Jefferson
School of Population Health

Opening Session

Population Health as a Foundation for Health Reform

David B. Nash, MD, MBA
Dean
Jefferson School of Population Health

12th Population Health Colloquium
Pre-conference
February 27, 2012

Tobacco Smoke Enema (1750s-1810s)
The tobacco enema was used to infuse tobacco smoke into a patient's rectum for various medical purposes, primarily the resuscitation of drowning victims. A rectal tube inserted into the anus was connected to a fumigator and bellows that forced the smoke towards the rectum. The warmth of the smoke was thought to promote respiration, but doubts about the credibility of tobacco enemas led to the popular phrase "blow smoke up one's ass."

This Old Tool has been reintroduced in Washington D.C. by the New Administration.
Are you starting to feel it


INSIDE THIS WEEK: A 14-PAGE SPECIAL REPORT ON AGEING
The Economist
Iran's agony
The mystery of Mrs Merkel
Asia's consumers to the rescue?
The Greeks and those marbles
Evolution and depression
JUNE 27TH–JULY 3RD 2009
Economist.com
Reforming health care
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What % of adult Americans do the following?

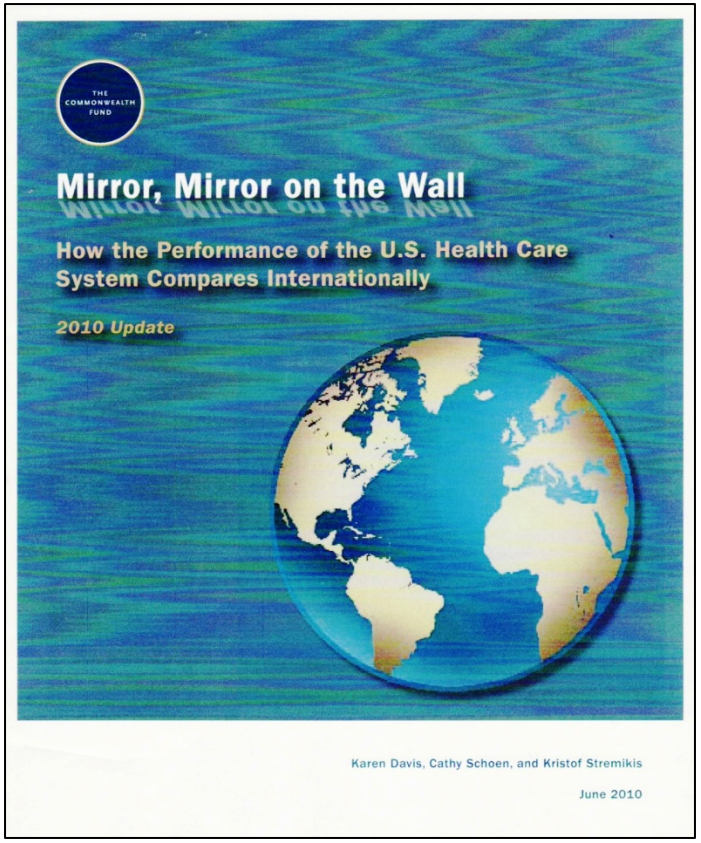
1. Exercise 20 mins. 3x/week
2. Don't smoke
3. Eat fruits and vegetables regularly
4. Wear seatbelts regularly
5. Are at appropriate BMI

Annals Int Med
April 2006

Determinants of Health

1. Smoking
2. Unhealthy diet
3. Physical inactivity
4. Alcohol use

Together, these account for 40% of all deaths



A World of Hurt

Exhibit ES-1. Overall Ranking

Country Rankings
1.00–2.33
2.34–4.66
4.67–7.00

	AUS	CAN	GER	NETH	NZ	UK	US
OVERALL RANKING (2010)	3	6	4	1	5	2	7
Quality Care	4	7	5	2	1	3	6
Effective Care	2	7	6	3	5	1	4
Safe Care	6	5	3	1	4	2	7
Coordinated Care	4	5	7	2	1	3	6
Patient-Centered Care	2	5	3	6	1	7	4
Access	6.5	5	3	1	4	2	6.5
Cost-Related Problem	6	3.5	3.5	2	5	1	7
Timeliness of Care	6	7	2	1	3	4	5
Efficiency	2	6	5	3	4	1	7
Equity	4	5	3	1	6	2	7
Long, Healthy, Productive Lives	1	2	3	4	5	6	7
Health Expenditures/Capita, 2007	$3,357	$3,895	$3,588	$3,837*	$2,454	$2,992	$7,290

Note: * Estimate. Expenditures shown in $US PPP (purchasing power parity).
Source: Calculated by The Commonwealth Fund based on 2007 International Health Policy Survey; 2008 International Health Policy Survey of Sicker Adults; 2009 International Health Policy Survey of Primary Care Physicians; Commonwealth Fund Commission on a High Performance Health System National Scorecard; and Organization for Economic Cooperation and Development, *OECD Health Data, 2009* (Paris: OECD, Nov. 2009).

THE COMMONWEALTH FUND

www.usatoday.com
FINAL SCORES
THE NATION'S NEWSPAPER
USA TODAY
NO. 1 IN THE USA

By Carlos Osorio, AP

Kevin Harvick: Third win of season.

Harvick is first to get Chase slot

■ Driver's study of Earnhardt tapes pays off as he wins the Carfax 400. NASCAR, 1, 7C

Monday, August 16, 2010

Glimpse the future of primary health care

Innovative programs counter doctor shortage

By Rita Rubin
USA TODAY

By William Thomas Cain for USA TODAY

Nurse practitioner: Donna Torrisi helped create the Family Practice and Counseling Network.

About 65 million Americans live in communities with a shortage of primary care doctors, physicians trained to meet the majority of patients' health care needs over the course of their lives.

How much more difficult will finding a primary care doctor become as a result of the recently passed health care overhaul legislation, which will extend coverage to an estimated 34 million currently uninsured Americans by 2019?

Massachusetts, which in 2006 passed a law that led to nearly universal coverage of its 6.6 million residents, might provide some clues.

In that state, fewer and fewer internists and family practice doctors are taking new patients, and wait times to see family practice doctors are lengthening, according to the Massachusetts Medical Society and the non-profit Massachusetts Health Quality Partners.

Even before Congress in March passed the landmark law designed to make health care more affordable and expand coverage, an aging population and doctors' increasing preference for higher-paying specialties set the stage for a primary care shortage. And what many believe to be an outdated reimbursement system — one that drives doctors to schedule office visits when a quick phone call or e-mail might do — doesn't help.

Cover story

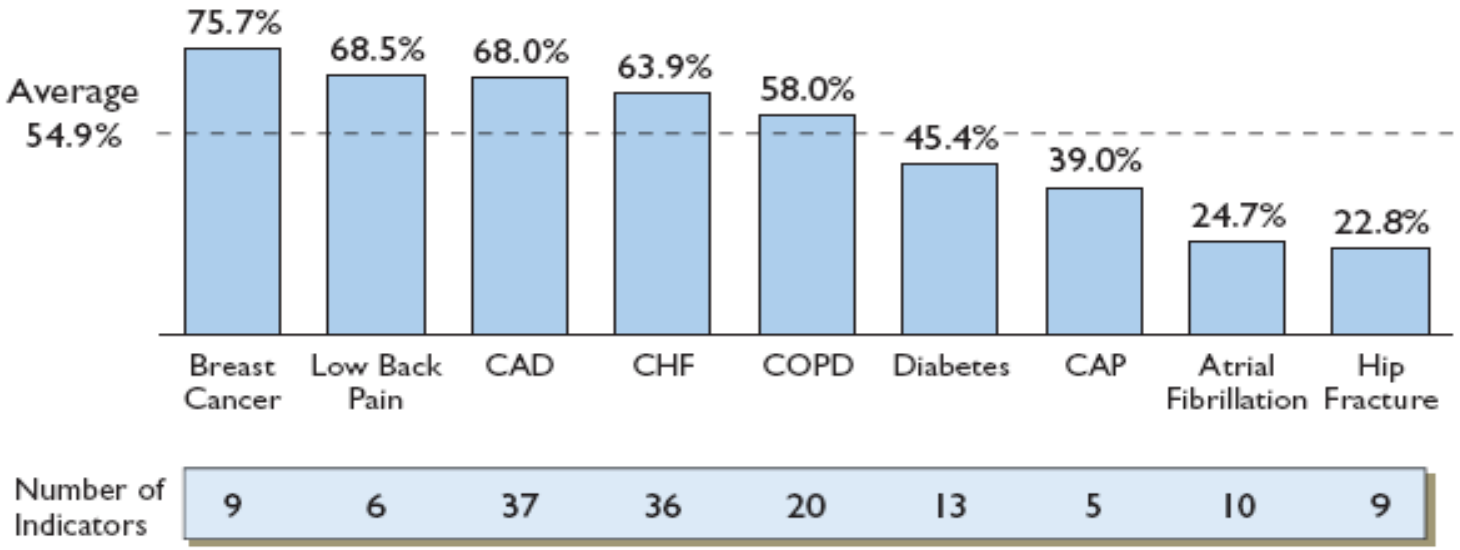
The shortage of primary care doctors could lead to longer waits not only for primary care, but also for specialty care as well as greater use of expensive emergency rooms for non-emergencies, researcher Walt Zywiak of Computer Sciences Corp., an international consulting company headquartered in Falls Church, Va., noted in a July report.

But some innovative programs provide a glimpse of what the future of primary care — a

Please see COVER STORY next page ►

Uneven Adherence to the Evidence

Percentage of Recommended Care Received, by Condition[1]



Source: McGlynn EA, et al., "The Quality of Health Care Delivered to Adults in the United States," *New England Journal of Medicine*. June 26, 2003: 2635–2645.

VALUE-DRIVEN HEALTH CARE

A PURCHASER GUIDE

VERSION 1.0 - FEBRUARY 2007

PREPARED BY BAILIT HEALTH PURCHASING, LLC

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From heart surgery to prostate care, the medical industry knows little about which treatments really work
BY JOHN CAREY (P. 72)
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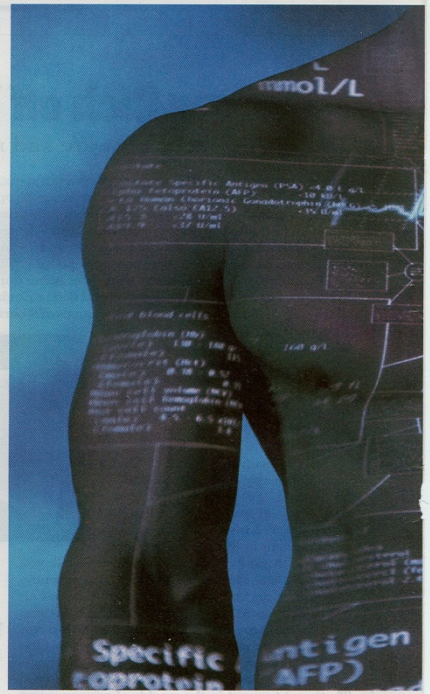
ARE DOCTORS JUST PLAYING HUNCHES?

We expect them to use hard data. But that's not always the best kind of medicine

By **CHRISTINE GORMAN**



NOBODY PRETENDS MEDICINE IS EASY, BUT IF THERE'S ONE thing we ought to be able to rely on, it's that the doctors looking out for us are doing more than playing hunches. We take certain medicines because they work, right? We go into the operating room for certain procedures because they'll make us well, don't we?

Well, maybe. More and more, however, doctors are making the unnerving case that no matter how reliable a drug or other treatment appears to be, too often there's simply little hard evidence that it would make a long-term difference in a person's quality of life or prolonged survival. Obviously, drugs are tested rigorously to show that they are safe and effective before they are approved by the U.S. and other developed countries. But a clinical study is not the real world, and just because a drug leads to a statistically significant improvement in, say, cholesterol levels doesn't guarantee that the desired effect—a healthier heart and a longer life—will follow. Often your doctor is left to make prescription decisions based at least in part on faith, bias or even an educated guess. That ought to be enough to spook even the least jumpy patient, but the fact is, recognizing just what a roll of the dice medicine can be may be a good thing.

Increasingly, doctors seeking to provide their patients with the best possible care are exploring what is known as evidence-based medicine—a hard, cold, empirical look at what works, what doesn't and how to distinguish between the two. It's not enough to prove that a particular blood test or CT scan really spots cancer, for example. You also need to know whether early detection of that cancer would make a difference in your ability to respond to treatment or it merely means that you would die at the same point but learn about your illness earlier than you would have without the test.

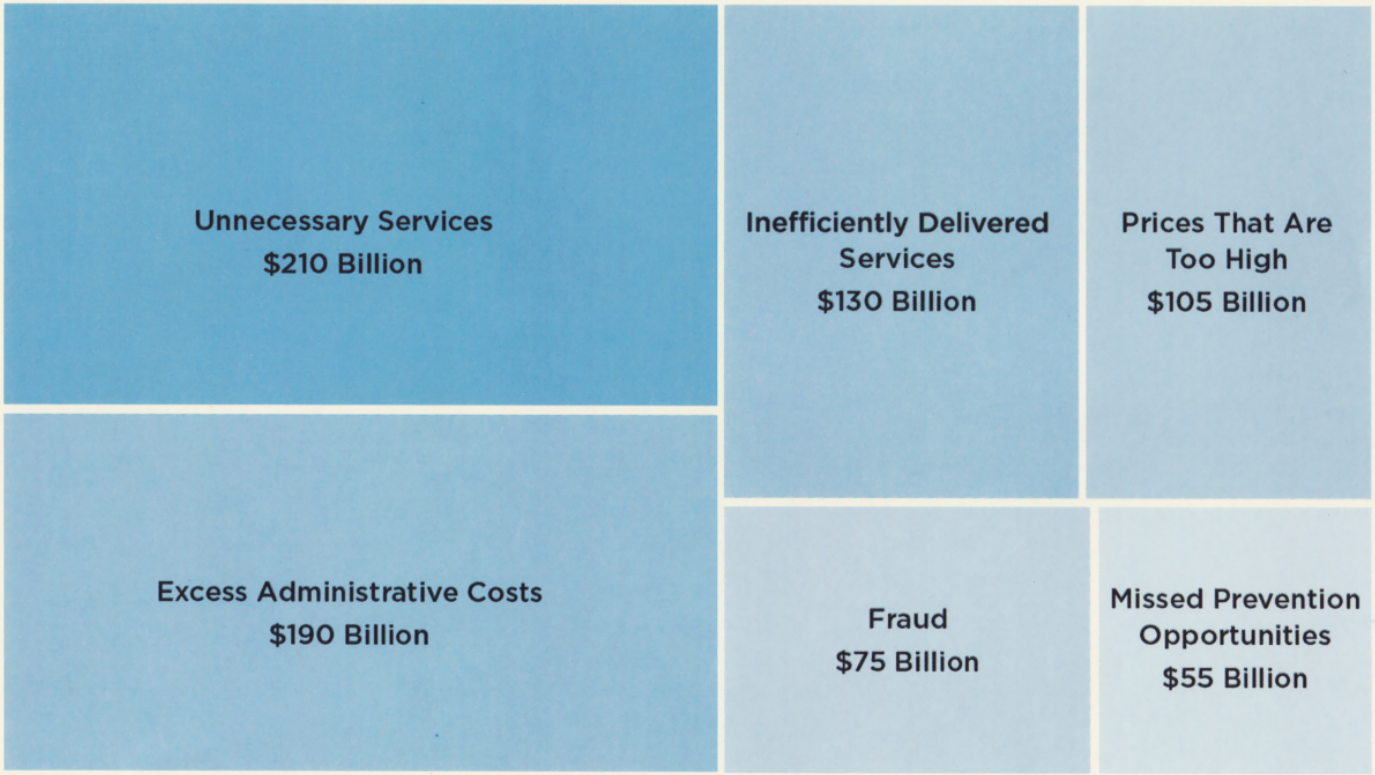
Evidence-based medicine, which uses volumes of studies and show-me skepticism to answer such questions, is now being

> "Some things can't be tested; some things are so obvious, they don't need it."
>
> —DR. PAUL GLASZIOU, director, Center for Evidence-Based Medicine in Oxford, England

It is possible to improve care and dramatically lower costs.

Berwick Annals 2/98

Domains of Excess Costs



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Getting to 10%

CARE-RELATED COSTS

- Prevent medical errors
- Prevent avoidable hospital admissions
- Prevent avoidable hospital readmissions
- Improve hospital efficiency
- Decrease costs of episodes of care
- Improve targeting of costly services
- Increase shared decision-making

ADMINISTRATIVE COSTS

- Use common billing and claims forms

RELATED REFORMS

- Medical Liability Reform
- Prevent Fraud and Abuse

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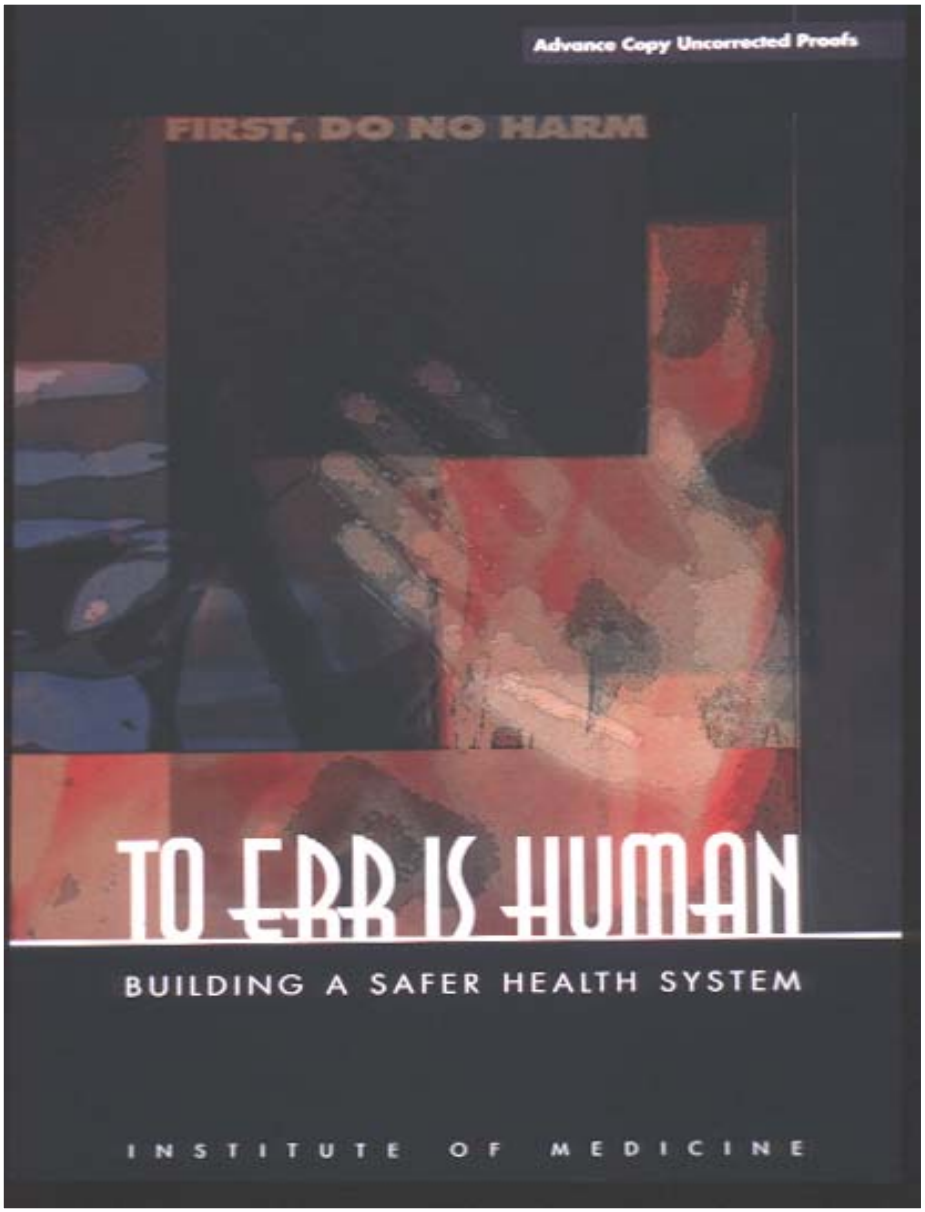
Definition of Quality
Institute of Medicine

"The degree to which health services for individuals and population increase the likelihood of desired health outcomes and are consistent with current professional knowledge."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FIRST, DO NO HARM
TO ERR IS HUMAN
BUILDING A SAFER HEALTH SYSTEM
INSTITUTE OF MEDICINE

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—Allen H. Neuharth, Founder, Sept. 15, 1982

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Today's debate: Medical errors

Why do so many still die needlessly in hospitals?

Our view:

Part-voluntary, part-mandatory reporting system can reduce deaths.

When a report came out last week from a private group claiming that nearly 200,000 hospital patients die each year from preventable medical errors, it promptly sparked a fierce controversy.

The estimate was double the number found in a landmark study in 1999 by the Institute of Medicine (IOM), a federal advisory group, and the lead author of that earlier study went on the offensive. He charged that the new report used flawed research methods that inflated the fatalities.

But why argue? The difference alone makes a more telling point: Five years after the IOM report drew front-page headlines and widespread outrage, there still is not even a sure way to measure the problem. And that appalling fact should concern any prospective hospital patient — which is to say, everyone.

This year, Congress is finally doing something, though hardly enough.

Before the end of the year, it is expected to install new incentives for medical personnel to report errors. The new system, already approved by both houses, would allow doctors, nurses and other hospital workers to report mistakes anonymously. Independent analysts would then look for patterns and recommend changes. Lawyers and employers would be kept in the dark.

That's an important step.

Suppose, for instance, that a nurse gives a patient the wrong pill because its name and packaging resemble a drug next to it on the hospital's pharmacy shelf. Neither she nor the pharmacist will want to reveal the error, for fear of being punished or sued. The error likely will recur.

But if they can confidentially report the problem, experts can devise ways to improve the packaging and placement of medicines to reduce the risk of simple human error. Lives will be saved.

Six states that have set up similar procedures have seen a significant increase in reported mistakes.

That's clearly the right way to handle relatively minor mistakes, even when they result in some harm.

Even so, the picture will still be woefully incomplete — and patients will remain at risk — unless the reporting of errors that kill or cause the most serious injuries is made mandatory.

Only 22 states currently have mandatory error-reporting systems. The others rely on hospital-industry watchdogs or malpractice lawyers to be on the lookout for mistakes.

The argument over numbers is proof that leaving the solution to the courts is not a prescription for eliminating deadly errors.

Five years ago, the IOM recommended a two-tiered approach, part voluntary, part mandatory. It is still the most sensible compromise.

The question is why five years have elapsed with so little being done. With tens of thousands dying needlessly every year, the next life at risk may be your own.

Mistakes cost lives

Highlights from a new study of medical errors involving Medicare patients hospitalized from 2000 through 2002:

- Out of 37 million hospitalizations, 1.14 million "safety incidents" occurred.
- 263,864 deaths were directly attributed to the incidents.
- The safety incidents accounted for $8.54 billion in additional Medicare costs.
- Nearly 60% of safety incidents involved the failure to diagnose and treat conditions that developed in the hospital, bedsores and post-operative infections.

Source: HealthGrades' "Patient Safety in American Hospitals" study released July 27

The Forum

Medical mistakes plague Medicare patients

Today's inspector general's report: About 1 in 7 patients experienced serious harm during hospital stay

By Daniel R. Levinson

Today's hospitals are modern-day marvels of healing, and we expect them to be models of patient safety as well. But a just-released report from my office shows that medical care is falling short for too many hospitalized Medicare patients. A decade after an Institute of Medicine study placed preventable medical errors among the leading causes of death in the United States, our latest study found that a disturbing number of hospitalized patients still endure harmful consequences from medical care, 44% of them preventable. These instances, which the report calls "adverse events," include infections, surgical complications and medication errors.

Such occurrences are not always preventable, particularly since many Medicare patients are elderly and have complicated health problems. But enough patient harm is avoidable to make a strong case for action. Hospitals must improve, but they need the help of lawmakers, medical professionals and patients to do so.

2008 USA TODAY photo

Hefty price: Additional care caused by errors costs more than $4 billion each year.

Errors prolonged hospital stays

This study began in response to a congressional mandate to determine the number of harmful medical events Medicare patients experienced, and the cost to taxpayers. My office arranged for physician reviewers to examine a random sample of 780 Medicare patients discharged from hospitals around the country during the month of October 2008.

Physicians determined that about one in seven patients (13.5%) experienced at least one serious instance of harm from medical care that prolonged their hospital stay, caused permanent harm, required life-sustaining intervention, or contributed to their deaths. Projected to the entire Medicare population, this rate means an estimated 134,000 hospitalized Medicare beneficiaries experienced harm from medical care in one month, with the event contributing to death for 1.5%, or approximately 15,000 patients.

Strikingly, medication errors factored in more than half the patient fatalities in our sample, including use of the wrong drug, giving the wrong dosage, or inadequately treating known side effects. Such events were commonly caused by hospital staff diagnosing patients incorrectly or failing to closely monitor their conditions.

Less serious harm also occurred. An additional one in seven hospitalized Medicare patients experienced temporary problems, such as allergic reactions or injuries from falls. And many experienced multiple events, including an elderly heart patient who had six separate events during a single hospital stay. Obviously, this situation is unacceptable — and expensive, costing taxpayers more than $4 billion a year due to the need for additional treatment or longer hospitalizations (and even more if you add costs for follow-up care).

Hospitals clearly want to excel in patient care — and often do. Still, improvements can and must take place. Fully addressing the far-reaching implications of our study requires both an official response and a personal one.

The report made recommendations for improvement to agencies within the Department of Health and Human Services that monitor medical care. Those agencies are committed to increasing medical effectiveness and have embraced the recommendations. Among them are the following:

- Too many patient safety efforts concentrate on a narrow list of egregious medical problems that thankfully occur rarely, such as surgery performed on the wrong body part. This focus overlooks the need to also concentrate on far more common harmful incidents, such as blood clots and poor diabetes control.
- Government, which pays for a large portion of the nation's medical care, must hold hospitals accountable for better care. New authorities granted by Congress further enable the Medicare program to use hospital performance as a basis for payment. Private insurers can join Medicare in finding effective ways to tie payment to quality.

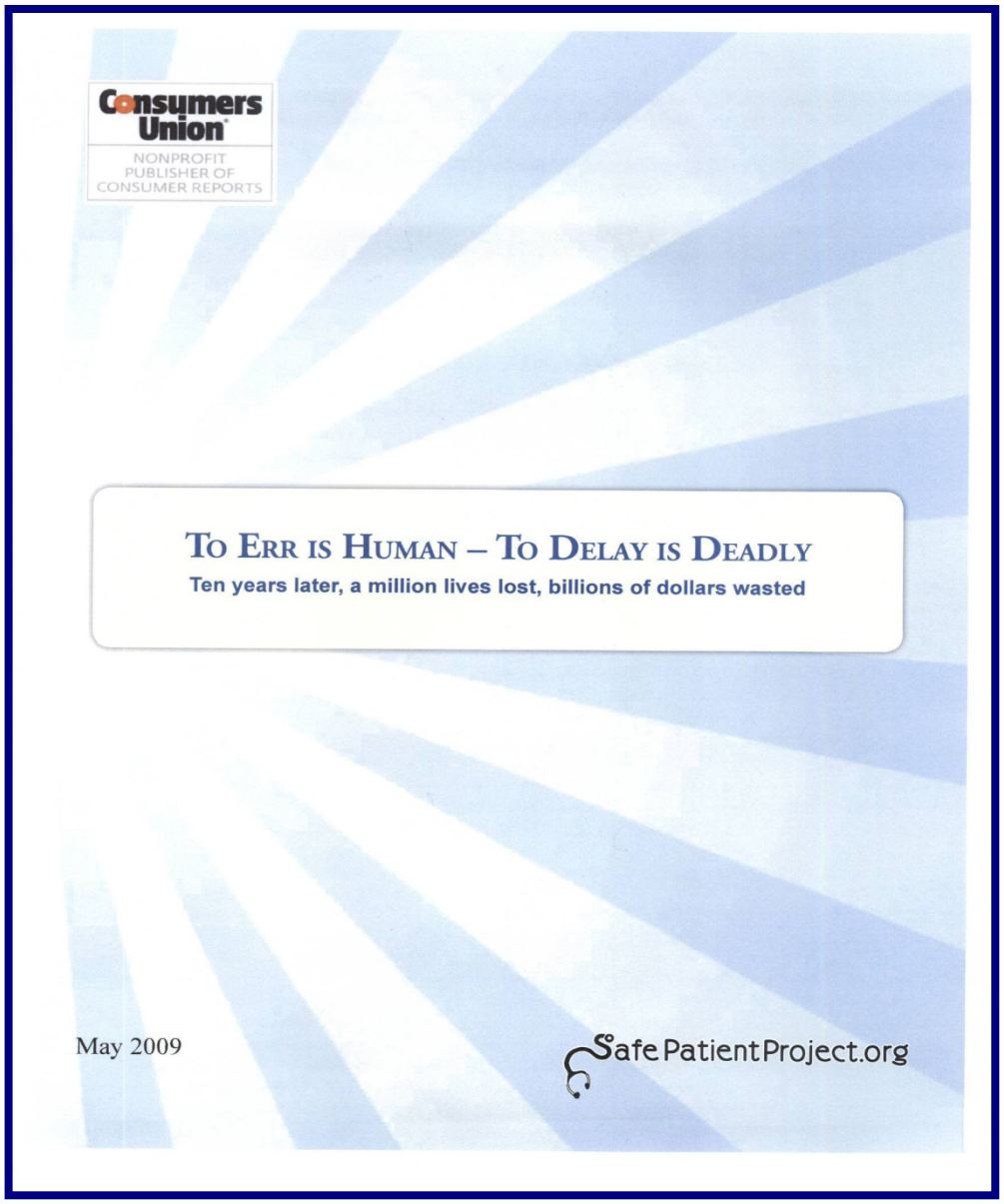
Government commitment is important, yet hospitals bear much of the responsibility. Although hospitals have broadly embraced safety initiatives, the still-high rate of adverse events indicates that far more needs to be done. Hospitals must work faster to adopt evidence-based practices that reduce medical errors. Hospitals can also learn together by volunteering to join patient safety organizations, which collect confidential information about instances of harm that occur from medical care to assess what went wrong and improve patient safety. Further, hospitals can continue to improve patient care systems, including effective use of electronic health records, to help staff avoid mistakes and to alert them to problems.

What you can do

Vigilance saves lives. Family members with hospitalized loved ones should educate themselves regarding medical treatment and expected outcomes and speak up when things go awry. Hospital staff should treat patients and their families as partners, welcoming family monitoring of patients as an additional safeguard against poor medical outcomes.

Sooner or later, most of us will need the help of hospitals. They have earned their current, central place in saving lives and curing disease. We owe it to these critical institutions to help them increase quality of care for the continued health of us all.

Daniel R. Levinson is the inspector general of the Department of Health and Human Services.


Consumers Union
NONPROFIT PUBLISHER OF CONSUMER REPORTS
To Err is Human – To Delay is Deadly
Ten years later, a million lives lost, billions of dollars wasted
May 2009
SafePatientProject.org

Only 77% wash hands after using the toilet

Advocates are pushing for more frequent scrubbings in health care and non-health care settings.

VICTORIA STAGG ELLIOTT
AMNEWS STAFF

How clean are your hands? How about the person who just shook yours?

Several presentations at last month's Interscience Conference on Antimicrobial Agents and Chemotherapy in Chicago suggested that people not only wash their hands less often than they say they do, but the number who really do appears to be decreasing. Also, improving hand hygiene in the health care setting saves money.

"Hands are great distributors of disease, but hand washing is a great intervention," said Judy Daly, PhD, spokeswoman for the American Society for Microbiology, which organizes this meeting. She is also director of the microbiology laboratory at Primary Children's Medical Center in Salt Lake City.

According to data from observational and telephone surveys by Harris Interactive, which were commissioned by the society as well as the Soap and Detergent Assn. and released at the meeting, 92% of adults say they always wash their hands after using a public restroom. When observed in places such as train stations and sports stadiums, only 77% actually do. This represented a decline from the 83% observed in the 2005 version of this survey.

Significant gender differences also were seen, with only 66% of men soaping up compared with 88% of women. Similar gaps between men and women also were found by other studies that examined the behavior of doctors and health care professionals.

"Very clearly, guys need to step up to the sink," said Brian Sansoni, vice president of communication for the soap association.

This issue has long concerned medical societies, patient safety organizations and public health agencies. The American Medical Association urges everyone to view hand washing as important. Experts suggest, however, that while this activity is important across the board, more payoff may be gained from programs that focus on health care settings.

"The message about improving hand hygiene is a good message to support, but we will naturally see the greatest result in the places where the sickest people are," said Dr. M. Lindsay Grayson, vice chair of Austin Hospital/Austin Health in Melbourne, Australia.

In these venues, the benefit of hand hygiene is increasingly being quantified. For instance, a paper presented by Dr. Grayson found that hand hygiene education for health care professionals along with ensuring that alcohol hand rubs were available significantly reduced the number of methicillin-resistant *Staphylococcus aureus* infections. In turn, this result saved his state's health system more than a million dollars.

"We need a culture change," Dr. Grayson said. "Those who provide care should feel funny walking up to a patient having not used an alcohol-based hand rub. And the patient should feel pretty funny, too."

An Argentinean study also found that upping compliance with hand hygiene recommendations in the intensive care unit reduced the device-associated infection rate from nearly 20% to just shy of 5%. But although researchers say these efforts can pay for themselves, improving hand hygiene comes with significant challenges. In Dr. Grayson's study, the urban institutions did not do as well as the rural ones because of high staff turnover.

The factors that motivate health care professionals to wash more often also might not be the most obvious ones. A study out of the University of Geneva Hospitals in Switzerland found that the opportunity to reduce nosocomial infections did not increase hand washing, but peer pressure and easy access to hand-washing facilities did. ◆

PHOTO BY TED GRUDZINSKI

Judy Daly, PhD, presented the hygiene findings at the Chicago conference.


MAY 1, 2006
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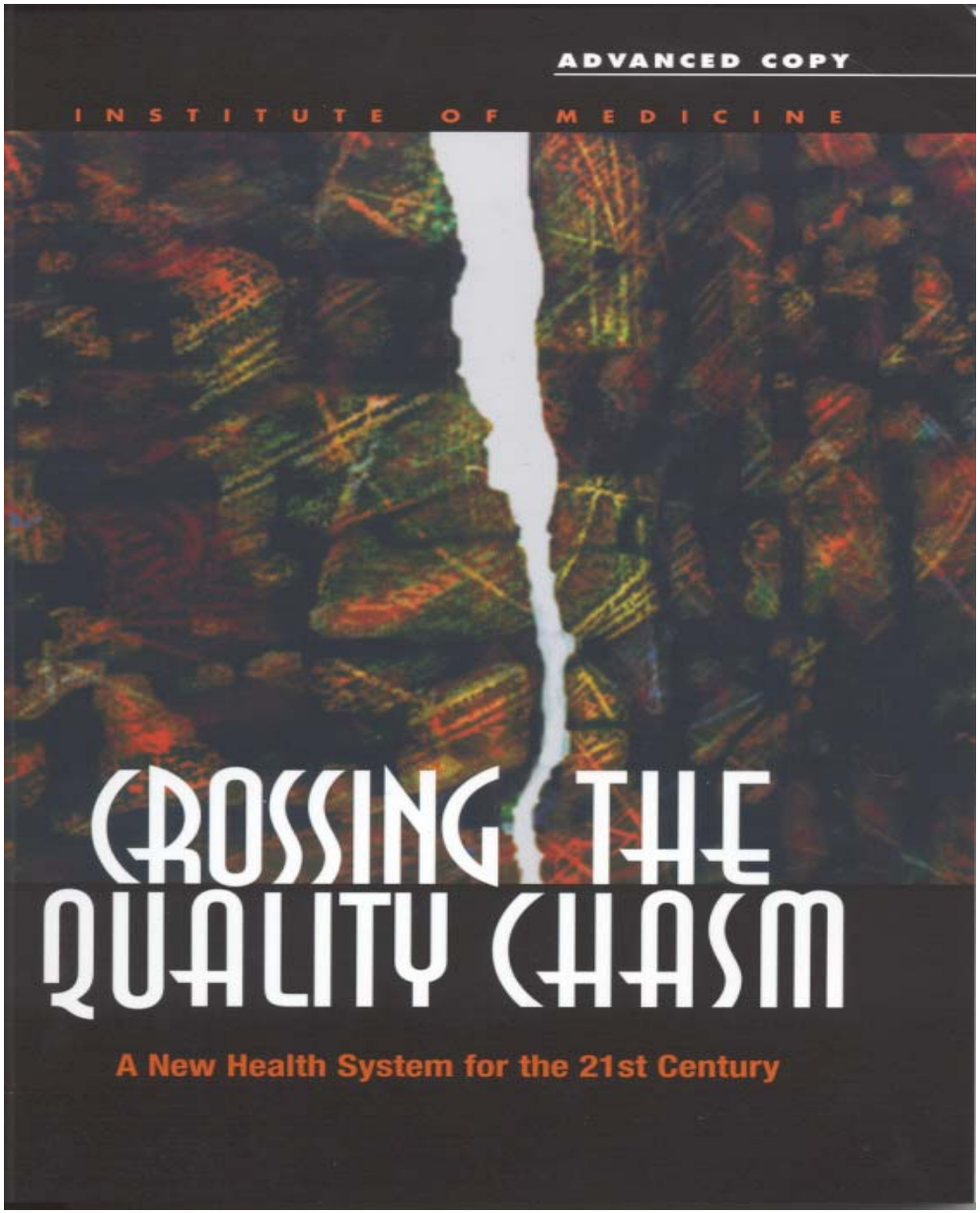
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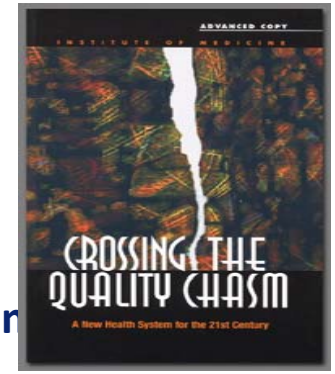
Institute of Medicine Report 2001



Outlines Key Dimensions of the Healthcare Delivery System:

Safe: **avoiding injuries to patients from the care that is intended to help ther**

Effective: **providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and overuse, respectively).**

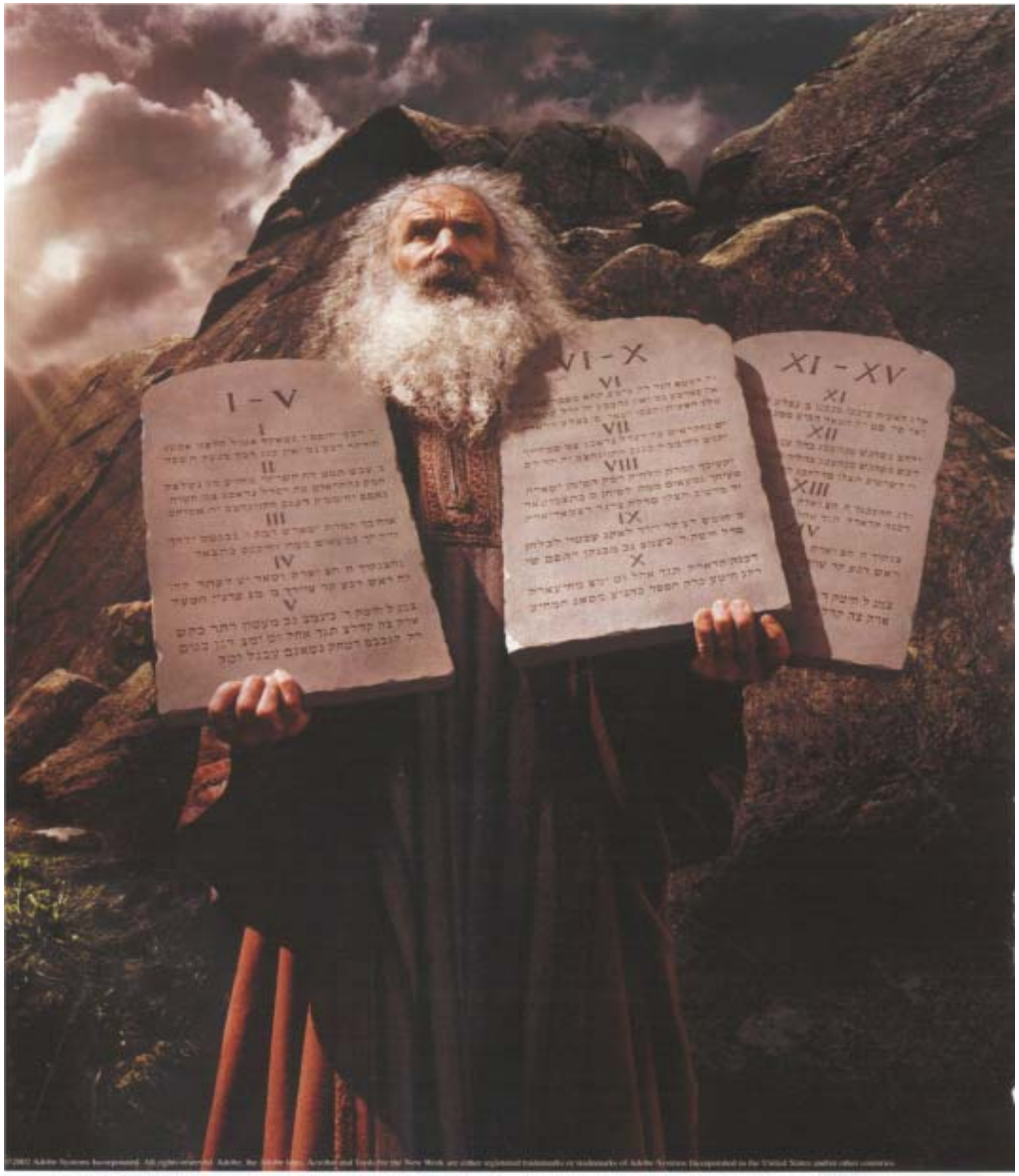
Patient-centered: **providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions.**

Timely: **reducing waits and sometimes harmful delays for both those who receive and those who give care.**

Equitable: **providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.**

Efficient: **avoiding waste, including waste of equipment, supplies, ideas, and energy.**

Source: Institute of Medicine 2001; 5-6


I - V
VI - X
XI - XV

Ten Commandments
Crossing the Quality Chasm

Current Rules	New Rules
1. Care is based primarily on visits	1. Care is based on continuous healing relationships
2. Professional autonomy drives variability	2. Care is customized according to patient needs and values
3. Professionals control care	3. The patient is the source of control
4. Information is a record	4. Knowledge is shared freely
5. Decision making is based on training and experience	5. Decision making is evidence-based

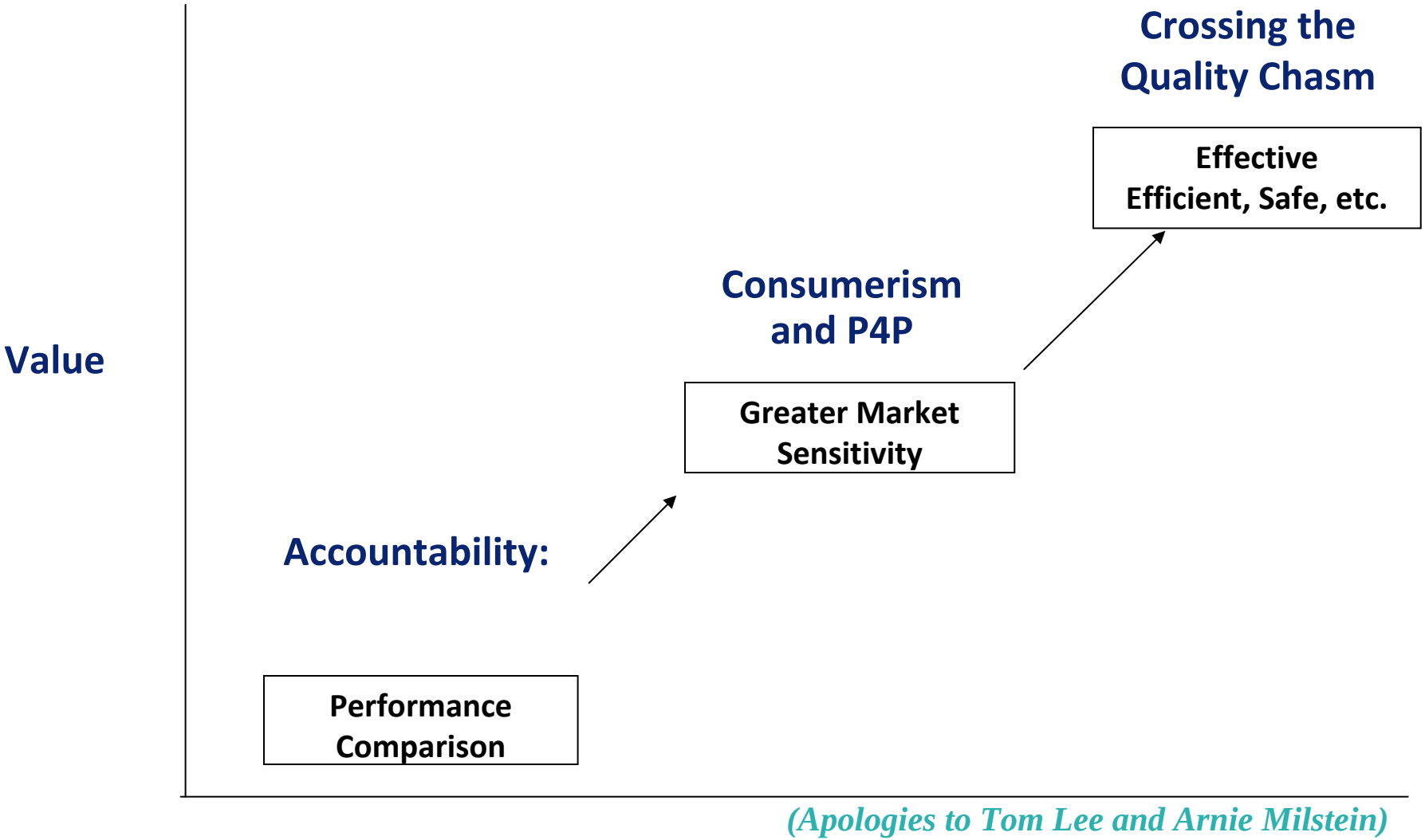
Don Berwick 2002

Ten Commandments (*cont.d*)

Current Rules	New Rules
6. "Do no harm" is an individual responsibility	6. Safety is a system property
7. Secrecy is necessary	7. Transparency is necessary
8. The system reacts to needs	8. Needs are anticipated
9. Cost reduction is sought	9. Waste is continuously decreased
10. Preference is given to professional roles over the system	10. Cooperation among clinicians is a priority

Don Berwick 2002

The Vision



(Apologies to Tom Lee and Arnie Milstein)

Population Health: Conceptual Framework

Health outcomes
and their distribution
within a population

Morbidity

Mortality

Quality of Life

Health determinants
that influence distribution

Medical care

Socioeconomic status

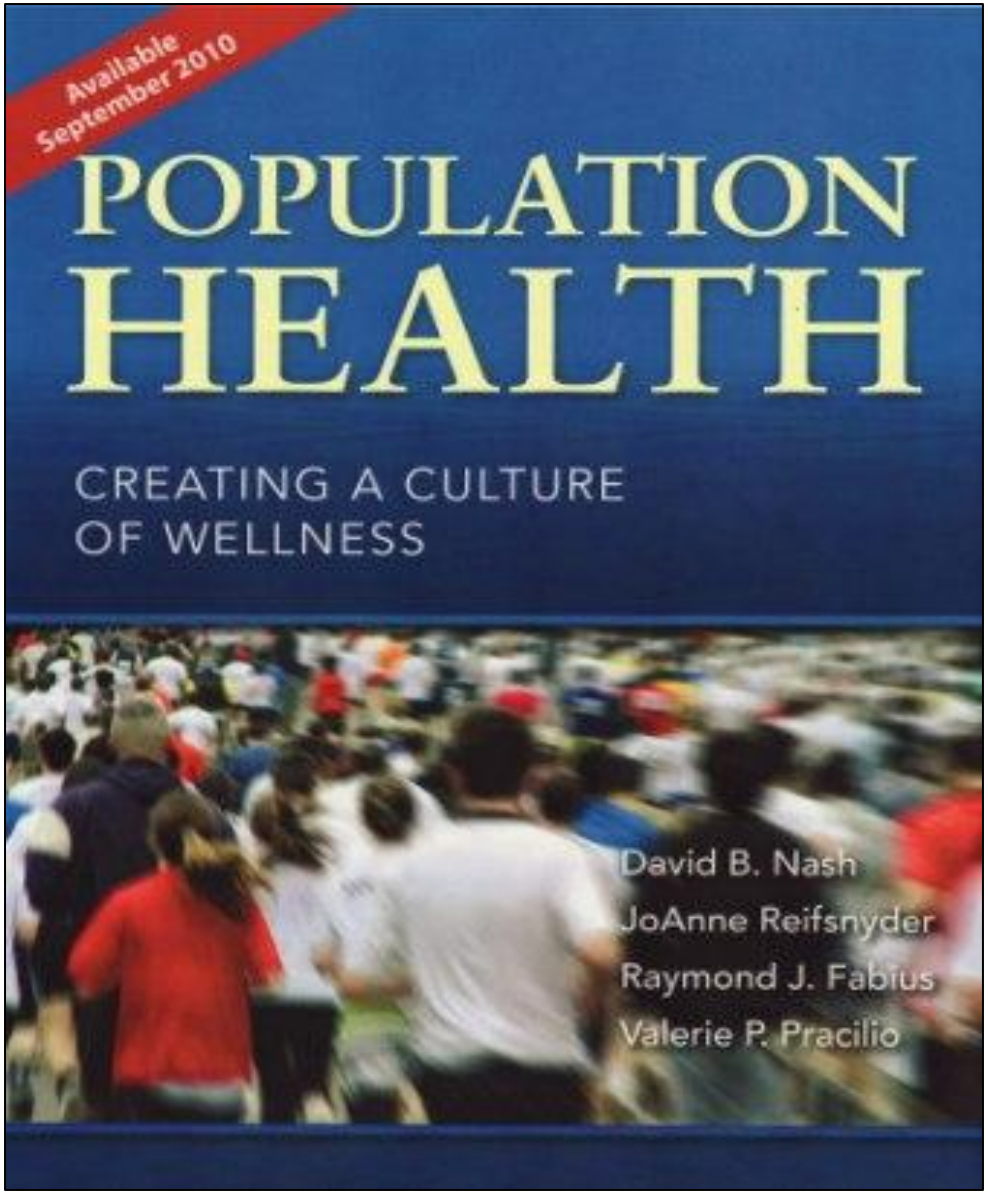
Genetics

Policies and interventions
that impact these determinants

Social

Environmental

Individual


Available September 2010
POPULATION HEALTH
CREATING A CULTURE OF WELLNESS
David B. Nash
JoAnne Reifsnyder
Raymond J. Fabius
Valerie P. Pracilio

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Population Health Management

CONTENTS

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How Healthy Is Your County?

The 2010 County Health Rankings are here!

For the first time ever, you will be able to compare the overall health of your county, with the health of other counties in your state, as well as compare the factors that contribute to health, such as obesity rates, the quality of health care, or high school graduation rates.

Now, leaders from all sectors – public health, business, education, health care and government – can see where there are gaps in health and work together to identify and create solutions.

As a leader in your community, you are uniquely positioned to inform people about the rankings and help implement collaborative local solutions so all residents can be healthy.

Visit **countyhealthrankings.org** to see how the counties in your state rank on health.

County Health Rankings is a program of the Robert Wood Johnson Foundation and the University of Wisconsin Population Health Institute.

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Social Determinants of Health – What Doctors Can Do

October 2011

BMA

State of Well-Being

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Pennsylvania

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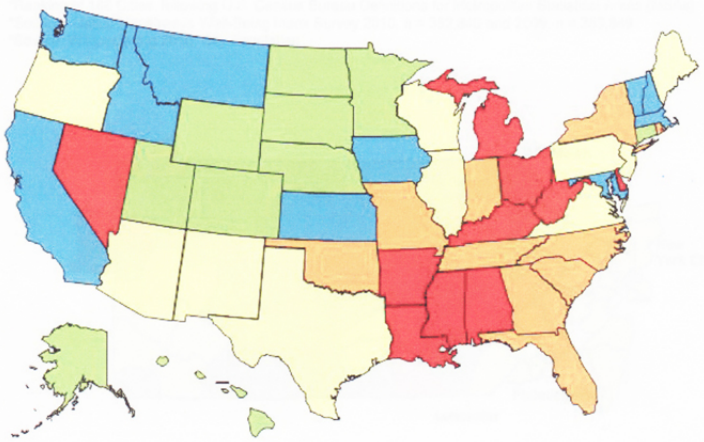
State of Pennsylvania Well-Being

Ranking from data collected January 2, 2010 – December 30, 2010

	Result		Rank	
	2009	2010	2009	2010
Well-Being Overall	65.8	66.1	30	30
Life Evaluation	45.4	47.3	39	31
Emotional Health	78.6	78.7	22	24
Physical Health	76.3	76.4	28	29
Healthy Behavior	62.6	63.5	28	26
Work Environment	47.8	46.9	36	34
Basic Access	84.0	83.9	14	12

*#1 is the top Rank and 50 the bottom
*#0 is the bottom Result and 100 the top (see methodology for descriptions)
*Source: Gallup-Healthways Well-Being Index Survey 2010, n = 352,840 and 2009, n = 353,849

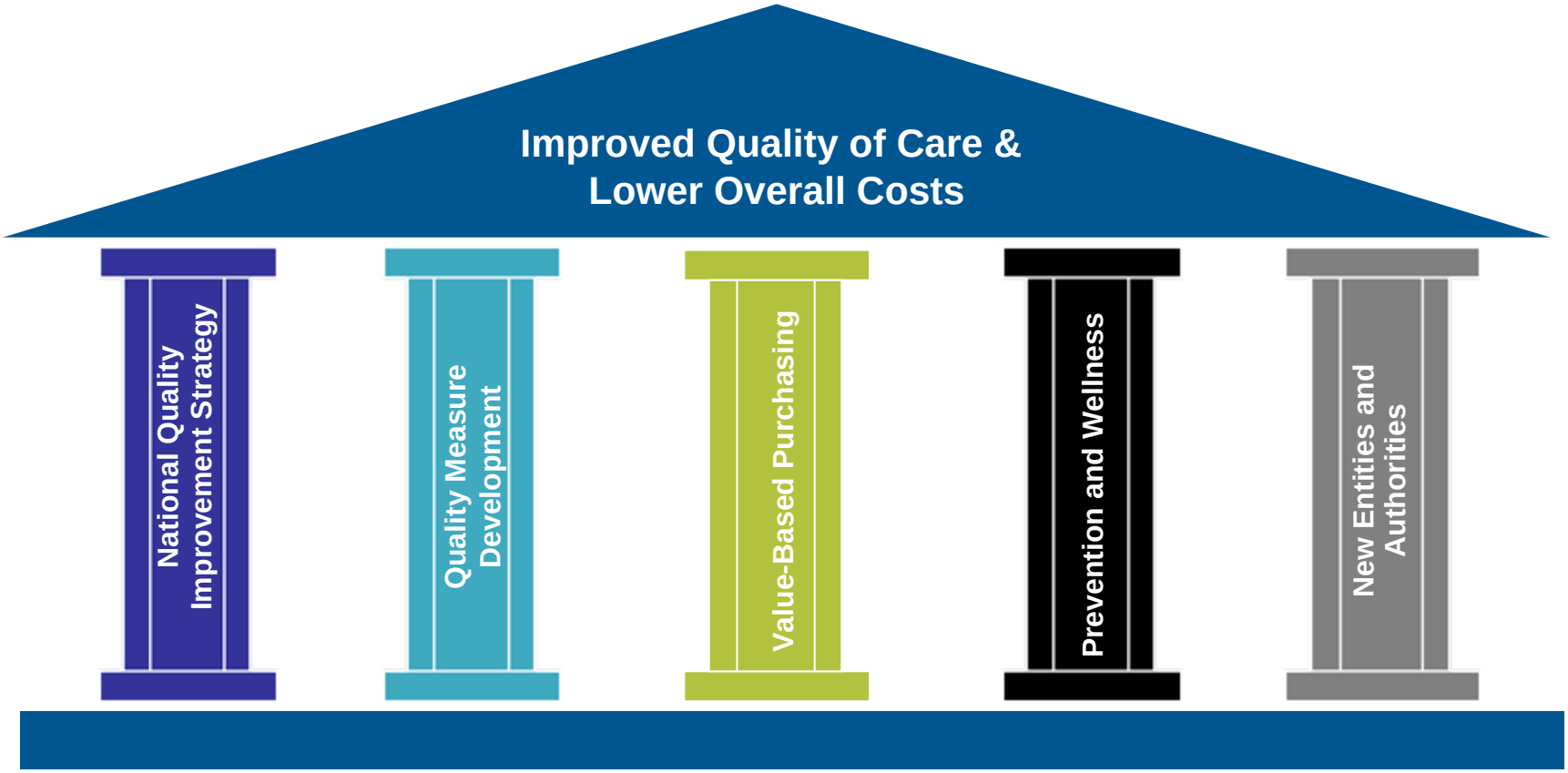


2010 WELL-BEING STATE RANKING

1 HI
2 WY
3 ND
4 AK
5 CO
6 MN
7 SD
8 UT
9 CT
10 NE
11 MA
12 WA
13 MD
14 MT
15 NH
16 KS
17 VT
18 CA
19 IA
20 ID
21 VA
22 WI
23 NM
24 NJ
25 ME
26 IL
27 TX
28 OR
29 AZ
30 PA
31 GA
32 NY
33 RI
34 MO
35 SC
36 NC
37 FL
38 OK
39 IN
40 TN
41 MI
42 LA
43 NV
44 DE
45 OH
46 AL
47 AR
48 MS
49 KY
50 WV

WWW.WELL-BEINGINDEX.COM

Health Reform Builds on the Current Quality Infrastructure

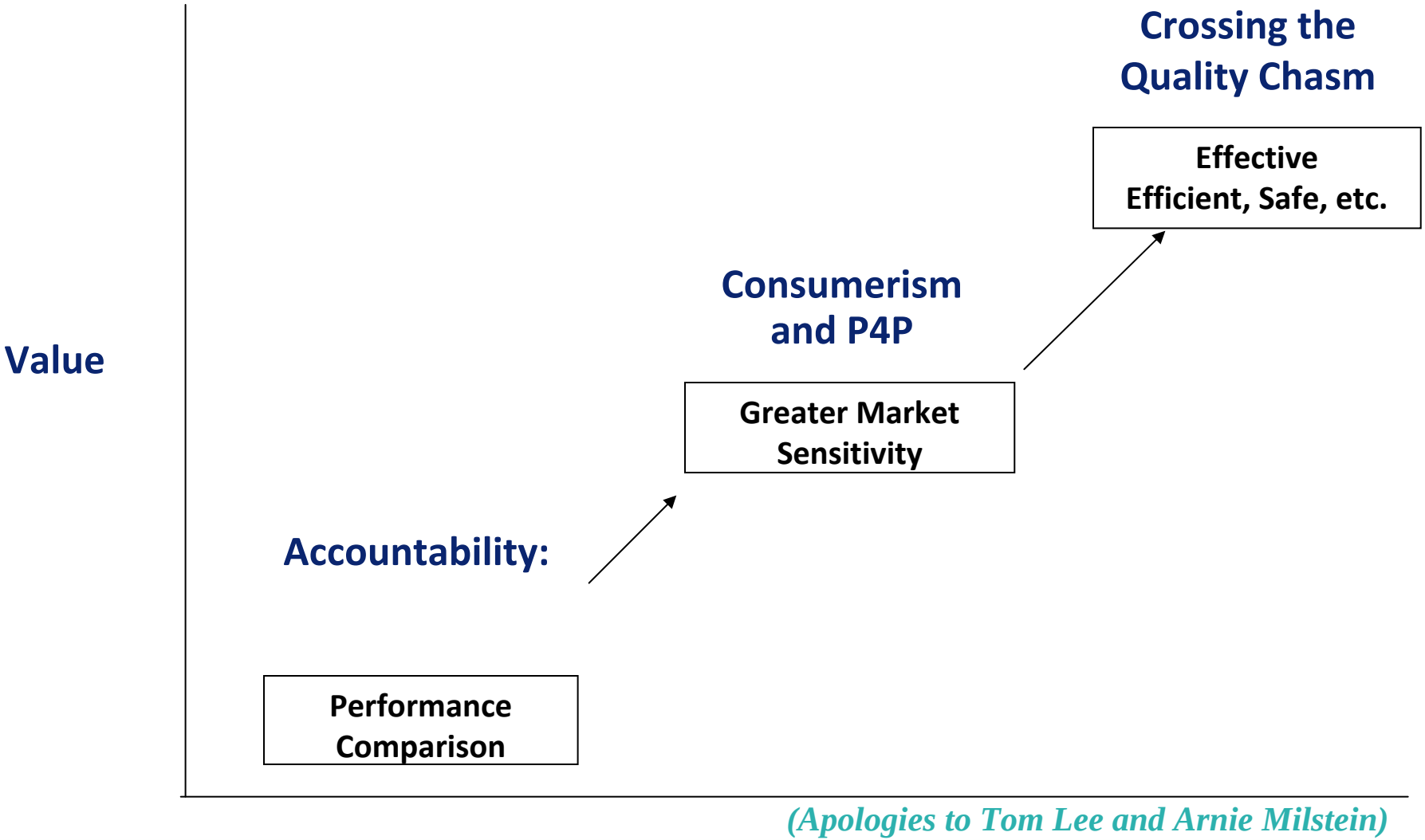


JSPH Mission

- To prepare leaders with global vision to develop, implement, and evaluate health policies and systems that improve the health of populations and thereby enhance quality of life

Jefferson
School of Population Health

The Vision



(Apologies to Tom Lee and Arnie Milstein)

Nash's Immutable Rule

High Quality care costs less!

Autonomy and Accountability

A Zero Sum Game?