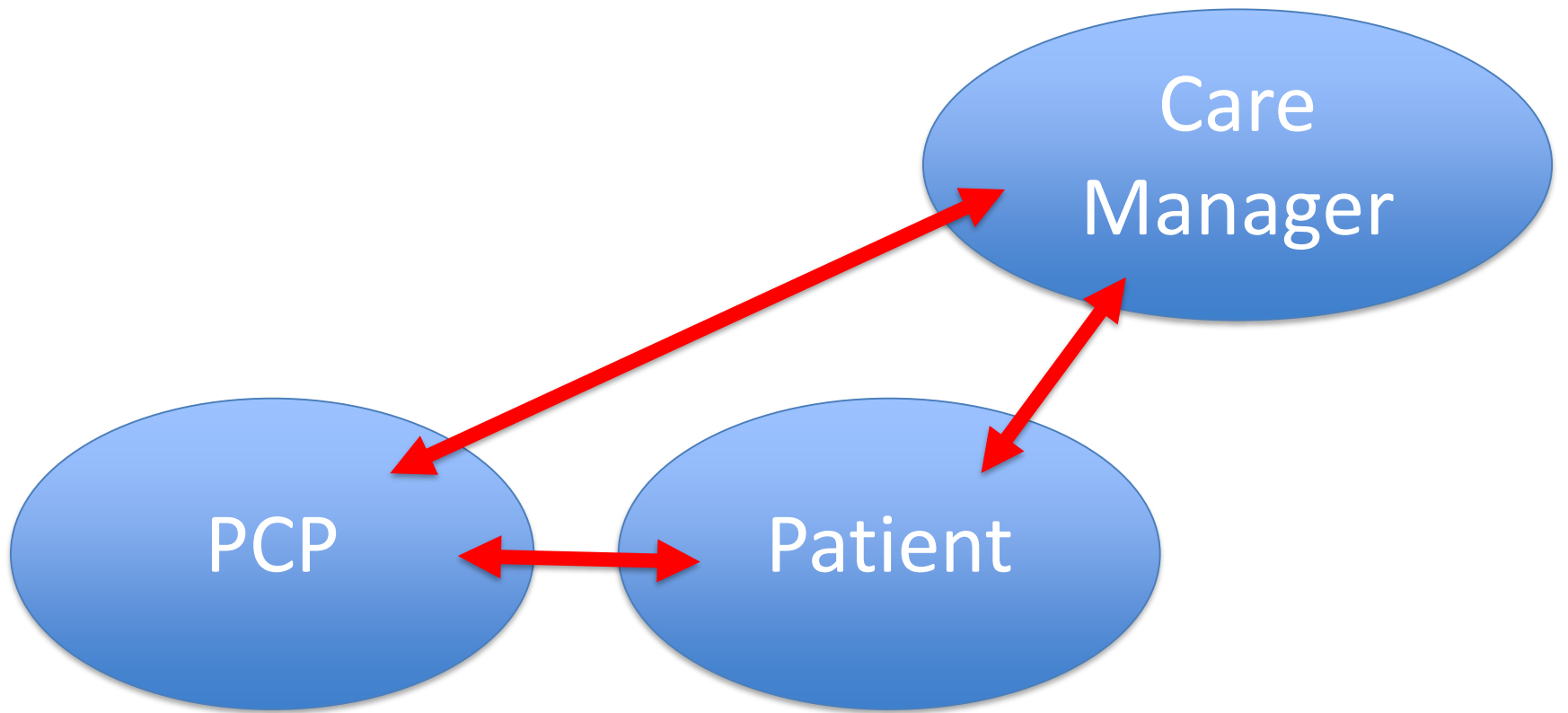
# Collaborative Care [*kuh-lab-uh-rey-tiv* kair]:

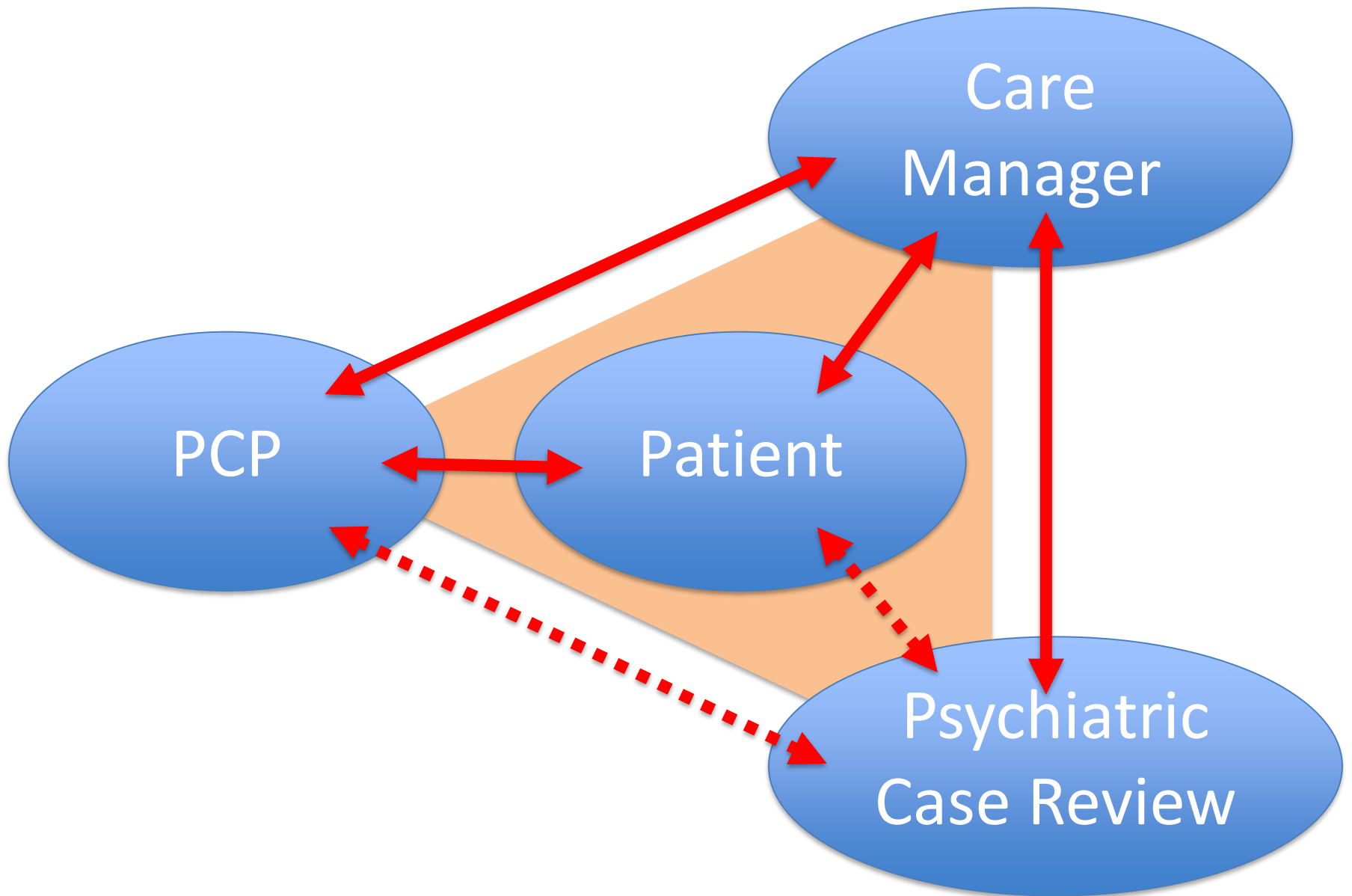
A team  
with a shared **mission**,  
using improved clinical **systems** to  
deliver improved **care** to a patient **population**  
supported by **operational and financial systems**.  
Such care is **continuously evaluated** through  
improvement  
**processes** and  
**effectiveness**  
**measurement**.

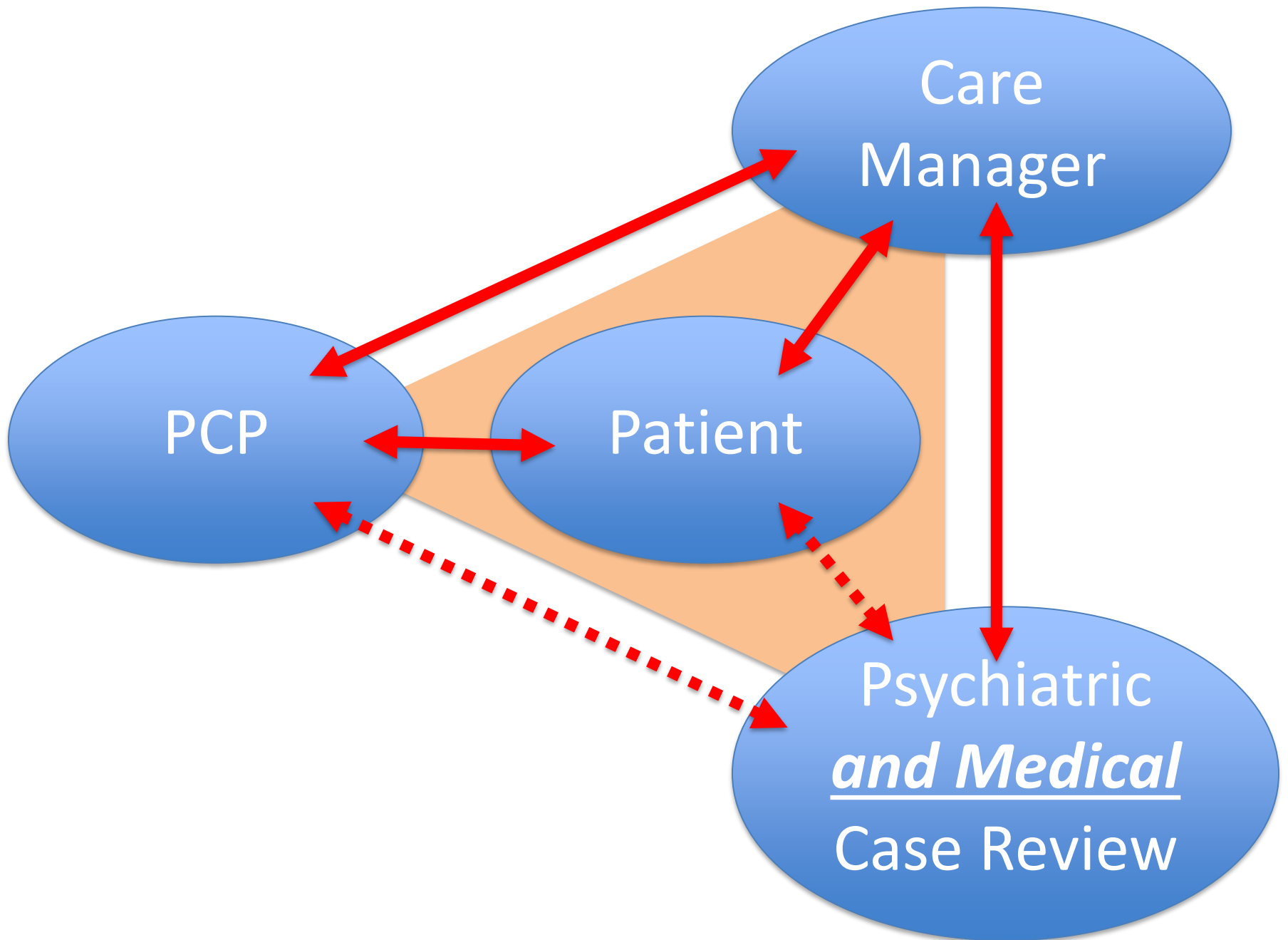


*Adapted from: Oliver Wyman Analysis, Kaiser, CMS, Census Bureau, CSC, Oliver Wyman Health Innovation Center. Exec. Summary. Convergence: Consumer & Patient-Centered Business Designs. Oct 2013 Ideation Session. Found online. Note: Data excludes the uninsured and VA populations, year = 2012*













# The NEW ENGLAND JOURNAL of MEDICINE

## Research Team

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ARTICLE

This article

Free Abstract

ORIGINAL ARTICLE

## Collaborative Care for Patients with Depression and Chronic Illnesses

Wayne J. Katon, M.D., Elizabeth H.B. Lin, M.D., M.P.H., Michael Von Korff, Sc.D., Paul Ciechanowski, M.D., M.P.H., Evette J. Ludman, Ph.D., Bessie Young, M.D., M.P.H., Do Peterson, M.S., Carolyn M. Rutter, Ph.D., Mary McGregor, M.S.N., and David McCulloch, M.D.

N Engl J Med 2010; 363:2611-2620 | [December 30, 2010](#)

### BACKGROUND

Patients with depression and poorly controlled diabetes, coronary heart disease, or both have an increased risk of adverse outcomes



Ciechanowski



Katon



Lin



Ludman



McGregor



Peterson



Russo



Rutter



Von Korff



Young

Keyword, Title, A

subscriber.

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MEDIA IN THIS ARTICLE

FIGURE 1



↓ **A1c**

↓ **Blood pressure**

↓ **Cholesterol (LDL)**

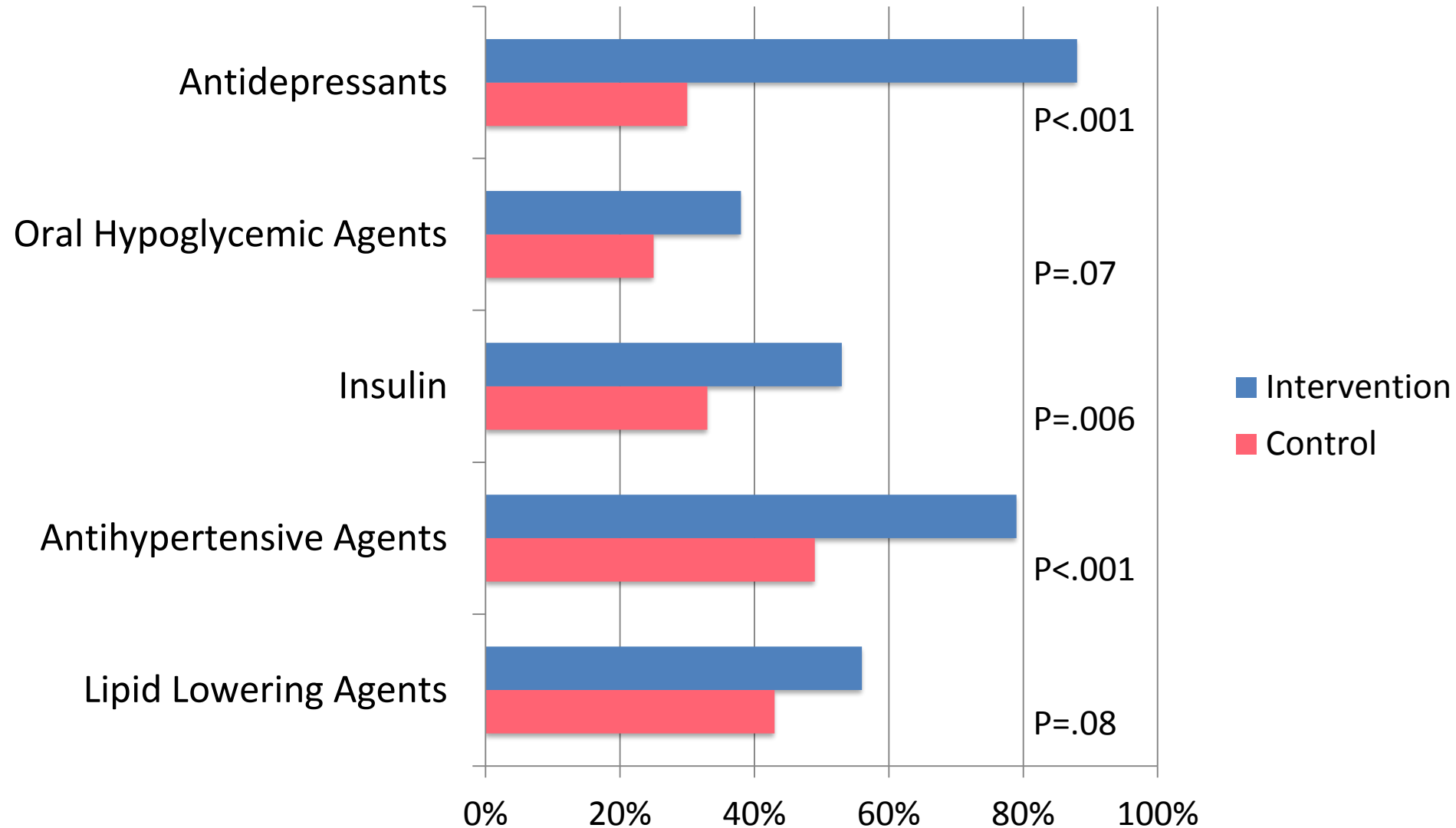
↓ **Depression**

Outcome domain	Multi-Condition Collaborative Care Study	Comparison Studies Focusing on One Outcome	Description
Depression	Effect size: 0.65	Effect size: 0.25	37 Collaborative Depression Trials
HbA <sub>1c</sub>	Change: 0.58%	Change: 0.42%	66 Diabetes Trials
Systolic BP	Change: 5.1 mmHg	Change: 4.5 mmHg	44 Trials

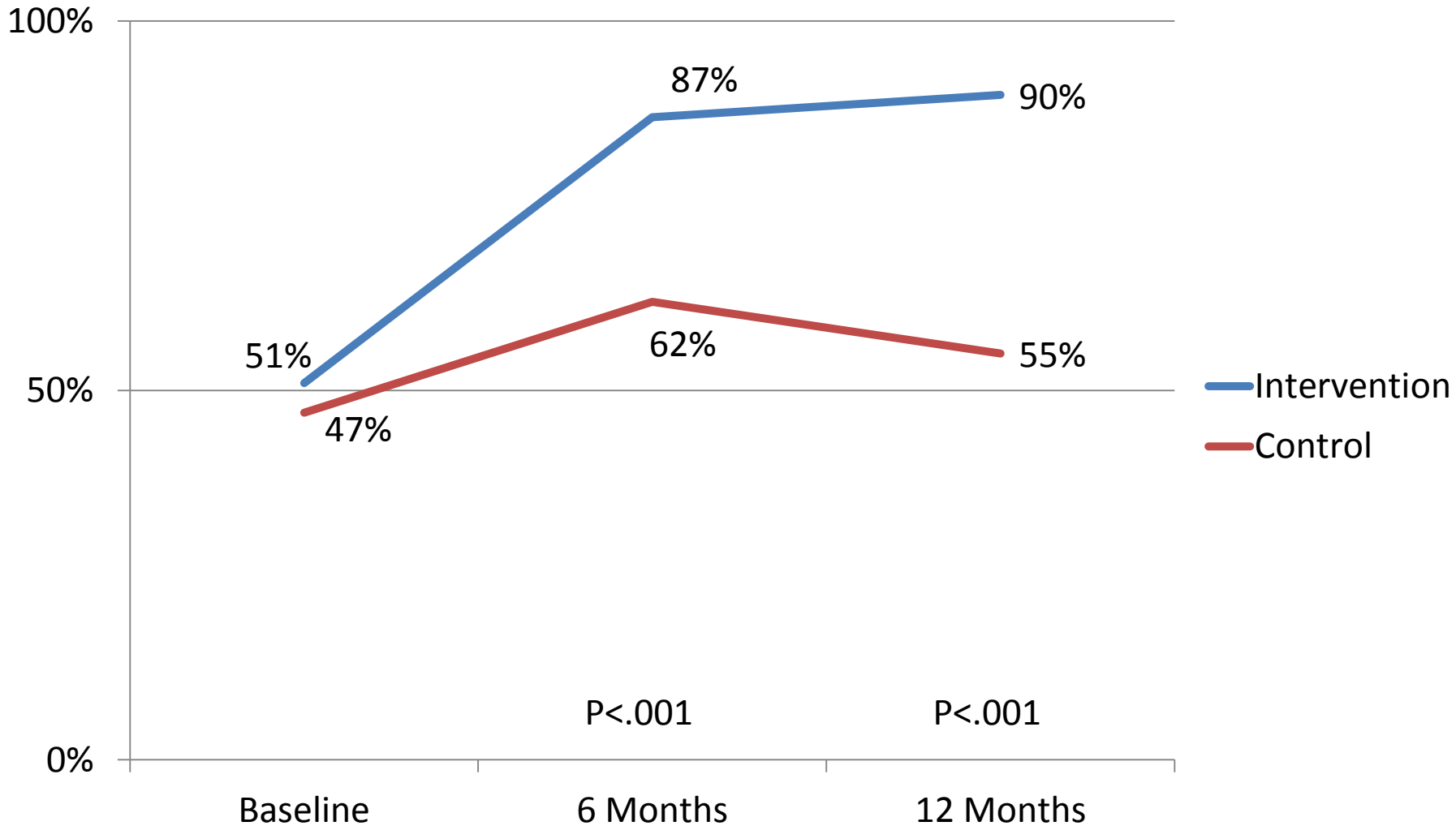
- A significant change in LDL of 6.9 mg/dL in the Collaborative Care Study
- **\$594 lower outpatient costs per patient (\$1116 for Medicare) at 24 months**

\*214 participants with poorly controlled diabetes, CAD, or both and coexisting depression randomly assigned to collaborative care or to usual primary care.

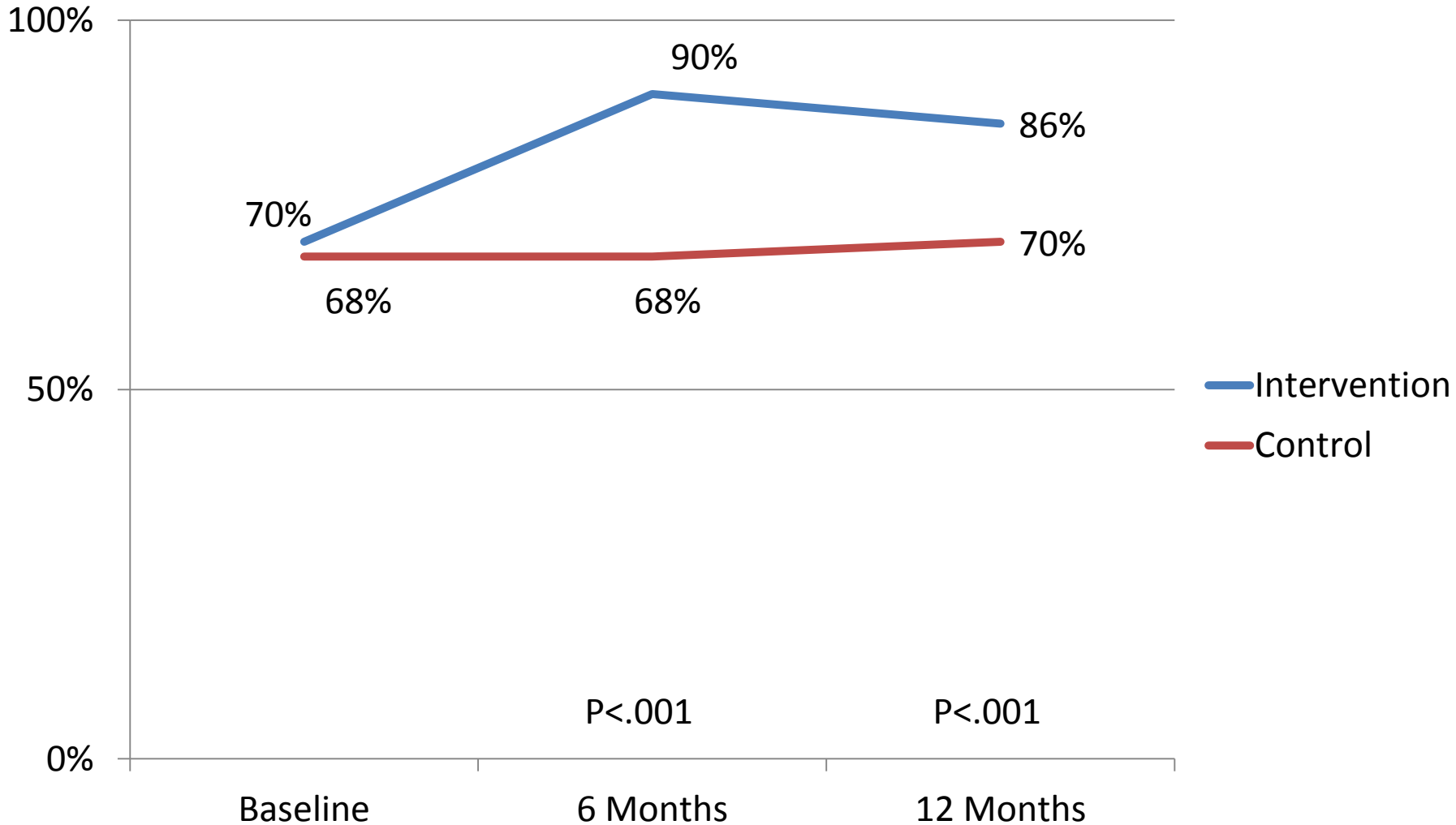
# One or More Med Adjustments in 12 mo.



# Satisfaction with Depression Care



# Satisfaction with Diabetes/CAD Care



# Validating the Solution



- The Polyclinic in Seattle enrolled >100 patients with out-of-target
  - Diabetes
  - Blood Pressure
  - LDL Cholesterol
  - **AND with major depression.**



69% of graduates of program achieve targets in: Glucose, Cholesterol and Blood Pressure

*Presented by Dr. Paul Ciechanowski et al. at the American Medical Group Association, 2013*

# Outcomes Resulting from Median 17 Week Engagement Period

## DEPRESSION

74% 

Reduction in number of patients with depression.

## BLOOD PRESSURE

11 point

drop in Systolic Blood Pressure

## GLUCOSE CONTROL

1.4%

unit drop in HbA1c

## ER VISITS

50%

Reduction in Emergency Room Visits.

## Economic Impact

Treating depression in patients with diabetes saves **\$3900** over five years.

*Milliman, 2013; Katon et al. 2008*

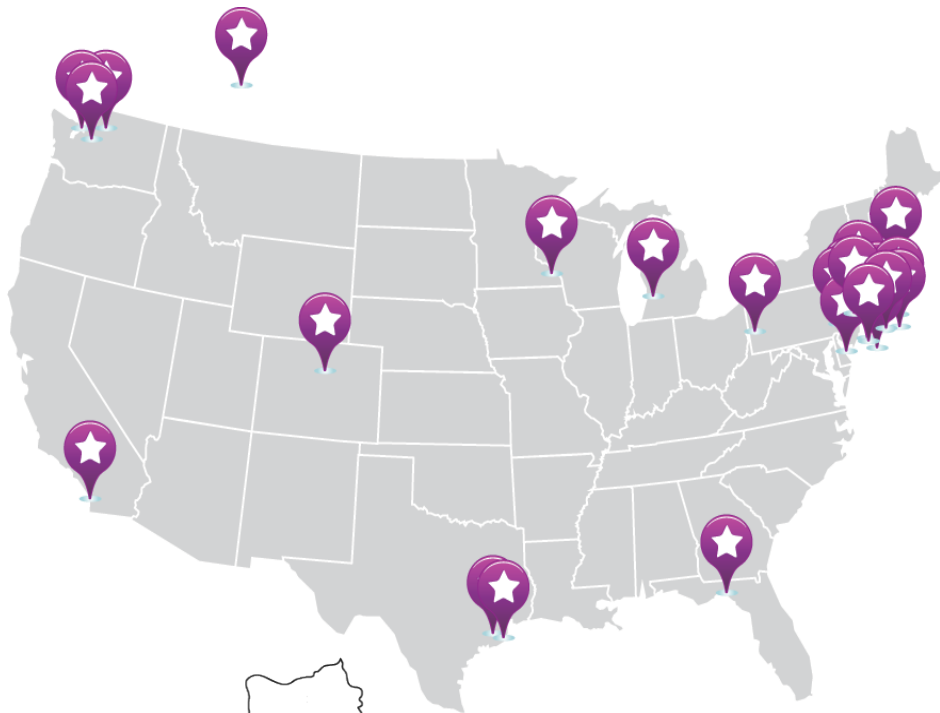
A 1% unit drop in A1c is associated with a **\$3600** reduction in costs over 3 years.

*Cost and Quality Gap in Diabetes Care, Milliman, 2012*

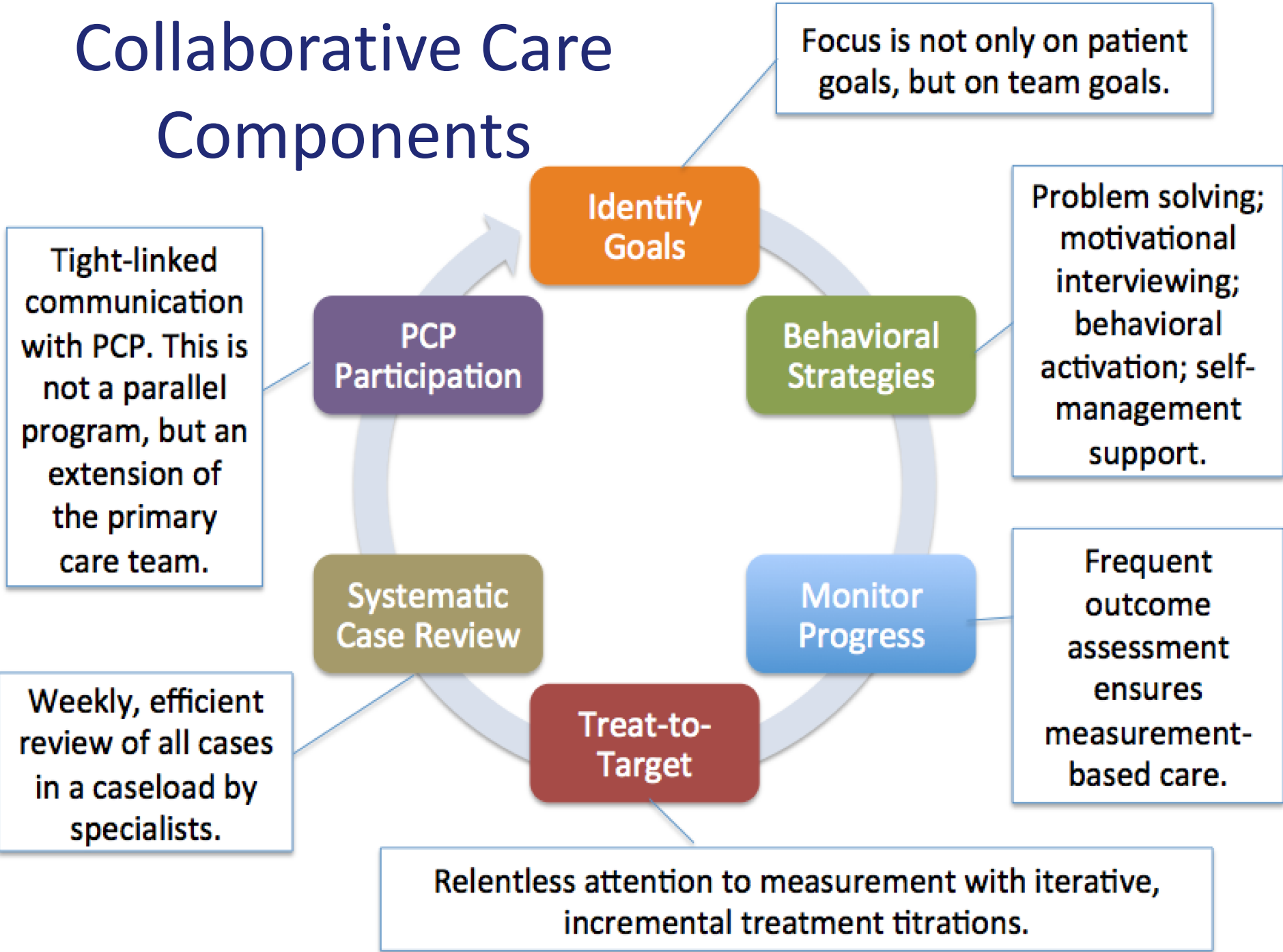
Mean cost for a single ER Visit is **\$1999**

*Medical Expenditure Panel Survey, 2010*





# Collaborative Care Components



Treat to  
Target

# Weekly Case Summaries

Initial	Clinic	Enroll Date	PHQ		BP		HbA1c		LDL	
			BL	Now	BL	Now	BL	Now	BL	Now
AB	BRN	8/11/14	19	14*	153/86	140/100*	10.1	6.9	135	106*
EW	OLY	5/19/14	19	19*	141/69	122/77	7.3	6.8	181	138*
MJ	EVM	11/12/13	14	9	160/98	150/85*	6.4	6.8	108	67
RT	NGT	10/30/13	13	2	177/95	126/76	9.2	8.3*	119	99
FG	LYN	8/23/13	14	3	149/71	111/58	8.1	7.7	85	82

\* Out of target value

# Treat to Target

## Treatment titration

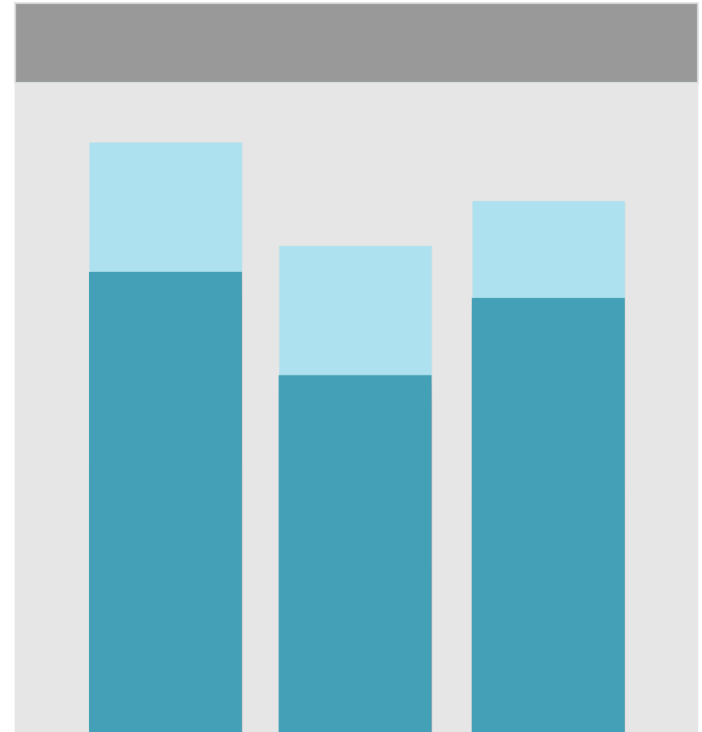
- Frequent and consistent
- Relentless, incremental increases/changes

## Always:

- Increase/change to next step
- If not, document why not!

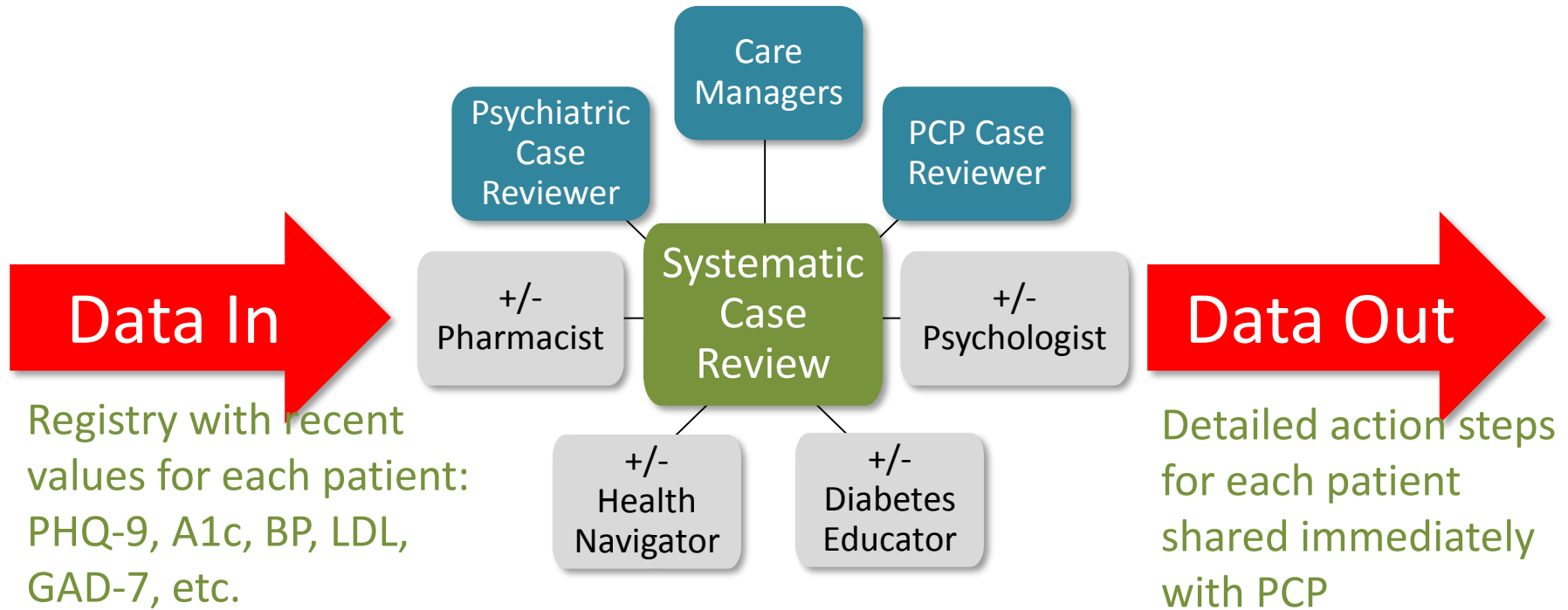
## TTT Algorithm

- Simplified and uniform approaches across conditions to achieve targets

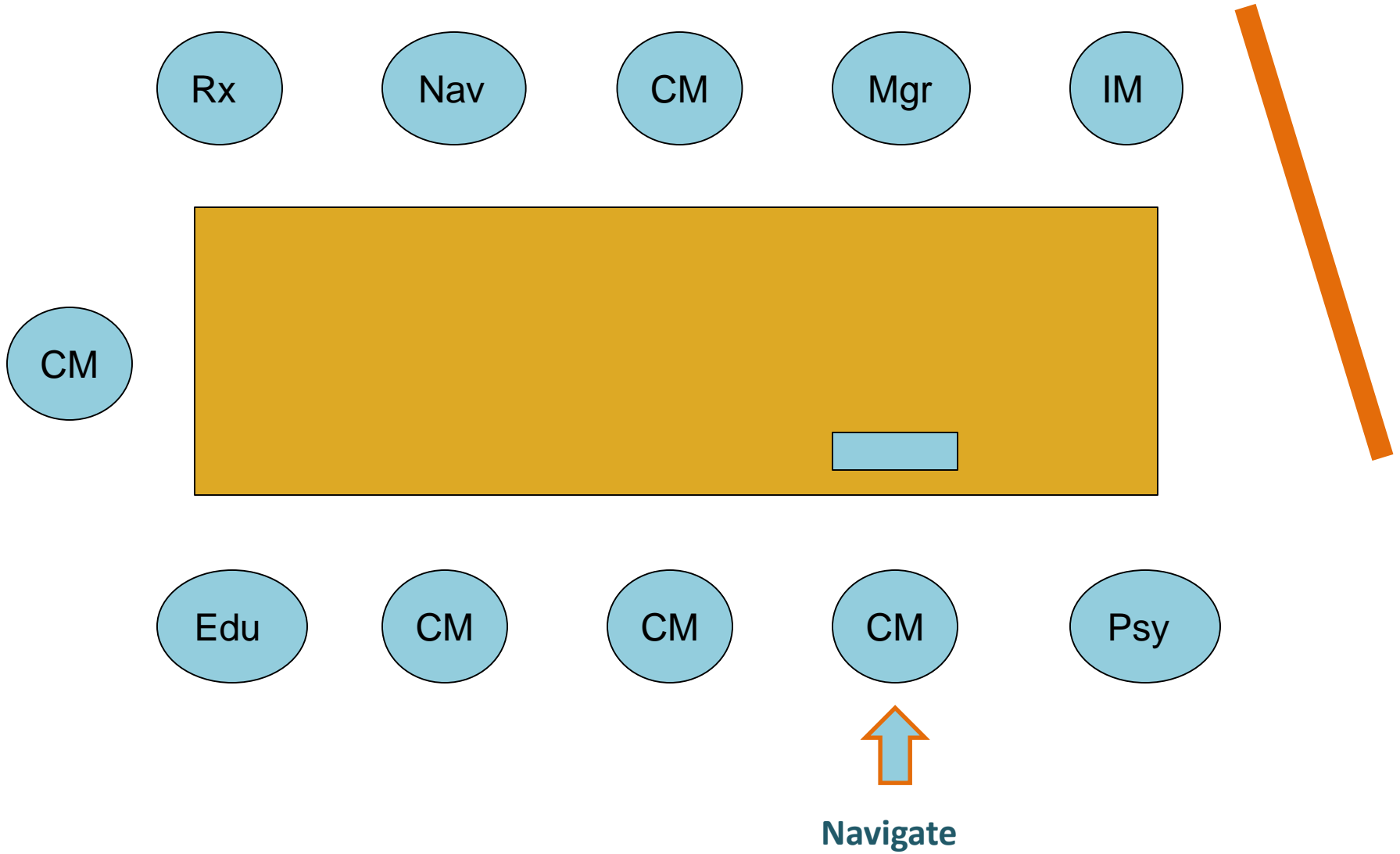


# Systematic Case Review

# Systematic Case Review



- Weekly systematic case review lasts 1-2 hours
- 40-60 patients reviewed per 1 FTE care manager equivalent
- Population management: all patients' outcomes/treatment discussed
- Detailed outcome values/detailed action steps shared by team members
- Process: Treat-to-target and measurement-based care





# RR a 62 year old widowed, male truck driver

- A1c = 7.9% (goal <7%) (was 9.9%)
  - Metformin 1,000 mg twice a day
  - Glipizide XL 10 mg once a day
  - Actos 45 mg once daily
  - Canagliflozin
  - Insulin glargine
  - (Tried Byetta unable to tolerate)
- Blood Pressure = 130/80 (goal <140/90) (was 180/90)
  - Lisinopril 40 mg one a day
  - HCTZ 25 mg one a day



# RR a 62 year old widowed, male truck driver

- Cholesterol LDL = 108 (goal < 100) (was 180)
  - Atorvastatin 40 mg once a day
- Depression PHQ-9 = 4 (goal < 5) (was 20)
  - Venlafaxine XL 225 mg once a day
  - Bupropriion XL 150 mg once a day
  - Tried Fluoxetine up to 80 mg a day



# Encounter Frequency and Serum Glucose Level, Blood Pressure, and Cholesterol Level Control in Patients with Diabetes Mellitus\*

Mean Visit Frequency	Median Time to control				
	A1c no insulin (months)	A1c with insulin (months)	Blood Pressure (months)	LDL cholesterol (months)	All clinical parameters (months)
<b>1-2 weeks</b>	4.4	10.1	1.3	5.1	1.5
<b>3-6 months</b>	24	52.8	13.9	32.8	36.9

# Preparing for Collaborative Care

- Ask: What would motivate you/your organization to take on collaborative care?
- Financial and quality improvement motivators
  - e.g. risk contracts, HEDIS, Star Ratings, NCQA, PCMH, ACO, reduce 30 day readmits, reduce ER visits
- Key disciplines / leadership working together
- Establish a way to risk stratify patients and enroll them

# Preparing for Collaborative Care

- Universal screening for depression / anxiety
- Regular use of registries / referrals
- Internal marketing
- Leverage existing disease / case management programs
- Commit dedicated time/space for Systematic Case Review
- Leverage billing opportunities, e.g. 9615x, 99490

# Summary

- Collaborative care for depression and co-morbid chronic conditions:
  - **Better outcomes**
  - **Lower costs**
  - **Better quality of care**

# Summary

- Collaborative care for depression and co-morbid chronic conditions:
  - **Better outcomes**
  - **Lower costs**
  - **Better quality of care**
  - **Better quality of caring**

Thank You!

Questions?

