



# Evidence about the Role of the Patient Centered Medical Home and Accountable Care Organizations in Improving Quality and Safety

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Director

# Goals Today

1. Describe the Medical Home and an Accountable Care System
2. Discuss how they can improve quality and safety
3. Examples

# Accountable to whom?

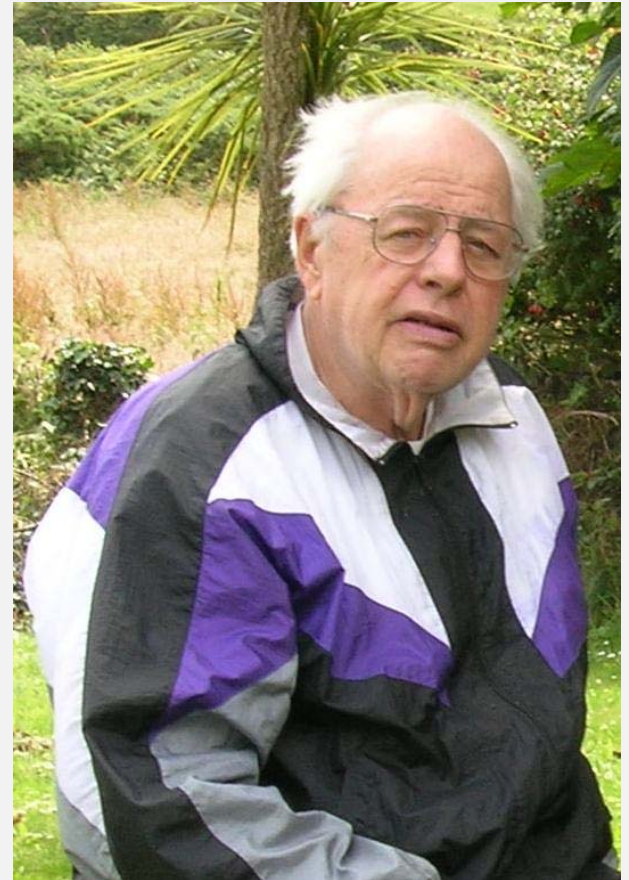
Statistics are people with the tears  
wiped off

--Sir Austin Bradford Hill (1897-1991), Pioneer of  
the randomized clinical trial

~8 doctors in 3 health systems that don't talk to each other, poor continuity  
Post-MI not on Beta Blocker due to "allergic reaction"  
Diabetes, on 4 units insulin nightly (loyalty)  
Must work to coordinate, get clinic notes, prevent medication 'creep'

Takes up swimming, loses 20 lbs  
"loses" diabetes  
blood pressure easier to control

Able to care for his wife (Alzheimer's) in their home  
Able to travel to his second home in Ireland



Dr. Tom McCarthy

Tom: iatrogenic pneumonia, hospitalized  
MRSA line infection, hospitalized

Accidentally discharged on 2 calcium channel blockers =  
intermittent heart block

Intervention stops pacemaker placement

Wrong calcium channel blocker stopped

Has a pacemaker implanted

Never quite recovers

**No one accountable, in fact most think they did  
the right thing**

Mother of 13, lost her husband to colon cancer, went to nursing school to support her family

Developed Diabetes mellitus and related renal failure

At 82, decided 3x/week dialysis was destroying her quality of life

Announced she was going off dialysis Mother's Day 2006

Her family physician not comfortable, walked away

**No one accountable**



MaryLou Werner

# Accountable Care Organizations

- Accountable care organizations (ACOs) seek to have providers to think of themselves as a group with a common patient population, care delivery goals, and performance metrics, rather than as discrete entities
- financial incentives for broad cost containment and quality performance across multiple sites of care

# MedPAC on ACOs and Patient Centered Medical Homes

- An **ACO** is “a set of physicians and hospitals that accept joint responsibility for the quality of care and the cost of care received by the ACO’s panel of patients”
- The **Patient Centered Medical Home** is a medical practice that
  - furnishes primary care, conducts care management, has formal quality improvement program, has 24-hour patient access, maintains advance directives, and has a written understanding with each beneficiary that it is the patient’s medical home”
- **MedPAC regards medical homes as building blocks of effective ACOs**

Medicare Payment Advisory Committee (MedPAC). *Accountable Care Organizations*. [http://medpac.gov/chapters/Jun09\\_Ch02.pdf](http://medpac.gov/chapters/Jun09_Ch02.pdf). July 10, 2009.



# PCMH needs the ACO

## Because the PCMH...

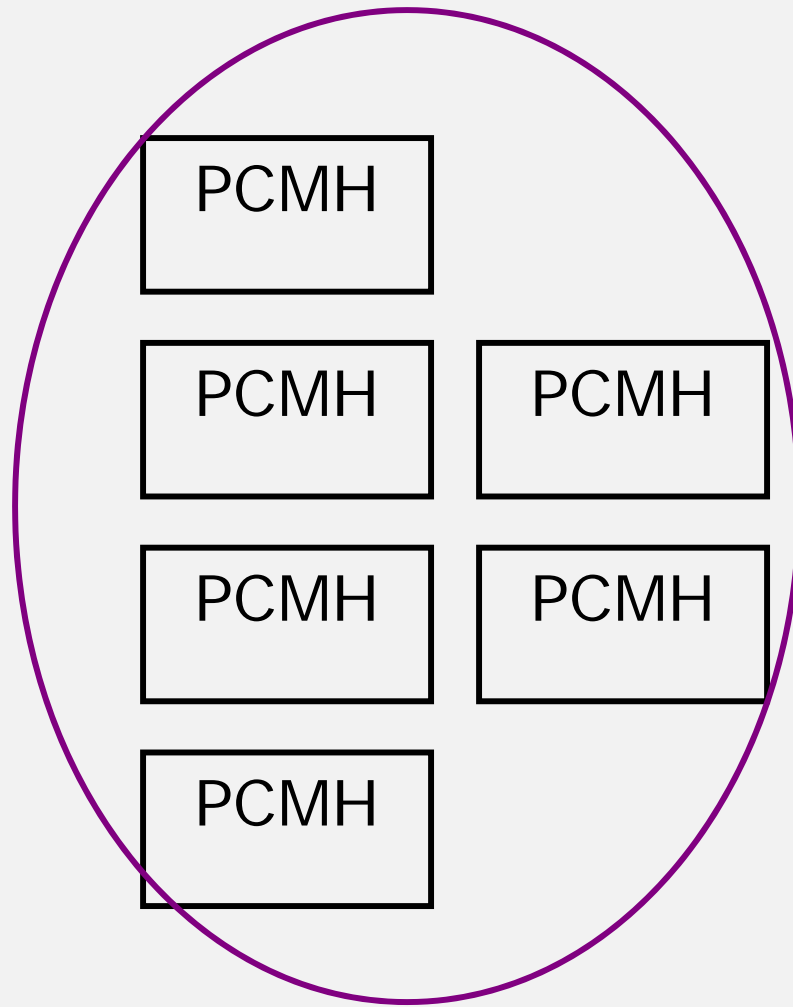
- Often lacks capital to invest in new models of care
- Has little direct leverage over other providers and offers no direct incentives to work collaboratively or integrate care
- other providers will allow not allow their incomes to fall due to reductions in referrals or admissions

# ACO Needs the PCMH

Because the ACO...

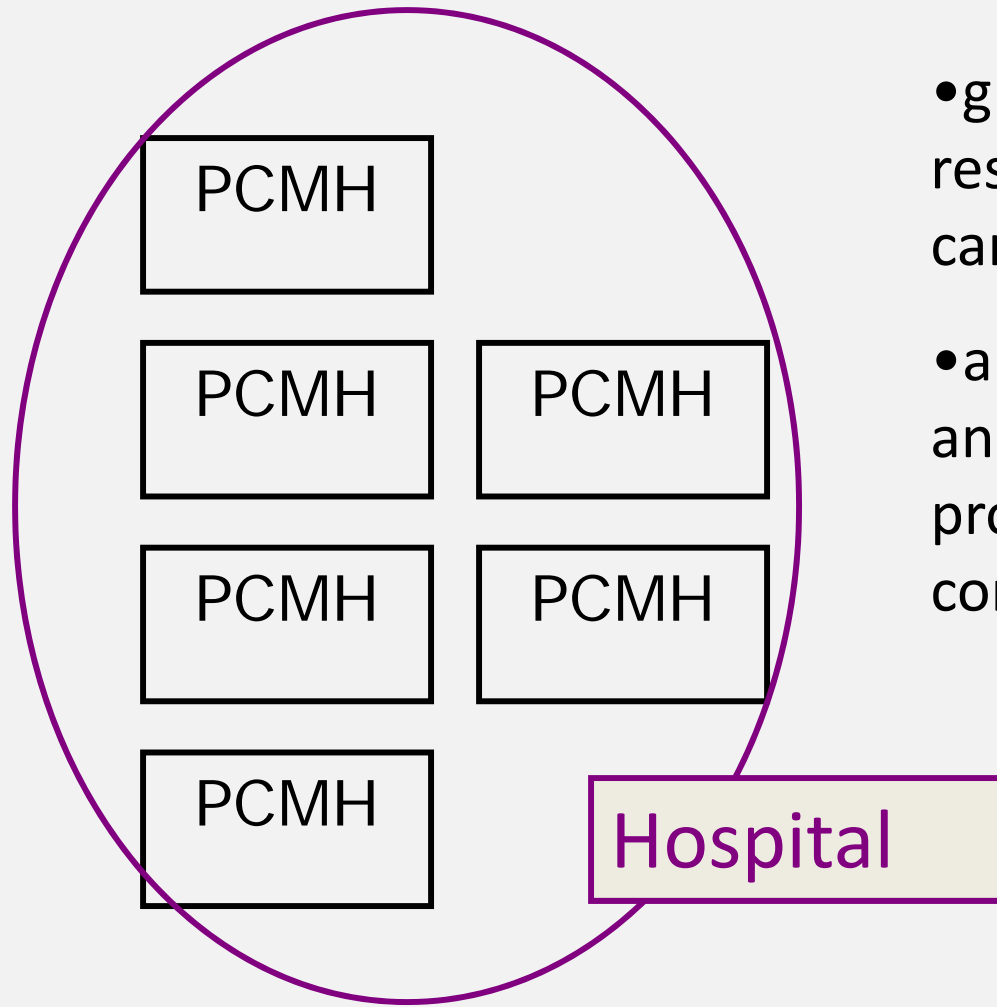
- will not succeed without a strong foundation of high-performing primary care
- Is limited by a shortage of primary care capacity and outdated infrastructure of most primary care practices
- could accelerate savings and quality through investment in the PCMH model

# Accountable Care Organization



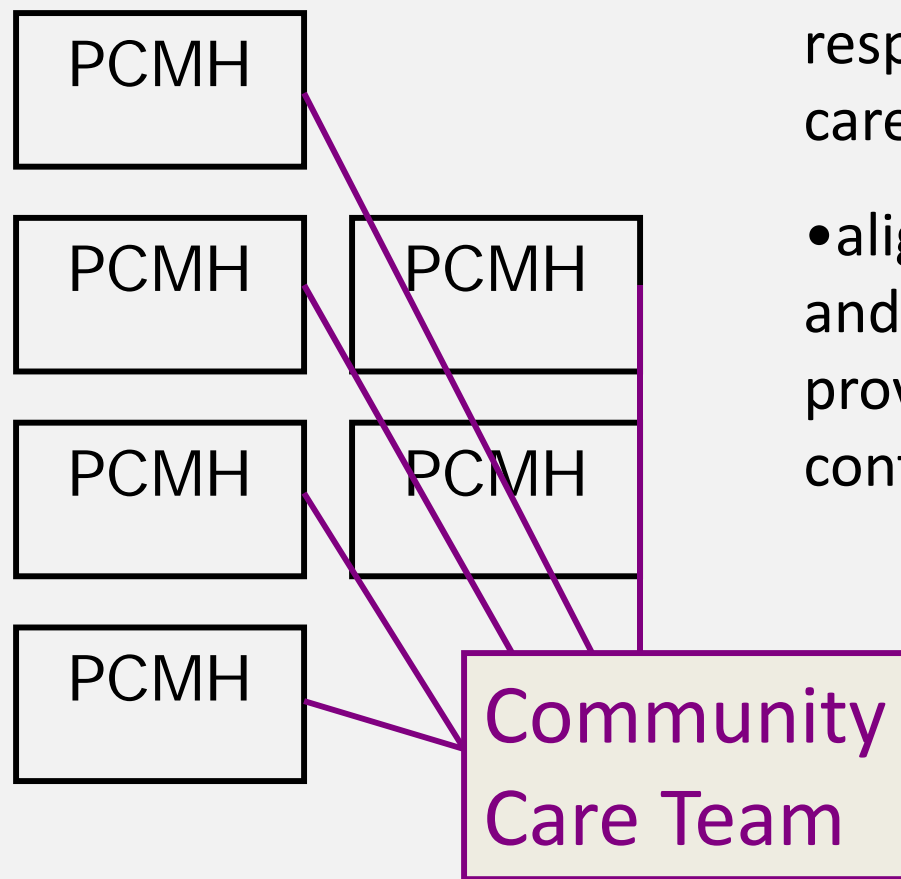
- group of providers responsible for the health care of a group of people
- alignment of incentives and accountability of providers across the continuum of care

# Accountable Care Organization



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# Evidence: Medical Home, Accountable Care

- UC San Francisco and Patient Centered Primary Care Collaborative updated their evidence November, 2010

Kevin Grumbach (UCSF)

Paul Grundy (IBM)

# UCSF/PCPCC fact sheet

- Integrated Health System PCMH/ACO experiments
  - 7%+ reduction in total costs (entire cost of primary care for Medicare!!)
  - 16%-24% reduction in hospital admissions
  - 30-40% reduction in emergency department
  - Geisinger, Group Health Cooperative, HealthPartners
  - Most of these in just 2-5 years!

# UCSF/PCPCC fact sheet

- Insurance experiments
  - 30%+ reductions in hospitalizations, ER visits vs controls
  - Up to 50% reduction in cost growth vs controls
  - North Carolina Medicaid estimates saving nearly \$1 billion in just 6 years



# UCSF/PCPCC fact sheet

- Johns Hopkins Guided Care PCMH Model
  - 24% reduction in total hospital inpatient days,
  - 15% fewer ER visits
  - 37% decrease in skilled nursing facility days
  - Annual net savings of \$75,000 per nurse care coordinator (Medicare)
- Genesee Health Plan (Michigan)
  - 50% decrease in emergency department visits
  - 15% fewer inpatient hospitalizations
- Erie County PCMH Model
  - Estimated savings of \$1 million for every 1,000 enrollees

# JACM special issue

- HealthPartners enrollees with an established PCMH where they get the majority of their primary care
  - had fewer primary and specialty care visits
  - lower costs for professional fees
  - compared to those who fragmented their care across clinics or medical groups.
- Patients who had a primary care provider made fewer specialty visits ~ difference of 22,570 specialty care visits per year \$2.8 million per year

This article helps explain lower costs, better outcomes.  
Relates what we already know about continuity in primary care to the PCMH

Is Consistent Primary Care Within a Patient-Centered Medical Home Related to Utilization Patterns and Costs? Fontaine P, Flottemesch TJ; Solberg LI; Asche SE

# JACM special issue

- Improved (medical home) scores associated with significant decreases in
  - total (\$2,378/person, 4.4%) costs
  - outpatient (\$1,282/person, 3.5%) costs
  - For patients with 11 or more prescriptions
- Higher functioning PCMHs may lead to reduced costs among the most complex and costly patients
- Very important linkage—An ACO may need to support/invest in primary care to get to more fully functional PCMH in order to realize best outcomes

Relationship of Clinic Medical Home Scores to Health Care Costs.  
Flottemesch TJ, Fontaine P, Asche Se, Solberg LI

# Case Study Of A Primary Care Accountable Care Organization

## WellMed, Medical Management, Inc

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Maribel Cifuentes, RN

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Bridget Teevan, MS

David R. West, PhD

AHRQ Task Order: SNOCAP-USA (University of  
Colorado, Robert Graham Center) HHSA290200710008

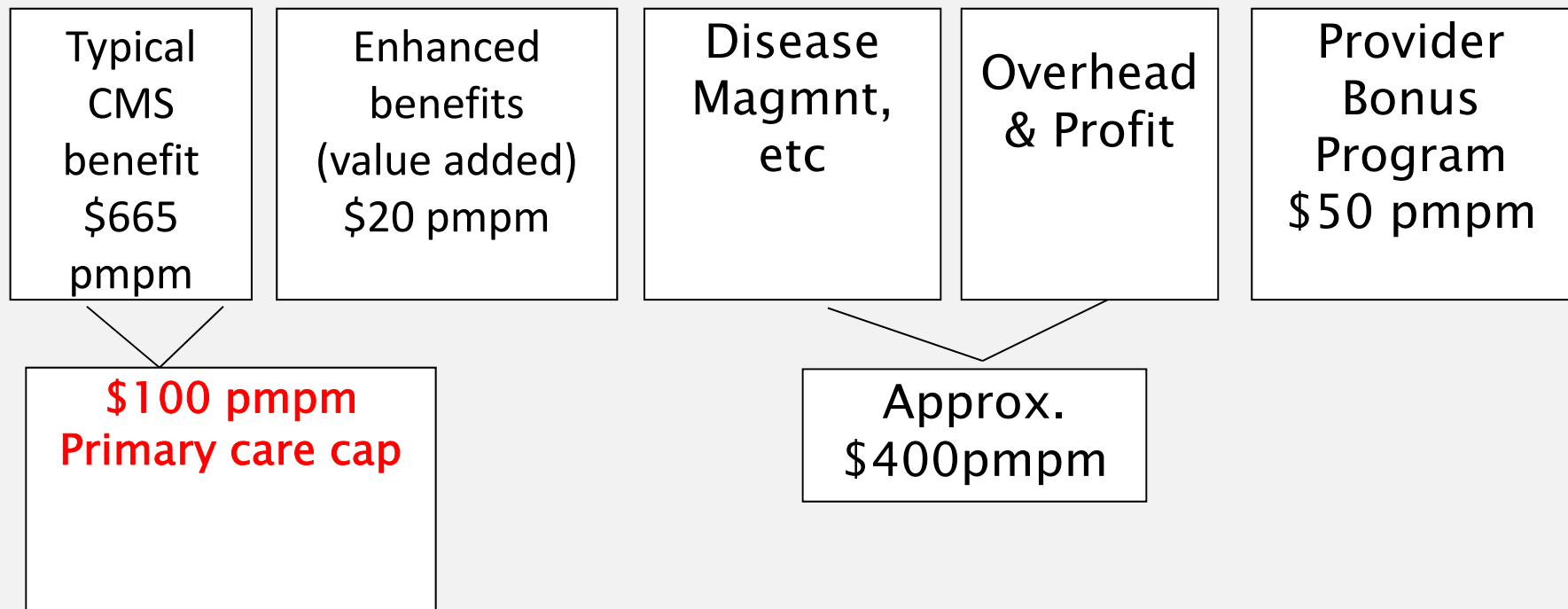
Dr. David Lanier: Task Order Officer

# What Can we Learn From a “Mature” PCMH?

- **Aim 1:** Determine: How A PCMH developed their model
- **Aim 2:** Determine if the PCMH Improved health outcomes
- **Aim 3:** Determine the incremental in-practice expenses (reduced to a pm/pm) required to operate the patient-centered medical home

# WellMed Financials

After the insurance company takes a share off the top, ~ \$1000-\$1200 per person per month flows to WellMed



About 10% of total to primary care (30-40% more than straight Medicare)

# Practice setting

- Lots of space
  - In primary care trend is downsizing footprint
  - Big community space for exercise classes, computer classes, nutrition/cooking classes
- Podiatry, Rheumatology, Dermatology rotate through (Now hiring Cardiology)
- Free orthopedic shoes fitted onsite

# Teams With Defined Roles

- Med Assistants do most data entry
- Health Coaches
  - Call patients next day to reinforce care plan
  - Meet with patients (clinic, home, phone) to do behavior change, mental health, care plan
- Two Disease Mgmt programs for COPD, DM, CHF, CAD—A “complex care” team manages the most fragile, high cost patients intensely



# Teams Continued...

- Inpatient
  - Their own case managers and hospitalists (their culture, their plan)
  - Interventions for specific conditions— national award for model Knee Replacement protocol
- Nursing home teams led by NPs

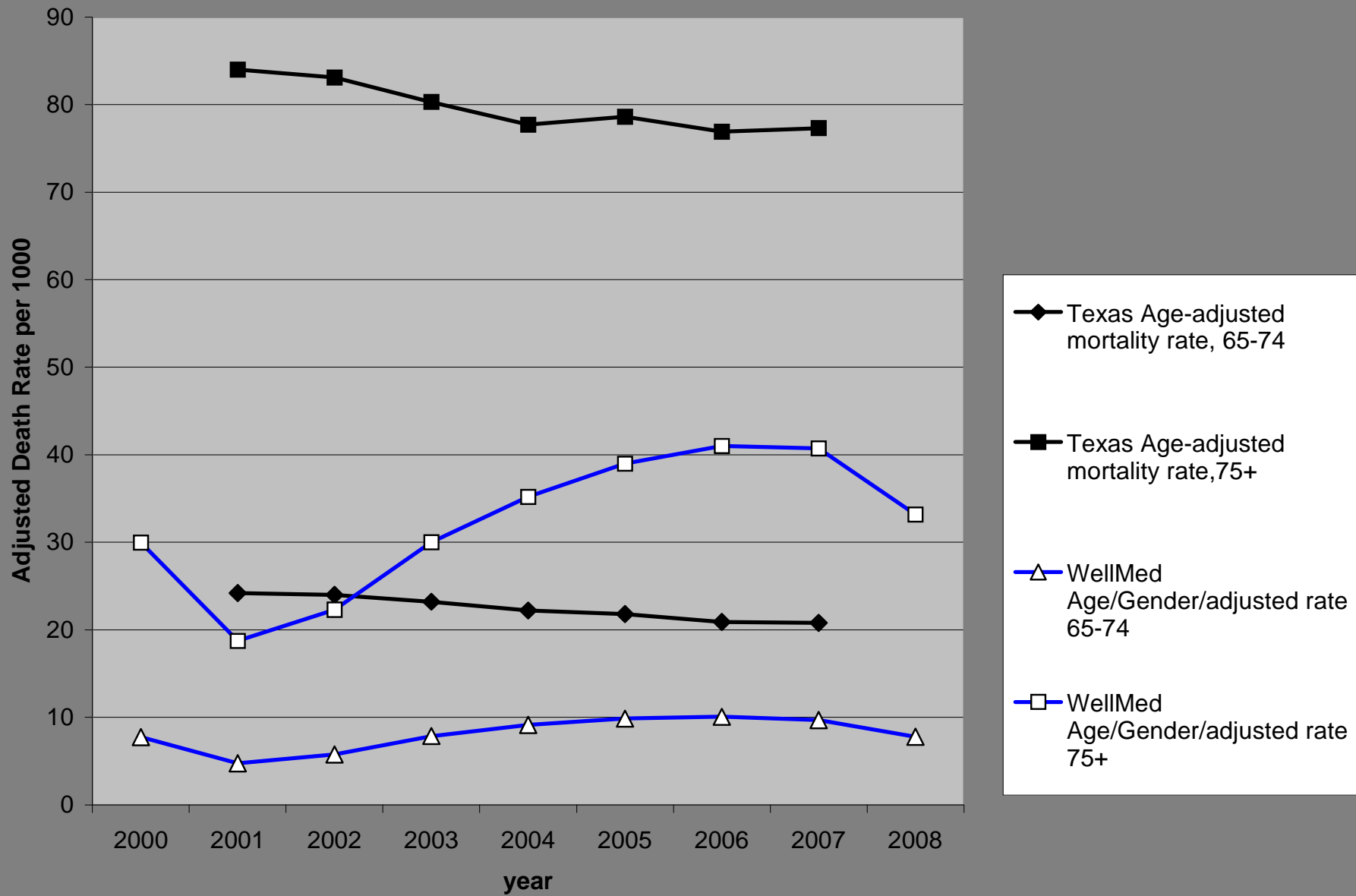
## Teams Continued...

- Very low turnover compared to market
- Grow their own—able MAs trained and mentored into higher roles
- Starting an MA school
  - cut usual cost in half (more diversity)
  - Train to their model
- Two week orientation for new physicians + pairing with best clinicians for shadowing and mentoring

# Utilization

|   | Texas Region<br>Medicare | WellMed |
|---|--------------------------|---------|
|   | 2006                     | 2008    |
| ER visit rates (%)                        | 28.1                     | 17.8    |
| Hospitalization rates (%)                 | 22.1                     | 14.4    |
| Re-hospitalization rates<br>(30 days) (%) | 19.9                     | 13.9    |
| Hospital Bed-Days/1000                    | 2559                     | 1002    |

|   | <b>2000</b> | <b>2001</b> | <b>2002</b> | <b>2003</b> | <b>2004</b> | <b>2005</b> | <b>2006</b> | <b>2007</b> | <b>2008</b> |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Mammography test rates (%)  | 19          | 28          | 29          | 26          | 28          | 33          | 34          | 37          | 40          |
| Colon cancer screening test rates (%)   | 11          | 14          | 21          | 32          | 42          | 43          | 48          | 49          | 50          |
| Hemoglobin A1c testing rates (%)<br>for patients with Diabetes                  | 55          | 53          | 70          | 73          | 75          | 77          | 78          | 75          | 71          |
| LDL Cholesterol Screening rates (%)   | 47          | 35          | 47          | 50          | 59          | 63          | 69          | 68          | 70          |
| LDL Cholesterol Screening rates (%)<br>for patients with Diabetes               | 53          | 51          | 65          | 70          | 73          | 79          | 82          | 79          | 78          |
| LDL Cholesterol Screening rates (%)<br>for patients with ischemic heart disease | 53          | 45          | 58          | 64          | 71          | 77          | 79          | 76          | 76          |
| Blood pressure screening rates (%)  |             | 38          | 50          | 74          | 83          | 80          | 80          | 76          |             |
| Blood Pressure screening (%)<br>for patients with High Blood Pressure           |             | 46          | 58          | 85          | 92          | 91          | 91          | 88          |             |
| DM patients with A1c $\leq 7$   | 81          | 84          | 87          | 90          | 92          | 93          | 93          | 93          | 93          |
| DM patients with LDL $\leq 100$   | 51          | 56          | 57          | 63          | 67          | 74          | 77          | 78          | 95          |
| IHD patients with LDL $\leq 100$  | 48          | 56          | 60          | 63          | 66          | 72          | 75          | 75          | 93          |
| HBP patients with BP $< 140/90$   |             | 67          | 72          | 80          | 86          | 90          | 92          | 90          |             |



# WellMed Quality/Safety

- Lower hospital utilization--but hospital partner has margins 2-3 x that of traditional Medicare (costs lowered more than revenue, similar to Geisinger)
- Mortality rate 50% lower than rate for all elderly in Texas
- Improving preventive care with IT systems that monitor and manage patient population
- Average physician panel size < 500, backed by robust teams and disease management
- Up to 140% income bonus 2010 (100% financial, 40% quality) \$260k-\$550k for a primary care physician

Back to 30,000 feet

“Reason is six-sevenths of Treason”

**Thurber**

## Back to 30,000 feet

Our patients that have the worst outcomes are the ones we don't see...

People with the worst outcomes are often those who are nobody's patient...

For safety and quality, Accountable Care Organizations will have to get beyond personal health to Population health and eventually...Public health.



# Back to 30,000 feet

Personal health



Population health



Public health

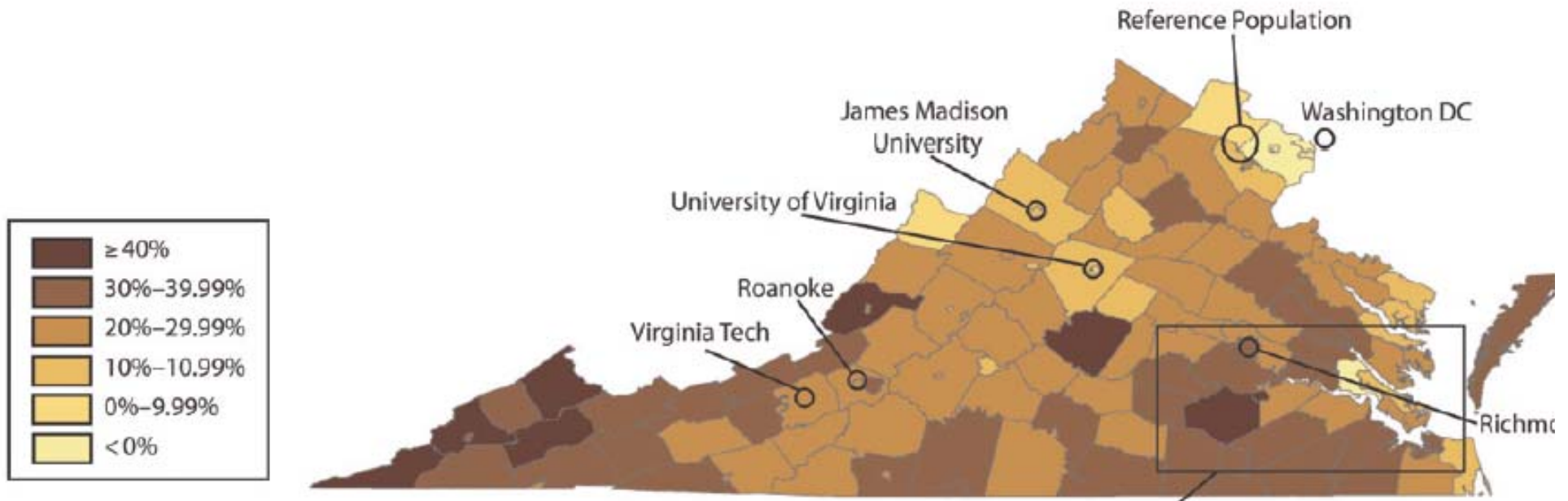
ACO



# Lessons from other countries

- UK focus on primary care and populations (Primary Care Trusts) is associated with reduced disparities—still experimenting with both primary care and geography of accountability but they move money to do it
- Australia creating geographic accountability (Medicare locals) and experimenting with making primary care more robust “Super Clinics”
- Danes are farther ahead than most

# The ultimate in population accountability: Avertable Deaths



If the entire state had outcomes of reference population,  
24.3% of deaths 1990-2006 avoided (delayed)  
220,211 deaths 1990-2006.

# ACO impact on quality and safety

- Necessary focus on primary care and outpatient disease/complex care management
- Designing programs to meet patients where they are, make access and behavior change easier, facilitate continuous relationships
- Continuous feedback
  - to system, clinics, providers
  - Encourage curiosity, innovation, plan-do-study-act cycles
  - System resources for testing solutions (failure is ok)
- Move to population focus but translate to personal health
- Develop relationships with public health to solve problems that affect health