Getting to HOW: Patient-Centered Care in an Era of System Transformation

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Agency for Healthcare Research and Quality

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What We Know

"The truth is that for a large part of medical practice, we don't know what works. But we pay for it anyway."

H. Gilbert Welch, MD
Geisel School of Medicine at Dartmouth

Testing What We Think We Know. *New York Times* - August 19, 2012

The View at 30,000 Feet

- Evidence is being produced at an extremely rapid rate, but its incorporation into clinical practice is happening much more slowly
- Transparency efforts don't offer enough usable data for decisions regarding a specific disease and selection of a treatment option
- We face an underperforming health care system and untenable cost forecasts
- Too often, the patient is an afterthought

So, Where Does That Leave Us?

Making progress, but our destination is in the distance

- Progress in quality improvement and patient safety is taking place, but at a slow and uneven pace
- Payment based on quality and safety performance is not a passing fad
- Movement to patient-centered care* also an evolving process

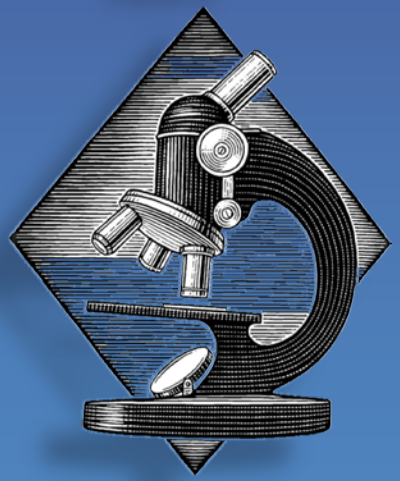
*Institute of Medicine proposed 6 aims for the health care system: safe, effective, patient-centered, timely, efficient, and equitable. (*Crossing the Quality Chasm,* 2001)

Patient-Centered Care in an Era of System Transformation

- **What the Data Says about the Status of Health Care in the United States**
- Putting the Patient at the Center of Care
- 21st Century Health Care: Care that is Safer and Better
- Q & A

HHS Organizational Focus

NIH



Biomedical research to prevent, diagnose, and treat disease

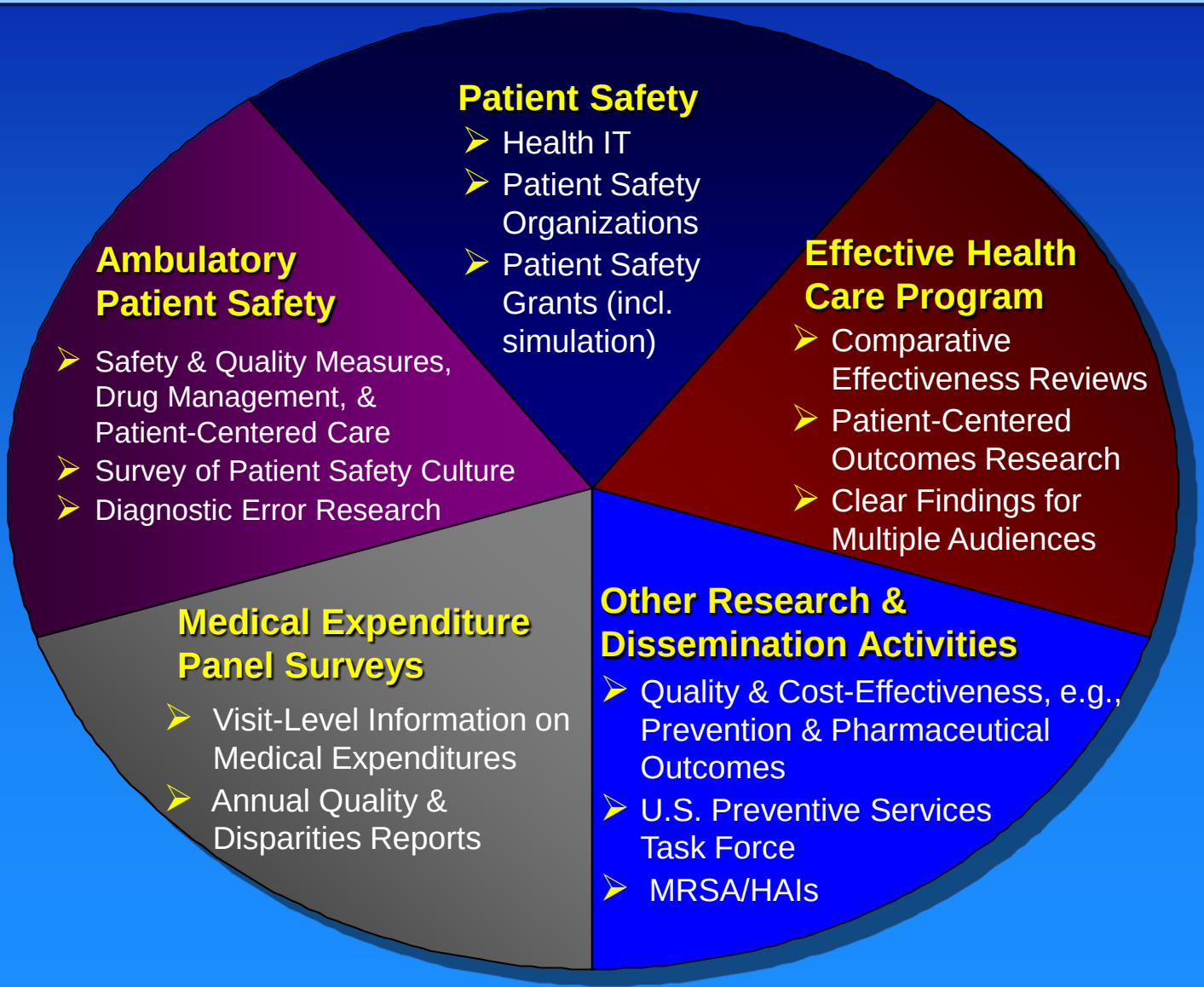
CDC

Population health and the role of community based interventions to improve health

AHRQ

Long-term and system-wide improvement of health care quality and effectiveness

AHRQ Priorities



AHRQ's TOP 3 Focus Areas

Patient Safety

- Build a "trustworthy" delivery system, minimize the impact of adverse events

Quality

- Focus on the National Quality Strategy and collaboration (HHS, private sector)

"Getting to HOW"

- Practical, evidence-based process improvements

Coming Soon! 2012 AHRQ National Healthcare Quality and Disparities Reports

- NHQR/NHDR
  - 2012 will be 10th in series
  - Addition of more National Quality Strategy measures reflecting population need
  - Focus on long-term trends
  - Focus on new HHS race/ethnicity standards
- NHQRDRnet
  - Addition of function to generate customized graphics

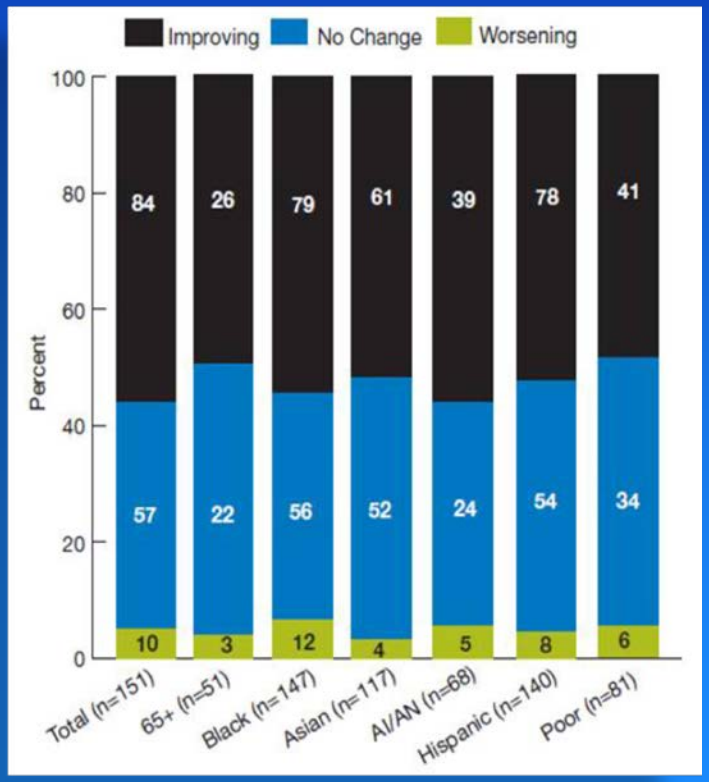
2011 AHRQ National Healthcare Quality & Disparities Reports

- Overall, improvement in the quality of care remains suboptimal and access to care is not improving
- Few disparities in quality are getting smaller and almost no disparities in access are getting smaller
- Particular problem areas include cancer screening and management of diabetes
- Quality of care varies not only across types of care but also across parts of the country

http://www.ahrq.gov/qual/qrdr11.htm

Quality is Improving Slowly

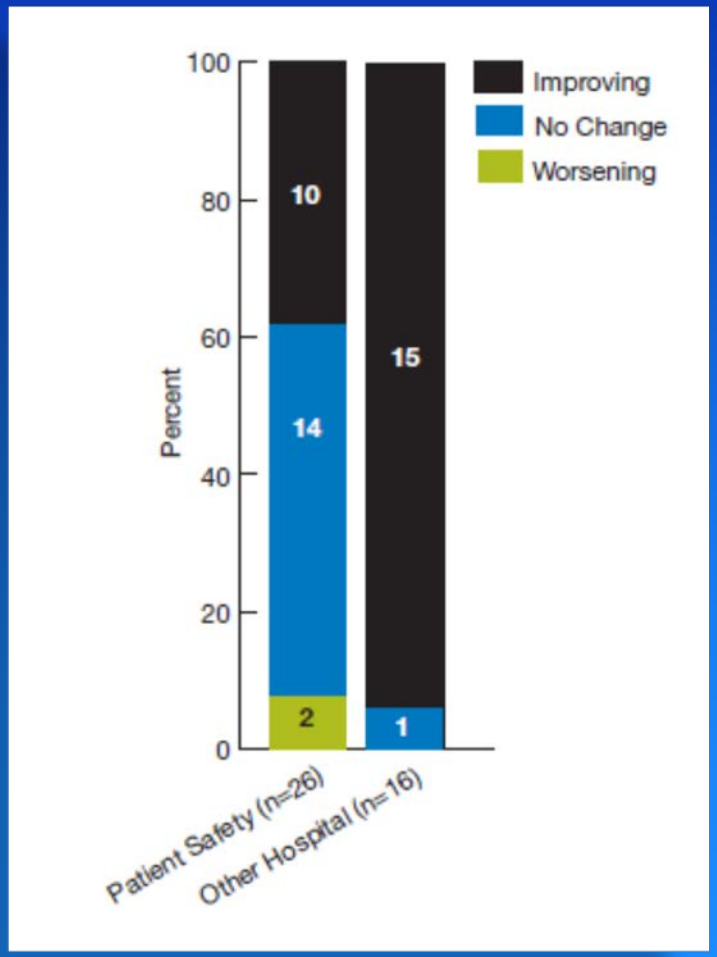
Quality measures that are improving, not changing or worsening, overall and for select populations



- Across all measures of health care quality tracked in the reports, almost 60% showed improvement
- However, median rate of change was only 2.5% per year
- Improvement included all groups defined by age, race, ethnicity, and income

AHRQ 2011 National Healthcare Quality and Disparities Reports

Making Care Safer

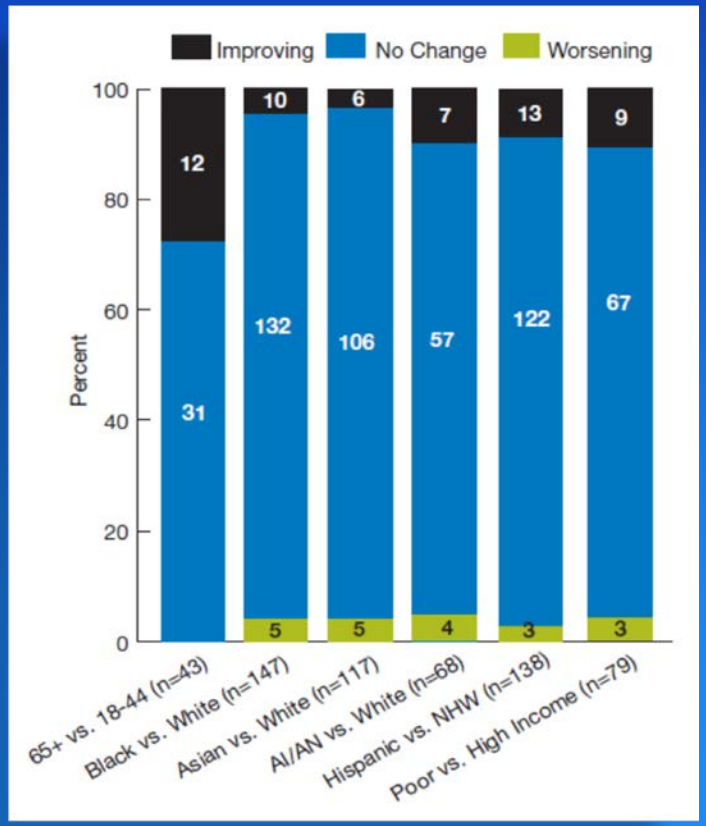


- Improvements in safety are lagging
  - The reports track 26 safety measures related to HAIs and other hospital-related adverse events
  - Of these measures, 38% showed improvement
  - By comparison, among 16 hospital quality measures not related to safety, almost all showed improvement over time

2011 AHRQ National Health Care Quality and Disparities Reports

Most Disparities Are Not Changing Over Time

Quality measures for which disparities related to age, race, ethnicity and income are improving, not changing or worsening

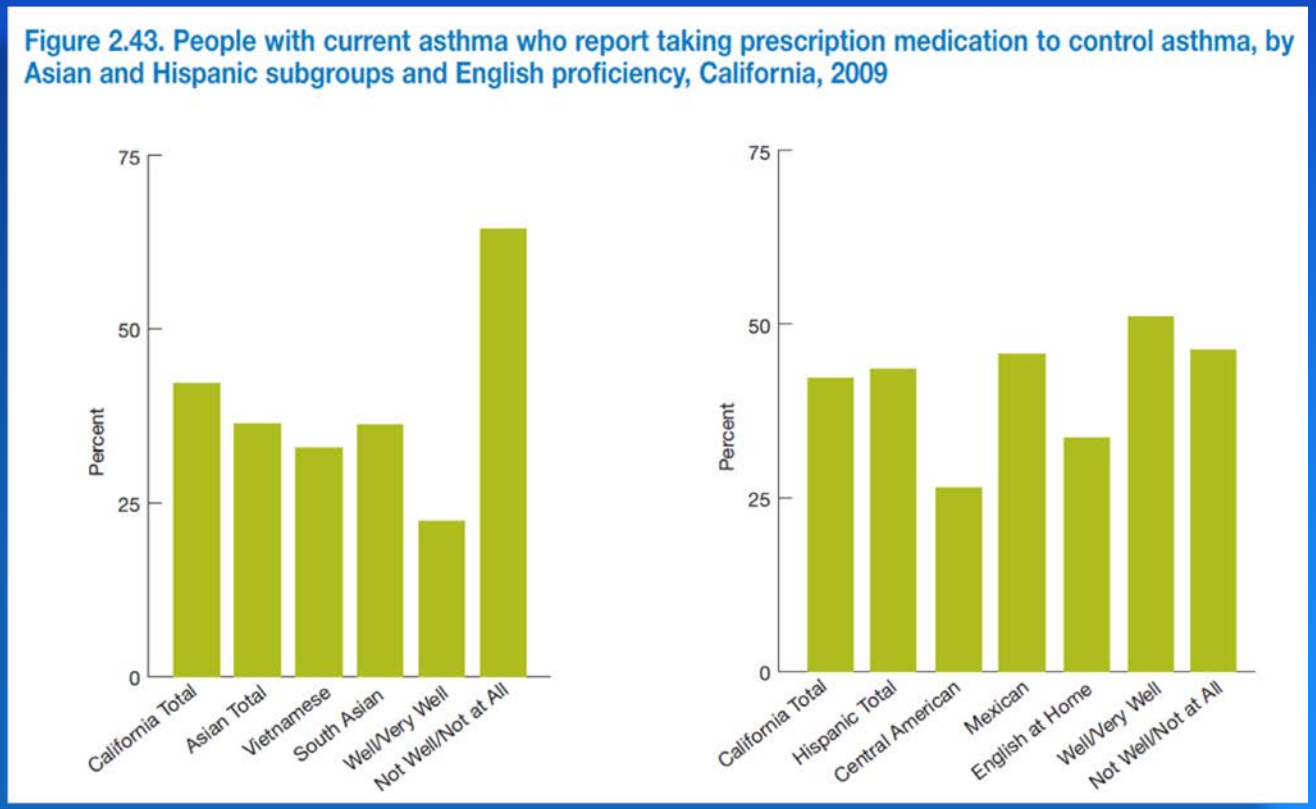


- Few disparities in quality showed significant improvement
- The number of disparities that were getting smaller exceeded the number that were getting larger

AHRQ 2011 National Healthcare Quality and Disparities Reports

Patient-Centered Care: QRDR & CHIS

To fill the data gap the currently exists, QR/DR uses the California Health Interview Survey, a unique source of data on racial and ethnic subgroups spearheaded by Rick Brown



Source: UCLA, Center for Health Policy Research, California Health Interview Survey, 2009

POWER: Inspired by CHIS

- The Project for an Ontario Women's Health Evidence-Based Report (POWER)
  - A comprehensive, multi-year examination of women's health in Canada
  - Integrates clinical, public and population health measures
  - Uses measurement and reporting as a mechanism for knowledge translation

National Quality Strategy: Three Broad Aims

Created Under the Affordable Care Act

Better Care

Improve the overall quality, by making health care more patient-centered, reliable, accessible and safe

Healthy People/ Healthy Communities

Improve the health of the U.S. population by supporting proven interventions to address behavioral, social and environmental determinants of health, in addition to delivering higher-quality care

Affordable Care

Reduce the cost of quality health care for individuals, families, employers and government

www.healthcare.gov/center/reports/quality03212011a.html

With a Focus on Six Priorities

Making care safer by reducing harm caused in the delivery of care

Ensuring that each person and family are engaged as partners in their care

Promoting effective communication and coordination of care

Promoting the most effective prevention and treatment practices for the leading causes of mortality, starting with cardiovascular disease

Working with communities to promote wide use of best practices to enable healthy living

Making quality care more affordable for individuals, families, employers, and governments by developing and spreading new health care delivery models

NQS 2012 Annual Progress Report*

Includes key measures for use in helping to set aspirational targets and track the progress of improvement efforts in six priority areas, including:

Measure Focus	Baseline Rate	Aspirational Target
Hospital-Acquired Conditions (HACs)	145 HACs per 1,000 admissions	40% reduction in preventable HACs by the end of 2013
Hospital Readmissions	14.4%, based on 32.9 million readmissions	20% reduction by the end of 2013
Aspirin Use	47%	65% by 2017
Blood Pressure Control	46%	65% by 2017
Cholesterol Management	33%	65% by 2017
Smoking Cessation	23%	65% by 2017

*August 2012 Update

Patient-Reported Outcomes

- Under the National Quality Strategy, measures increasingly focus on clinical outcomes *and* patient-reported outcomes and experience
  - The Hospital Value-Based Purchasing Program has incorporated 30-day condition-specific mortality measures and HCAHPS into its measure set
  - The End-Stage Renal Disease Quality Incentive Program for dialysis facilities directs providers to administer an in-center dialysis patient experience survey
  - HHS is also continuing to identify and support the development of new-patient-centered outcome measures
    - Example: The 3-item care transition measure (CTM-3) is under consideration by CMS for rulemaking this year

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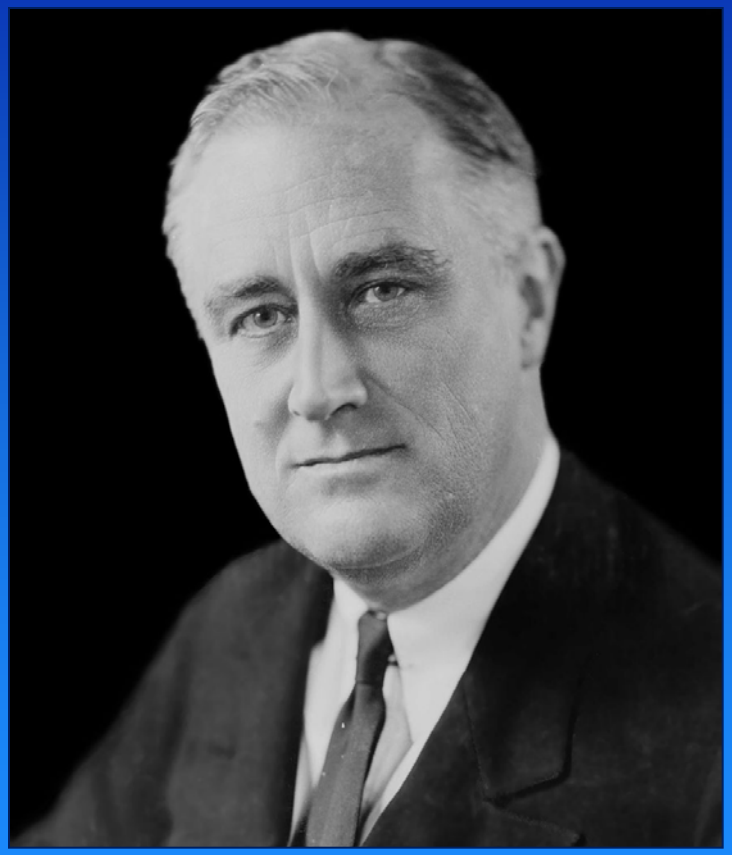
Do Something



"Do something. If it works, do more of it. If it doesn't, do something else."

Franklin Delano Roosevelt

Research that Addresses Patient Outcomes

Patient-Centeredness: The final frontier?

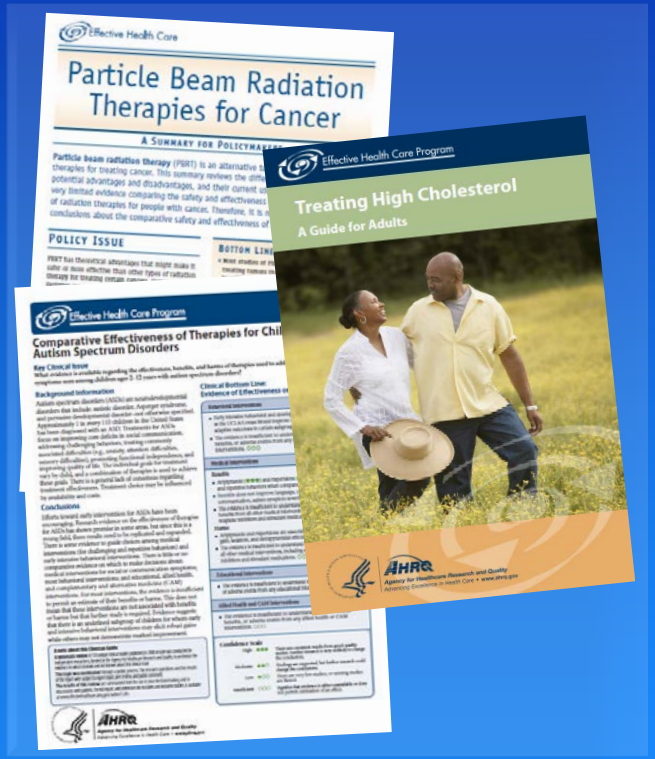
- Patient-centeredness may be the most challenging of all 6 domains of quality, because it is so difficult to define and measure
- But, it is also likely the most important, because it includes elements of all other domains

Implementing Evidence-Based Treatment Decisions

- **Which treatments work, for which patients, and what are the trade-offs?**
  - Patient-centered outcomes research informs decisions by providing evidence and information on effectiveness, benefits and harms
- **How can evidence-based improvements be translated and shared with providers, patients?**
  - Effective Health Care Clinician and Consumer Summaries
  - Continuing Medical Education
  - Center for Medicare and Medicaid Innovation; AHRQ Health Care Innovations Exchange

AHRQ's Effective Health Care Program

- Supports evidence-based research, including synthesis of existing evidence and creation of new evidence
- Published more than 180 products, including summaries for clinicians, consumers and policymakers
- Created by the Medicare Modernization Act of 2003, initiated in 2005



More than 3.5 Million EHC Print Products Distributed

The Patient-Centered Outcomes Research Trust Fund and AHRQ

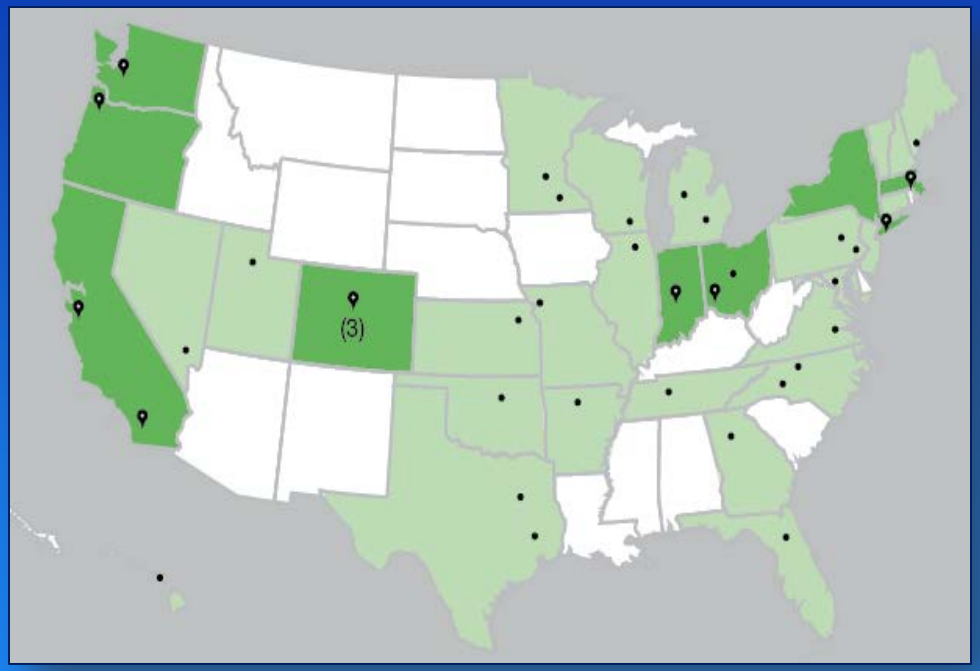
Authorized in the Affordable Care Act

- Provides funding for AHRQ to disseminate research findings of the Institute and other government-funded research, train and build capacity for research
  - Up to 20% of Patient-Centered Outcomes Research Trust Fund can be used to support research capacity building and dissemination activities

www.pcori.org

Multidisciplinary Science: EDM Forum Research Networks

11 Projects Using Electronic Health Research for CER/PCOR and QI

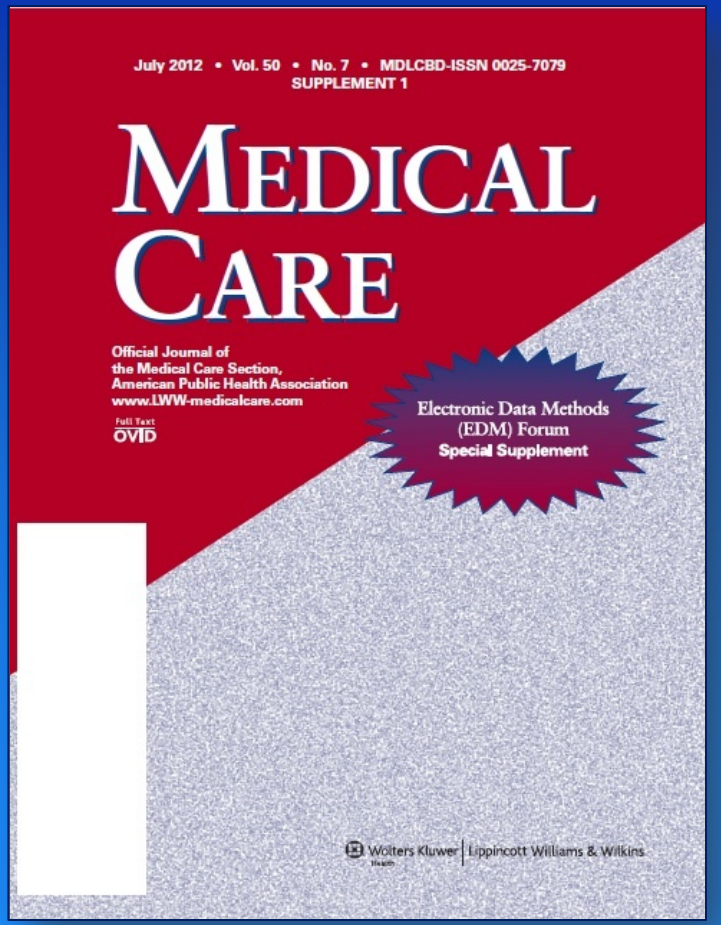


- Networks include between 12,000 and 7.5 million patients
- Potential reach of networks: Up to 50 million patients
- 38 CER studies
- Address all AHRQ priority populations and almost all AHRQ priority conditions

www.edm-forum.org

First Journal Supplement

- 14 commissioned and invited papers
- Informed by ongoing ARRA-funded work
- Three domains:
  - Analytic Methods
  - Clinical Informatics
  - Governance



www.edm-forum.org

Early Findings: Recovery Act Delivery System Grants

- **Primary Care Reorganization –** Preliminary findings on reorganizations along the lines of the patient-centered medical home point to reductions in hospitalizations and other outcomes that may signal improvements in both quality and cost
- **Bundled Payments** – Implementation barriers encountered in one evaluation in CA (final report due 9/13)
- **State Drug Formularies** – Accountable Care Organizations operating across state lines face divergent policies that may affect operations and patients (final report due 9/13)

www.ahrq.gov/qual/deliverysys/arragranteepubs.htm

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Medical Liability and Patient Safety Initiative

- Part of Affordable Care Act
- Supports implementation and evaluation of evidence-based patient safety and medical liability projects
- Seven AHRQ-funded demonstration grants have been awarded to test models that:
  - Reduce preventable harm
  - Inform injured patients promptly and making efforts to provide prompt compensation
  - Promote early disclosures and settlements, through court-directed alternate dispute resolution model

Reforming Medical Liability: Seven Pillars Project

- Launched in 2006 at University of Illinois-Chicago by Dr. Timothy McDonald; focuses on transparency and disclosure to eliminate patient harms and learn from safety events.
- Seven Pillars components:
  - Patient safety incident reporting
  - Investigation
  - Communication and disclosure
  - Apology and remediation, including waiver of hospital and professional fees
  - System process and performance improvement
  - Data tracking and performance evaluation
  - Education and training

Project Uses Communication to Prevent, Respond to Medical Injuries

- **Medical Liability Reform and Patient Safety Demonstration Project (Washington State)**
- **Objective:** Create a statewide, multi-stakeholder collaborative to:
  - Enhance communications and respond to medical injuries
  - Implement intensive communications training to prevent and respond to medical injuries at 10 partner healthcare institutions
  - Develop and evaluate a collaborative approach to adverse event analysis, disclosure, and compensation between 5 of 10 institutions and Physicians Insurance
  - Disseminate the communications training statewide via interactive e-learning modules and assess impact on patient safety and malpractice liability

University of Washington: 07/01/10 – 06/30/13

Additional AHRQ-Funded Research on Disclosure of Adverse Events

- **Training Doctors to Disclose Unanticipated Outcomes**
- **Objective**: Determine whether physician communication training in disclosing unanticipated outcomes can:
  - Affect patient satisfaction with disclosure;
  - Determine whether training in disclosing unanticipated outcomes affects malpractice claims
  - Determine whether characteristics of events (severity of harm, presence of error), physician, patient and environment independently affect the relationship between unanticipated outcome disclosure and patient satisfaction
- **Intervention:** 2-hour disclosure training webcast; practice and feedback with 2 standardized patients; refresher training webcast
- **Impact:** First study to measure quality of disclosure and assess whether physician training improves disclosure process

University of Washington, 09/30/08 – 09/29/13

Health IT Innovation: Online Disease Management of Diabetes

- Engaging and Motivating patients Inline with Enhanced Resources-Diabetes (EMPOWER-D)
  - AHRQ-funded 12-month randomized controlled trial by the Palo Alto Medical Foundation evaluating online disease management among 415 patients with type 2 diabetes
  - Findings:
    - A nurse-led multidisciplinary health team can manage a population of diabetic patients in an online disease management program
    - Improvements in mean A1C were greater than those for usual care patients at six months
    - The difference was not sustained at 12 months

J Am Med Inform Assoc 2012;0:1–9. doi:10.1136/amiajnl-2012-001263

New Findings: CPOE and Medication Errors

- Summarizes findings for a measure studied under the Conducting Measurement Activities for Health Information Technology Initiative project
  - Found that processing a prescription drug order through a computerized provider order entry system decreases the likelihood of medication errors by 48 percent
  - It is estimated that in one year, approximately 17.4 million medication errors may averted in the U.S. by using CPOE – a 12.5% reduction in medication errors

Research and applications

Reduction in medication errors in hospitals due to adoption of computerized provider order entry systems

David C Radley,[1] Melanie R Wasserman,[2] Lauren EW Olsho,[2] Sarah J Shoemaker,[2] Mark D Spranca,[2] Bethany Bradshaw[3]

ABSTRACT

Objective Medication errors in hospitals are common, expensive, and sometimes harmful to patients. This study's objective was to derive a nationally representative estimate of medication error reduction in hospitals attributable to electronic prescribing through computerized provider order entry (CPOE) systems.

Materials and methods We conducted a systematic literature review and applied random-effects meta-analytic techniques to derive a summary estimate of the effect of CPOE on medication errors. This pooled estimate was combined with data from the 2006 American Society of Health-System Pharmacists Annual Survey, the 2007 American Hospital Association Annual Survey, and the latter's 2008 Electronic Health Record Adoption Database supplement to estimate the percentage and absolute reduction in medication errors attributable to CPOE.

Results Processing a prescription drug order through a CPOE system decreases the likelihood of error on that order by 48% (95% CI 41% to 55%). Given this effect size, and the degree of CPOE adoption and use in hospitals in 2008, we estimate a 12.5% reduction in medication errors, or ~17.4 million medication errors averted in the USA in 1 year.

which may further reduce errors. There is also some evidence that CPOE may cause errors.[5] CPOE's impact on medication errors and outcomes remains uncertain because of the varied clinical settings, CPOE system origins (commercial vs created in-house), and quality of existing studies.[6]

With its Healthcare Information Technology for Economic and Clinical Health (HITECH) provision, the American Recovery and Reinvestment Act of 2009 authorized US$20 billion in funding to assist in the development of a robust health information technology (health IT) infrastructure to improve healthcare safety and quality. Among the HITECH Act's provisions are incentive payments to outpatient physicians and hospitals to support health IT implementation, including CPOE implementation as a core requirement.[7]

The ultimate goal of CPOE is improved safety, quality, and value of patient care. Medication errors are an important intermediate, measurable outcome in pursuit of that goal. In this investigation, we examine the impact of CPOE on medication error frequency.

http://jamia.bmj.com/content/early/2012/01/27/amiajnl-2012-001241.full

Models for Expanding Primary Care Redesign & Transformation

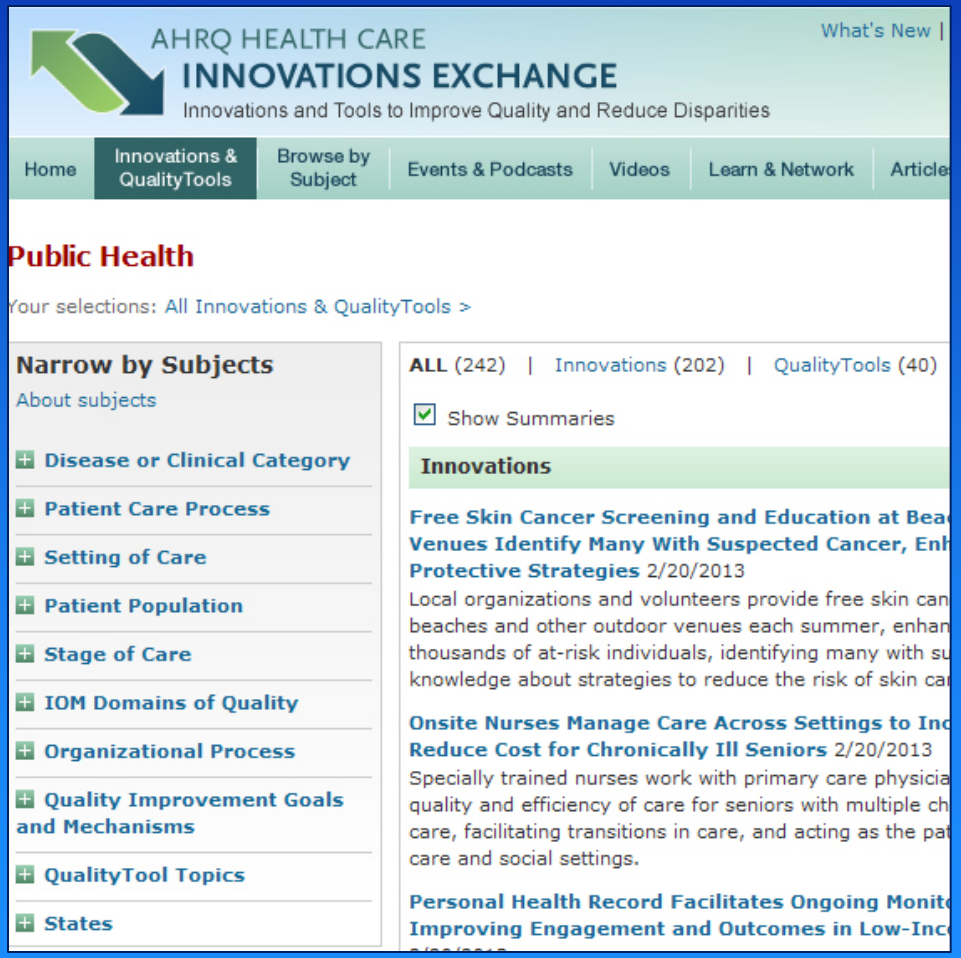
- IMPaCT (Infrastructure for Maintaining Primary Care Transformation)
  - Four cooperative grants in NC, PA NM and OK using primary care extension agents in small and mid-size independent primary care practices
  - Each grantee must create collaborations with three other states to assist with their primary care transformation efforts
  - Use of experienced programs and rigorous evaluation demonstrate how a national primary care health extension program can be built

ahrq.gov/research/impactaw.htm

AHRQ Health Care Innovations Exchange

Web-based repository of cutting-edge service innovations

- Electronic learning hub for sharing innovations, bringing innovators and adopters together
- Searchable database featuring successes and failures, expert commentaries, lessons learned
- Designed to help "agents of change" improve quality



www.innovations.ahrq.gov

Closing the Quality Gap: Revisiting the State of the Science

- Series of reports summarizing the evidence on quality improvement strategies for chronic conditions and other priorities:
  - Bundled Payment
  - Health Disparities
  - Patient-Centered Medical Home
  - Public Reporting
  - Medication Adherence

http://www.ahrq.gov/clinic/tp/gapbundtp.htm

The Landscape is Quickly Changing

- Although health care reform has begun, these questions remain:
  - How is evidence on safety and quality improvement integrated into the new environment?
  - How has the nature of evidence changed?
  - How do these changes affect patients, providers, payers?
  - How do we ensure that these changes are beneficial?
  - How are improvements put into practice?

What Should the New Model Look Like?

- That remains to be determined, although overall things to consider include:
  - Stakeholders are engaged more and more when the strategic decisions are being made
  - Making evidence available earlier and during different intervals of a project
  - Thinking of publication as one step in the continuing process to get results into the hands of those who need it rather than the end of the research cycle
  - Testing multiple conclusions in the field rather than waiting until there is a ‘right’ answer

Evidence-Based Tools to Reduce Healthcare-Acquired Infections

- Majority of ICUs stopped central line-associated bloodstream infections (CLABSI) for up to 2 years after using AHRQ-funded quality initiative
- Comprehensive Unit-based Safety Program (CUSP) implemented through Keystone ICU project in Michigan hospitals (large and small)
- 60% of 80 ICUs evaluated went 1 year w/o infection; 26% went 2 years or longer
- Keystone tools include:
  - Promoting a culture of safety
  - Improving communications among ICU staff
  - Using checklist to promote practice of CDC guidelines

Lipitz-Snyderman A, Needham DM, Colantuoni E, et al. "*The Ability of Intensive Care Units to Maintain Zero Central Line-Associated Bloodstream Infections.*" Arch Intern Med 2011; 171(9): 856-858.

CUSP Cuts CLABSIs by 40 Percent in 1,100 Hospital Units

- Nationwide patient safety project
  - Developed at Johns Hopkins, tested in Michigan
  - Implemented in more than 1,100 hospital units
- Results:
  - CLABSIs reduced from 1.903 infections per 1,000 central line days to 1.137 per 1,000 days
  - Savings: more than 500 lives, $34 million in costs
- New toolkit for implementation

AHRQ Patient Safety Project Reduces Bloodstream Infections by 40 Percent. Press Release, September 10, 2012. www.ahrq.gov/news/press/pr2012/pspclabsipr.htm

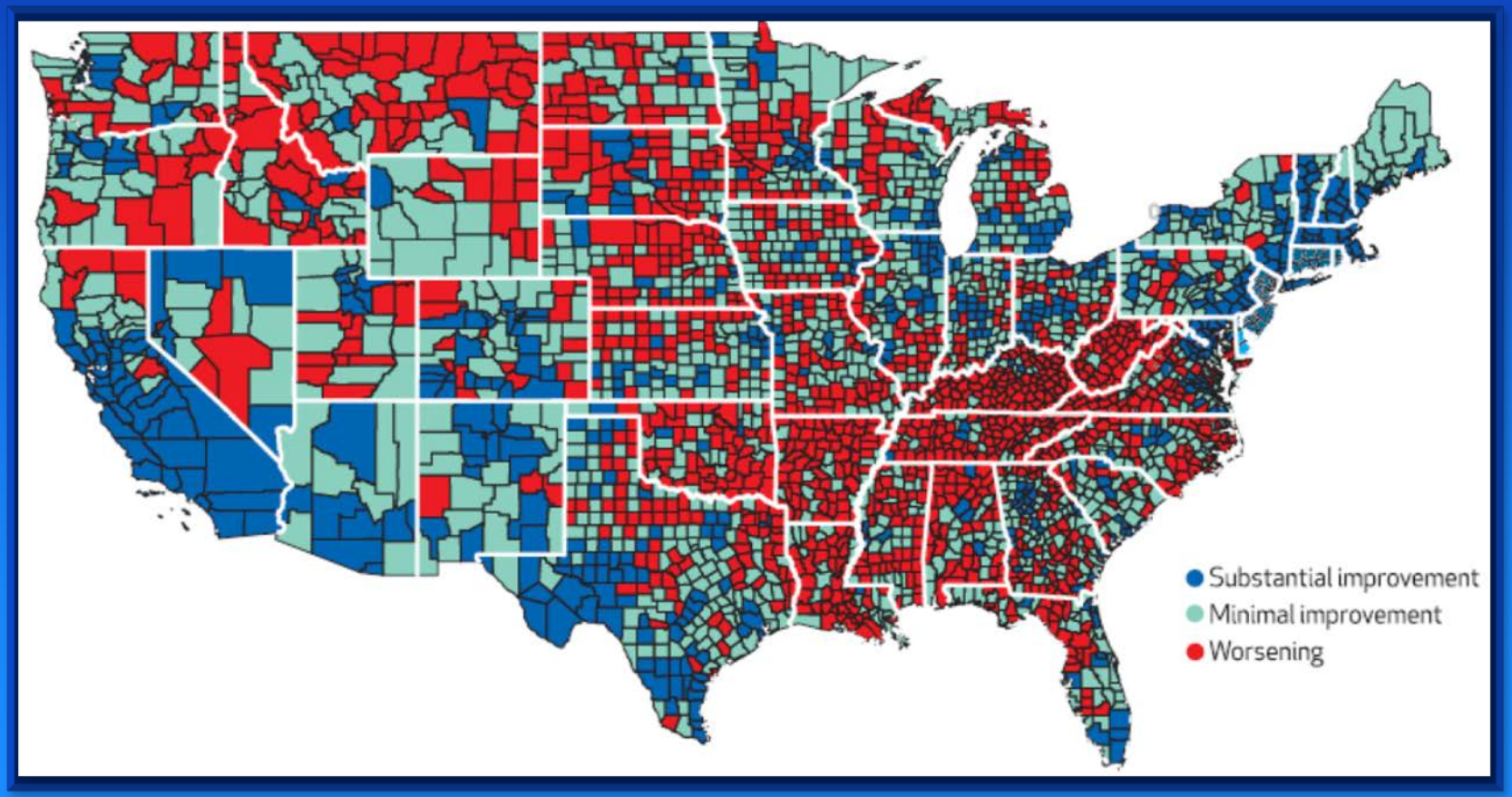
Where to From Here?

- Do more to ensure that new treatments and research knowledge reach patients and are implemented correctly
- Improve quality by improving access
- Expand the boundaries of basic science to include other “basic sciences” (e.g., epidemiology, psychology, communication, social marketing and economics)
- More focus on research and delivery of existing treatments **AND** interaction between social determinants and health care

Woolf, S. *The Meaning of Translational Research and Why It Matters*, JAMA January 2009

Rising Female Mortality in the US

Even as Mortality Fell in Most US Counties, Female Mortality Nonetheless Rose in 42.8% of Counties From 1992 - 2006



Kindig D, Cheng E. Health Affairs, 32, no.3 (2013):451-458

Thank You

AHRQ Mission

To improve the quality, safety, efficiency, and effectiveness of health care for all Americans

AHRQ Vision

As a result of AHRQ's efforts, American health care will provide services of the highest quality, with the best possible outcomes, at the lowest cost

www.ahrq.gov