

**Pacific Research Institute and California
Healthcare Institute**

**Evidence, Economics and Politics:
Australia's Experiment in Evidence-
Based Medicine**

San Francisco, December 15, 2006

“Some fear that evidence-based medicine will be hijacked by purchasers and managers to cut the costs of health care. This would not only be a misuse of evidence-based medicine but suggests a fundamental misunderstanding of its financial consequences”

Dave Sackett

Evidence, Economics and Politics

“Under budgetary pressures, policymakers in some countries as well as some states in the USA have increasingly adopted Evidence-Based Medicine (EBM) as a cost containment device, **subjugating the clinical priority of health outcomes to the political mandate of cost control**”

Maxey RW, Adubofour KOM et al (paper presented California NAACP 2005 meeting)

So what is Evidence-Based Medicine?

History and Development of the Evidence-Based Practice Movement

Kwabena Adubofour, MD, FACP

**Medical Director, East Main Clinic and Stockton Diabetes
Intervention Center**

President, NMA -Stockton Chapter

**Associate Clinical Professor, Internal Medicine, UC Davis Medical
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Mark Twain on evidence based medicine

**“It ain’t what people don’t know
that hurts them, it’s what they
know that ain’t so.”**

Clinical Decision Making

- ▶ For years, clinical decision making was based primarily on physicians knowledge base and expert opinion.
- ▶ It was also based on “**eminence-based medicine**”. The views of the most senior member/consultant of the healthcare team were usually adopted without question.

Why do we need EBM?

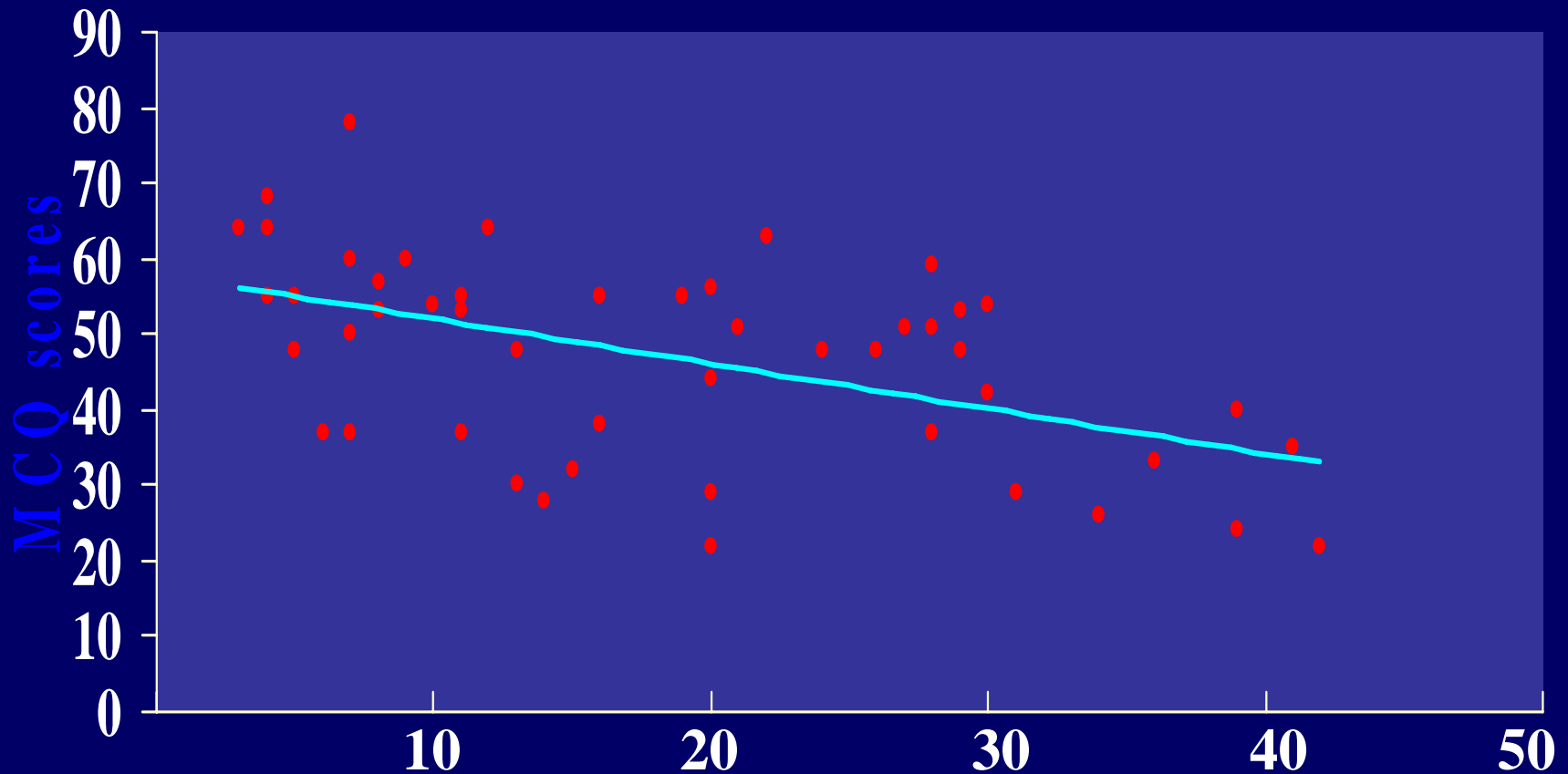
- **Stay up to date**
 - **Medical information changes constantly**
 - **Unlike bread – our knowledge does not become visibly moldy or stale – we just keep using it**



Why do we need Evidence-Based Medicine?

- Sackett found in a Canadian study that the choice of antihypertensive medication was determined not by patient factors (e.g. Level of diastolic blood pressure, end-organ damage) but by the *year of graduation of the doctor!*
- To use new therapies, clinicians must keep up with the scientific literature in a critical manner

Knowledge of Hypertension and use of appropriate medications OVER TIME



Years since graduation, Range (3-42)

Why do we need EBM?

- Save time

- Regular perusal of all the appropriate journals is unrealistic
- Hundreds of journals - thousands of articles per month
- Primary care docs would need over 17 hrs/day just to review reasonable pertinent material
 - Even in one narrow field would need 6+hrs/wk
 - **Practicing docs (all specialties) average about 1-1.5 hrs/wk**

The famous definition

“The conscientious, explicit and judicious use of current best evidence in making decisions about the care of individual patients. The practice of evidence based medicine means integrating individual clinical expertise with the best available external clinical evidence from systematic research.”

Sackett D et al (1996) *Evidence based medicine: what it is and what it isn't*. BMJ Vol 312, pp 71-72

<http://bmj.bmjournals.com/cgi/content/full/312/7023/71>

EBM is a process, which integrates:

- 1) the clinician's experience and judgement
- 2) facts from the research evidence
- 3) patient values and preferences.

- » *Without the first point*, medicine becomes "cookbook" practice, and is tyrannized by external research, which may not apply in a local setting or for a particular patient
- » *Without the second point*, there is a risk of expertise deteriorating over time, to the detriment of the patient
- » *Without the third point*, the patient will be unsatisfied or will not co-operate

**The experiment in cost
containment.....**

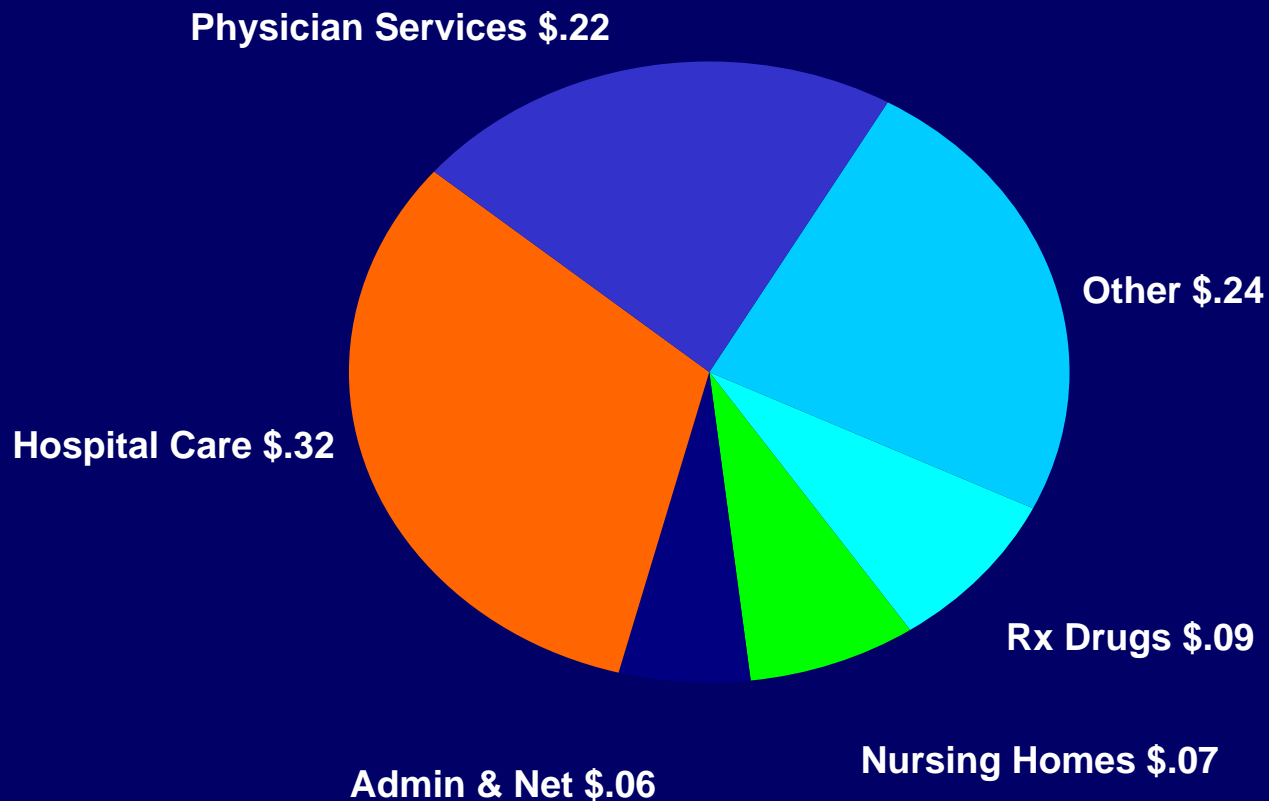
**Raise new questions. Explore
new possibilities. Regard old
problems from a new angle.**

Albert Einstein

**COST-EFFECTIVENESS ANALYSIS
AND THE FORMULARY DECISION
MAKING PROCESS**

**USING EBM AS A COST
CONTAINMENT STRATEGY**

Health Care Dollar, 2000



Source: Centers of Medicaid and Medicare Services, Office of the Actuary, National Health Statistics Group.

What have we gotten for ten cents out of the health care dollar?

Just a Few Examples:

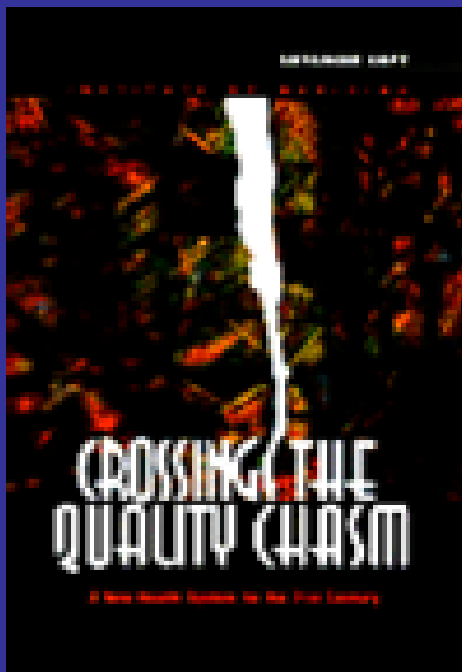
- **First Treatments for Alzheimer's disease**, allowing patients to remain at home longer and avoid costly long-term care.
- **Cholesterol-lowering drugs** that prevent heart attacks and would end heart disease's role as our nation's leading killer if taken by all patients who should be taking them.
- **Anti-psychotic and anti-depressant medicines** that have changed the course of mental illness by allowing people once condemned to mental hospitals to lead productive lives, and reduced the total cost of treating mental illness.
- **Four generations of HIV/AIDS drugs** that have converted a disease that just 20 years ago was fatal into a chronic illness (death rates have decreased by 80% in the U.S. since the mid-1990s) that allow patients to lead productive lives.
- **New treatments for epilepsy** that help control seizures and/or reduce drug toxicity when used as an adjunctive therapy.
- **Better medicines to treat cancer** and medicines that reduce the side effects of chemotherapy.
- **Better medicines/insulins** that target the spectrum of type 2 diabetes

COST CONTAINMENT AND EBM

- **Underlying factors for higher drug expenditures**
- **An aging population**
- **Longer life spans**
- **Improvements in the diagnosis and treatment of diseases**
- **Rising prevalence of chronic diseases**
- **Increases in the number of new drugs into the market**
- **Increases in spending on drug promotion**
- **Increases in spending on direct to consumer advertising**

Quality of Care: The (Other) Focus of Attention

Serious and widespread problems exist throughout American medicine. These problems. . . occur in small and large communities alike, in all parts of the country, and with approximately equal frequency in managed care and fee-for-service systems of care. Very large numbers of Americans are harmed as a direct result. *Quality of care is the problem, not managed care.*



The Vanderbilt Center
for Better Health



Transforming Healthcare
Through Informatics

VALUE FOR MONEY

Costs are going up, but quality and equity goals are not being met

- **Americans Received Recommended health care only 54.9% of the time!**
- **About 1 in 3 people report that they or a family member have experienced a medical error**
- **The US is plagued by Racial and Economic Health Disparities (e.g. Black vs. White Infant Mortality Rates)**

McGlynn, EA, Asch, SM, Adams, J, et al. (2003) "The Quality of health care delivered to adults in the United States." *NEJM* 348:2635-45; www.kff.org/kaiserpolls

*The right care for the right person at
the right time in the right setting*

**The Aim of the Practice of EBM in
the office setting**

EBM as a tool to eliminate Racial and Ethnic Disparities in Healthcare

Evidence-Based Medicine is a powerful tool that holds great promise if used properly



UNEQUAL TREATMENT

CONFRONTING RACIAL
AND ETHNIC DISPARITIES
IN HEALTH CARE

INSTITUTE OF MEDICINE

Unequal Treatment: Healthcare Disparities

- Deep shortfalls in the healthcare afforded racial and ethnic subgroups.

Gaps exist for the same:

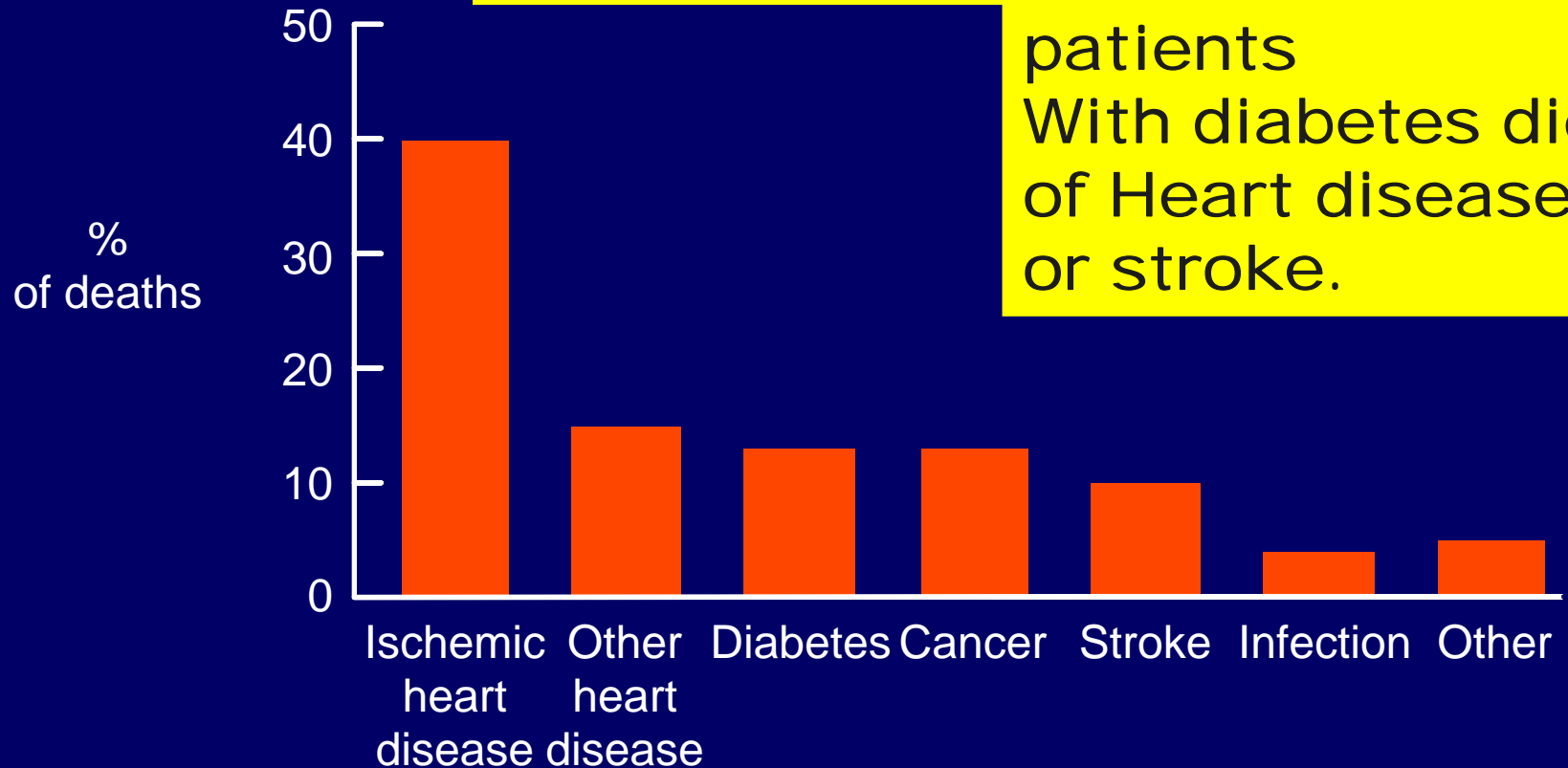
- Insurance coverage
- Disease severity
- Expression of symptoms
- Disparities cut across an alarming array of major diseases, diagnostic and therapeutic procedures including life-saving pharmaceutical agents.

Diabetes-related Health Disparity

- African-Americans are 1.7 times more likely to have diabetes than whites
- Hispanics/Latinos are twice as likely to have diabetes than whites
- Diabetes has reached epidemic proportions among Native Americans, among the Pimas of Arizona, prevalence is 50%

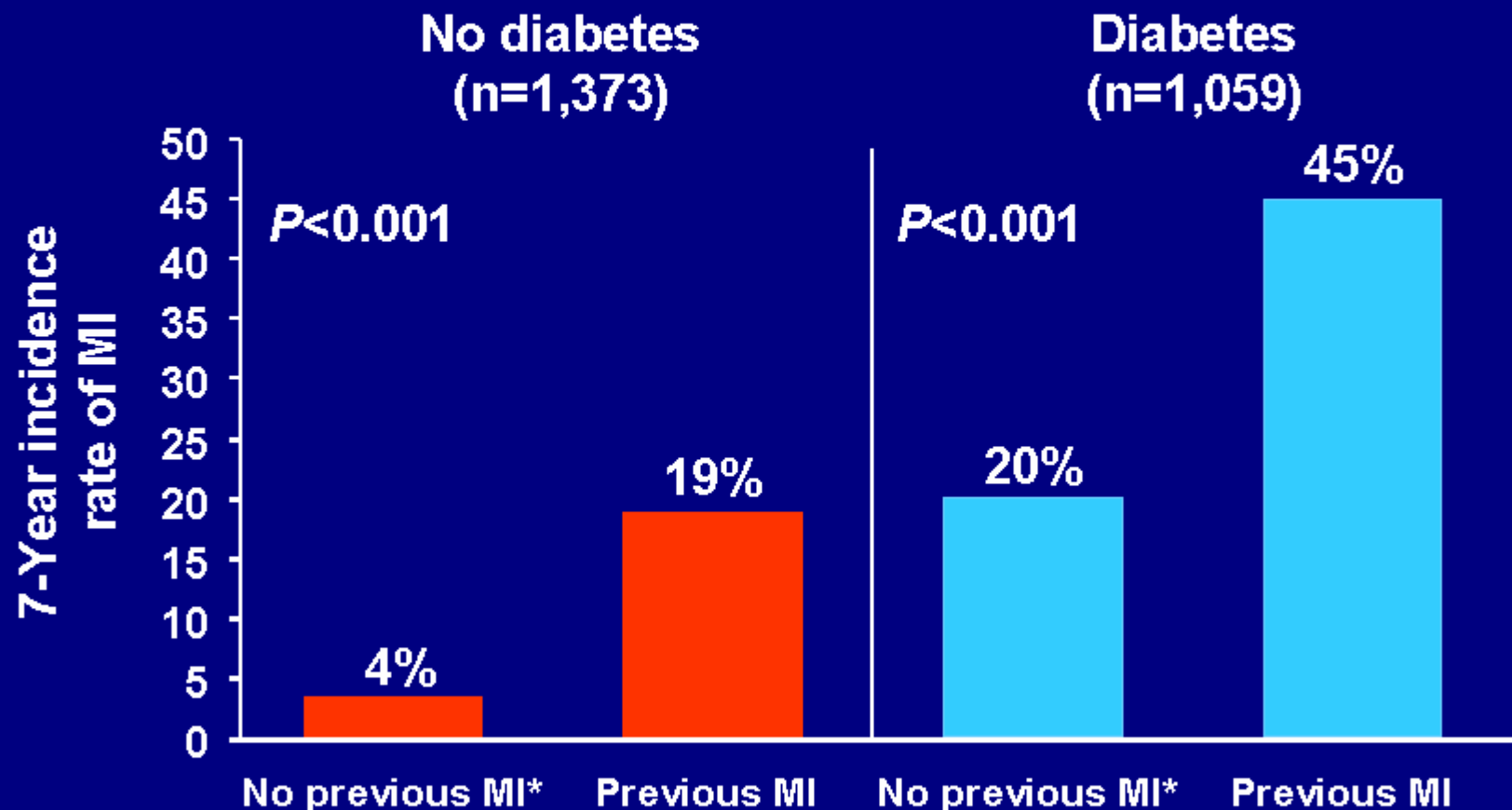
Mortality in People With Diabetes: Causes of Death

About 65% of patients with diabetes die of Heart disease or stroke.





Seven-Year Incidence of Fatal/Nonfatal MI in Finland



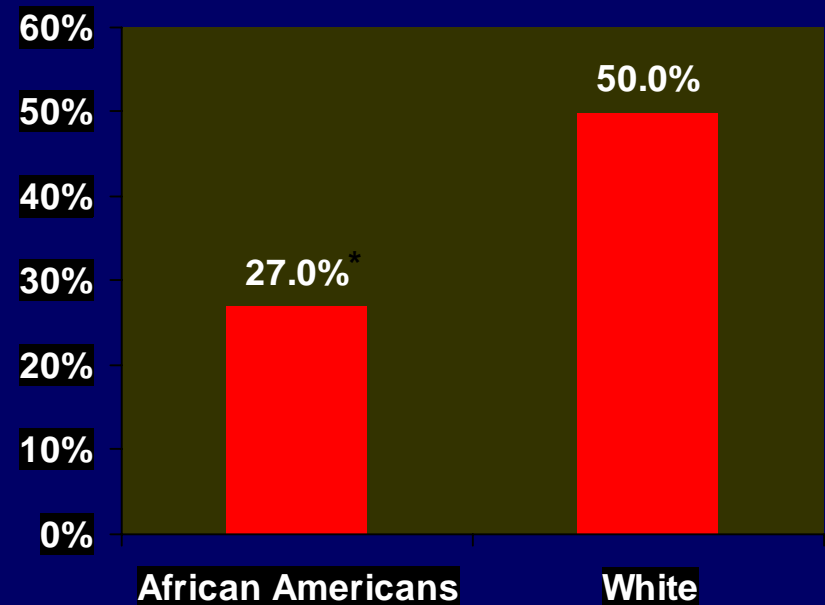
*No previous MI at baseline.

**Death rates from cardiovascular causes
In African Americans are among the
Highest in the industrialized world.**

Health Care Disparity

A race disparity in recommendation for coronary revascularization (PTCA/CABG) was found among patients in the **Veteran Affairs health system, where there are no race differences in ability to pay and providers are paid a salary.**

Percent of patients receiving procedure



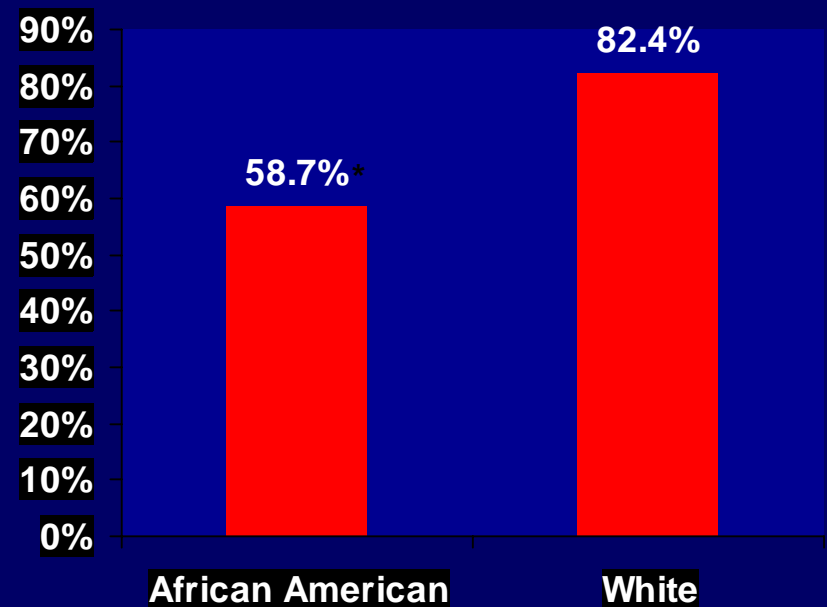
Source: Ibrahim SA, Whittle J, Bean-Mayberry B, Kelley ME, Good C, Conigliaro J. Racial/ethnic variations in physician recommendations for revascularization. Am J Public Health. 2003 Oct;93(10):1689-93.

* Statistically significant difference between African Americans and whites.

Health Care Disparity

Studies of patients who were appropriate candidates for coronary angiography have found race differences in obtaining a referral for this diagnostic procedure.

Percent of patients who obtained a referral

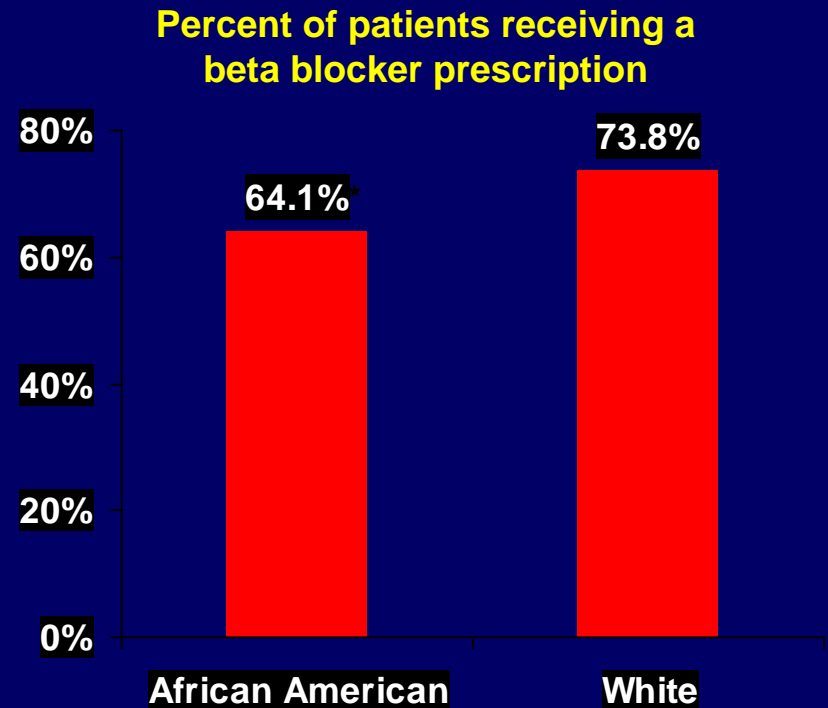


Source: LaVeist TA, Morgan A, Arthur M, Plantholt S, Rubinstein M. Physician Referral patterns and race difference in receipt of coronary angiography. Health Services Research 2002; 37(4):949-962.

* Statistically significant difference between African Americans and whites.

Health Care Disparity

Among patients in Medicare managed care who had a myocardial infarction, African-American patients are less likely than white patients to receive beta blockers, the established standard of care.



Source: Schneider EC, Zaslavsky AM, Epstein AM. Racial disparities in the quality of care for enrollees in Medicare managed care. JAMA. 2002 Mar 13;287(10):1288-94.

* Statistically significant difference between African Americans and whites.

Disparities in Cardiac Care

“The Effect of Race and Sex on Physicians’ Recommendations for Cardiac Catheterization”

Kevin A Schulman MD, et.al.

New England Journal of Medicine 1999;340:618-26

The Effect of Race and Sex on Physicians' Recommendations for Cardiac Catheterization

- 720 physicians viewed recorded interviews
- Reviewed data about a hypothetical patient
- The physicians then made recommendations about that patient's care



Healthcare Disparity: Gender and Race

Actors portrayed patients in scripted interviews about their symptoms. 720 physicians reviewed recorded videotapes of these interviews.

- ▶ **Women were only 60% as likely to be referred for cardiac catheterization as men; Blacks were only 60% as likely to be referred for cardiac catheterization as whites.**

Strategies to Contain Rising Costs

- Improve Efficiency of Care Delivery (Directed at Providers)
 - Clinical decisions should be between the physician and the patient.
 - Redesign Primary Care
 - Managed Care
 - Reduce Administrative Costs
 - Reduce Unnecessary care (EBM)
 - Reduce Medical Errors
 - Pay-for-Performance/**Pay-for-Improvement.**
 - Disease Management
 - Encourage use of Hospitalists/Intensivists

Principles of an Effective Based Medicine Model

- **Medical Judgment by a physician and patient's values ought to be the most important factor in deciding what is the right therapy for a patient.**
- **EBM should empower physicians to provide appropriate individualized care.**
- **Far too many obstacles being set up to disrupt the physician-patient relationship.**

**Expand the Use of Evidence-
Based Medicine**

Eliminate Unneeded Care

EBM: Current Status

- **Not practiced routinely by physicians..**

“Large physician groups are using only one-third of recommended care-management processes for asthma, congestive heart failure, depression and diabetes.

The four conditions account for about 140,000 deaths and more than \$143 billion in costs each year in the U.S.

Examining more than 1,000 physician groups with 20 or more doctors, researchers found that the groups on average employed 32% of 16 recommended care-management processes, including use of nurse care managers, development of disease registries and feedback to physicians on quality of care.”

Shortell et al

Strategies to Contain Rising Costs

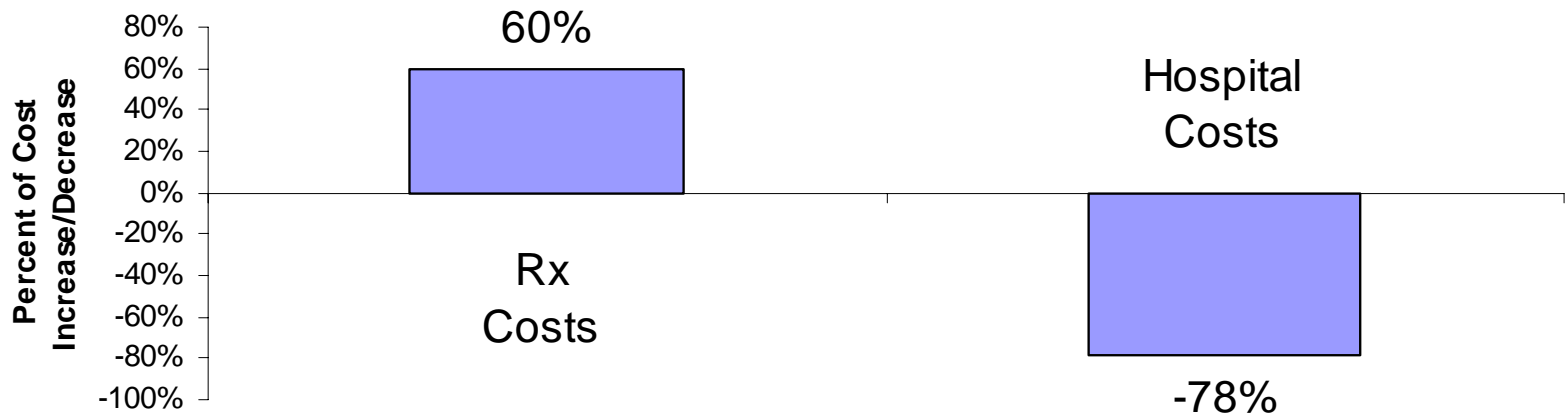
- **Prevention: Public Health!!**
 - e.g. the obesity epidemic

Disease Management in Primary Care

- **Not much being done in this area**
- **Potential for savings is there**
- **Focus is on patient education, outreach, multidisciplinary care teams, clinical guidelines and **performance feedback for providers****

In a year-long disease management program for 1,100 patients with congestive heart failure by Humana Hospitals, pharmacy costs increased 60%, while hospital costs decreased 78%.

Net Savings of \$9.3 million in Disease-Management Program



Source: "Provide Education About Congestive Heart Failure and Pump Up Your Savings," *Managed Healthcare*, April 1998, Vol. 8, No. 4, pp. 42-44.

EBM as a cost containment tool???

The real cost of the various experiments in cost containment using evidence-based medicine.

- ▶ **Negative health consequences of formulary restrictions are often reflected in greater use of medical services downstream.**
- ▶ **Impact on the elderly.**

**Intended and Unintended
Consequences of HMO
Cost-Containment Strategies**

Susan Horn

Results from the Managed Care Outcomes Project

American Journal of Managed Care

March 1996

Conclusion

“Our multisite study provides empiric evidence that greater formulary restrictions are associated with higher resource utilization by elderly patients.

Our findings suggest that there are differences between elderly and non-elderly patients in utilization of drugs, outpatient visits, and hospitalizations.

These results have implications for health policy and the design of prescription benefit programs for the elderly.”

Take Home Message.....

- ▶ Recognize that the one size fits all approach may endanger the health of patients.
- ▶ **Formularies should promote the clinical value of the best drugs not just the financial value of the best drug deals.**
- ▶ Medications that may reduce emergency room visits and thus is found to save money in the short run should be fully prepaid.

Take Home Message.....

- ▶ **Policymakers and cost managers must ensure that EBM initiatives in clinical care and health policy prioritize the national mandate to eliminate health disparities.**
- ▶ **Ensure transparency of protocol design and development.**
- ▶ **Policymakers and clinicians must make individualized care and health outcomes the top priority of evidence-based medicine**

Take Home Message.....

- ▶ **Ensure a multidimensional review of EBM that safeguards clinical flexibility and clinical judgment.**
- ▶ **Physicians should make final determination in access to medically necessary medications.**