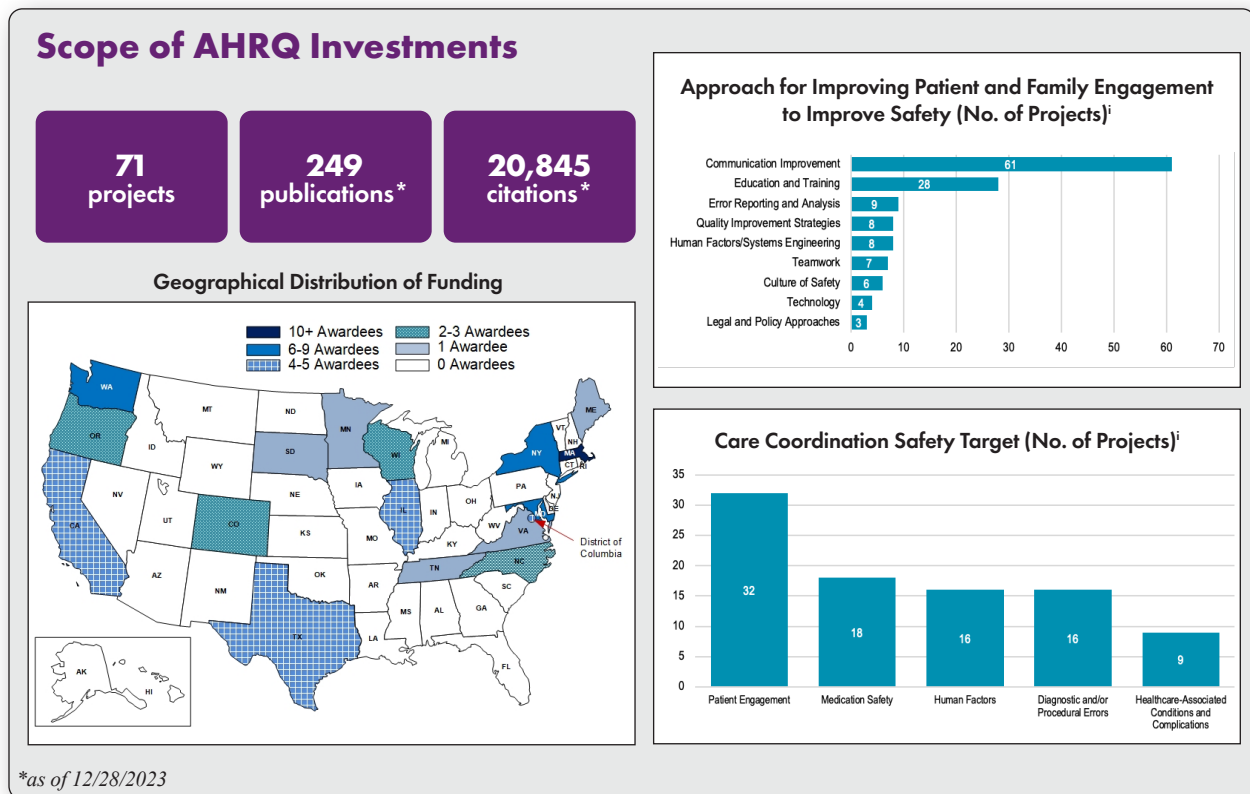# AHRQ-Funded Patient Safety Project Highlights

Improving Patient Safety by Engaging Patients and Families

Overview

Research has shown that involving patients, as well as their families and caregivers, in the planning, delivery, and evaluation of their healthcare can improve safety and quality. Since 2000, AHRQ has supported 71 patient safety projects related to increasing patient and family engagement. This publication summarizes AHRQ's investments in this promising pathway toward better care, including examples of project findings and products, collective outputs, and impacts of this work. Details about each AHRQ-supported project are available in the Appendix.

Scope of AHRQ Investments

71 projects

249 publications*

20,845 citations*

Geographical Distribution of Funding

Legend:
- 10+ Awardees
- 6-9 Awardees
- 4-5 Awardees
- 2-3 Awardees
- 1 Awardee
- 0 Awardees

Approach for Improving Patient and Family Engagement to Improve Safety (No. of Projects)[i]

Approach	No. of Projects
Communication Improvement	61
Education and Training	28
Error Reporting and Analysis	9
Quality Improvement Strategies	8
Human Factors/Systems Engineering	8
Teamwork	7
Culture of Safety	6
Technology	4
Legal and Policy Approaches	3

Care Coordination Safety Target (No. of Projects)[i]

Target	No. of Projects
Patient Engagement	32
Medication Safety	18
Human Factors	16
Diagnostic and/or Procedural Errors	16
Healthcare-Associated Conditions and Complications	9

as of 12/28/2023

These 71 projects resulted in at least 249 publications, which have been cited nearly 21,000 times in other articles. The largest number of projects was awarded to institutions based in Massachusetts, followed by Maryland, Washington, and New York. Sixty-one (86%) projects aimed to improve care coordination by improving communication. The care coordination-related safety target of 32 (45%) projects was patient and family engagement generally, followed by 18 (25%) projects focused on medication safety.

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[i] The total number of projects is greater than 71 as some projects used more than one approach to improving safety or had more than one safety target.

Agency for Healthcare Research and Quality

PATIENT SAFETY

Examples of Project Findings

This collection of AHRQ-funded work includes projects that aim to create environments in which patients, families, and healthcare professionals work together to improve the quality and safety of care. Patient and family engagement efforts include involving patients and families in medical error reporting, using shared decision-making methods and resources, and training providers, as well as other activities designed to report and ultimately prevent medical errors and near-misses. These patient and family engagement research projects improved patient safety by generating new knowledge; developing, implementing, and evaluating tools, training modules, and other interventions; and disseminating research findings. Examples of these projects and summaries of their results are provided below and organized by research themes identified in this collection of work.

Increasing Patient and Family Reporting

To improve patient safety in hospital settings, AHRQ funded several projects focused on the role of patients and families in reporting and preventing medical errors and near-misses. For example:

- According to the researcher of an implementation study, a Patient Advocacy Reporting System (PARS) promoted professional self-governance, fostered a fair and just culture of patient safety, and reduced avoidable lawsuit risks by addressing "high-risk" physicians identified through analysis of unsolicited patient complaints.

- An AHRQ Patient Safety Learning Lab[ii] (PSLL) developed a MySafeCare application with the goal of engaging patients, families, and professional care team members in the reliable identification, assessment, and reduction of patient safety threats in real time.

- A program including the "We Want to Know" campaign aimed to detect, address, and prevent patient-perceived breakdowns in care and encouraged patients and families to report their care experiences.

- A project demonstrated that hospitalized patients can provide useful information about adverse events and quality of care that is not captured through typical research methods (e.g., chart review) or administrative tools (e.g., hospital incident reports).

Improving Shared Decision Making

AHRQ funded projects exploring, developing, and implementing strategies to improve shared decision making (SDM) among patients and their healthcare providers. For example:

- One project interviewed emergency department (ED) providers and developed a prioritized research agenda for the development and testing of ED SDM interventions that considers what is most important to patients, caregivers, and clinicians.

- A contractor developed two interactive educational modules—one for healthcare leaders and one for healthcare providers—to make informed consent an informed choice in the hospital setting using a quality improvement approach.

- One project found that SDM has the potential to significantly reduce liabilities and hidden costs from informed consent deficiencies in surgical settings; it also disseminated an SDM train-the-trainer toolkit via MedEdPORTAL® that integrates practical solutions to implement SDM and lessons learned.

- Another project filled medical literature gaps regarding how SDM relates to health disparities by finding that service use related to social determinants of health is mediated by patients' medical decision-making behaviors, including patient activation, depression, and health literacy.

[ii] PSLLs take a systems engineering approach that allows researchers and healthcare practitioners to evaluate clinical processes and enhance work and information flow to improve patient safety. AHRQ's website has more information on PSLLs.

Evidence-Based Training and Educational Resources for Healthcare Professionals

Several AHRQ-funded projects aimed to enhance the culture of patient and family engagement by helping institutions train and educate healthcare professionals. These resources include:

- A Toolkit for Engaging Patients To Improve Diagnostic Safety to enhance communication and information sharing within the patient-provider encounter to improve diagnostic safety within office-based practices.

- A Toolkit to Engage High-Risk Patients in Safe Transitions Across Ambulatory Settings that includes patient- and care partner-centered acute care discharge tools to help staff actively engage patients and their care partners to prepare for new appointments.

- A Guide to Improving Patient Safety in Primary Care Settings by Engaging Patients and Families for primary care practices and providers that includes four interventions and instructional materials for adoption and measurement of success.

- A Guide to Patient and Family Engagement in Hospital Quality and Safety that includes four strategies to help hospitals work as partners with patients and families to improve quality and safety.

Impacts

AHRQ-funded patient and family engagement projects have aimed to equip healthcare organizations and institutions with the tools and knowledge needed to effectively incorporate patient and family engagement approaches into their cultures of safety. The 71 projects in this collection of work have achieved their aims with varied degrees of success but have collectively produced:

- A greater knowledge base (e.g., publications) about the role of patients in identifying potential errors and adverse events across various healthcare settings.

- Training tools, guides, and modules to help healthcare leaders and providers include patients and families in their medical decisions.

- User-friendly tools and resources to help patients and families better understand clinical risks, engage in provider decision making, and prevent and report diagnostic or medication-related errors.

In addition, the products and resources developed by this body of AHRQ-funded work have collectively helped to:

- Improve patient-provider communication (e.g., shared decision making, patient portals).

- Increase patient and family engagement in decision making (e.g., interactive educational modules, train-the-trainer toolkits).

- Improve health outcomes by increasing patient safety, self-efficacy, and adherence to care recommendations (e.g., digital medication managers, peer-led self-management programs).

- Reduce the rate of harms and errors within hospital settings (e.g., patient-focused recommendations).

To learn more about each project included in the synthesis, refer to the Appendix that follows.

Appendix

Patient and Family Engagement Project Summary

This appendix briefly describes AHRQ-funded projects related to patient and family engagement. Projects are organized first by state, then by original date of funding. If applicable, the number of products (e.g., guides, modules, toolkits) each project developed is indicated in parentheses within the right-most column, after the number of publications. The grants listed below are linked to the NIH RePORTER, an electronic tool that allows users to search a repository of federally funded research projects and access publications resulting from such funding.

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
CALIFORNIA		
Michael Seid **Children's Hospital Research Center** San Diego, California	R03 HS11751 [Grant] **Managing the Health Needs of Vulnerable Children** 2001-2003 $96,251 Final Report	**Purpose:** To gain insight into the experiences of vulnerable children's families: how they define their children's health needs, decisions regarding where and when to seek care, and their experiences with care received. **Key Findings/Impact:** Parents defined a healthy child as active, happy, and energetic, with a good appetite. They emphasized good nutrition, exercise, and culturally mediated practice such as regulating heat and cold as ways to prevent illness. Parents tended to seek medical care as a last resort after trying to treat symptoms themselves. They received much of their information from family and friends and used complementary or alternative medicine and home remedies fairly frequently. There was much frustration with wait times and access. Parents want doctors to explain clearly, be thorough, listen, and be a partner. Several parents shared stories of doctors who went above and beyond in their duties. **Publications:** 0
Michael Seid **Children's Hospital Research Center** San Diego, California	R03 HS13058 [Grant] **Barriers to Care for Chronically Ill Vulnerable Children** 2002-2004 $99,250	**Purpose:** To develop and test a questionnaire in both English and Spanish that identifies and measures modifiable barriers to care that affect the link between vulnerability factors and healthcare structures, processes, and outcomes for children with special healthcare needs (CSHCN). **Key Findings/Impact:** A final report was not available; however, this project resulted in a 39-item Barriers to Care Questionnaire (BCQ). Barriers to care are conceptualized as a multidimensional construct consisting of pragmatics, health knowledge and beliefs, expectations about care, skills, and marginalization. It was found that the BCQ total scale and subscales correlated in the expected direction with validated measures of primary care characteristics and health-related quality of life. BCQ scores were higher (fewer barriers) for children with a primary care physician and for those who reported no problems getting care or who had forgone care. The BCQ is a feasible, reliable, and valid instrument for measuring barriers to care for CSHCN. Its use may inform efforts to support patient choice, enhance provider accountability, and spur quality improvement. **Publications:** 2

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
John Heritage **University of California, Los Angeles** Los Angeles, California	R01 HS13343 [Grant] **Addressing Patients' Multiple Concerns in Primary Care** 2002-2005 $303,627 Final Report	**Purpose:** To investigate the extent of patients' unarticulated complaints and physicians' management of multiple complaints in the acute primary care context. **Key Findings/Impact:** Researchers sought to determine whether a simple communication intervention (asking patients about additional concerns in one of two ways: "Is there ANY/SOMEthing else you want to address in the visit today?") helped patients articulate multiple complaints and allowed them to be addressed more fully and effectively. Findings showed that, relative to controls, the SOME condition nearly halved the odds of unmet concerns (OR=0.57, p=.036). The ANY condition had no impact on unmet concerns relative to controls. Neither arm of the intervention influenced visit length. Although the SOME condition generated many additional concerns, it was not associated with the expression of concerns not listed in previsit surveys. Neither arm of the intervention influenced visit length or patient satisfaction. Although the SOME condition generated many additional concerns, it was not associated with the expression of concerns not listed in the previsit survey. **Publications:** 3
Anthony Jerant **University of California, Berkeley** Berkeley, California	R01 HS13603 [Grant] **A Randomized Trial of Home Self-Efficacy Enhancement** 2003-2008 $2,270,621 Final Report	**Purpose:** To determine whether Homing in on Health (HIOH), a variant of the peer-led Chronic Disease Self-Management Program (CDSMP), improves patient outcomes at 1 year. **Key Findings/Impact:** In-home (but not telephone) HIOH led to significantly higher self-efficacy at 6 weeks (effect size = 0.27, 95% CI = 0.10, 0.43), an effect attenuating by 1 year. Of other 1-year outcomes, only EuroQol Visual Analog Scale (EQ VAS) scores were significantly improved (effect size = 0.40, 95% CI = 0.14, 0.66). HIOH enhanced self-efficacy primarily in participants with: (1) more depressive symptoms; (2) lower perceived control; and (3) higher levels of neuroticism or lower levels of conscientiousness, agreeableness, and extraversion. Additional studies are required to explore long-term effects of the CDSMP. **Publications:** 8
RAND Corporation Santa Monica, California	75Q80121D00020/ 75Q80123F32003 [Contract] **Implementation and Testing of Diagnostic Safety Resources** 2023-2027 $6,724,832	**Purpose:** To broadly implement and test three resources developed under a previous contract also included in this summary. The three resources are: 1. Calibrate Dx: A Resource To Improve Diagnostic Decisions. 2. Measure Dx: A Resource To Identify, Analyze, and Learn From Diagnostic Safety Events. 3. Toolkit for Engaging Patients To Improve Diagnostic Safety. **Key Findings/Impact:** This project is ongoing until September 24, 2027, and no final report, products, or publications are available yet. **Publications:** 0
COLORADO		
Joann Congdon **University of Colorado, Denver** Denver, Colorado	R18 HS10926 [Grant] **Quality Factors in Nursing Home Choices** 2000-2004 $732,477 Final Report	**Purpose:** To develop and evaluate information strategies to assist patient use of quality factors in making nursing home (NH) choices. **Key Findings/Impact:** A three-part Nursing Home Choice Tool was developed: (1) First Steps in Choosing a NH, (2) NH Quality Report Card, and (3) NH Tour Guide. Seven quality domains identified in qualitative interviews were incorporated: environment, food and dining, staff-resident-family relationships, quality care, safety, family involvement, and administrative issues. The instrument was evaluated for content and format by 9 focus groups with 50 patients and healthcare providers. Parts I and III were rated positively but Part II (report card) needs refinement. Patients valued quality of life factors in NHs; these findings were incongruent with the science-based quality indicators in the public domain. **Publications:** 1 (1)

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Angela Brega **University of Colorado, Denver** Denver, Colorado	HHSP233201500025I-HHSP23337002T [Contract] **Making Patient Navigation and Understanding Easier: Developing Quality Improvement Measures** 2015-2017 $297,123	**Purpose:** To identify and establish face validity of a set of meaningful quality improvement measures of organizational practices that make it easier for people to navigate health systems and to understand and use health information. **Key Findings/Impact:** This project resulted in the identification and preliminary evaluation of 233 unique quality improvement measures designed to help healthcare organizations assess health literacy-related features of their environments and monitor the impact of quality improvement efforts aimed at increasing support for patients with limited health literacy. A Delphi Panel reviewed 70 of the measures, 34 of which were perceived to have strong usefulness and face validity. These measures, which make up the Recommended Organizational Health Literacy Measurement Set (ROHL-MS), address all domains of OHL. A large percentage (38%) addresses organizational performance related to communication, with 26% focusing on organizational structure, policy, and leadership. A smaller percentage of measures addresses the remaining two OHL domains (Ease of Navigation and Patient Engagement & Self-Management Support [12% each]). An additional 12% of measures included in the ROHL-MS addresses more than one OHL domain. **Publications:** 2
DISTRICT OF COLUMBIA		
Naj Wikoff **Society for the Arts in Healthcare** Washington, DC	R13 HS10953 [Grant] **Diabetes and the Arts and Humanities: Planning Conference** 2001-2002 $49,900	**Purpose:** To support a planning conference at the Veterans Affairs Education Center in Durham, North Carolina, to develop model strategies and protocols for using and determining effectiveness of arts and humanities activities in conjunction with the diagnosis and treatment of people living with type 2, adult-onset diabetes. **Key Findings/Impact:** A final report was not available, and publications could not be found. According to an AHRQ research announcement, this grant provided support for a January 2002 conference to identify ways to use arts and humanities activities in the education and treatment of patients at high risk for developing or living with type 2 diabetes. Attendees included professionals in education and treatment of diabetes, cultural competency, the arts, arts programs in healthcare settings, research and evaluation techniques, hospital planning, government, foundations, and corporate entities, as well as patients and caregivers of people living with diabetes. Participants identified questions, arts projects, protocols, and evaluation procedures that could be of value in the education and treatment of patients with or at risk for type 2 diabetes. **Publications:** 0
Lauren Leroy **Grantmakers in Health** Washington, DC	R13 HS13672 [Grant] **Making Quality Health Care Decisions** 2004-2005 $34,500 Final Report	**Purpose:** To bring together representatives from foundations, government, research, and advocacy to share experiences, expertise, and perspectives while learning about specific strategies to inform patients about healthcare quality. **Key Findings/Impact:** During the issue dialogue, Grantmakers in Health and experts from the field participated in an open exchange of ideas and perspectives on how quality is assessed and how the resulting information is disseminated to the public, as well as how patients use information in the decision-making process. The meeting also explored strategies for funders to effectively support patients and shared lessons from foundation-supported activities already underway. The resulting Issue Brief focused on how patients can use information on healthcare quality in making important decisions. The brief noted that patient information about healthcare must be available, understandable, and relevant. It discussed a variety of mechanisms for providing information to patients, including the use of report cards, decision support tools such as decision aids, and online resources. Meeting participants also considered the role of private funders in developing and disseminating decision-making tools; ways to translate technical data into understandable, useful formats; and strategies for working with the public sector. **Publications:** 0 (2)

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)

Pam Dardess
 	
American Institutes for Research
 	
Washington, DC
	290-06-00019-7
	
	[Contract]
	
	Guide to Patient and Family Engagement in Health Care Quality and Safety in the Hospital Setting: Development, Implementation, and Evaluation
	
	2009-2012
	
	$1,900,000
		Purpose: To develop a guide that helps patients, families, and health professionals work together as partners to promote quality and safety improvements in care and promote stronger engagement.
		
		Key Findings/Impact: The contractor conducted an environmental scan to assess the current literature, tools, and resources available to engage patients and families in their care in the hospital setting. This scan was the foundation for the Guide to Patient and Family Engagement in Hospital Quality and Safety, a tested, evidence-based resource that:
		
		• Consists of four specific strategies that represent critical opportunities for hospitals to improve patient and family engagement:
		    o Strategy 1: Working With Patient and Families as Advisors
		    o Strategy 2: Communicating To Improve Quality
		    o Strategy 3: Nurse Bedside Shift Report
		    o Strategy 4: IDEAL Discharge Planning
		
		• Contains tools, materials, and training for each of the four strategies for use by patients, families, hospital clinicians and staff, hospital leaders, and those who will support the involvement of patients and family members in the safety and quality of the patient's care during the hospital stay.
		• Includes information to help hospitals support implementation of the specific strategies through broader organizational changes.
		• Describes critical opportunities for hospitals to engage patients and families and to create partnerships between patients, families, and hospitals around the same goals.
		• Addresses real-world challenges; the Guide was developed, implemented, and evaluated with the input of patients, family members, clinicians, hospital staff, and hospital leaders.
		• Helps hospitals engage patients and families, which in turn can help improve quality and safety, respond to healthcare reform and accreditation standards, improve CAHPS® Hospital Survey scores, improve financial performance, and enhance market share and competitiveness.
		• Facilitates implementation and evaluation of each strategy with detailed guidance and customizable tools.
		
		Publications: 0 (1)

Pam Dardess **American Institutes for Research** Washington, DC	290-10-00018I-1 [Contract] **Guide to Patient and Family Engagement in Health Care Quality and Safety in the Hospital Setting: Development, Implementation, and Evaluation** 2012-2013 $1,900,000	**Purpose:** To develop a guide that helps patients, families, and health professionals work together as partners to promote quality and safety improvements in care and promote stronger engagement. **Key Findings/Impact:** Refer to Contract 290-06-00019-7 in this table for the details about the guide. **Publications:** 0 (1)

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
ILLINOIS		
Martin Hatlie **Consumers Advancing Patient Safety** Chicago, Illinois	R13 HS17605 [Grant] **Workshop on Consumer Engagement in Selected Patient Safety Topics** 2008 $46,000 Final Report	**Purpose:** To inform six topics that depend on consumer engagement to be optimally successful: 1. Patient reporting of medical errors and near misses; 2. Patient and family engagement in healthcare organization policymaking and operation via participation in safety, quality, or policymaking activities at the organizational level; 3. Active patient and family engagement in ensuring the safety of their own care or that of their loved ones; 4. Effective response to error and engaging patients in organizational learning from such events; 5. Prioritizing of error prevention initiatives in Chicago; and 6. Improvement of communication between patients and clinicians. **Key Findings/Impact:** Across the six topics, two recurring platforms for change emerged. First, healthcare organizations in Chicago "open the doors" and integrate consumers into their existing safety and quality committees, processes, and other infrastructure. Second, healthcare organizations in Chicago engage in collaborative projects to implement change initiatives and measure progress. A notable contribution made by workshop participants of African ancestry was their raising the theme of racial discrimination in healthcare and its impact on the safety of minority patients. Products included six topical action plans; a Challenge to Chicago; scholarly articles, public communications; and videotaped interviews. **Publications:** 0 (1)
David Schulke **Health Research and Educational Trust (HRET)** Chicago, Illinois	HHSA290201000025I [Contract] **Comprehensive Patient Safety and Medical Liability Communication and Resolution Program Educational Toolkit** 2013-2015 $3,085,255	**Purpose:** To test and apply the Communication and Resolution Program (CANDOR) educational toolkit in 14 hospitals across three U.S. health systems. **Key Findings/Impact:** The CANDOR Toolkit contains eight modules, each containing PowerPoint slides with facilitator notes. Some modules also contain tools, resources, or videos. The key lessons for hospitals implementing the CANDOR process in their institutions include how to: • Engage patients and families in disclosure communication following adverse events. • Implement a Care for the Caregiver program for providers involved in adverse events. • Investigate and analyze an adverse event to learn from it and prevent future adverse events. • Review and revise the organization's current processes to align with the CANDOR process. • Establish a resolution process for the organization. The CANDOR toolkit has been adopted by many organizations, including those in the private sector (e.g., RL Datix) and university hospital systems (e.g., University of Illinois Hospital and Health Sciences System. Although the pilot hospitals and systems recruited as participants in this contract work (i.e., Christiana Care (Newark, Delaware), Dignity Health (Sacramento, California), and MedStar Health (Washington, DC, and Maryland) had considerable work to finish before their CANDOR implementation was complete, they made substantial progress in implementing the CANDOR processes identified as fundamental by subject matter experts. Most of this progress was achieved during the 16 months in which the CANDOR project training was underway at these pilot hospitals and health systems. The pilot hospitals and systems were demonstrating continuous learning, expansion, and improvement of their patient safety culture and CANDOR operations. **Publications:** 0

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Barbara Edson **Health Research and Educational Trust (HRET)** Chicago, Illinois	HHSP233201500016I [Contract] **Toolkit To Engage High-Risk Patients in Safe Transitions Across Ambulatory Settings** 2016-2017 $670,484	**Purpose:** To adapt select evidence-based patient and care partner-centered acute care discharge tools and create a toolkit to help staff actively engage patients and their care partners to prepare for new appointments. **Key Findings/Impact:** Few staff used the support materials in the original pilot-tested toolkit. They noted the need for the toolkit but found it long and hard to implement due to necessary staffing and time. They were more likely to implement the toolkit if it fit into the current workflow. Many suggested integrating it with after-visit summaries to reduce burden, streamline workflow, and decrease redundancy. In interviews, staff noted the importance of teamwork, communication, and mutual support. Staff encouraged other facilities to adapt the toolkit to fit their needs. The contractor revised the tools accordingly. They made key changes to facilitate adaptation and use in existing or new ambulatory care workflows. These findings frame the opportunities and challenges in engaging patients and their care partners as active participants in preventing harm during transitions of care. Further study is needed to evaluate the impact of the tools and resources on quality and patient safety outcomes and patient and clinician experiences. **Publications:** 0
Kevin O'Leary **Northwestern University at Chicago** Chicago, Illinois	R18 HS25649 [Grant] **Redesigning Systems To Improve Quality for Hospitalized Patients** 2017-2022 $1,974,465 Final Report	**Purpose:** To implement a set of evidence-based complementary interventions across a range of clinical microsystems, identify factors and strategies associated with successful implementation, and evaluate the impact on quality. **Key Findings/Impact:** This study implemented five complementary interventions to redesign care for patients hospitalized with medical conditions: (1) Unit-based Physician Teams, (2) Unit Nurse-Physician Co-Leadership, (3) Enhanced Interdisciplinary Rounds, (4) Unit-Level Performance Reports, and (5) Patient Engagement Activities. Investigators found an association between interventions and higher ratings of teamwork climate and collaboration but no association with adverse events, length of stay, 30-day readmissions, or patient experience. This project produced the **RE**designing **S**yst**E**ms to Improve **T**eamwork and Quality for Hospitalized Patients: RESET Project Implementation Guide, which helps hospital staff redesign their systems to optimize care for hospitalized patients. The guide is available on the AHRQ website. **Publications:** 4 (1)
Jonah Stulberg **Northwestern University** Evanston, Illinois	R18 HS27331 [Grant] **Preventing Opioid Misuse Through Safe Opioid Use Agreements Between Patients and Surgical Providers (PROMISE ME)** 2020-2024 $448,522	**Purpose:** To test the use of 23 contractual agreements to improve safe opioid use and prevent misuse and opioid-related harm. **Key Findings/Impact:** This project ended March 31, 2024, and a final report is not available yet. **Publications:** 2

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
MAINE		
Nananda Col **Maine Medical Center** Portland, Maine	R01 HS13329 [Grant] **Incorporating Temporary Health States: Into Decision Support** 2002-2010 $3,004,433 Final Report	**Purpose:** To improve menopausal counseling and help menopausal women more actively participate in the decision-making process. **Key Findings/Impact:** According to the final report, the project advanced the goal of measuring the effectiveness of web-based decision-making tools for treatment of menopausal symptoms. The researchers found that decision aids increased patient involvement and were more likely to lead to informed values-based decisions; however, the size of the effect varied across studies. A study of the decision aids reduced the use of discretionary surgery without apparent adverse effects on health outcomes or satisfaction. In addition, researchers tested two versions of the decision aids (gist version vs. full version), finding that nearly all the women preferred the full version when it came to making decisions, although the gist version was often cited as a good basic overview of menopause. **Publications:** 12
MARYLAND		
Centers for Medicare & Medicaid Services Baltimore, Maryland	02-308R-02 [Inter Agency Agreement] **Assess Patient Hospital Experience** 2002-2002 $500,000	**Purpose:** Unknown. **Key Findings/Impact:** A final report was not available, and publications could not be found. **Publications:** 0
Hanan J. Aboumatar **Johns Hopkins University** Baltimore, Maryland	R13 HS21921 [Grant] **Identification and Dissemination of Best Practices for Patient-Centered Care** 2012-2013 $49,728 Final Report	**Purpose:** To identify and disseminate healthcare innovations and promising practices for making hospital care patient centered. **Key Findings/Impact:** Survey responses from 138 informants and 57 conference presentations revealed that high-performing hospitals use multiple concurrent strategies and similar interventions to achieve improvement. Conference attendees, who provided highly positive ratings for the conference, stated the conference helped inspire them and offered practical ideas they intended to apply at their own organizations. It also helped to surface and disseminate evidence-based practices to improve the patients' experiences of care within the hospital and introduced a new approach to learning about successful improvement strategies in this area. This approach centers on use of objective criteria for best practice identification and disseminating those via peer learning methods. Learning from this conference was also widely shared with a broad national and international audience through the widespread circulation of electronic conference proceedings, conference presentations, and peer-reviewed publications. **Publications:** 2

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Kelly Smith **MedStar Health Research Institute** Hyattsville, Maryland	HHSP233201500022I/ HHSP23337002T [Contract] **Guide to Improving Safety in Primary Care Settings by Engaging Patients and Families** 2015-2018 $1,964,408	**Purpose:** To develop a guide for primary care practices to use to engage patients and families in their care to improve patient safety. **Key Findings/Impact:** This contract generated a guide to help primary care practices, primary care providers, and patients increase patient and family engagement (PFE) in care. This project created many resources, including: • An environmental scan report describing approaches to engage patients and families in primary care settings. • Case studies on exemplar practices that have increased PFE in primary care and affected patient safety. • Four interventions and accompanying instructional materials for primary care practices to adopt aimed at engaging patients and families to improve patient safety. • A comprehensive guide of interventions, instructional materials, and guidance for adoption and measurement of success. The final interventions were "Be Prepared To Be Engaged," "Create a Safe Medicine List Together," "Teach-Back," and "Warm Handoff Plus." The guide dissemination efforts reached more than 18,000 people and resulted in more than 60,000 page views or downloads during the study. **Publications:** 0 (2)
Alicia Arbaje **Johns Hopkins University** Baltimore, Maryland	R01 HS26599 [Grant] **Making Health Care Safer for Older Adults Receiving Skilled Home Health Care Services After Hospital Discharge** 2019-2024 $1,954,386	**Purpose:** To develop tools to allow skilled home healthcare agencies to identify and act on threats to older adults' safety in real time to prevent readmissions. **Key Findings/Impact:** This project is ongoing until May 31, 2024, and a final report is not available yet. **Publications:** 2
Kristin Miller (current); Christine Goeschel (former) **MedStar Research Institute** Hyattsville, Maryland	HHSP233201500022I/7 5P00119F37006 [Contract] **P26: Capacity Building Related to Diagnostic Safety** 2019-2024 $3,729,010	**Purpose:** To support the recommendation of "Providing dedicated funding for research on the diagnostic process and diagnostic errors." **Key Findings/Impact:** This ongoing project produced a resource to engage patients and families in the diagnostic process. The Toolkit for Engaging Patients To Improve Diagnostic Safety contains two strategies: Be the Expert on You and 60 Seconds To Improve Diagnostic Safety. When paired together, these strategies enhance communication and information sharing within the patient-provider encounter to improve diagnostic safety. Each strategy contains practical materials to support adoption of the strategy within office-based practices. **Publications:** 1
Brandwyn Lau **Johns Hopkins University** Baltimore, Maryland	R18 HS27415 [Grant] **Disseminating a Patient-Centered Venous Thromboembolism Prevention Bundle** 2020-2025 $1,969,169	**Purpose:** To scale a venous thromboembolism (VTE) intervention that empowers patients to make informed decisions about their VTE preventive care and improve adherence to VTE prophylaxis medication regimens in hospitalized patients in heterogeneous environments. **Key Findings/Impact:** This project is ongoing until February 28, 2025, and a final report is not available yet. **Publications:** 3

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Kendal Hall **Abt Associates** Rockville, Maryland	75Q80120D00010 [Contract] **TeamSTEPPS Curriculum Updates** 2021-2022 $699,144	**Purpose:** To update the different versions of AHRQ's existing online TeamSTEPPS curriculum and create a singular comprehensive curriculum aligned with current medical standards and practices in healthcare delivery that depend on teamwork. **Key Findings/Impact:** This contract resulted in an updated and integrated TeamSTEPPS curriculum. The enhanced curriculum puts patients at the center of communication and actively solicits participation in their care. **Publications:** 1 (3)
Kristin Miller, Traber Giardina, Kelly Smith **MedStar Health Research Institute** Hyattsville, Maryland	R18 HS29356 [Grant] **The Patient-Partnered Diagnostic Center of Excellence** 2022-2026 $1,988,912	**Purpose:** To examine diagnostic safety using a Safety I and II lens from the patient's experience of the diagnostic journey, and partner with minority and equity-seeking communities to drive meaningful solutions with broad application for reaching historically marginalized patients. **Key Findings/Impact:** This project is ongoing until September 29, 2026, and no publications are available yet. Its findings aim to inform other Diagnostic Centers of Excellence and patient-centered outcomes research. **Publications:** 0
Chatham Communications JV, LLC Bethesda, Maryland	75Q80123P00008 [Contract] **TeamSTEPPS Implementation and Assessment** 2023-2025 $977,893	**Purpose:** To Implement TeamSTEPPS training and conduct testing across various healthcare organizations and institutions in the United States. **Key Findings/Impact:** This project is ongoing until March 13, 2025, and no final report, products, or publications are available yet. **Publications:** 0
MASSACHUSETTS		
Jay Callahan **National Patient Safety Foundation (NPSF)** Boston, Massachusetts	R13 HS10955 [Grant] **Conference on Communication and Patient Safety** 2001 $49,250	**Purpose:** To convene the third national "Annenberg Conference on Patient Safety," which focused on the role of research in communication for the purpose of reducing medical error and improving patient safety. **Key Findings/Impact:** According to a brief report published in *Journal for Healthcare Quality*, more than 600 healthcare professionals attended the conference, which took place May 16-18, 2001, in St. Paul, Minnesota. "Let's Talk Communicating Risk and Safety in Health Care" explored ways improved communication skills can reduce healthcare errors, enhance patient safety, and provide a more effective infrastructure for interactions among healthcare providers and patients. **Publications:** 1
William Hendee **National Patient Safety Foundation (NPSF)** Boston, Massachusetts	U18 HS12043 [Grant] **Improved Patient Safety Through Web-Based Education** 2001-2004 $782,588 Final Report	**Purpose:** To develop, evaluate, and disseminate web-based, population-specific education modules on patient safety under the direction of the NPSF. **Key Findings/Impact:** Healthcare professionals developed education modules on patient safety to inform physicians, nurses, patients, and families about specific ways to make healthcare safer for patients in all healthcare settings and in the home. Specifically, the modules were developed for the following audiences: physicians (12 units); nurses (13 units); patients and families (8 units); and patients and families anticipating anesthesia (7 units); and the information center (4 units). **Publications:** 3

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Saul Weingart **Dana-Farber Cancer Institute** Boston, Massachusetts	K08 HS11644 [Grant] **Partnering with Patients to Find Adverse Events** 2001-2007 $588,214 Final Report	**Purpose:** To understand the role of patients in identifying adverse events (both inpatient and ambulatory settings). **Key Findings/Impact:** Researchers documented the capacity of hospitalized patients to identify adverse events affecting their care and characterize these events. Inpatients were found to report adverse events at a rate of 8.7 percent and near-miss errors at a rate of 5.7 percent. Thirty-nine percent of patients reported service quality incidents, but none were reported in the hospital incident reporting system. This project helped show that hospitalized patients can provide information about adverse events and quality of care that is not captured through usual research methods (such as chart review) or administrative tools (such as hospital incident reports). The researchers also showed that internet portals can enhance patient-physician communication and patient-reported adverse events. **Publications:** 14
Blackford Middleton **Brigham and Women's Hospital** Boston, Massachusetts	R01 HS13326 [Grant] **Shared Online Health Records for Patient Safety and Care** 2002-2007 $1,675,279 Final Report	**Purpose:** To assess the impact on patient care and safety of tools for electronic patient-provider communication and shared online health records. **Key Findings/Impact:** Researchers found that creating shared information resources to support a collaborative care model requires analysis of the business, architectural, and workflow requirements of the patient-controlled clinical portal and the physician-controlled electronic medical record (EMR) system. Concordance between documented and patient-reported medication regimens and reduction in potentially harmful medication discrepancies can be improved with a medication review tool in the personal health record (PHR) linked to the provider's medical record. EMRs and EMR-connected patient portals also offer patient–provider collaboration tools for visit-based care. **Publications:** 8
Melanie Wasserman **Abt Associates** Cambridge, Massachusetts	290-06-00011-9 [Contract] **Improving Patient Safety System Implementation for Limited English Proficiency (LEP) Patients - Patient Safety B1 FY '09** 2009-2012 $499,978	**Purpose:** To develop tools for healthcare professionals to address language barriers that must be overcome to engage patients with limited English proficiency. **Key Findings/Impact:** A final report was not available, but the project team used a comprehensive mixed-methods research approach to develop content and test the new limited English proficiency (LEP) tools. Both tools developed for this contract were field tested. The Guide for Hospitals was field tested in interviews with nine hospital quality and safety leaders. The TeamSTEPPS LEP module was tested in three hospitals that varied in size, geographic location, mission, and level of TeamSTEPPS experience. The project team completed a cross-case report to distill lessons learned across all three sites, which informed revisions to the module. **Publications:** 1 (2)
Suzanne Mitchell **Boston Medical Center** Boston, Massachusetts	K08 HS19771 [Grant] **Shared Decision Making in Diverse, Disadvantaged Populations; Addressing Health Disparities** 2010-2015 $728,795 Final Report	**Purpose:** To develop expertise as an independent investigator in shared decision making (SDM) and healthcare disparities affecting vulnerable populations. **Key Findings/Impact:** This series of research studies and professional development activities resulted in contributions to the medical literature that fills some of the gaps in understanding how shared decision making relates to health disparities. These projects examined how communities viewed medical decision making and experienced chronic disease self-management (e.g., diabetes self-management education among women, advance care planning among individuals living with serious physical disabilities). It was found that service use, such as cardiac catheterization and hospital readmissions, are mediated by patients' medical decision-making behaviors, including patient activation, depression, and health literacy. **Publications:** 6

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Sarah Shoemaker **Abt Associates** Cambridge, Massachusetts	HHSA2902010000311, TO #3 [Contract] **Improving Informed Consent in Hospitals** 2013-2018 $550,000	**Purpose:** To develop interactive educational modules to train healthcare leaders and professionals to make informed consent an informed choice. **Key Findings/Impact:** This contract resulted in the development of two 1.5-hour training modules and a companion guide. AHRQ's Making Informed Consent an Informed Choice: Training for Health Care Leaders addressed improvements that can be made on the hospital level, and its Making Informed Consent an Informed Choice: Training for Health Care Professionals teaches 10 strategies for communicating clearly, presenting choices, and helping individual patients make an informed choice. The contractor created an implementation guide as a companion to the two modules, providing guidance for implementing the training modules with a quality improvement approach. The guide is based on the implementation experiences of four hospitals that participated in a pilot test of the training modules, as well as the experiences of other hospitals implementing quality improvements. **Publications:** 1 (3)
Kathleen Michele Mazor **Meyers Primary Care Institute** Worcester, Massachusetts	R18 HS22757 [Grant] **Detecting, Addressing, and Learning From Patient-Perceived Breakdowns in Care** 2013-2018 $2,481,312 Final Report	**Purpose:** To develop, implement, disseminate, and evaluate a program with a campaign titled "We Want to Know" [WWTK] that builds trust and encourages patients and family members to report on their care experiences, to detect, address, and prevent patient-perceived breakdowns in care. **Key Findings/Impact:** WWTK staff conducted outreach interviews with 5,560 patients and family members. Of these, 1,156 (21%) reported a care breakdown; 741 (64%) had associated harm. Relatively few patients initiated reporting. In the hospital with a dedicated WWTK specialist, 94 incoming reports were received; in the hospitals without a dedicated specialist, 23 reports were received. Patients responded positively to the WWTK program. Most clinicians and leaders supported encouraging patients to voice concerns, but implementation was inconsistent. Several hospitals adapted the program during adoption and implementation. **Publications:** 6
David Bates **Brigham and Women's Hospital** Boston, Massachusetts	P30 HS23535 [Grant] **Making Acute Care More Patient Centered** 2014-2018 $3,967,318 Final Report	**Purpose:** To develop tools to engage patients, families, and professional care team members in reliable identification, assessment, and reduction of patient safety threats in real time using health information technology before they manifest in actual harm. **Key Findings/Impact:** This Patient Safety Learning Lab intervention included three projects that were implemented on 12 inpatient units during the 18-month study period, potentially affecting 12,628 patient admissions. The first project developed the Fall TIPS tool, which decreased fall rates to 3.22/1,000 patient days during the pilot testing period. Patient feedback showed that patients were more likely to believe they needed a fall prevention plan and then follow that plan if they knew their risks of harm from falling, so the investigators integrated the ABCs of harm into both the electronic and paper Fall TIPS toolkit. The second project piloted implementation of a patient safety rounding checklist/clinician dashboard on medical ICUs and medicine, neurology, and oncology units. The tools were refined based on user feedback, to include additional safety icons, graphs for laboratory test results, and hospital resources. The third project pilot tested the MySafeCare dashboard to assess participant engagement, increase awareness and use of the reporting dashboard, and assess willingness to engage with the reporting dashboard. User interviews informed modifications to the MySafeCare application. **Publications:** 15

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Elizabeth Schoenfeld **BayState Medical Center** Springfield, Massachusetts	R03 HS24311 [Grant] **Physician Perspectives Regarding the Use of Shared Decision Making in the Emergency Department** 2015-2017 $91,364 Final Report	**Purpose:** To better understand physician-identified barriers to and facilitators of shared decision making (SDM) in the emergency department. **Key Findings/Impact:** Researchers interviewed 15 practicing emergency physicians regarding their SDM motivations, perceptions, barriers, and facilitators. They described the following barriers that often deterred them from using SDM: time constraints, clinical uncertainty, fear of a bad outcome, certain patient characteristics, lack of followup, and other emotional and logistical stressors. They noted that risk stratification methods, the perception that SDM decreased liability, and their own improving clinical skills facilitated their use of SDM. They also noted that institutional culture could play a role in discouraging or promoting SDM and that patients could encourage SDM by asking about alternatives. This project produced one research agenda, three oral presentations at academic conferences, at least seven peer-reviewed publications, and one survey for follow-on research. **Publications:** 7
Yuri Quintana (formerly Charles Safran) **Beth Israel Deaconess Medical Center** Boston, Massachusetts	R18 HS24869 [Grant] **Leveraging a Social Network of Elders and Families To Improve Medication Safety at Transitions of Care** 2016-2020 $1,498,719 Final Report	**Purpose:** To expand the functionality of the InfoSAGE platform to include a mobile-first/point-of-care medication manager to help elderly people and their families keep an accurate medication list, coordinate the list with prescribing clinicians, track the impact of medications on symptoms, view medication precautions and drug-drug interactions, and become more engaged as partners in their care. **Key Findings/Impact:** The grantee identified facilitators and barriers to the use of a shared online medication list and assessed the usability and e-health literacy needs for platform adoption and usage. The grant showed that it is possible to recruit elders over 75 and their families to use online and mobile technologies for information sharing and care coordination. **Publications:** 7
Sigall Bell **Beth Israel Deaconess Medical Center** Boston, Massachusetts	R01 HS27367 [Grant] **Answering the Call To Engage Patients and Families in the Diagnostic Process: A New Patient-Centered Approach Using Health Information Transparency To Identify Diagnostic Breakdowns in Ambulatory Care** 2019-2022 $993,312	**Purpose:** To develop a new patient-centered framework (PCF) codesigned with patients and families to identify, describe, and analyze patient-reported diagnostic breakdowns (PRDBs); develop and implement a new portal-based tool (OurDX) to engage patients and families in diagnosis based on the PCF using transparent electronic health information; and evaluate OurDX outcomes in three domains (i.e., safety, implementation, and stakeholder experience). **Key Findings/Impact:** According to the final report, researchers determined that partnering with patients and families through OurDX may help clinicians gain a broader perspective of the diagnostic process, including unique information to co-produce diagnostic safety. They presented this work to the Washington Patient Safety Coalition in June 2021 and the Washington State Hospital Association in July 2021. They also submitted a scientific abstract to the annual SIDM meeting describing the diagnostic error experiences of patients and families with limited English-language health literacy and disadvantaged socioeconomic position. In addition, Bell's staff presented a workshop with patients and families on development of OurDx and its application to Spanish-preferring patients at the annual national Society to Improve Diagnosis in Medicine meeting in October 2021. The OurDx project is posted on an OpenNotes website, which raises awareness about the potential for open notes to improve patient engagement in diagnosis. **Publications:** 7

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Gordon Shiff, Thomas Gallagher **Brigham and Women's Hospital** Boston, Massachusetts	R18 HS29344 [Grant] **Achieving Better Cancer Diagnosis (ABCD): Identifying, Supporting, and Learning From Marginalized Patients Who Experience Delayed Cancer Diagnosis** 2022-2026 $1,959,758	**Purpose:** To (1) establish a Diagnostic Center of Excellence that will seek out and transparently address cases and causes of delayed diagnosis of cancer and (2) develop a robust, multifaceted Improving Cancer Diagnosis Communication Toolkit designed for dissemination. **Key Findings/Impact:** This project is ongoing until September 29, 2026, and no publications are available yet. **Publications:** 0
Kathleen Walsh, Christopher Landrigan **Boston Children's Hospital** Boston, Massachusetts	R18 HS29346 [Grant] **Re-Engineering Patient and Family Communication To Improve Diagnostic Safety Resilience** 2022-2026 $1,996,513	**Purpose:** To support robust communication with families of hospitalized children by using a structured communication intervention (PFC I-PASS) in the outpatient setting and testing its impact on diagnostic safety. **Key Findings/Impact:** This project is ongoing until September 29, 2026, and no publications are available yet. However, investigators aim to (1) characterize the diagnostic journey, focusing on successes, errors, and patient/family and clinician communication; (2) adapt PFC I-PASS to create Outpatient PFC I-PASS, a structured communication intervention for patients/families and clinicians in the outpatient setting; (3) evaluate the effectiveness of PFC I- PASS (outpatient and discharge) to improve patients/family and clinician communication and experience, and to reduce errors and harm. The proposed Diagnostic Center of Excellence is composed of two cores: a Methods Core and an Education and Dissemination Core. Cores include expertise in diagnostic safety, Safety I and II, communication, medical education, and health disparities. **Publications:** 0
MINNESOTA		
Patrick O'Connor **HealthPartners Research Foundation** Bloomington, Minnesota	U18 HS11919 [Grant] **Patient-Based Strategy To Reduce Errors in Diabetes Care** 2001-2005 $1,203,753 Final Report	**Purpose:** To assess whether providing medical error information to patients and physicians reduces diabetes medical errors. **Key Findings/Impact:** Numerous interaction effects were observed. Economic evaluation identified some effect of error status on subsequent healthcare utilization. Some conclusions were that customized feedback interventions to patients and physicians failed to reduce errors of omission or commission related to diabetes care. Future researchers should consider providing point-of-care decision support with redesign of office systems and incentives to increase appropriate actions in response to decision support information. **Publications:** 6

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
NEW YORK		
Jennifer Carroll **University of Rochester** Rochester, New York	R03 HS14105 [Grant] **Cultural Competency and Maternal Health in African Women** 2003-2005 $99,998 Final Report	**Purpose:** To identify specific cultural competency techniques that improve the quality of maternal healthcare and birth outcomes through the analysis of the relative contribution of patient, clinician, and institutional-related factors to health disparities in African (specifically Somali) women. **Key Findings/Impact:** While all women were familiar with basic health promotion practices, immunizations, and routine medical examinations, few understood cancer prevention services. Three (9%) women recognized that the purpose of Pap tests was to screen for cervical cancer. Six (18%) women had heard of mammography. Themes indicated the importance of maintaining good hygiene (70%), having an adequate source of safe food and water (59%), having access to a regular source of healthcare (74%), and being able to function well at home (65%). Other themes were that health maintenance for acute survival took precedence over long-term prevention of disease and use of both U.S.-based and traditional techniques to prevent illness. **Publications:** 1
Carol Liebman **Columbia University - New York Morningside** New York, New York	R13 HS14389 [Grant] **Conference on Medical Error Communication/ Dispute Resolution** 2003-2004 $40,000 Final Report	**Purpose:** To convene a diverse group of individuals from various disciplines to share information about disclosure of medical errors and adverse events, use of alternative dispute resolution rather than litigation to resolve medical malpractice claims, and how both disclosure and mediation can improve patient safety. **Key Findings/Impact:** A 1-day conference was held on April 29, 2004, in Philadelphia, Pennsylvania. The conference format mixed traditional plenary sessions with extensive opportunities for questions and discussion and interactive breakout sessions. Participants discussed three areas: (1) communication between patients and their families after a medical error or adverse event; (2) alternative methods, including mediation, to resolve medical malpractice claims; and (3) potential benefits to patient safety from disclosing medical errors and adverse events and from the resolution of a medical malpractice claim through mediation. The participants learned about research and current initiatives in the field, which was new information for many. The differing perspectives and professions of the participants deepened their understanding about the complexity of communication with patients and their families after an adverse event or a medical error. Interest was expressed in developing at a healthcare facility a consult service, which would train staff to become experts in the communication skills needed for an effective disclosure conversation after a medical error/adverse event and make them available to help plan, conduct, and debrief these conversations. Presenters explored the benefits and risks of apology and disclosure after an adverse event or medical error, considered the advantages of offering fair compensation to the patient and family as early as possible, and discussed using mediation as an alternative to litigating medical malpractice claims. **Publications:** 0

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
PI Unknown **The Advertising Council** New York, New York	290-05-0019 [Contract] **Public Service Advertising Campaign** 2005-2011 $7,607,228	**Purpose:** To develop and sustain a new series of public service ads that encourage patients to be more involved in their healthcare and empowered to make shared decisions about their treatment with their clinicians based on the best evidence available. **Key Findings/Impact:** A final report was not available, and publications could not be found. However, the contract resulted in the development and deployment of four campaigns: • Patient Involvement – Consumer & Clinician Campaign • Men's Preventive Health Campaign • Hispanic Health Campaign • Treatment Options Awareness Campaign The ads encouraged patients to visit the AHRQ website or call the AHRQ Publications Clearinghouse. **Publications:** 0
Rita Kukafka **Columbia University, School of Health Sciences** New York, New York	R03 HS16333 [Grant] **Communicating Probabilities Through Interactive Computer Graphics** 2006-2009 $100,000 Final Report	**Purpose:** To develop novel interactive computer graphics to communicate risks and assess their impact on decision making and risk perception. **Key Findings/Impact:** Understanding quantitative information about probabilities is critical for health literacy, but many people cannot understand or manipulate probabilities when they are presented as numbers. In addition, people with poor numeracy have difficulty drawing emotional conclusions about quantitative risk information. Participants who used the interactive graphic to learn about the risk were more willing to take protective action against the risk than participants who viewed noninteractive graphics illustrating the risk. The interactive graphics were rated as very helpful in understanding the risk, especially by participants who performed poorly on a numeracy scale. Interactive graphics may represent a novel way of exploiting computer gaming techniques to explain quantitative risks in health contexts. It is possible and potentially beneficial to tailor graphics for people with different levels of expertise or skills, and designing graphics to support specific goals (i.e., information, education, persuasion, or decision making) is important. Key findings relevant to future design work pertained to emotional impact, stick figures, and interaction. **Publications:** 5
Steven Barnett **University of Rochester** Rochester, New York	K08 HS15700 [Grant] **Deaf People and Healthcare** 2006-2012 $634,959 Final Report	**Purpose:** To assess the healthcare access and quality of deaf people who primarily communicate with American Sign Language (ASL). **Key Findings/Impact:** This grant successfully adapted the Consumer Assessment of Healthcare Providers and Systems (CAHPS®) for use in ASL and piloted that instrument with 99 deaf adult ASL users. The research identified important domains not measured by the source English survey and found a high prevalence of emergency department use reported by participants. Findings from the survey adaptation process and pilot administration of CAHPS-ASL informed future research and healthcare with deaf ASL users and identified potential changes to the source English survey and surveys with other language minority populations. **Publications:** 7

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Tina Nabatchi **Syracuse University** Syracuse, New York	R21 HS23562 [Grant] **Using Public Deliberation To Define Patient Roles in Reducing Diagnostic Error** 2014-2016 $385,581 Final Report	**Purpose:** To deliberately engage healthcare patients in developing informed, practical, patient-focused recommendations for preventing, identifying, and reporting diagnostic error. **Key Findings/Impact:** A patient deliberation group developed 16 Patient-Centered Recommendations for Reducing Diagnostic Error and Improving Diagnostic Quality in five overarching categories, which were well received by other healthcare patients and professionals. In addition to the recommendations, the participants identified obstacles that could reduce the effectiveness of the recommendations, as well as solutions that may mitigate the negative impact of the obstacles. For the recommendations, obstacles, and solutions, see Patient Recommendations To Improve Diagnostic Quality. Results of this work have been published in a report by the Society to Improve Diagnostic Medicine titled *Clearing the Error: Using Public Deliberation To Define Patient Roles as Partners in the Diagnostic Process. Strategic Report.* In addition, the results from this grant not only show the efficacy of deliberation as a tool that can successfully engage patients and the public on complex healthcare issues, but also suggest that deliberation is more meaningful than traditional methods of participation such as education. **Publications:** 3 (3)
NORTH CAROLINA		
Jennifer Uhrig **Research Triangle Institute** Research Triangle Park, North Carolina	R18 HS11008 [Grant] **Helping Elders Include Quality in Health Plan Choice** 2000-2004 $1,090,711 Final Report	**Purpose:** To develop and evaluate Choose With Care—a decision support tool for employers to use to educate and counsel people approaching age 65 about their Medicare health plan options and how to incorporate quality information into their health plan choices. **Key Findings/Impact:** Two products—the first of their kind to integrate information on cost, benefits, and quality for employer-based retiree health plans and Medicare Advantage (MA) plans—were developed and tested in a randomized controlled trial (RCT). The results of the RCT (3 arms, 152 subjects) indicated that older patients who received the intervention materials found the materials easier to use, gained greater knowledge about Medicare from them, were more likely to value comparative quality information, were more likely to select higher quality plans, and were more likely to choose a plan that reflected the dimensions they found most important compared with older patients receiving the control materials. This study builds on past work by incorporating concepts from the patient information processing model, findings from decision-making research, lessons learned from prior research, and results from cognitive and usability testing into the materials development process. **Publications:** 1
Jo Anne Earp **University of North Carolina, Chapel Hill** Chapel Hill, North Carolina	R13 HS15635 [Grant] **Patient Advocacy Summit: Patients at the Center of Care** 2004-2006 $25,500 Final Report	**Purpose:** To provide participants with high-quality, up-to-date, research-based information about patient advocacy from a public health perspective and to allow individuals from a broad range of personal and professional backgrounds who share a commitment to patient advocacy to interact with each other, share ideas and information, and begin to develop partnerships. **Key Findings/Impact:** The conference included 75 attendees and 36 presenters specializing in six different topic areas who presented their work via a professional paper and seminar session. Of the 17 manuscripts submitted for the conference, 13 became chapters in a 600-page patient advocacy textbook with 48 authors. Final products included a patient advocacy conference, a textbook, a national survey, and a graduate-level, distance-learning course offered through the School of Public Health at the University of North Carolina at Chapel Hill. **Publications:** 1

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Anna Beeber **University of North Carolina** Chapel Hill, North Carolina	R01 HS26473 [Grant] **A Safer Assisted Living: Creating a Toolkit for Person and Family Engagement** 2019-2024 $1,491,806	**Purpose:** To explore how to translate and adapt existing patient and family engagement (PFE) work to the assisted living (AL) setting and develop a comprehensive toolkit to increase PFE in AL safety. **Key Findings/Impact:** This project is ongoing until May 31, 2024, and a final report is not available yet. **Publications:** 1
OREGON		
Ellen Peters **Decision Research** Eugene, Oregon	R03 HS11500 [Grant] **How Do Consumers View the Risks of Medical Errors?** 2001-2003 $100,000 Final Report	**Purpose:** To explore consumer risk perceptions and anticipate their responses to medical-error reporting as it unfolds in communities. **Key Findings/Impact:** Patients perceived medical-error risks based on dreadedness and preventability, and a model was built of the antecedents and consequences of worry about medical errors. Worry about medical errors was a better predictor of behavioral intentions than were estimated fatalities and rated likelihood of medical errors. Most recommended actions for preventing medical errors were viewed as effective. However, respondents indicated they were unlikely to engage in many of the recommended actions. Having a greater sense of self-efficacy in being able to prevent medical errors and worrying more about medical errors both were linked with a greater likelihood of engaging in preventive action. An understanding of how self-efficacy and worry influence preventive efforts will help in building strategies for communicating with the public. **Publications:** 2
Ravi Singh **Foundation for Accountability** Portland, Oregon	R13 HS10975 [Grant] **Consumer Activation: Research in Practice** 2002-2003 $48,930	**Purpose:** To support a conference that summarized and communicated research findings to organizations and individuals that can then improve the outcomes and quality of healthcare services. **Key Findings/Impact:** A final report was not available, and publications could not be found. However, according to an AHRQ Research Activities brief published in November 2003, this grant provided support for a national 1-day conference held in Washington, DC, in 2002. Participants included representatives of patient advocacy and consumer organizations. The topic was methods to translate research findings into practice and engage consumers more effectively in their own healthcare. After the conference, the Foundation for Accountability planned to feature online dialogues with the speakers as well as discussion groups for sharing information and experiences and ongoing dissemination of research findings to this important link to the healthcare consumer. **Publications:** 0

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Mary Minniti **Sacred Heart Medical Center** Eugene, Oregon	P20 HS17143 [Grant] **Medication Management at Home: Patient-Identified Processes and Risk Assessment** 2007-2009 $199,977 Final Report	**Purpose:** To assess the risks associated with ambulatory care medication management from the patient perspective. **Key Findings/Impact:** Four high-level medication management processes were common among participants, providing a framework for discussion between patients and healthcare providers. They related to medication storage, container usage, use of routine and memory triggers, and usage methods. Investigators found that medication management methods used by patients are diverse and very individual. More than 300 risks were identified either by patients or the clinical team reviewing the transcripts. The potential risks identified are from the patients' perspective and have highlighted some areas where interventions might improve medication management safety. A vital few represent areas for further study and exploration with patients and their healthcare team. **Publications:** 0
SOUTH DAKOTA		
Wendell Hoffman **Sanford Health** Sioux Falls, South Dakota	R21 HS19571 [Grant] **A Plan To Use Sanford Health Patient Complaints To Promote Safety/Reduce Claims** 2010-2011 $299,995	**Purpose:** To establish and assess a patient complaint reporting system on reducing harm and improving care and patient safety culture, to ultimately improve capture of patient and family complaints, enhance service recovery, and identify physicians at highest risk for unsafe practices and unnecessary lawsuits. **Key Findings/Impact:** A final report was not available, and publications could not be found. However, a summary of the project findings can be found on the AHRQ website. Before implementing the Patient Advocacy Reporting System (PARS) throughout Sanford Health System (SHS), Vanderbilt's Center for Patient and Professional Advocacy staff assessed its readiness via the presence of 10 elements (e.g., leadership commitment, resources) deemed critical for success. The project showed how, in 1 year, a large multistate healthcare system became prepared to implement an intervention process that promotes professional self-governance, fosters a fair and just culture of safety and kindness, and reduces avoidable lawsuit risk. Use of this system has continued beyond the grant funding and results of the effort have been published. After successfully implementing PARS, SHS trained peer physicians to serve as "messengers" to share local and national PARS data comparisons with physicians whose risk scores exceeded intervention thresholds. As of 2016, six rounds of annual interventions had been completed. The peer physician messengers delivered PARS data with high fidelity to intervention elements for 6 years to 124 high-risk physicians; 60 percent improved, 7 percent departed, and 33 percent were unimproved. Overall, risk scores declined 24 percent (p < 0.001), and SHS's return on investment in PARS exceeded $4 for every $1 spent. **Publications:** 0 (1)
TENNESSEE		
Alan Storrow **Vanderbilt University** Nashville, Tennessee	R18 HS25931 [Grant] **Safely Improving Emergency Diagnostic Testing Through Clinical Safe Harbors** 2019-2024 $1,749,990	**Purpose:** To establish and define a predetermined standard of care (a "safe harbor") for a selected number of clinical conditions within the specialty of emergency medicine (EM) to reduce healthcare resource utilization within EM. **Key Findings/Impact:** This project is ongoing until March 31, 2024, and a final report is not available yet. However, the first publication to result from this grant is a *JAMA Health Forum* insights article focused on medical liability constraints through malpractice safe harbors. **Publications:** 1

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
		TEXAS
Carol Ashton **Baylor College of Medicine** Houston, Texas	P01 HS10876 [Grant] **Racial and Ethnic Variation in Medical Interactions** 2000-2006 $9,207,042 Final Report	**Purpose:** To assess the extent to which remediable problems in doctor-patient communication result in racial and ethnic variations in the use of medical services and in health outcomes. **Key Findings/Impact:** A final report was not available; however, this project resulted in a broad portfolio of research on racial and ethnic variation in medical interactions. Variations in healthcare intervention preferences stem from differences in perceived benefit, knowledge of risk factors, physician-patient relationships, medical system access, and treatment beliefs. Patient participation in medical encounters therefore depends on a complex interplay of personal, physician, and contextual factors. Physicians could more effectively facilitate patient involvement by using partnership-building and supportive communication more often. The physician-patient relationship is also strengthened when patients see themselves as similar to their physicians in personal beliefs, values, and communication. Perceived personal similarity is associated with higher ratings of trust, satisfaction, and intention to adhere. Race concordance is the primary predictor of perceived ethnic similarity, but several factors affect perceived personal similarity, including physicians' use of patient-centered communication. This project produced multiple interventions and products, including the CONNECT instrument, a tool that enables researchers to measure important aspects of patients' and physicians' views on the patient's illness. It showed that physicians were not good judges of patients' health beliefs. **Publications:** 29
Jason Etchegaray Rand Corporation **University of Texas Health Science Center, Houston** Houston, Texas	R03 HS022944 [Grant] **Parent Perceptions of NICU Safety Culture: Parent-Centered Safety Culture Tool** 2014-2017 $99,958 Final Report	**Purpose:** To conduct a two-phase study to learn how parents of infants in the neonatal intensive care unit (NICU) can provide insight about patient safety issues in the NICU environment, specifically focused on safety culture. **Key Findings/Impact:** It was determined through interviews that NICU parents viewed infant safety based on security of the NICU environment, clinician-parent communication, infection control, and provider interactions with infants. NICU parents also adopt a variety of roles in the NICU: caregiver, advocate, decision maker, guardian, and learner. Parent perceptions of staff competency to provide safe care are not solely based on skills and expertise, but rather on staff behaviors that support a partnership with parents. When present, these staff behaviors are key facilitators in building this partnership but when absent can be significant barriers in the relationship and how parents engage in their parental roles. Maintaining an ongoing assessment of parent perceptions of care and training nurses in the behaviors that affect the parent-clinician partnership can facilitate the roles of parents in the NICU. Several presentations on this project were transformed into manuscripts. **Publications:** 1 (1)

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Yan Xiao **University of Texas, Arlington** Arlington, Texas	R18 HS27277 [Grant] **PROMIS Learning Lab: Partnership in Resilience for Medication Safety** 2019-2023 $2,493,137	**Purpose:** To redesign primary care work systems to address multiple types of medication-related harms among older adults by collaborating with clinics and patients, including those with low socioeconomic status. **Key Findings/Impact:** A final report is not available yet. However, the first publication to result from this grant presents the significant difficulties and obstacles faced by older adults during the COVID-19 pandemic. It also provides guidance to healthcare professionals in geriatrics, a framework for clinical evaluation and screening related to five domains of healthy aging, and additional strategies to enhance healthy aging in the era of COVID-19. **Publications:** 7
Eric Thomas **University of Texas Health Science Center, Houston** Houston, Texas	R18 HS28779 [Grant] **A New Combination of Evidence Based Interventions To Improve Primary Care Diagnostic Safety and Efficiency: a Stepped Wedge Cluster RCT** 2022-2026 $898,183	**Purpose:** To conduct a stepped wedge cluster randomized controlled trial to assess the implementation of three diagnostic and evidence-based interventions in 13 community-based and 2 academic adult primary care practices. **Key Findings/Impact:** This project is ongoing until September 29, 2026, and no final report or publications are available yet. **Publications:** 0
Eric Thomas **University of Texas Health Science Center, Houston** Houston, Texas	R18 HS29362 [Grant] **Safety II Together: Coupling Teaming Science With Patient Engagement and Health Information Transparency To Coproduce Diagnostic Excellence** 2022-2026 $1,924,198	**Purpose:** To identify the specific teaming behaviors that help patients and healthcare providers to coproduce safety at known diagnostic process risk points, and then develop and disseminate tools to support patients, care partners, interpreters, and clinicians as active contributors to the diagnostic process. **Key Findings/Impact:** This project is ongoing until September 29, 2026, and no final report or publications are available yet. **Publications:** 0

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
VIRGINIA		
Jonathan Peck **Institute for Alternative Futures** Alexandria, Virginia	R13 HS13927 [Grant] **Consumer-Led Conference To Advance Patient Safety** 2003-2004 $50,000 Final Report	**Purpose:** To invite consumers into the lead role in advancing patient safety and create a partnership between consumers and other stakeholders in improving healthcare. **Key Findings/Impact:** The Consumer-Led Workshop To Advance Patient Safety was organized to unfold in two distinct phases over 3 days. On the first day, consumers gathered and, through a facilitated sharing of experiences and stories, envisioned a safe, patient-centered healthcare system of the future and then articulated a mission for achieving it. On days 2 and 3, consumer participants were joined by nonconsumer stakeholders for continued work in refining vision and mission, development of goals and actions, and discussion of recommendations and next steps. Consumers Advancing Patient Safety (CAPS), a nonprofit organization was developed because of this conference to serve as a platform for consumers to be heard on issues related to healthcare safety and a patient-centered resource for reform initiatives. CAPS also aimed to further disseminate the output of the workshop on a continuing basis and realize the national goals articulated through its processes. A number of recommendations to AHRQ came out of the meeting and were documented in a report to AHRQ. **Publications:** 0 (1)
WASHINGTON		
Lynne Robins **University of Washington** Seattle, Washington	R01 HS13172 [Grant] **Effects of Establishing Focus in the Medical Interview** 2002-2006 $1,436,169 Final Report	**Purpose:** To implement and comprehensively evaluate the effects of a piloted intervention to improve physicians' communication skills (Establishing Focus – EF) on the behaviors and attitudes of community practice physicians and the health outcomes, functional status, and attitudes of patients. **Key Findings/Impact:** Intervention group physicians used significantly more additional elicitations and requests for problem lists than controls. However, orientation, prioritization, and negotiation, which are core to EF and facilitate collaborative agenda setting, patient autonomy, and informed decision making, were negligible in the sample. The intervention changed physician behavior but in ways that were unanticipated and had no effect on physician or patient satisfaction or patient health outcomes and trust. **Publications:** 4
Thomas Henry Gallagher **University of Washington** Seattle, Washington	K08 HS14012 [Grant] **Enhancing the Disclosure of Medical Errors to Patients** 2003-2007 $377,745 Final Report	**Purpose:** To conduct empiric and normative studies regarding the disclosure of harmful medical errors to patients. **Key Findings/Impact:** Under this project, the team conducted surveys and focus groups to better understand the attitudes and experiences of patients, physicians, nurses, and trainees regarding disclosure of medical errors. Findings showed that patients uniformly want the disclosure of harmful errors but physicians in the United States and Canada are often unsure how to best disclose medical errors to patients, resulting in disclosure often failing to meet patients' expectations for such conversations. In addition to his research activities, Dr. Gallagher collaborated with the National Quality Forum (NQF) to develop a Safe Practice on disclosure. The NQF Safe Practices are also noteworthy because they are used by the Leapfrog group in their public reporting and pay-for-performance activities. **Publications:** 13

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Thomas Henry Gallagher **University of Washington** Seattle, Washington	U18 HS16658 [Grant] **Using Team Simulation To Improve Error Disclosure to Patients and Safety Culture** 2006-2009 $899,343 Final Report	**Purpose:** To determine if team-based simulation training improves team communication and disclosure after harmful errors, enhancing transparency and safety culture, as well as increasing patient satisfaction and promoting patient safety. **Key Findings/Impact:** The researchers designed a simulation-based intervention to teach physicians and nurses about team-based error disclosure. They recruited 127 participants and trained 12 disclosure coaches. Next, they created and validated a web tool for measuring the simulation's impact. A quasi-experimental pre-post study of 38 physicians and 40 nurses with control group (26 physicians and 23 nurses) was conducted with simulations and coaching of participants videotaped and qualitatively analyzed. The results showed that participants found the simulations enjoyable and educational, and they supported the concept of team disclosure. While encouraging trends were present, neither the web assessment nor the videotape analysis detected improvement in clinicians' skills. Clinicians particularly struggled to respond to patient anger. Interprofessional differences existed in clinicians' comfort with disclosure. Many clinicians failed to explicitly apologize. Products of this project include four peer-reviewed journal publications (including a *JAMA* article), a book titled *Talking With Patients and Families About Medical Error: A Guide for Education and Practice*; two book chapters titled "Using Simulation and Coaching as a Catalyst for Introducing Team-Based Medical Error Disclosure" and "Developing On-Line Cases for Teaching Critical Thinking and Clinical Reasoning Skills." The four standardized patient cases, the web assessment videos, and coaching manual are all available upon request. **Publications:** 7
Thomas Henry Gallagher **University of Washington** Seattle, Washington	R01 HS16506 [Grant] **Training Doctors To Disclose Unanticipated Outcomes to Patients: Randomized Trial** 2008-2013 $871,590 Final Report	**Purpose:** To determine whether physician communication training in disclosing unanticipated outcomes to patients affects patient satisfaction with disclosure and malpractice claims; to explore whether characteristics of the event, physician, patient, and environment independently affect the relationship between unanticipated outcome disclosure training and patient satisfaction. **Key Findings/Impact:** According to the final report, the mean patient rating of the quality of disclosure was 7 on a 0-10 scale. No impact of the training was evident on the primary outcome (mean patient ratings of the quality of actual disclosures) or on secondary outcomes (patient likelihood of returning to the physician for future care, patient trust in the physicians' knowledge and competence, or trust in the physicians' honesty and integrity). The project succeeded in developing tools to measure patient and provider ratings of the quality of actual disclosures, but more work is needed to understand effective strategies for improving physicians' skills at conducting these difficult discussions. Twelve diverse publications resulted from this work, including the following topics: physician and patient experiences with adverse event disclosures; accountability and communication in disclosing medical errors, as well as the legal implications; and the challenges of disclosing medical errors within various settings (out of hospital, hospital, laboratory, etc.) and specialty areas (pathology, EMS, anesthesiology). Furthermore, this study produced a set of policy recommendations concerning large-scale adverse events and physician training resources, including two disclosure training webcasts and educational materials, such as case studies and pamphlets. **Publications:** 12

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Thomas Henry Gallagher **University of Washington** Seattle, Washington	R18 HS19531 [Grant] **Communication To Prevent and Respond to Medical Injuries: WA State Collaborative** 2010-2014 $2,994,721 Final Report	**Purpose:** To create a statewide initiative involving communication training of healthcare workers and a collaborative with hospitals and a malpractice insurer to improve adverse event analysis, disclosure, and compensation; and enhance the culture of healthcare communication to improve patient safety and decrease medical malpractice liability. **Key Findings/Impact:** The researchers created a multicomponent intervention across Washington State for preventing and responding to medical injuries, along with a statewide collaborative ("HealthPact") to ensure the sustainability of this work. Key components included: (1) Creating the HealthPact Forum; (2) Communication training to prevent and respond to medical injuries; (3) Creating a Communication and Resolution Program (CRP) at five healthcare institutions; and (4) Physicians Insurance, with an emphasis on cases involving multiple insurers. Researchers found that promoting collaboration across these stakeholders, while challenging, was successful. Communication training to prevent medical injuries, as well as disclosure coach training, was widely disseminated: one institution provided this training to more than 1,000 healthcare workers. While the CRP was developed and launched, several barriers were identified to resolving cases involving multiple insurers. The work of the project will continue through HealthPact and the new CRP Certification process for collaborating with regulators after medical injury. Together, these accomplishments constitute important steps in the gradual process of moving toward patient-centered accountability after medical injury. **Publications:** 16

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Thomas Henry Gallagher **University of Washington** Seattle, Washington	R18 HS24504 [Grant] **CRP Certification: Promoting Accountability and Learning After Adverse Events** 2016-2020 $750,000 Final Report	**Purpose:** To address physicians' concerns about potential regulatory discipline for following communication and resolution program (CRP) principles while fostering shared learning and improvement in the use, effectiveness, and fidelity of CRPs, with the ultimate goal of improved healthcare quality and safety. **Key Findings/Impact:** The research team successfully established the CRP Certification program in Washington and California. Thirty-three cases were reviewed and 27 cases were certified. In Washington, 81 percent of the cases were certified by a review panel, and four certified cases that were submitted to the Washington Medical Commission were closed without disciplinary action against the involved licensee. Seventy percent of the Washington cases involved severe harm, including nine death cases. Cases in Washington were submitted by nine institutions and one attorney on behalf of an individual physician, with three institutions accounting for two-thirds of the cases. Of the five cases that were not certified, one was submitted for advice only. In California, 83 percent of the cases were certified by the review panel. Two-thirds of the cases involved severe harm, including two death cases. The California cases were submitted by six distinct entities. In 78 percent of certified cases, risk management was informed of the event within one week and for 41 percent that notification took place the same day. The initial conversation with the patient and/or family occurred the same day as the event in 44 percent of cases and within 2 days for two-thirds of cases. Analysis of certified cases revealed strong fidelity to the key CRP elements. The researchers observed trends over time suggesting that institutions developed more robust caregiver support programs and increased collaboration among the parties involved in responding to adverse events (e.g., risk managers, quality and safety personnel, liability insurers, legal, etc.). The quality of the case submissions also improved significantly over time, providing evidence of improvements to organizations' CRPs. The program is ongoing with plans for national expansion. The Foundation for Health Care Quality hosted the CRP Certification program for this research effort as a neutral body; more information about CRP Certification and the CRP Certification application is available online. **Publications:** 16

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Karen Domino **University of Washington** Seattle, Washington	R21 HS19532 [Grant] **Shared Decision Making (SDM) in Surgery To Improve Patient Safety** 2010-2012 $295,387 Final Report	**Purpose:** To develop and implement user-friendly SDM tools and processes for patients undergoing elective orthopedic surgery in the University of Washington Health Care System. **Key Findings/Impact:** After receiving broad stakeholder feedback, the grantee revised anesthesia decision aids. In addition, the grantee implemented a patient activation pamphlet and developed an SDM training toolkit. The most challenging elements of SDM were establishing the patient role, encouraging patients to seek input, eliciting patient preferences, and assessing patient understanding. Implementation of SDM into clinical practice is challenging but can significantly reduce liability and previously unappreciated hidden costs associated with deficiencies in informed consent. The grant was successful in describing institutional barriers and providing practical solutions to inform ongoing implementation of SDM within the hospital system. An SDM "Train-the-Trainer" Toolkit was developed to overcome training barriers and disseminate the methodology. Trainer observation and surgeon self-assessments of clinical encounters suggested that the SDM elements most overlooked were a patient seeking input from trusted others (65%), establishing a patient's role in DM (53%), using teach-back (42%), eliciting patient preference (24%), and communicating uncertainty (24%). Pre- and post-training audiotaping of clinical DM showed surgeons made minimal improvement in the element establishing the patient role in DM. The grant culminated in an SDM train-the-trainer toolkit that integrates the processes developed and lessons learned. **Publications:** 1
WISCONSIN		
Kathryn Leonhardt **Aurora Health Care** Milwaukee, Wisconsin	U18 HS15915 [Grant] **Patient Partnerships To Improve Safety in the Clinic Settings** 2005-2007 $567,073 Final Report	**Purpose:** To implement a patient partnership model as an intervention to improve safety in the outpatient setting and to develop strategies and tools that can be used to engage patients and providers in medication management in clinic and community settings. **Key Findings/Impact:** The Walworth County Patient Safety Council, a community-based advisory council composed of 11 patients and 12 provider representatives, established a demonstration project that significantly improved medication safety for local seniors. The project team disseminated more than 16,600 medication lists and 7,800 medication bags at more than 80 educational programs. The rate of accurate medication lists significantly increased from 55 percent to 72 percent. This increase was significantly better than changes seen in the comparison group. This grant culminated in the development of a toolkit, Guide for Developing a Community-Based Patient Safety Advisory Council, and produced two publications. The grant also received national recognition in 2007 by the Institute for Safe Medication Practices. **Publications:** 2 (1)

Principal Investigator Organization City, State	Project Number [Type] Project Title Project Period Total Investment	Purpose, Key Findings/Impact, and Number of Publications (Products)
Elizabeth Cox **University of Wisconsin, Madison** Madison, Wisconsin	R18 HS18680 [Grant] **Engaging Families in Bedside Rounds To Promote Pediatric Patient Safety** 2010-2016 $2,395,515 Final Report	**Purpose:** To leverage family engagement in bedside rounds to improve the safety of care provided to hospitalized children. **Key Findings/Impact:** This grant applied a participatory ergonomics (PE) approach to redesign the family-centered rounds process to improve family engagement and used systems engineering methods to develop and implement the Family-Centered Rounds (FCR) Checklist. The intervention significantly increased the number of checklist elements performed, and intervention rounds were significantly more likely to include asking the family or healthcare team for questions and reading back orders. Compared with usual care, intervention families did not engage more or report better safety climate. Performance of specific checklist elements was significantly associated with changes in family engagement and improved perceptions of safety. Asking the family for questions was associated with more positive views of the safety of handoffs and transitions. Most families initiated dialogue regarding medications during FCRs, including both inpatient and home medications. They raised topics that altered treatment and were important for medication safety, adherence, and satisfaction. Study findings suggest specific medication topics that healthcare teams can anticipate addressing during FCR. **Publications:** 10
Ryan Coller **University of Wisconsin, Madison** Madison, Wisconsin	R18 HS28409 [Grant] **Improving Medication Safety For Medically Complex Children With mHealth Across Caregiving Networks** 2022-2025 $999,999	**Purpose:** To create a mobile health (mhealth) platform, Medication Safety @HOME (MedS@HOME) to improve CMC medication safety by supporting standardized medication management across the caregiving network. **Key Findings/Impact:** This project is ongoing until April 30, 2025, and a final report is not available yet. This project is ongoing, and no publications are available yet; However, investigators anticipate that MedS@HOME will increase medication administration accuracy and reduce medication-related adverse events, and ultimately improve chronic care management through the creation and promotion of standardized medication management practices across the caregiving network. **Publications:** 1