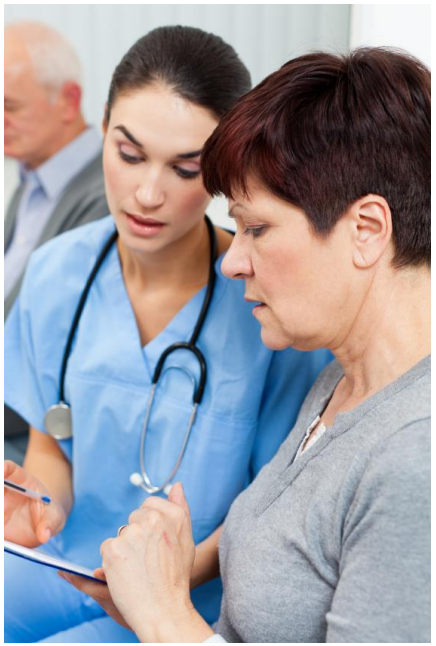
# Effectively Implementing Medical-Behavioral Integration



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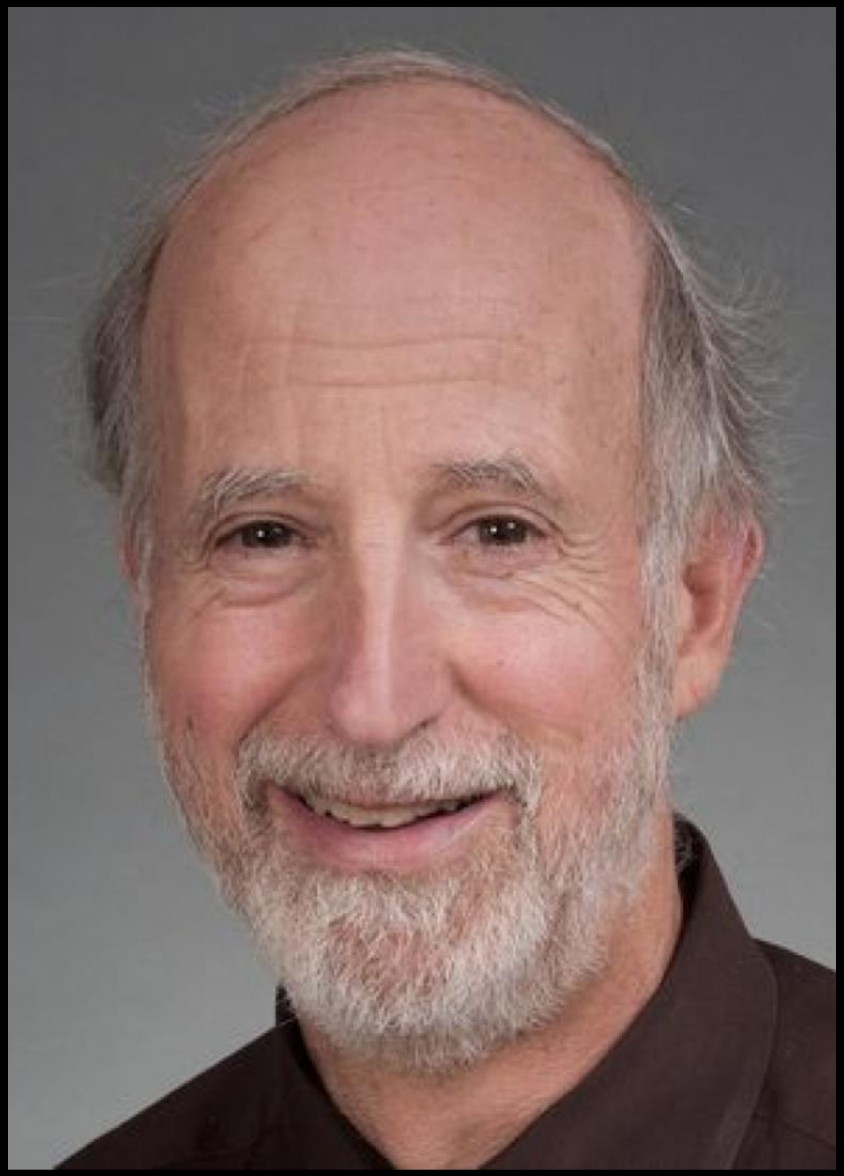
# *In Memory of Wayne Katon, M.D.*



# 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.

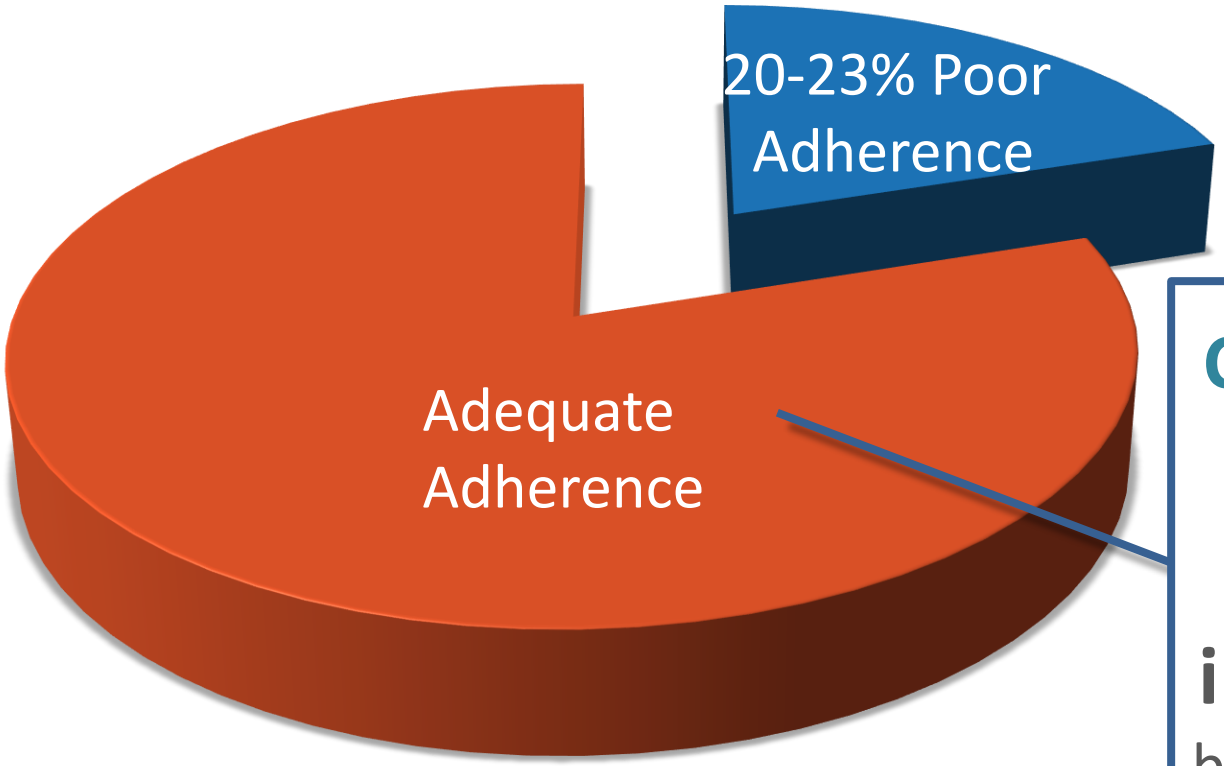
- a **major factor that contributes to inadequate chronic disease care** in patients with diabetes mellitus, hypertension, dyslipidemias, depression, coronary heart disease, and other conditions.

# Study: 161,697 Patients

- $HbA_1c$ > **7%**
- Systolic blood pressure > **130 mmHg**
- LDL > **100 mg/dL**

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

# Study: 161,697 Patients




**Clinical Inertia:**

30-47% lacked **treatment intensification** by healthcare team.

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

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

✗ Glucose control
✗ Blood pressure
✗ Cholesterol

**"Bundled benchmark"**

# 81% of those with diabetes

**FAIL TO ACHIEVE**

the bundled benchmark

✗ Glucose control
✗ Blood pressure
✗ 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."**

Casagrande et al., Diabetes Care, 2013

# 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

AT THE INTERSECTION OF HEALTH, HEALTH CARE, AND POLICY

HealthAffairs



# 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]

ANNALS OF FAMILY MEDICINE



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

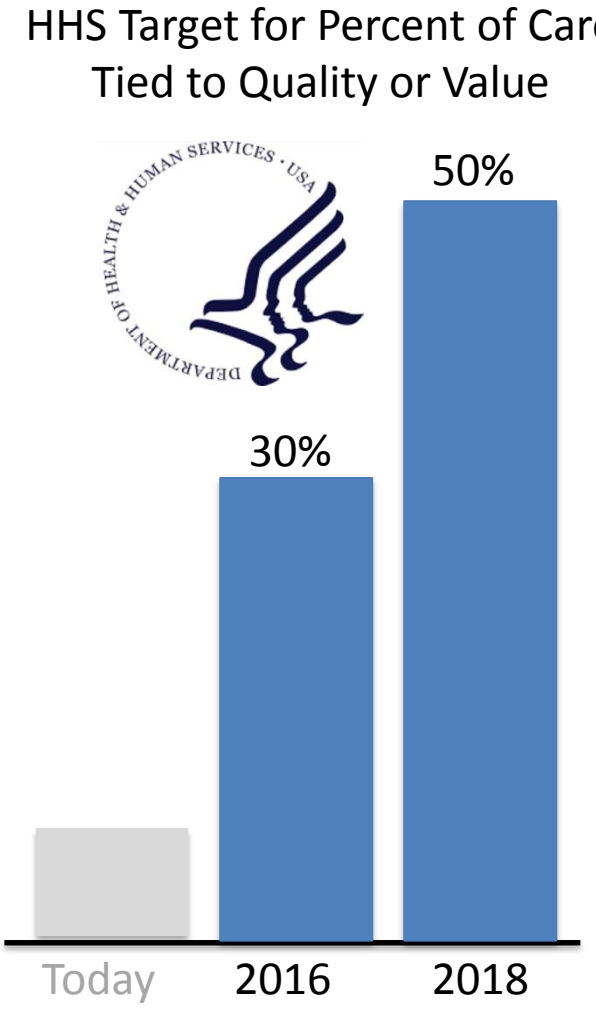
Thomas Bodenheimer, MD[1] ⇑ and Christine Sinsky, MD[2,3]

"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.

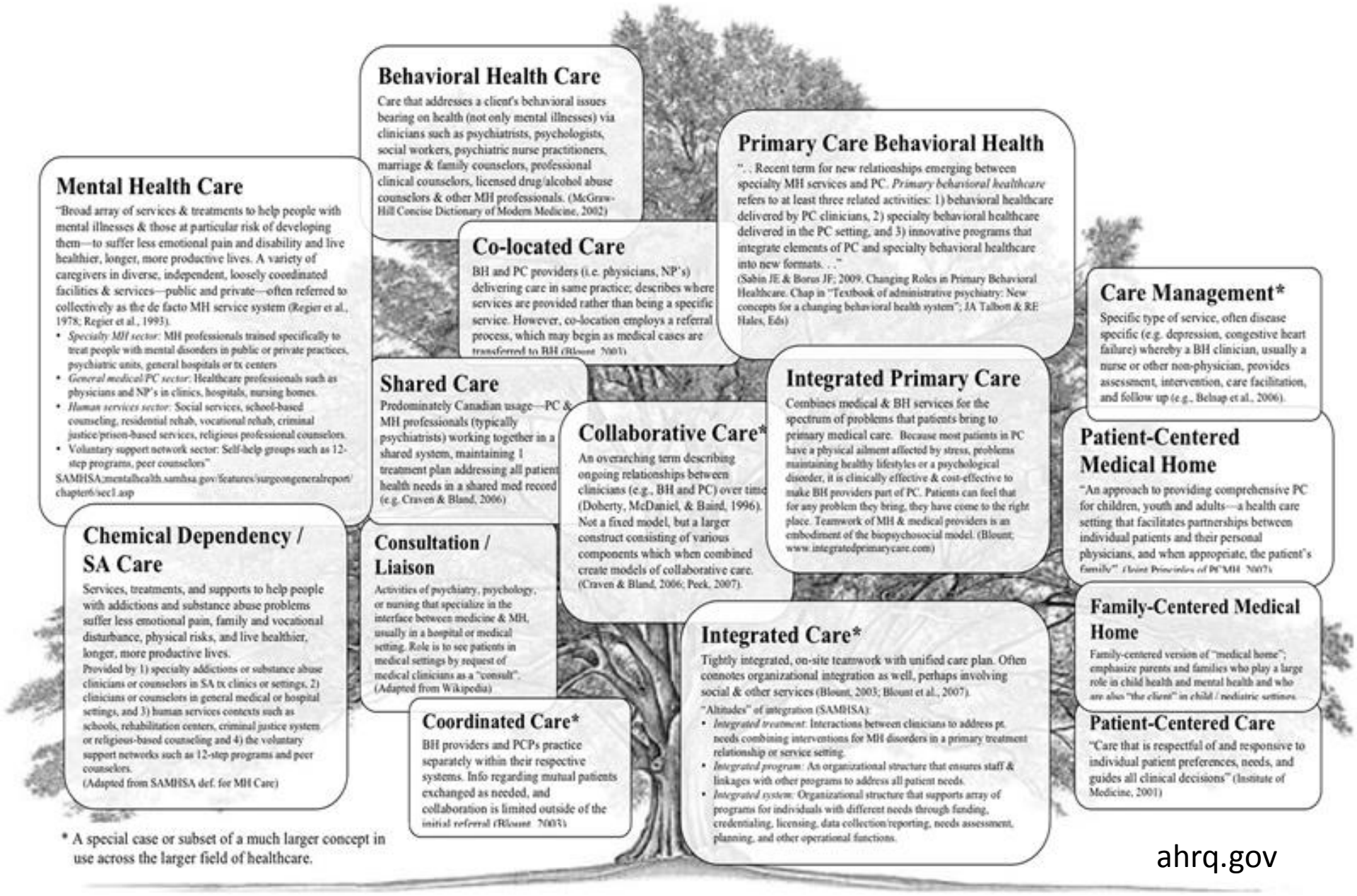
# Value-Based Care Delivery to Become a "New Normal"

- 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



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

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



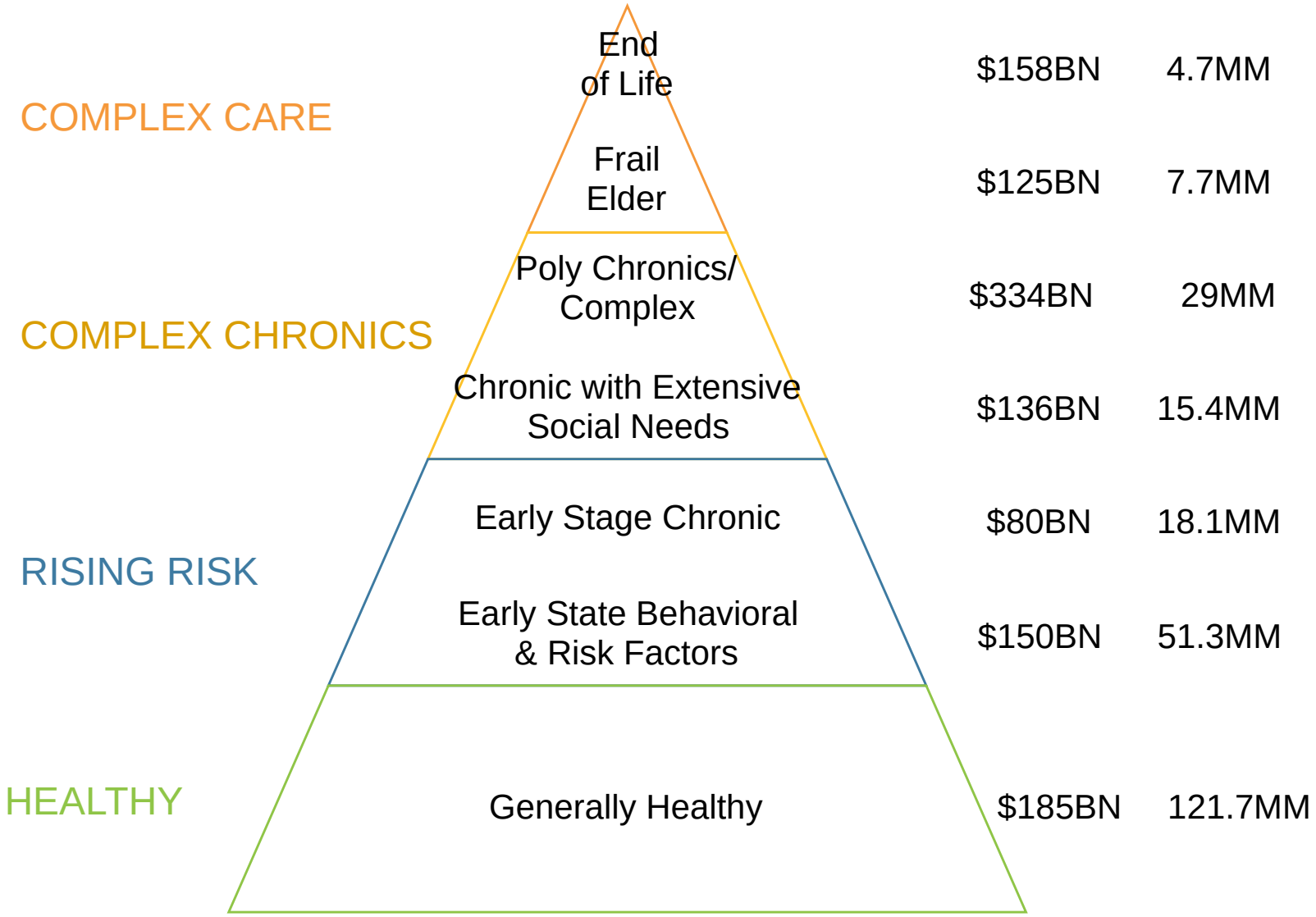

* A special case or subset of a much larger concept in use across the larger field of healthcare.

ahrq.gov

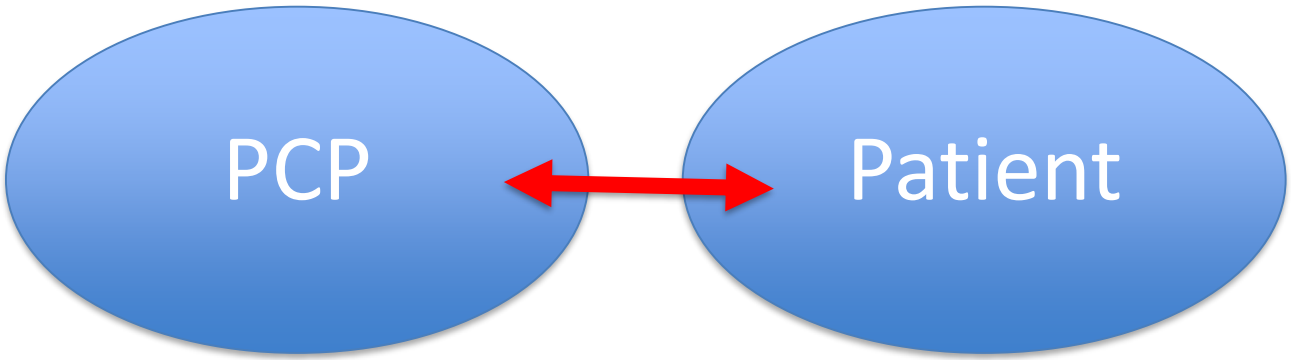
# Collaborative Care [k*uh*-**lab**-*uh*-rey-tiv kair]:

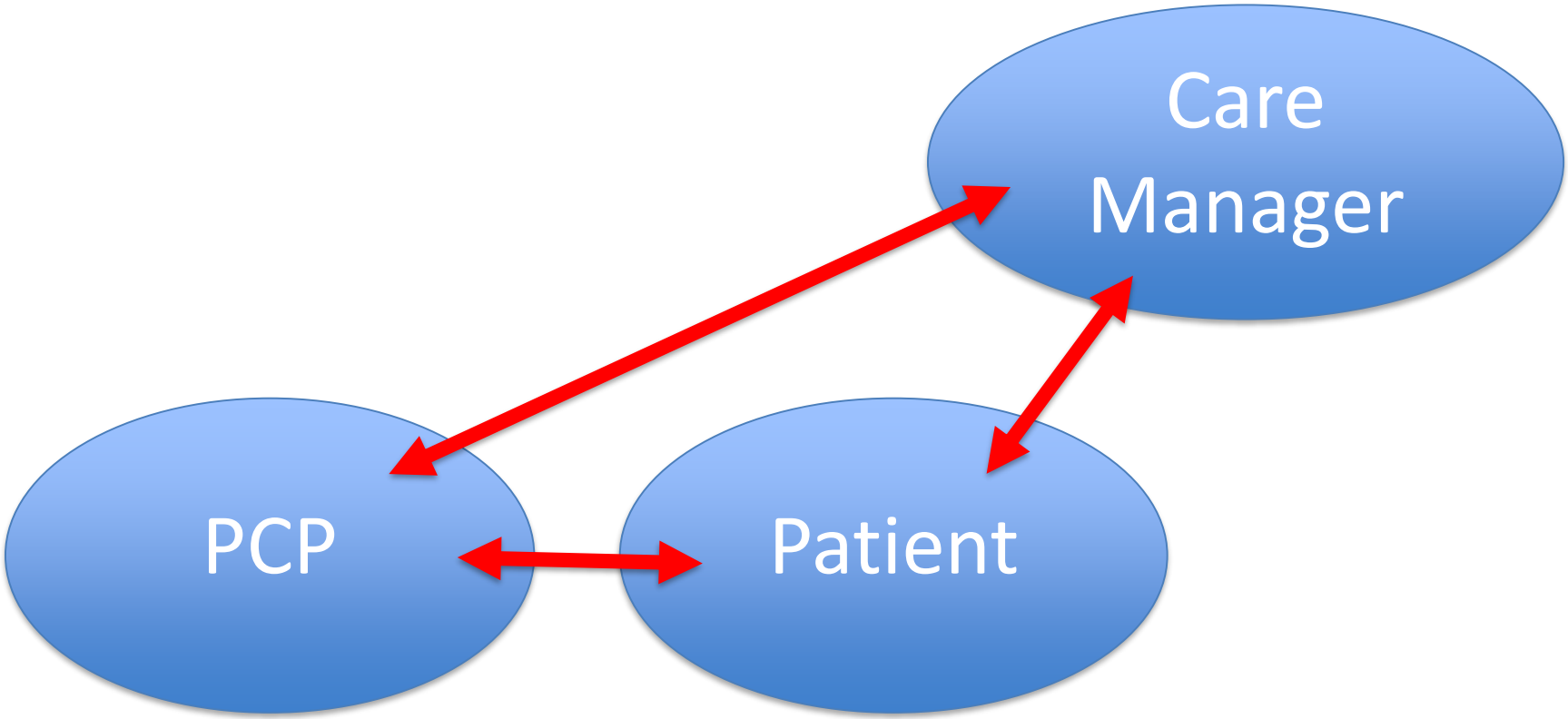
A **team**
with a shared **mission**,
using improved clinical **systems** to
deliver improved **care** to a patient **population**
supported by **operational and financial systems**.
Such care is **continuously evaluated** through
improvement
**processes** and
**effectiveness**
**measurement.**

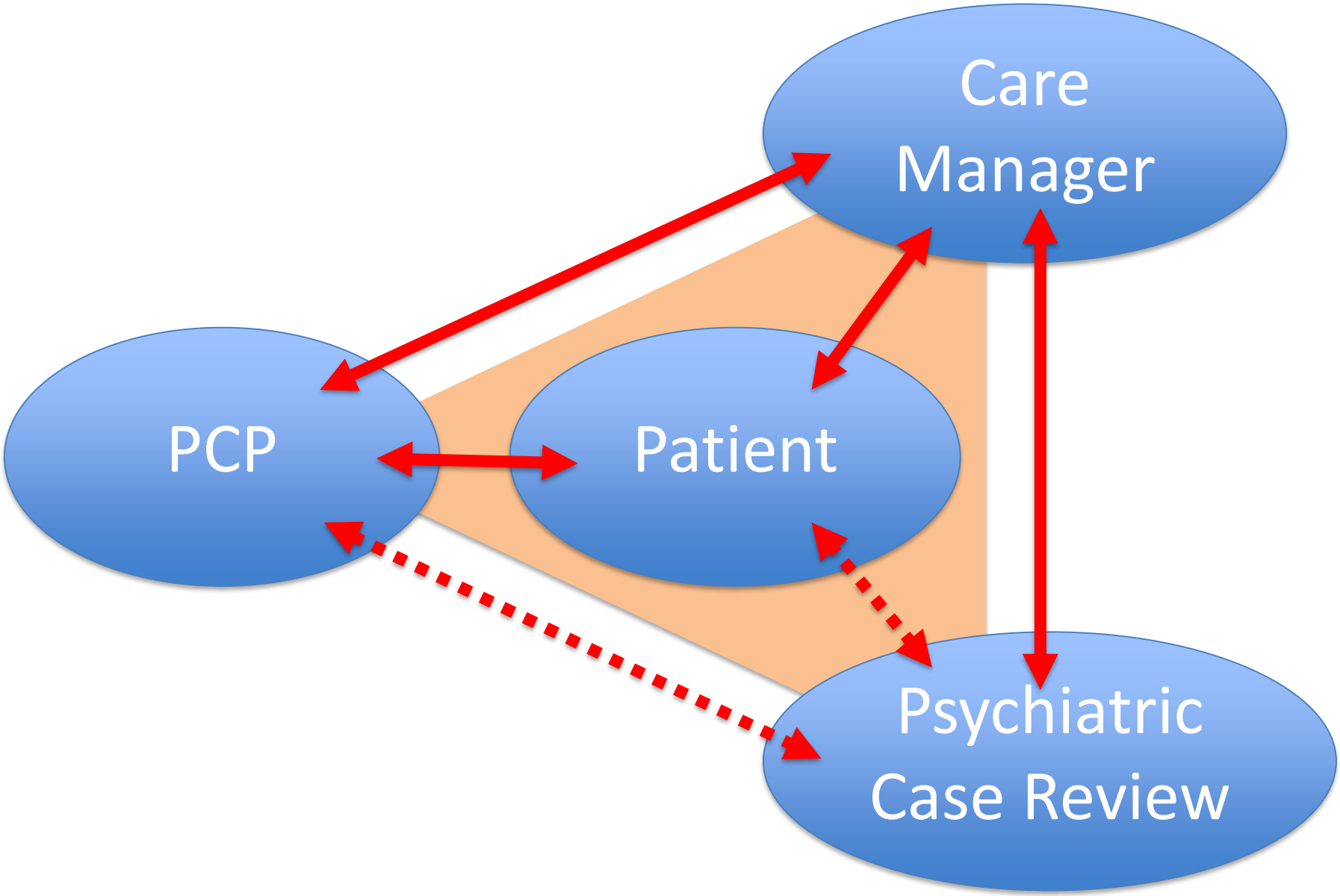
ahrq.gov

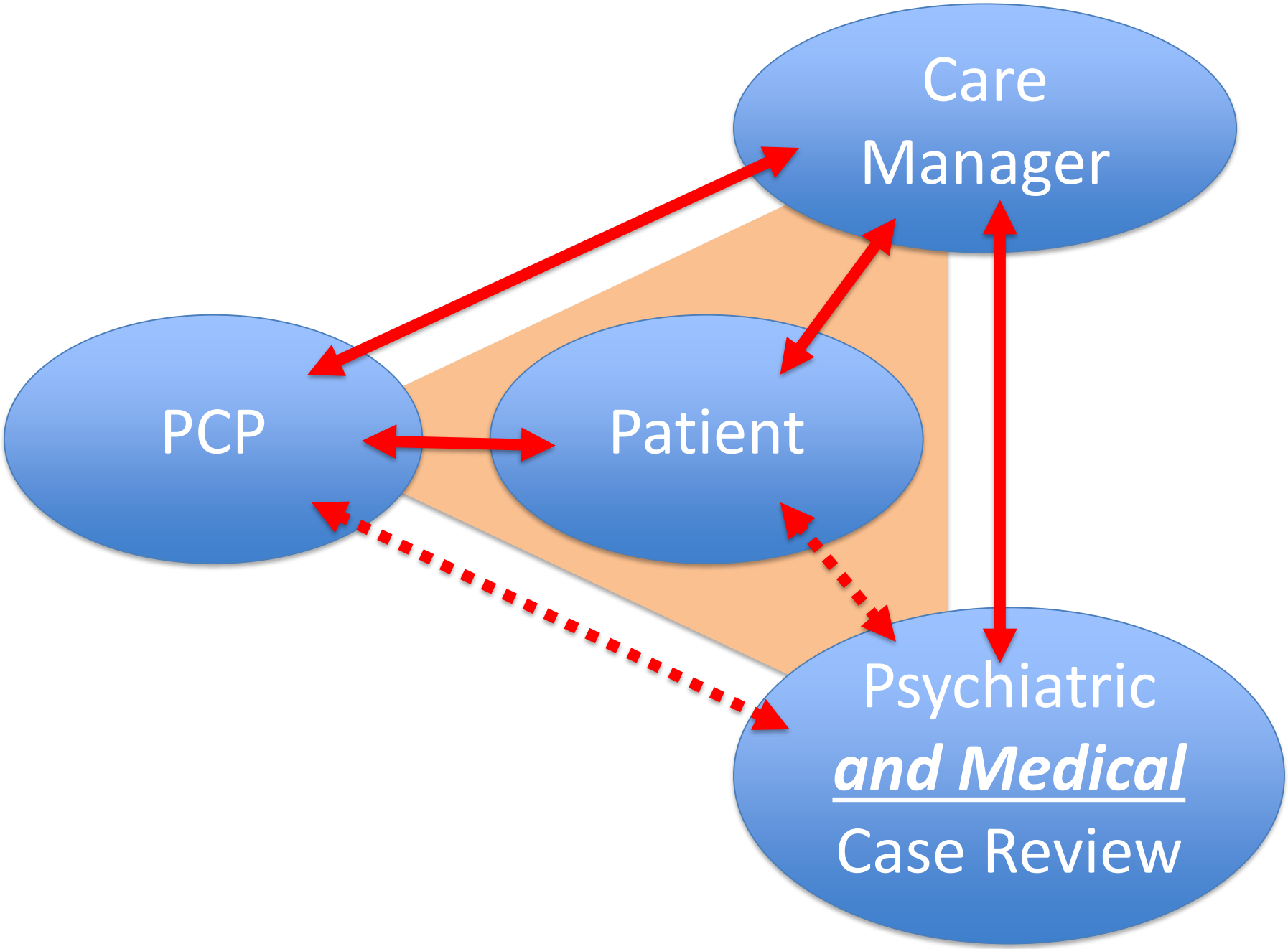



*Adapted from: Oliver Wyman Analysis, Kaiser, CMS, Census Bureau, CSC, Oliver Wyman Health Innovation Center. Exec. Summary. Convergence: Consumer & Patient-Centered Business Designs. Oct 2013 Ideation Session. Found online. Note: Data excludes the uninsured and VA populations, year = 2012*


PCP
Patient


Care
Manager
PCP
Patient


Care Manager
PCP
Patient
Psychiatric Case Review


Care
Manager
PCP
Patient
Psychiatric
and Medical
Case Review

The NEW ENGLAND JOURNAL of MEDICINE

## Research Team


Ciechanowski


Katon


Lin


Ludman


McGregor


Peterson


Russo


Rutter


Von Korff


Young



# 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

MEDIA IN THIS ARTICLE

FIGURE 1

***A1c***

***Blood pressure***

***Cholesterol (LDL)***

***Depression***

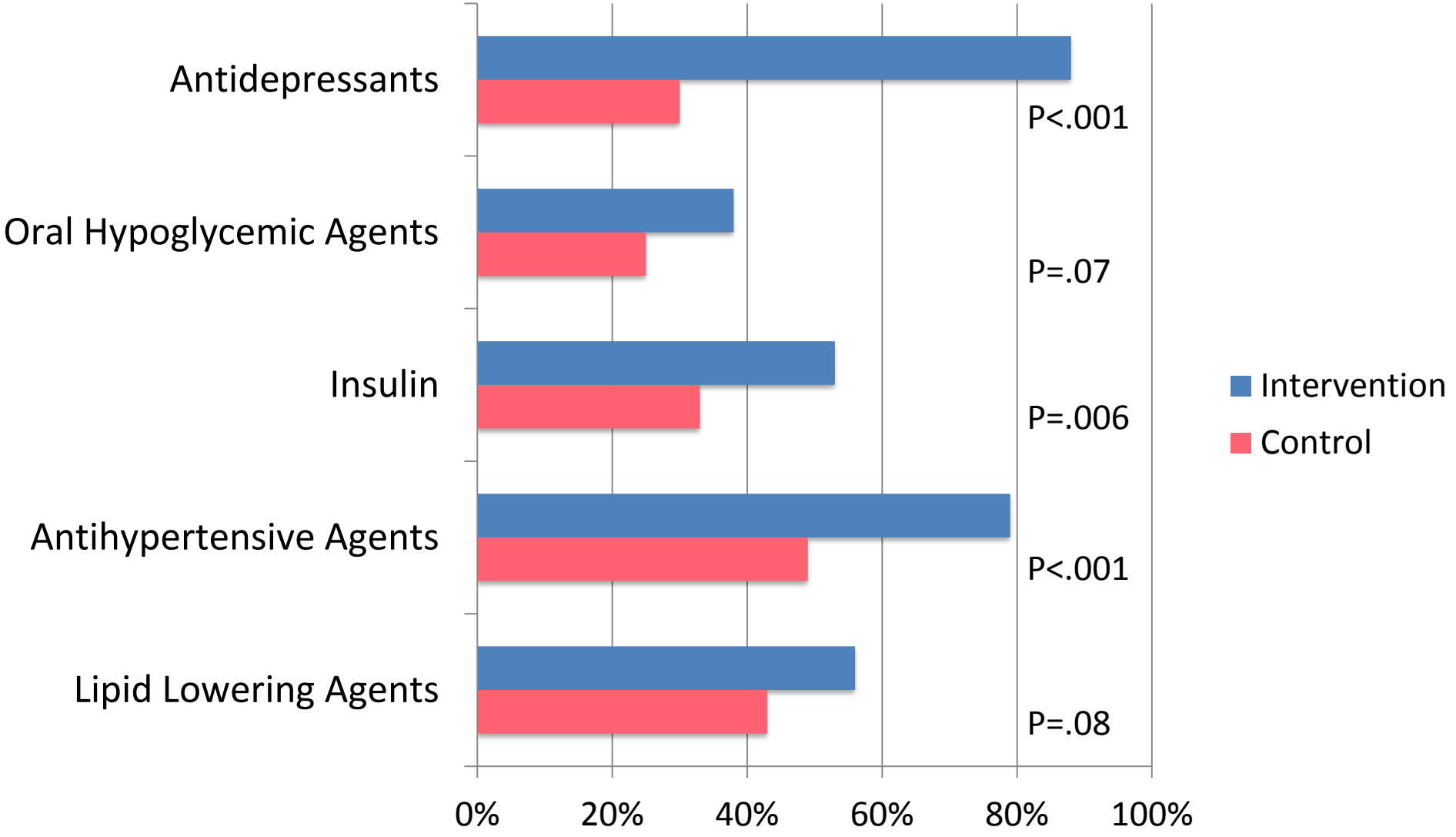
| Outcome domain | Multi-Condition Collaborative Care Study | Comparison Studies Focusing on One Outcome | Description |
|---|---|---|---|
| Depression | Effect size: 0.65 | Effect size: 0.25 | 37 Collaborative Depression Trials |
| $HbA_{1c}$ | Change: 0.58% | Change: 0.42% | 66 Diabetes Trials |
| 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**

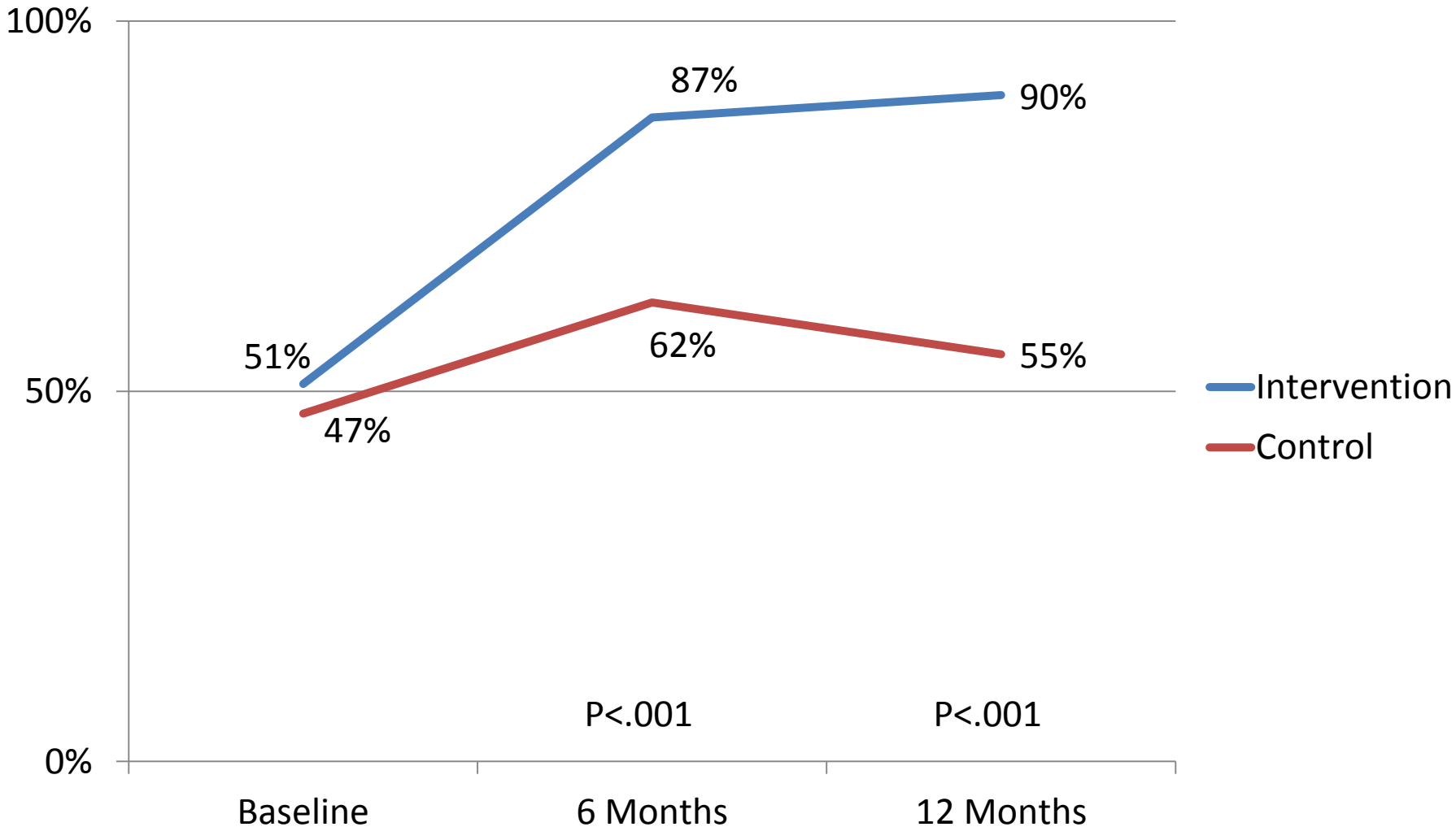
*214 participants with poorly controlled diabetes, CAD, or both and coexisting depression randomly assigned to collaborative care or to usual primary care.

Katon et al. N Engl J Med 2010; 363:2611-2620

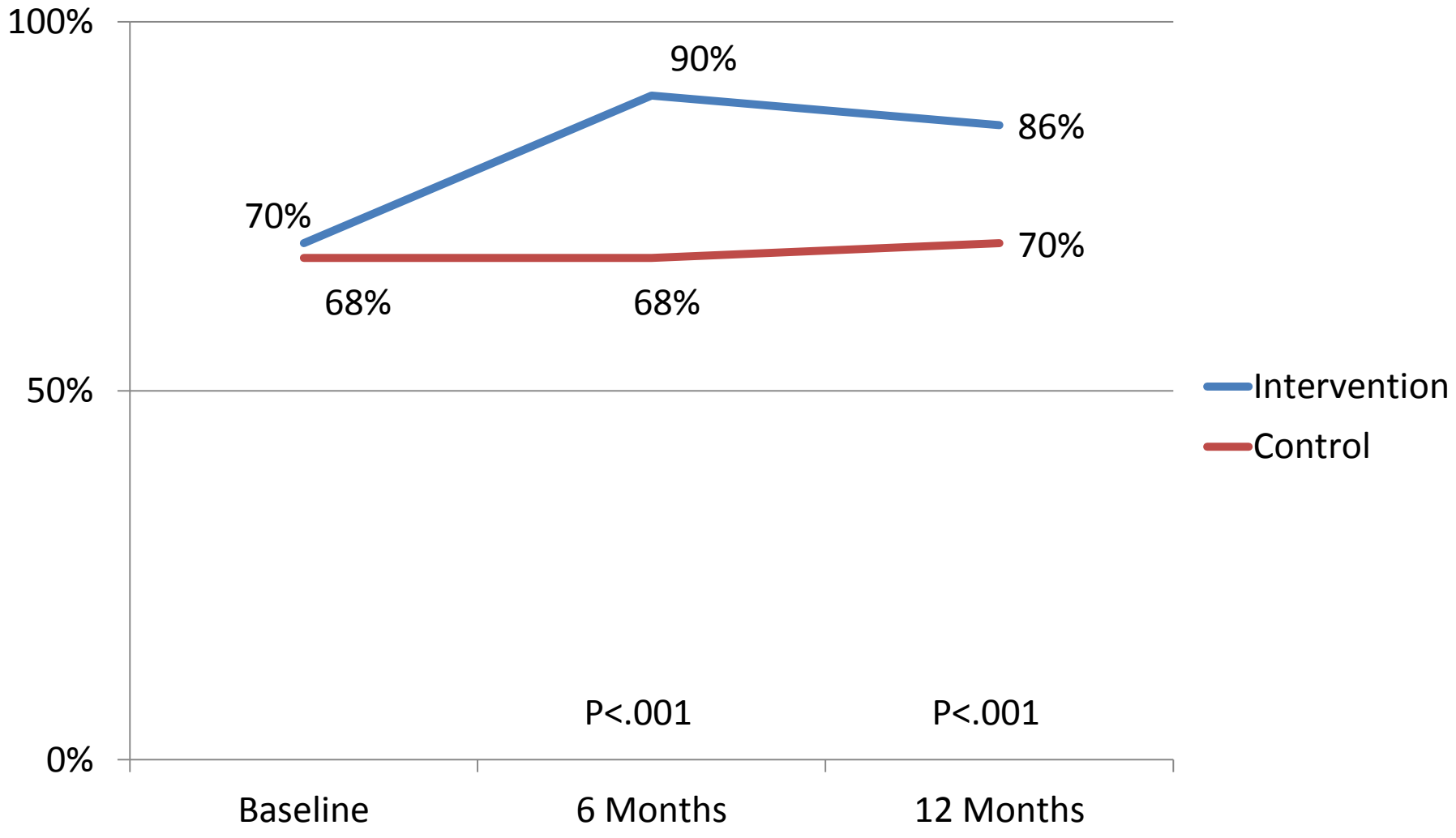
# One or More Med Adjustments in 12 mo.



# 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
  - **<u>AND</u> 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.

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

*Milliman, 2013; Katon et al. 2008*

## BLOOD PRESSURE

11 point drop in Systolic Blood Pressure

## GLUCOSE CONTROL

1.4% unit drop in HbA1c

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*

## ER VISITS

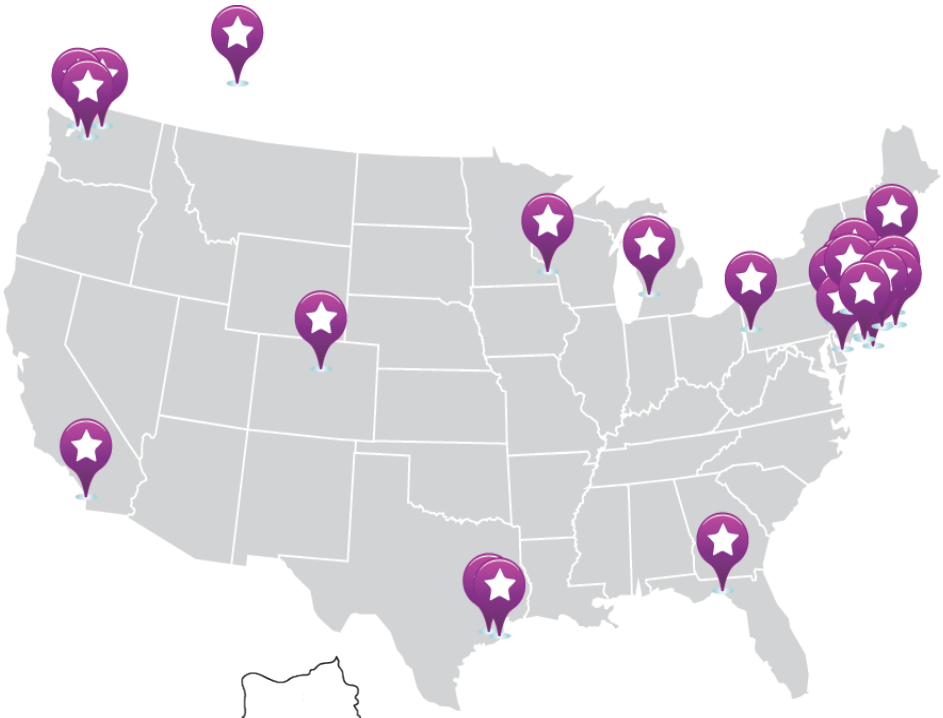
50% Reduction in Emergency Room Visits.

Mean cost for a single ER Visit is $1999

*Medical Expenditure Panel Survey, 2010*

## Economic Impact

Source: January 2016, 17 week Health System Results




NEW YORK CITY HEALTH AND HOSPITALS CORPORATION
nyc.gov/hhc

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THE POLYCLINIC

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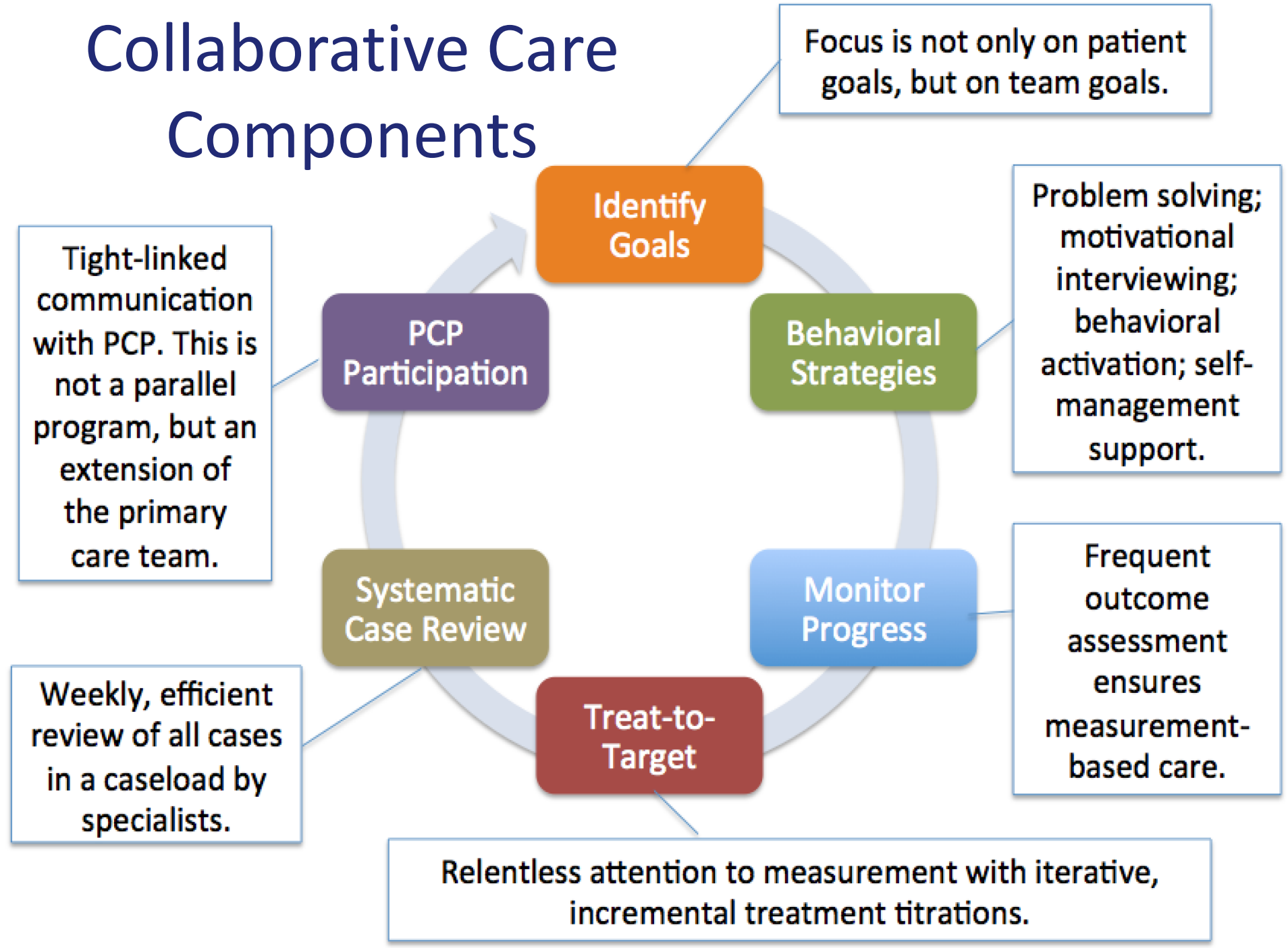
# Collaborative Care Components



Treat to Target

# Weekly Case Summaries

| Initial | Clinic | Enroll Date | PHQ BL | PHQ Now | BP BL | BP Now | HbA1c BL | HbA1c Now | LDL BL | LDL 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

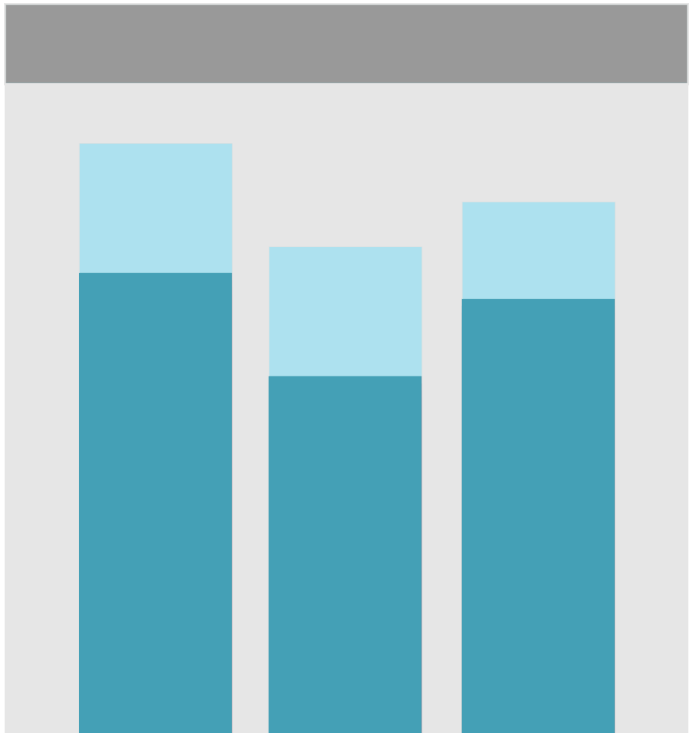
- Frequent and consistent
- Relentless, incremental increases/changes

Always:

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

TTT Algorithm

- Simplified and uniform approaches across conditions to achieve targets

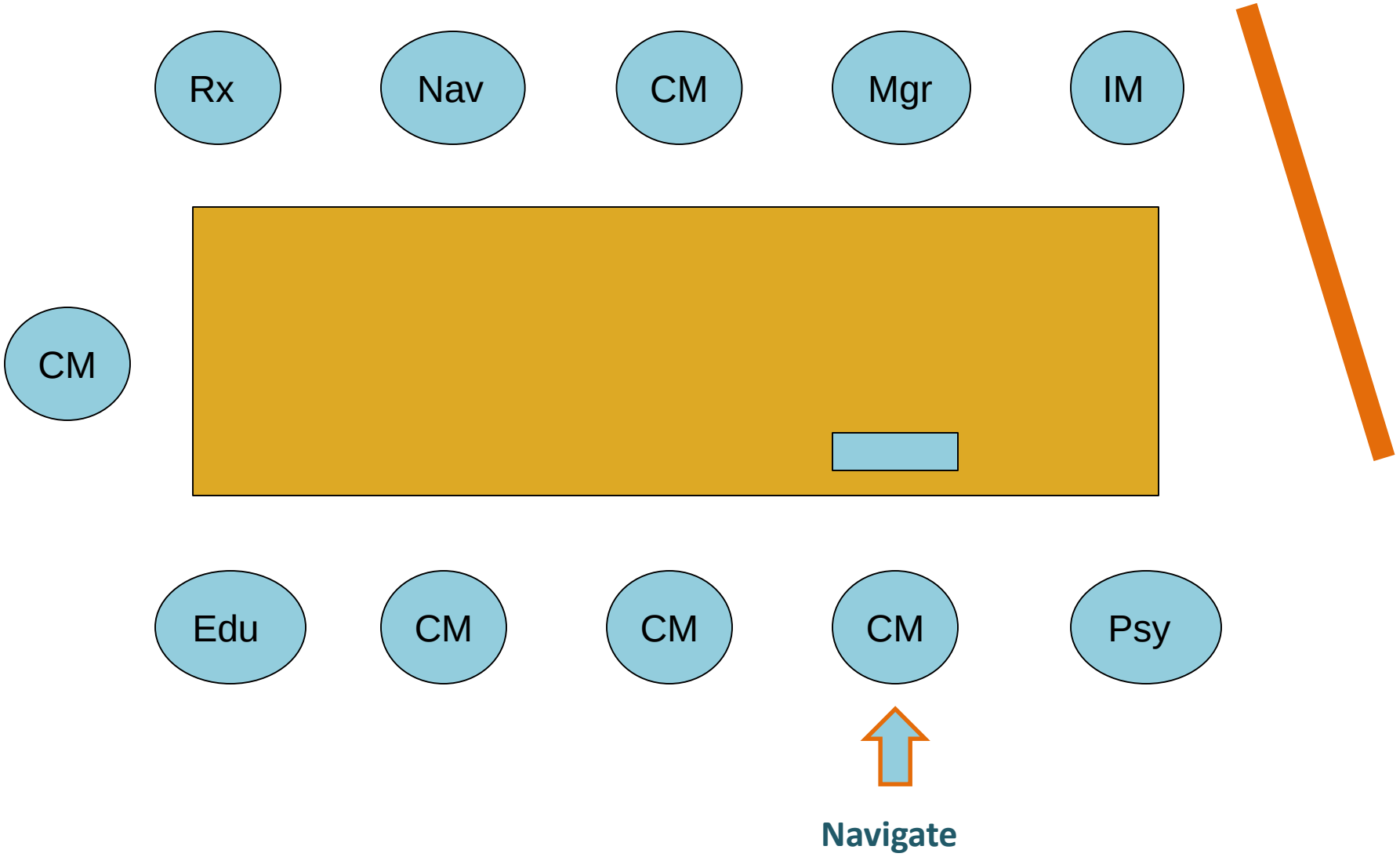


Riddles et al., Diabetes Care, 2003, Kaiser Permanente, Care Management Institute

# 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


Rx
Nav
CM
Mgr
IM
CM
Edu
CM
CM
CM
Psy
Navigate

# 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
  - Buproprion 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) |
| **1-2 weeks** | 4.4 | 10.1 | 1.3 | 5.1 | 1.5 |
| **3-6 months** | 24 | 52.8 | 13.9 | 32.8 | 36.9 |

Morrison, F et.al. Arch Int Med, 2011,171; (17)1542-1550

# 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?