



Patient-Centered System Transformation: New Opportunities for Patient Safety Improvement

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Diagnosing the Problem

“The fundamental problem with the quality of American medicine is that we’ve failed to view delivery of health care as a science. ... That’s a mistake, a huge mistake.”

*Peter Pronovost, M.D., PhD,
Johns Hopkins Hospital*



Finding Patient-Centered, Evidence-Based Solutions

Or, how do we get from
Point A to Point B?

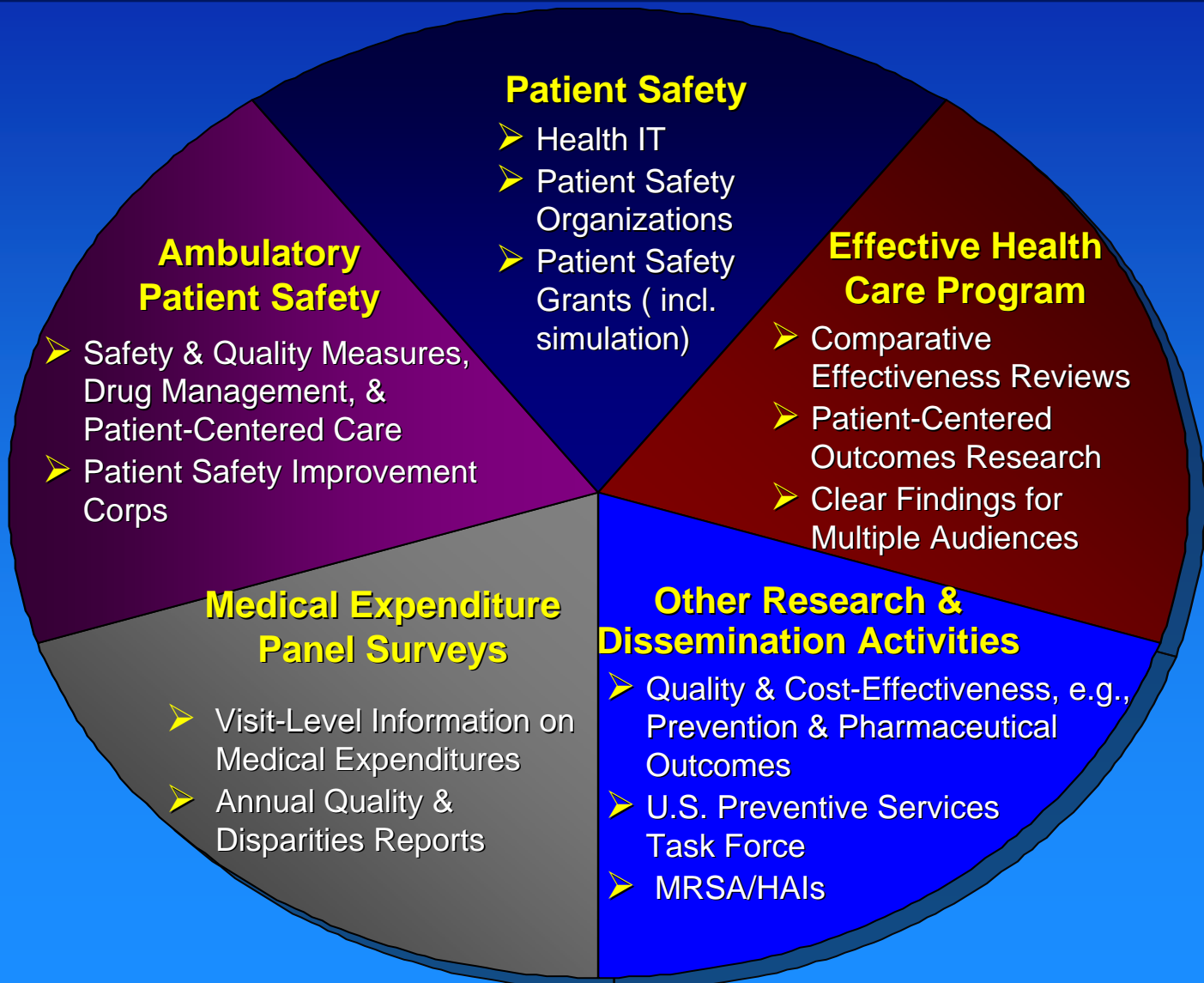


New Opportunities for Patient Safety Improvement



- **AHRQ: New Resources, Ongoing Priorities**
- Progress and Challenges on Quality and Disparities
- Tools for Safety: PSOs, Teamwork
- Creating a Patient-Focused Health Care System

AHRQ Priorities






Growing Recognition of the Importance Patient-Centeredness

- Improving health outcomes by developing and disseminating evidence-based information to patients, providers and decision-makers
- Investments in robust systems and infrastructure to inform everyday clinical decision-making
- More opportunities to evaluate patient-centered outcomes research among diverse populations and patient subgroups that are not always adequately represented in studies





Getting from Point A To Point B: Key Questions

- How do we know whether we can generalize or replicate research findings?
 - How do we get the science right?
 - How do we know whether research study findings will work in practice?
 - How do we know if a process, local policy, or tool can be scaled up from an individual system to something much larger?
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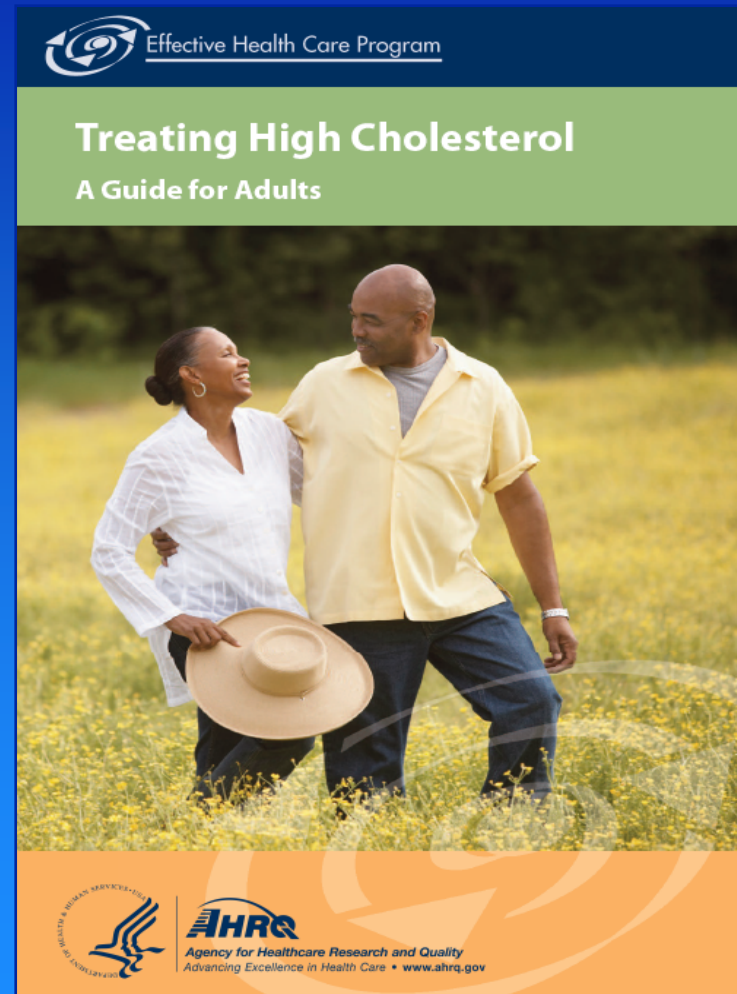
Using the 3 “I’s” To Find the Answers

- Information
- Incentives
- Infrastructure



Information: Lots of It, Must Be Targeted to Specific Audiences

- The National Strategy for Quality Improvement in Health Care
- The Effective Health Care Program
- National Healthcare Quality and Disparities Reports
- AHRQ Health Care Innovations Exchange





Incentives To Test and Reward Successful Care Models

- **The Center for Medicare and Medicaid Innovation (CMMI)**
 - **Patient Care Models** – Partnership for Patients; Community Based Care Transition Program
 - **Seamless Coordinated Care Models** – Medicaid Health Home State Plan Option; State Demonstrations to Integrate Care for Dual Eligibles
 - **Community and Population Health Models** – Will test models that improve public health and make communities healthier
 - **Employers and Private-Sector Payers**
 - **States**
 - **Patients and Families**

<http://innovations.cms.gov>

Building Blocks for the New Infrastructure



Preventing HAIs: A National Action Plan*

- In 2009, HHS launched a national action plan with 5-year goal to reduce HAIs.
- HAIs among leading causes of death; account for 1.7 million infections
- Four categories account for 75% of HAIs in hospitals:
 - Surgical site infections (17%)
 - Central line-associated bloodstream infections (14%)
 - Ventilator-associated pneumonia (13%)
 - Catheter-associated UTIs (34%)



**HHS Action Plan To Prevent Healthcare-Acquired Infections, <http://www.hhs.gov/ash/initiatives/hai/actionplan/index.html>*



Finding an Evidence-Based Solution

- 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 members
 - Using checklist to promote practice of CDC guidelines



On The CUSP: Stop BSI Part of HHS Action Plan

- As part of Action Plan, AHRQ funded \$18 million national effort
- **Goal:** Reduce CLABSI rates to < 1 per 1,000 central line days across all hospitals in project
- Partnership with JHU Quality and Safety Group, Health Research and Educational Trust (AHA affiliate), and Michigan Hospital Assn.'s Keystone Center





On the CUSP: Stop BSI Project Update*

- To date, 46 state hospital associations and 1 other umbrella group have committed to leading project in their States
- Groups have recruited more than 1,055 hospitals and 1,775 hospital teams to participate
- Twenty-two States began project in 2009, 14 States and District of Columbia began during 2010, and 9 States and Puerto Rico began in 2011.

* A Progress Report on the National On the CUSP: Stop BSI Project, August 2011

On the CUSP: Stop BSI Project Impact

- After 10-12 months participation, CLABSI rates fell by an average of 33% (1.87 to 1.23 infections per 1,000 central line days)*
- Reduction applies to units/teams that began project in 2009 and 2010.
- At baseline, many of these ICUs had CLASBI rates below the national mean and were still able to reduce rates

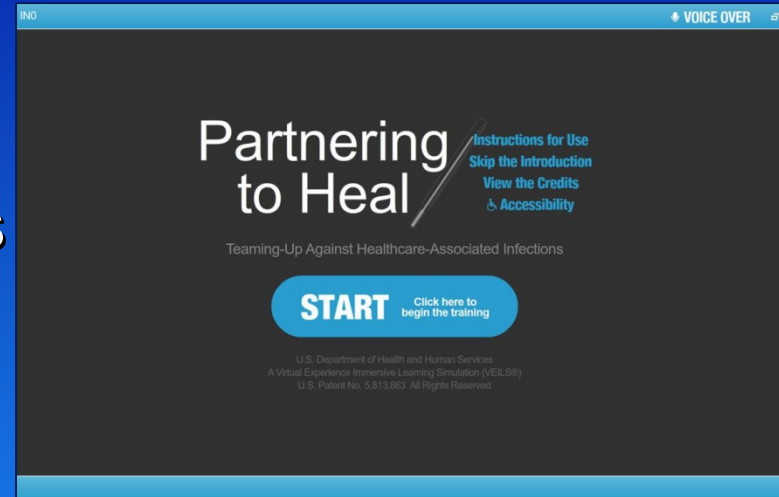


Other Key Findings

- **Targeted interventions:** Small percentage of units with CLABSI rates over 5 per 1,000 central line days are primary reason that average rates remain above 1.0. National project team has begun identifying facilities and working with them.
- **Data submission:** Not all units have submitted CLABSI rate data in each of the reporting periods. Failure to continuously monitor CLABSIs and to use infections to identify processes will not lead to sustained improvement
- **Sustainability:** Sustaining the reduced rates and driving them lower over time requires sustained intervention at hospital and state levels.

Partnering to Heal

- Computer-based, video simulation training program on infection control practices for clinicians, health professionals students, and patient advocates
 - Training highlights effective communication about infection control practices and ideas for creating “culture of safety.”
 - Users assume identity of 5 main characters and make decisions about preventing HAIs



What's Next?

- National CUSP programs now being developed to educate providers about preventing:
 - Catheter-associated urinary tract infections (JHU)
 - Ventilator-associated pneumonia
 - Labor and delivery
 - Surgical-site infections



Surgical Unit-based Safety Program to Reduce SSIs



- **Purpose:** Development of Surgical Unit-based Safety Program (SUSP) to Reduce Surgical Site Infections and other surgical complications
- SUSP should provide connection between clinical and cultural interventions (i.e. surgical safety checklist and teamwork assessment) analogous to Comprehensive Unit-Based Safety Program

New Opportunities for Patient Safety Improvement



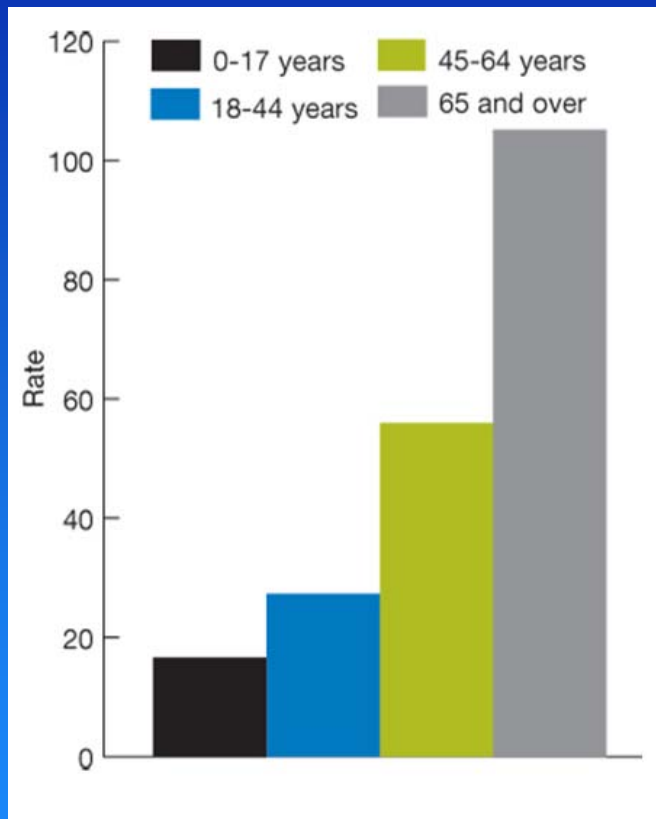
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National Healthcare Quality and Disparities Report 2010



- Health care quality, access are suboptimal, especially for minority and low-income
- Quality is improving by 2.3% per year; access and disparities are not
- Urgent attention is needed to improve quality and reduce disparities for:
 - Cancer screening, diabetes management
 - States in central U.S.
 - Inner-city, rural areas
 - Disparities in preventive service and access to care

Ambulatory Care Visits Due to Adverse Effects of Medical Care*



* Per 1,000 people, by geographic area and age, 2007-08

Source: 2010 National Healthcare Quality Report

- Rate of ambulatory visits due to adverse effects of medical care was higher for all age groups compared to group ages 0-17
- Rate of ambulatory visits due to adverse effects of medical care higher for females vs. males
- Adverse effects of medical care are more commonly treated at visits to outpatient settings, with more than 12 million occurring each year

Adverse Events in Outpatient Settings: New Findings*



*Bishop TF, Ryan AK, Casalino LP. *Paid Malpractice Claims for Adverse Events in Inpatient and Outpatient Settings*. JAMA. 2011; 305(23): 2427-2431.

- In 2009, number of paid claims to National Practitioner Data Bank for adverse events in outpatient settings was similar to number in inpatient settings
- Of 10,739 total claims:
 - 4,910 for inpatient AEs
 - 4,448 for outpatient AEs
 - 966 for events in both settings
 - Most common reason in outpatient setting was diagnostic; inpatient setting was surgical



Largest Disparities in Quality/Access Measures

Groups	Measure	RR*
Blacks vs. Whites	ED visit where pts left w/o being seen	1.7
Hispanics vs. non-Hispanic Whites	New AIDS cases per 100,000 pop. age 13 +	3.3
Poor vs. High Income	Female Medicare beneficiaries who reported osteoporosis screen w/bone mass/density measurement	3.6

*RR indicates rate relative to reference group

- Disparities in core quality and access measures are not improving
- An RR greater than 1 indicates that a group is receiving poorer quality or facing larger access problems compared to reference group.



Progress Mixed on National Priority Areas

- **Progress is uneven on 8 national priority areas:**
 - **Two are improving:** Palliative and End-of-Life Care and Patient and Family Engagement
 - **Three are lagging:** Population Health, Safety and Access
 - **Three require more data to assess:** Care Coordination, Overuse and Health System Infrastructure
 - **All 8 priority areas showed disparities** related to race, ethnicity and socioeconomic status. Poor people received worse care than high-income people for about 80% of core measures

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Patient Safety Organizations: The Basics



- Authorized by Congress in 2005 Patient Safety Improvement Act; final rule published in 2009
- Use by health providers is voluntary
- PSOs improve quality and safety through data collection, analysis and feedback on patient safety events
- Data has Federal guarantees of privilege and confidentiality



PSOs' Current Status

- To date, AHRQ has listed 81 PSOs in 30 states and District of Columbia
- AHRQ has developed “Common Formats,” or common definitions and reporting formats, for acute care hospitals and skilled nursing facilities
- Common Formats apply to:
 - **Incidents:** patient safety events that reached the patient, whether or not there was harm
 - **Near misses or close calls:** patient safety events that did not reach the patient
 - **Unsafe conditions:** circumstances that increase the probability of a patient safety event

How Will Data Be Used?

- Providing analysis, feedback and education with confidentiality and discovery protections
- Creating Network of Patient Safety Databases to which PSO's, providers and others can contribute non-identifiable information
- AHRQ to analyze national and regional statistics, including trends and patterns



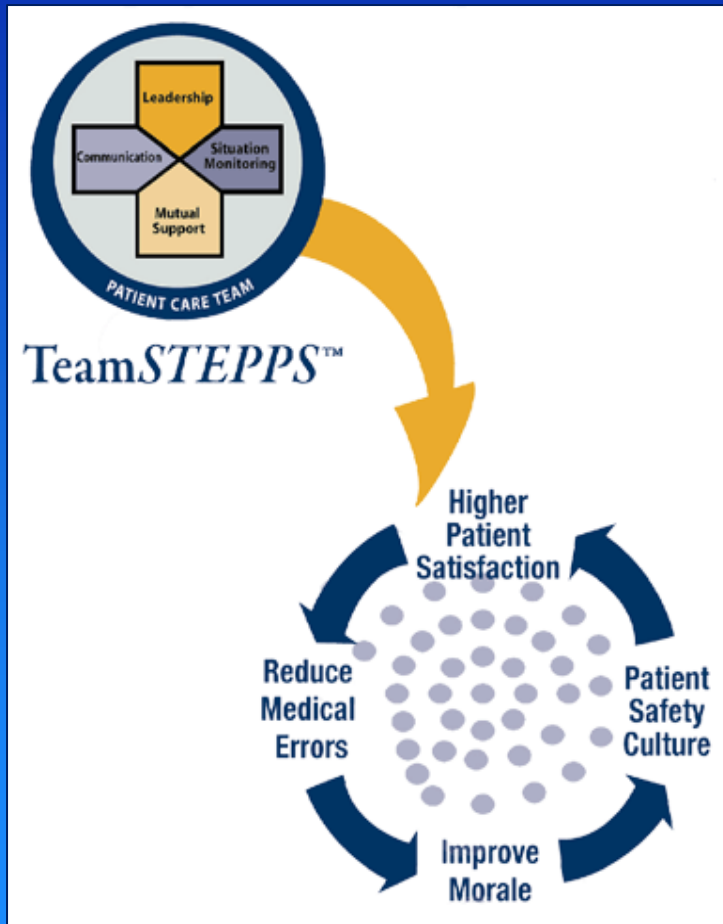


Asking the Right Questions

“We’re very sensitive to legitimate concerns on the part of people who have to collect this information about the volume of data collection. We’re defining clinical questions for which we want answers, and then we’re stipulating how the data that get collected to answer these questions are actually used in a report that will run at the institutional level.”

William B. Munier, MD, MBA, Director of AHRQ’s Center for Quality Improvement and Patient Safety, AHRQ Web M&M Interview, July 2011

TeamSTEPPS®: A Patient Safety Improvement Tool



- Evidence-based system to improve communication and teamwork among health care professionals
- Rooted in more than 20 years of research and lessons from application of teamwork principles
- Developed by Department of Defense's Patient Safety Program in collaboration with AHRQ

TeamSTEPPS® National Implementation Plan



*Texas Center for Quality
and Patient Safety*

- AHRQ and DoD have teamed with American Institutes for Research to build national training and support network
- Five resource centers: Duke Medical Center (NC), Carillion Clinic (VA), U-Minn-Fairview Medical Center (MN), Creighton University Medical Center (NE) and U-Wash-Seattle (WA)



Simulation and Teamwork: A Powerful Combination

TeamSTEPPS®: Training Guide

- Provides instruction using simulation-based training when teaching TeamSTEPPS
- Guide integrates critical teamwork, interpersonal and communication skills into simulation-based training.
- Intended as “train-the-trainer” program; key personnel train other local health care teams.

www.ahrq.gov/teamstepptools/simulation/index.html

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Current AHRQ Grants: Harvard School of Public Health

Project Title	Portfolio/Program
Factors Associated with Effective Implementation of a Surgical Safety Checklist	Patient Safety
Comparative Effectiveness and Safety of Depression Treatments during Pregnancy	Comparative Effectiveness
Massachusetts Quality E-Measure Validation Study	Health IT
Policy and Demographic Predictors of Medicaid Take-Up Among Non-Elderly Adults	Value

<http://gold.ahrq.gov>

Partnership for Patients

- Public-private partnership of hospitals, employers, physicians, nurses, patient advocates, state and Federal government
- Goals are to keep patients from getting injured or sicker, and help patients health without complications





Partnership for Patients

■ Nine areas of focus:

- Adverse Drug Events
- Catheter-Associated Urinary Tract Infections
- Central Line-Associated Bloodstream Infections
- Injuries from Falls and Immobility
- Obstetrical Adverse Events
- Pressure Ulcers
- Surgical Site Infections
- Venous Thromboembolism
- Ventilator-Associated Pneumonia
- Other Hospital-Acquired Conditions



Patient-Centered Outcomes Research Institute

- Called for in Affordable Care Act; independent, nonprofit entity with public and private funding
- AHRQ and NIH Directors serve on the Institute's board and methodology committee
- Sets priorities and coordinates with existing agencies that support patient-centered outcomes research
- Prohibits findings to be construed as mandates on practice guidelines or coverage decisions and contains patient safeguards
- Provides funding for AHRQ to disseminate research findings and to train researchers and build capacity for research

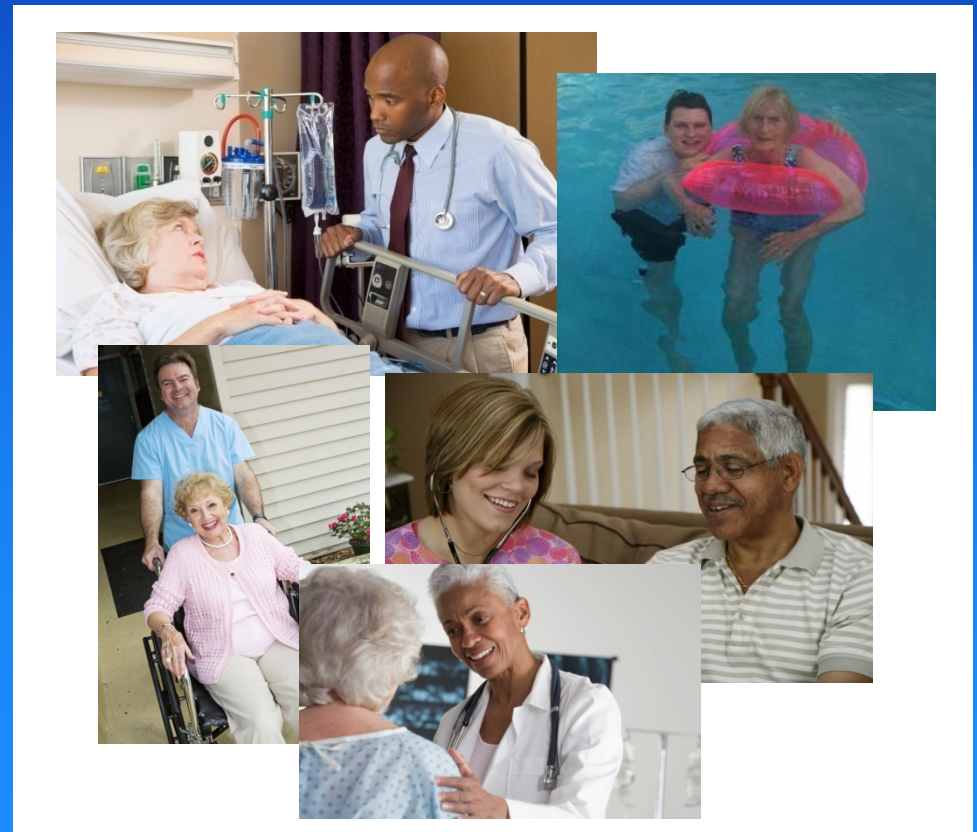
www.pcori.org

Getting From Point A to Point B

When evidence-based patient safety becomes the standard of care in all settings ...



... a patient-centric health care system can flourish



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