Research Advocacy

30th Fundamentals of Surgical Research Course

Adil H. Haider, MBBS, MPH, FACS

Dean, Medical College
Professor of Surgery and Community Health Sciences
Aga Khan University

Director of Disparities and Emerging Trauma Systems, Center for Surgery and Public Health, Brigham and Women's Hospital

Research that provides evidence and arguments supporting a particular cause, position or policy

#MakeADifference

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3 CRITICAL INGREDIENTS for Research Advocacy

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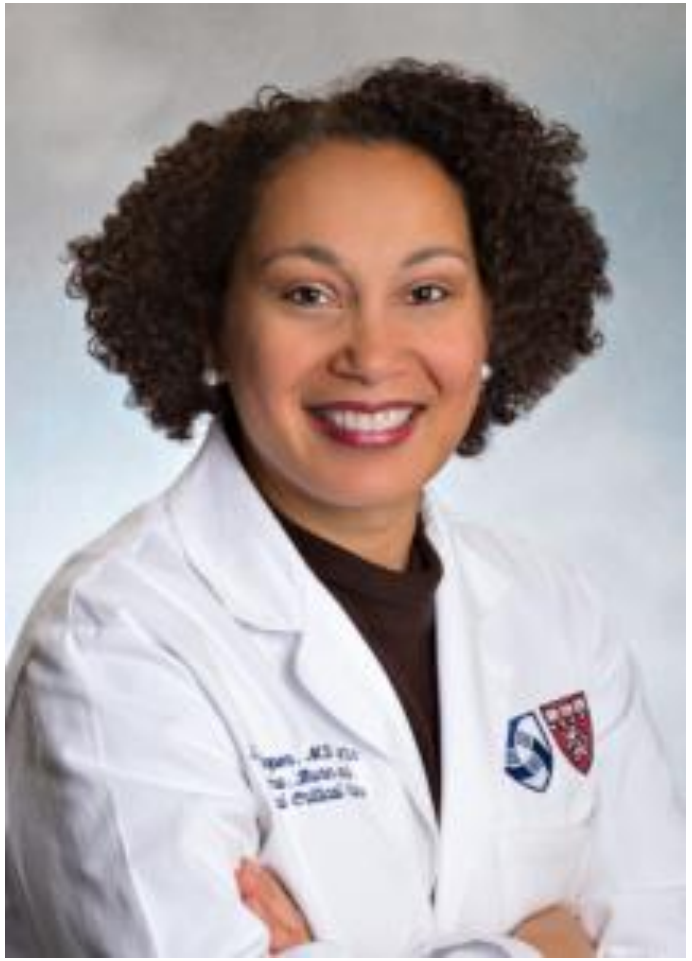
Ingredient 1:

Validity

(both Face and Scientific)

Face and Scientific Validity:
Zara Cooper, MD, MSc

- Acute care and trauma surgeon, surgical intensivist @ Brigham and Women's
- Certified in palliative medicine
- Associate professor of surgery at Harvard Medical School
- BWH President's Young Investigators Award and the BWH Faculty Development Award winner



Zara Cooper's story

- A national leader in surgical palliative care and geriatric trauma, she has authored over 100 peer-reviewed manuscripts, chapters, and abstracts and lectures nationally about surgical care in complex older patients.

- Research focuses on improving end-of-life and palliative care as well as reducing non-beneficial care in critically ill surgical patients through improved patient-provider communication

- Currently funded through the National Institute on Aging (NIA), the American Federation for Aging Research (AFAR), the Cambia Health Foundation, the National Palliative Care Research Center (NPCRC) and is a co-investigator on multiple federally funded grants

ACS TQIP PALLIATIVE CARE BEST PRACTICES GUIDELINES

THE Coalition for Quality in Geriatric Surgery PROJECT

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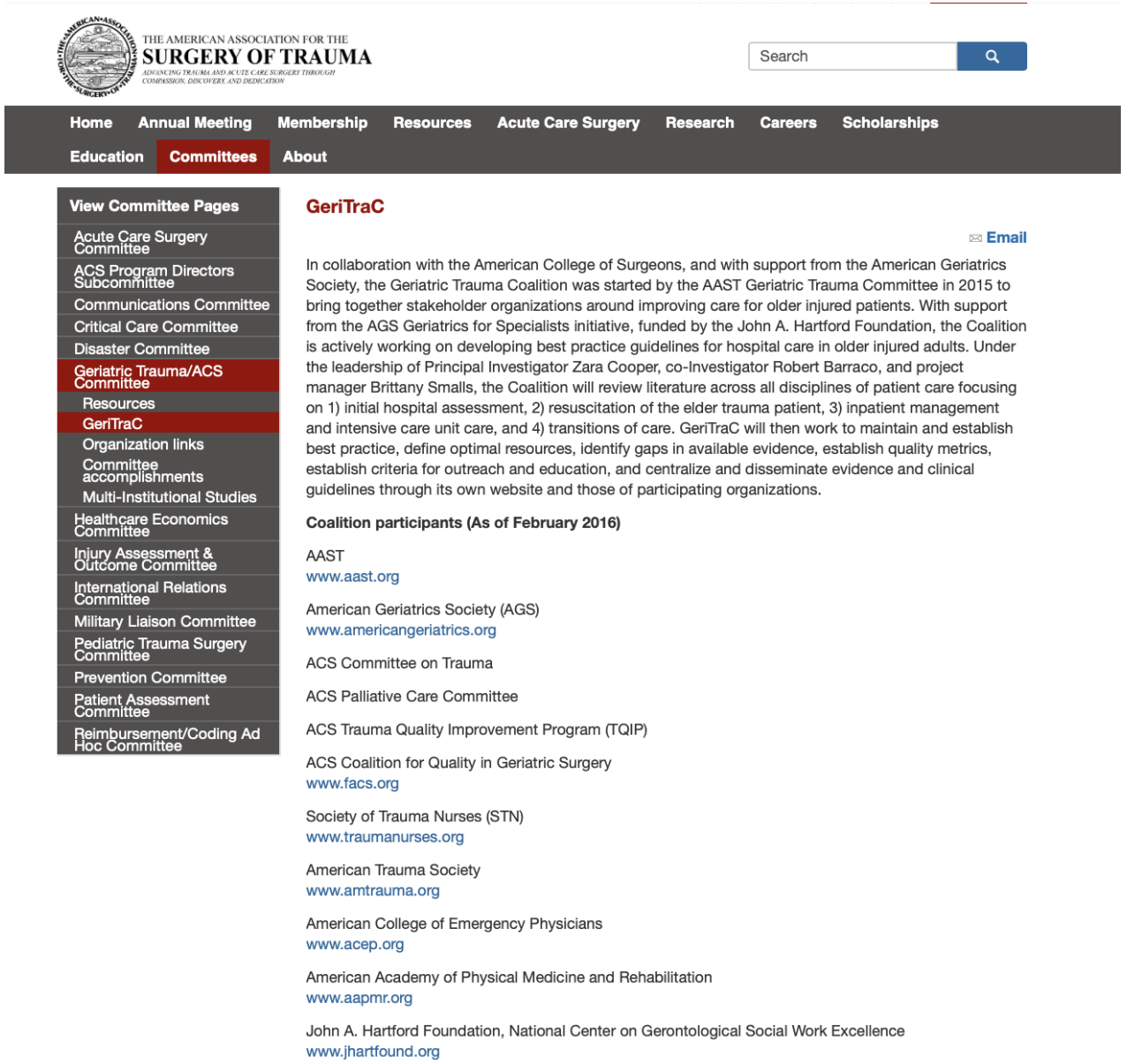
Geriatric Trauma Coalition (GeriTraC)



A Research Agenda for Surgical Palliative Care

TABLE 1. CURRENT KNOWLEDGE GAPS IN PALLIATIVE CARE IN SURGERY

Research focus area	*Limitations*
Defining outcomes that matter to patients	
Defining outcomes that patients value	The scope of [illegible] is limited to short-term survival. [illegible] outcomes (function quality of life, time [illegible] value after surgery or defined the benefits and trade-offs of surgery from the patient's perspective. Existing measures [illegible] outcomes have not been validated for surgical [illegible] related to surgical care.
Measures to evaluate high-quality palliative care in surgery	Processes of [illegible] care, including [illegible] mentation of a surrogate decision [illegible] ity indicators in surgical care. There is [illegible] metrics that align with the goals of palliative [illegible] quality of life, functional status, and relief from symptoms. There is no uniform system for classifying palliative versus curative intent of surgery.
Communication and decision making	
Aligning surgical treatments with patient-oriented outcomes	Prior studies have [illegible] surgical decisions, but [illegible] reatment decision [illegible]
Preoperative advance care planning	Evidence [illegible] is is limited to small [illegible] patient-oriented outcomes.
Decision making after postoperative complications or critical illness	Studies have not examined [illegible] with patients and surrogate decision makers about postoperative care after complications or critical illness.
Delivery of palliative care to surgical patients	
Integrating palliative care principles into routine surgical practice	Few studies have [illegible] integrating primary palliative [illegible], including strategies [illegible]
Developing scalable models of primary palliative care delivery for surgical patients	No studies [illegible] that can be scaled to popu[illegible]
Identifying patients who would benefit from palliative care specialist consultation	Studies using various [illegible] needs in surgical patient populations have [illegible] from interventions to increase palliative care consultation.

ICU, intensive care unit.

Outcomes that matter to patients

Palliative Surgery

Advance Care Planning and goal concordant care

Integration and scalability

Lilley, Ann Surg 2016

Break out paper…..

J Trauma. 2009 May;66(5):1327-35. doi: 10.1097/TA.0b013e31819ea047.

Withdrawal of life-sustaining therapy in injured patients: variations between trauma centers and nontrauma centers.

Cooper Z[1], Rivara FP, Wang J, MacKenzie EJ, Jurkovich GJ.

Used most advanced statistical methods at the time…..

Ann Surg. 2012 Mar;255(3):424-6. doi: 10.1097/SLA.0b013e318246c1ad.

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Putting the patient first: honoring advance directives prior to surgery.

Cooper ZR, Powers CL, Cobb JP.

Anesthesiology. 2015 Dec;123(6):1450-4. doi: 10.1097/ALN.0000000000000899.

A Conceptual Framework for Appropriateness in Surgical Care: Reviewing Past Approaches and Looking Ahead to Patient-centered Shared Decision Making.

Cooper Z[1], Sayal P, Abbett SK, Neuman MD, Rickerson EM, Bader AM.

J Palliat Med. 2016 May;19(5):529-37. doi: 10.1089/jpm.2015.0450. Epub 2016 Apr 22.

Surgeons' Perspectives on Avoiding Nonbeneficial Treatments in Seriously Ill Older Patients with Surgical Emergencies: A Qualitative Study.

Cauley CE[1,2], Block SD[1,3,4,5], Koritsanszky LA[1], Gass JD[1], Frydman JL[6], Nurudeen SM[1,7], Bernacki RE[1,3], Cooper Z[1,7,8].

JAMA Surg. 2016 Feb;151(2):172-83. doi: 10.1001/jamasurg.2015.3625.

Palliative Care Interventions for Surgical Patients: A Systematic Review.

Lilley EJ[1], Khan KT[2], Johnston FM[3], Berlin A[4], Bader AM[5], Mosenthal AC[4], Cooper Z[6].

J Palliat Med. 2017 Jul;20(7):702-709. doi: 10.1089/jpm.2017.0079. Epub 2017 Mar 24.

Palliative Care in Surgery: Defining the Research Priorities.

Lilley EJ[1], Cooper Z[1,2], Schwarze ML[3,4], Mosenthal AC[5].

Ann Surg. 2019 Apr;269(4):607-609. doi: 10.1097/SLA.0000000000003136.

Quality Measures in Surgical Palliative Care: Adapting Existing Palliative Care Measures to Improve Care for Seriously Ill Surgical Patients.

Lee KC[1], Senglaub SS[2], Walling AM[3], Mosenthal AC[4], Cooper Z[5].

Ann Surg. 2018 May;267(5):823-825. doi: 10.1097/SLA.0000000000002579.

Measuring Processes of Care in Palliative Surgery: A Novel Approach Using Natural Language Processing.

Lilley EJ[1,2], Lindvall C[3,4,5], Lillemoe KD[4,6], Tulsky JA[3,4,5], Wiener DC[4,7], Cooper Z[1,4,7].

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J Am Coll Surg. 2019 Jun;228(6):852-859.e1. doi: 10.1016/j.jamcollsurg.2019.02.052. Epub 2019 Apr 5.

Frailty Identification and Care Pathway: An Interdisciplinary Approach to Care for Older Trauma Patients.

Bryant EA[1], Tulebaev S[2], Castillo-Angeles M[1], Moberg E[1], Senglaub SS[1], O'Mara L[1], McDonald M[1], Salim A[1], Cooper Z[3].

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Ingredient 2:

Collaboration

Leverage & work with other experts in the field

Leverage & Work with other experts in the field

Amir Ghaferi, MD, MS

- Associate Professor of Surgery and Business, University of Michigan
- Surgeon-in-Chief, University Hospital Operating Rooms
- Director, **Michigan Bariatric Surgery Collaborative**, a consortium of 40 hospitals and 80 surgeons focused on improving the safety and quality of bariatric surgery.
- President of the Surgical Outcomes Club
- Secretary of the Association for Academic Surgery

Amir Ghaferi's story

- Research focuses on understanding the relationship of organizational systems and design to quality and efficiency, with the ultimate goal of designing interventions to improve care locally, regionally, and nationally

- Currently funded from the Agency for Healthcare Research and Quality (AHRQ), the National Institutes of Health (NIH), and the Patient Centered Outcomes Research Institute (PCORI)

- Research has been published in prominent journals such as The New England Journal of Medicine, JAMA, Medical Care, and Annals of Surgery

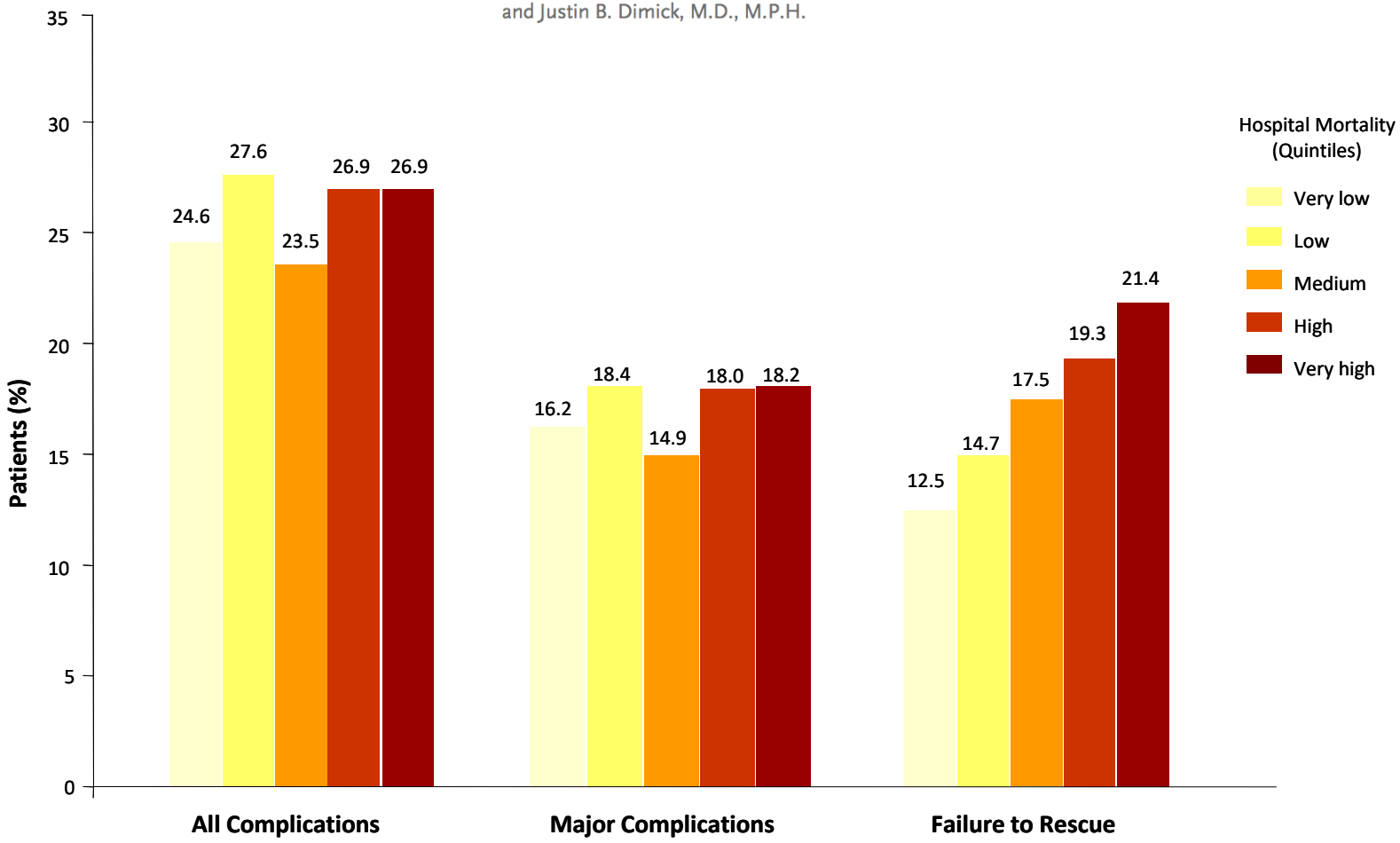
- Active member of several national societies (Association for Academic Surgery, Society of University Surgeons, AcademyHealth) and serves on, chairs, or co-chairs several national committees

The NEW ENGLAND JOURNAL of MEDICINE

SPECIAL ARTICLE

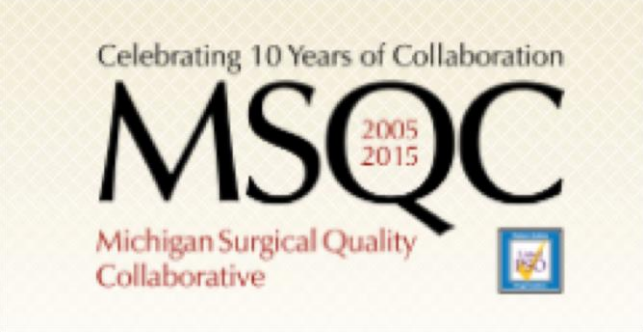
Variation in Hospital Mortality Associated with Inpatient Surgery

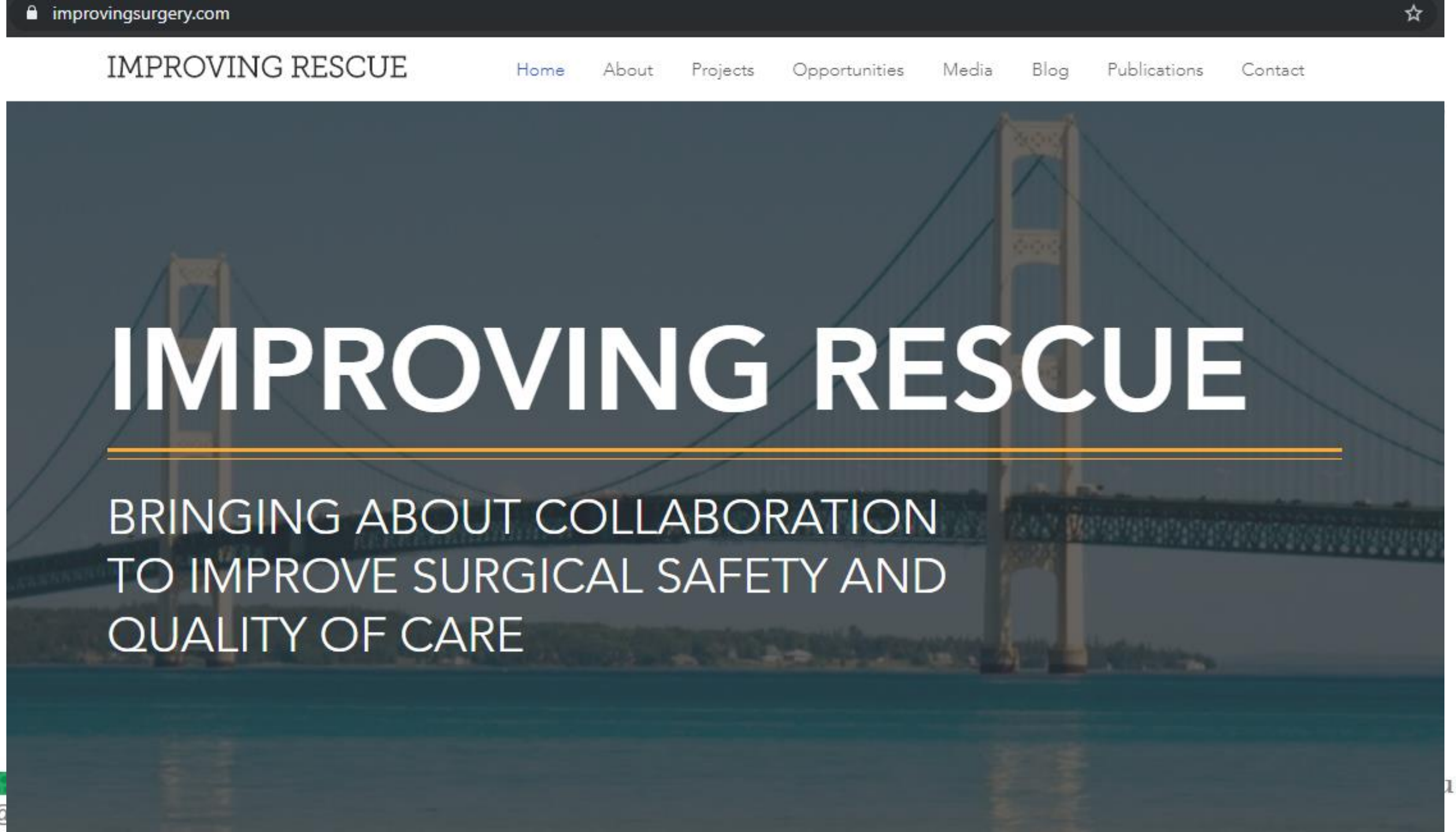
Amir A. Ghaferi, M.D., John D. Birkmeyer, M.D., and Justin B. Dimick, M.D., M.P.H.



AHRQ K08

- Specific Aims
  1. To develop an in-depth understanding of the key elements necessary for complication rescue
  2. To design an intervention that promotes key elements for improving the rescue process
  3. To pilot-test an intervention aimed at improving hospital rescue rates

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BRINGING ABOUT COLLABORATION
TO IMPROVE SURGICAL SAFETY AND
QUALITY OF CARE

OUR MISSION

Our mission is to improve surgery through research, education, training, and collaboration. Our website is here to provide valuable information and resources on current research and quality improvement projects, training opportunities, and ways to get involved with local, state, and national communities as steps toward making surgery safer for all patients.

Learn More

PROJECTS


MICHIGAN BARIATRIC SURGERY COLLABORATIVE
MBSC


MY WEIGHT LOSS JOURNEY


RESCUE


FAILURE TO RESCUE
PATIENT SAFETY LEARNING LAB

PARTNERS

MSQC
Michigan Surgical Quality Collaborative

NIH

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pcori
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UNIVERSITY OF MICHIGAN

MICHIGAN MEDICINE
UNIVERSITY OF MICHIGAN

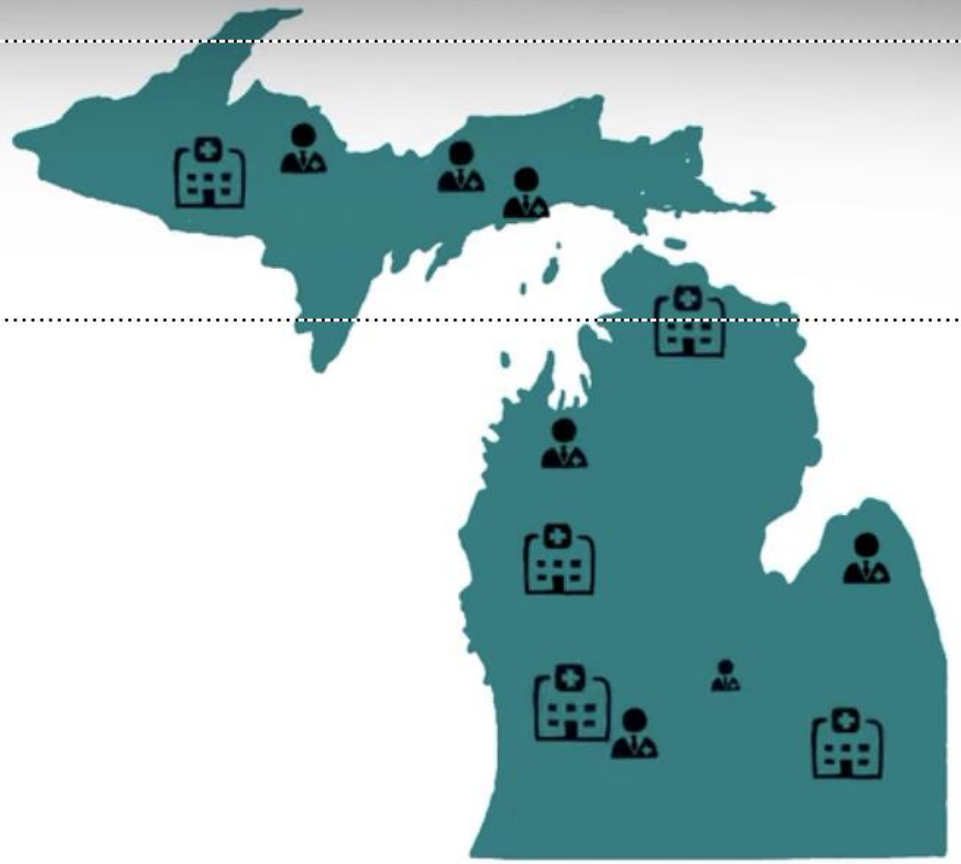
AHRQ

MICHIGAN BARIATRIC SURGERY COLLABORATIVE
MBSC

Dartmouth-Hitchcock
MEDICAL CENTER

- Serve as Director of a 40 hospital, 70 surgeon statewide collaborative
- Oversee multiple QI initiatives and studies
  - Peer to peer video coaching (NIDDK)
  - M-PIRRE: ED visit and readmission reduction program
  - Video analysis of sleeve gastrectomy technique (AHRQ)
  - Social media collaboration
  - Patient decision aid development (PCORI)
  - FUTURE: enhanced recovery and opioid optimization program

Click to add title

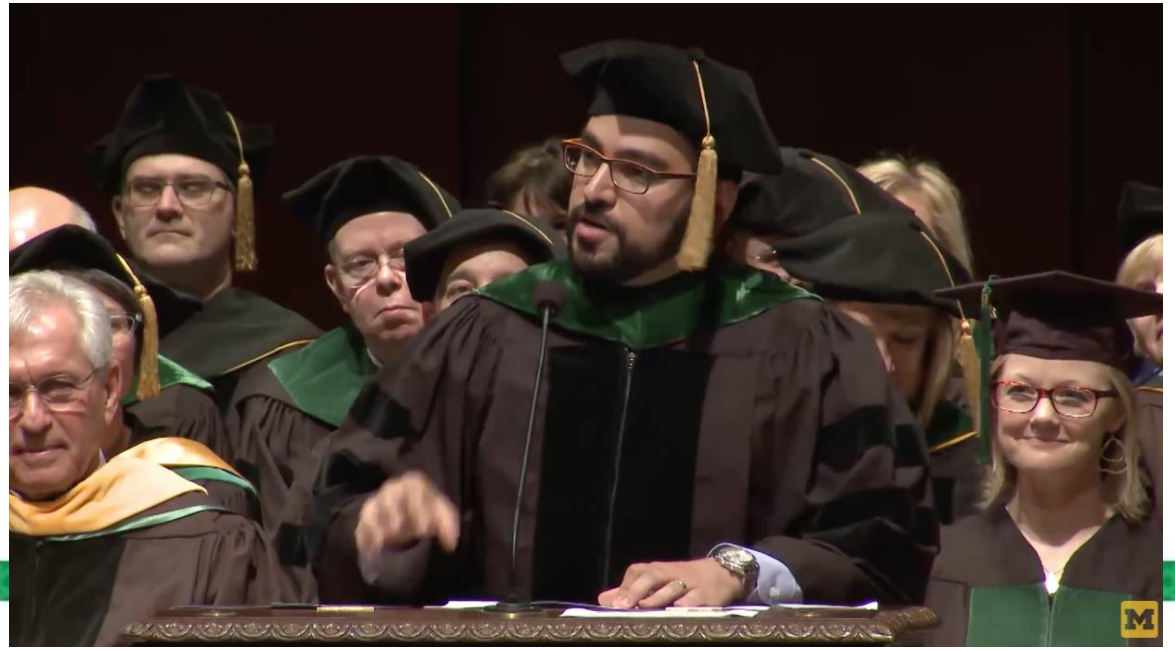


MBSC

Michigan Bariatric Surgery Collaborative


SILVER SCALPEL
MEDICAL STUDENT
TEACHING AWARD
2014
Amir A. Ghaferi, M.D.
University of Michigan Health System
on this 7th day of June, 2014
in appreciation for his impact as an M3 Facilitator


GALEN'S
SILVER SHOVEL AWARD
Cave Taurum
Dr. Amir Ghaferi
2014



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Ingredient 3:
Connect

Both IRL and Metaphorically

Words to Inspire: 24 Powerful Moments From Recent Medical School Commencement Speeches

Ryan Syrek, MA | June 17, 2019 | Contributor Information

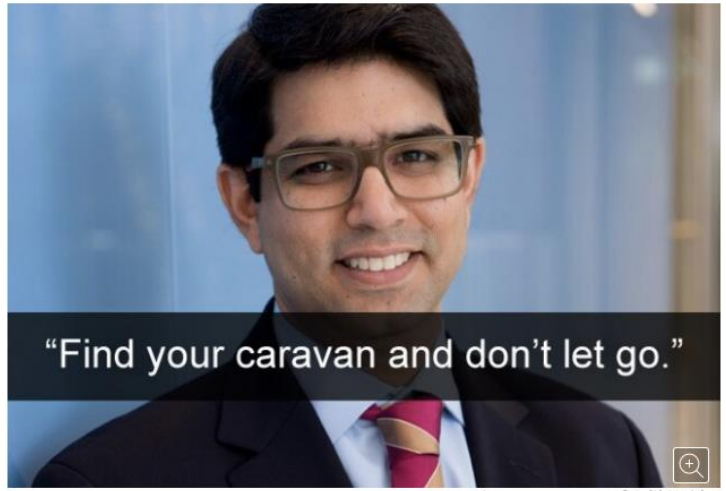


Image courtesy of Adil Haider

"Lesson number one is to be open for your passion, and when you feel it, pursue it. Sometimes your passion chooses you... Lesson number two: Be humble. And I know this is a surgeon saying 'be humble!' Be humble, acknowledge your gaps, and address them to truly master the terrain you're trying to conquer. Now, that being said, passion and manic mastery is not enough... Lesson 3: Find your caravan and don't let go. Some days you'll lead and some days you'll follow. Your caravan of teammates will aid you on your journey."

Adil Haider, MD, MPH, at Washington University School of Medicine in St. Louis's 2018 Commencement

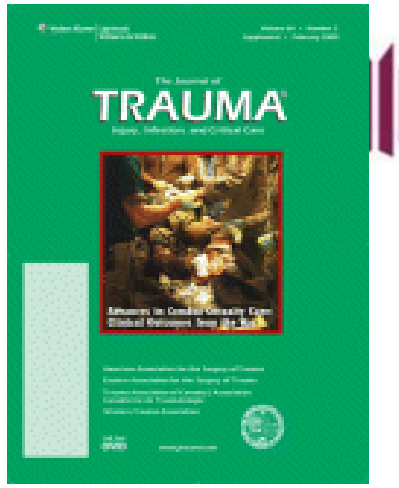
Wanted to take care for patients with fewer means

So –I had planned to go work in Africa…..

You don’t have to go to Africa to care for the poor and disenfranchised…

“You can do that right here in Baltimore” EEC III

The Journal of TRAUMA® Injury, Infection, and Critical Care



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Black Children Experience Worse Clinical and Functional Outcomes After Traumatic Brain Injury: An Analysis of the National Pediatric Trauma Registry

Adil H. Haider, MD, MPH, David T. Efron, MD, Elliott R. Haut, MD, Stephen M. DiRusso, MD, PhD, Thomas Sullivan, BS, and Edward E. Cornwell III, MD

Background: Recent studies suggest racial disparities in the treatment and outcomes of children with traumatic brain injury (TBI). This study aims to identify race-based clinical and functional outcome differences among pediatric TBI patients in a national database.

Methods: A total of 41,122 patients (ages 2–16 years) who were included in the National Pediatric Trauma Registry (from 1996–2001) were studied. TBI was categorized by Relative Head Injury Severity Score (RHISS) and patients with moderate to severe TBI were included. Individual race groups were compared with white as the majority group. Differences between races in functional outcomes at discharge in three domains—speech, locomotion, and feeding—were determined using multiple logistic regression. Cases were adjusted for age, sex, severity of head injury (using RHISS), severity of injury (using New Injury Severity Score and Pediatric Trauma Score), premorbidities, mechanism, and injury intent.

Results: A total of 7,778 children had moderate or severe TBI with or without associated injuries. All races had similar demographics. Hispanics (n = 1,041) had outcomes comparable to whites (n = 4,762). Black children (n = 1,238) had significantly increased premorbidities, penetrating trauma, and violent intent. They also had higher unadjusted mortality and longer mean intensive care unit and floor stays. After adjustment, there was no difference in the odds of death between black and white children. However, black patients were more likely to be discharged to an inpatient rehabilitation facility and had increased odds of possessing a functional deficit at discharge for all three domains studied.

Conclusion: Black children with traumatic brain injury have worse clinical and functional outcomes at discharge when compared with equivalently injured white children.

Key Words: Racial disparities, pediatric traumatic brain injury, functional outcomes.

2006 ACS Surgical Forum
Excellence in Surgical Research Award

National Disparities Working Group

ORIGINAL ARTICLE

Race and Insurance Status as Risk Factors for Trauma Mortality

Adil H. Haider, MD, MPH; David C. Chang, MPH, MBA, PhD; David T. Efron, MD; Elliott R. Haut, MD; Marie Crandall, MD, MPH; Edward E. Cornwell III, MD

Objective: To determine the effect of race and insurance status on trauma mortality.

Methods: Review of patients (aged 18-64 years; Injury Severity Score ≥9) included in the National Trauma Data Bank (2001-2005). African American and Hispanic patients were each compared with white patients and insured patients were compared with uninsured patients. Multiple logistic regression analyses determined differences in survival rates after adjusting for demographics, injury severity (Injury Severity Score and revised Trauma Score), severity of head and/or extremity injury, and injury mechanism.

Results: A total of 429 751 patients met inclusion criteria. African American (n=72 249) and Hispanic (n=41 770) patients were less likely to be insured and more likely to sustain penetrating trauma than white patients (n=262 878). African American and Hispanic patients had higher unadjusted mortality rates (white, 5.7%; African American, 8.2%; Hispanic, 9.1%; *P*=.05 for African American and Hispanic patients) and an increased adjusted odds ratio (OR) of death compared with white patients (African American OR, 1.17; 95% confidence interval [CI], 1.10-1.23; Hispanic OR, 1.47; 95% CI, 1.39-1.57). Insured patients (47%) had lower crude mortality rates than uninsured patients (4.4% vs 8.6%; *P*=.05). Insured African American and Hispanic patients had increased mortality rates compared with insured white patients. This effect worsened for uninsured patients across groups (insured African American OR, 1.2; 95% CI, 1.08-1.33; insured Hispanic OR, 1.51; 95% CI, 1.36-1.64; uninsured white OR, 1.55; 95% CI, 1.46-1.64; uninsured African American OR, 1.78; 95% CI, 1.65-1.90; uninsured Hispanic OR, 2.30; 95% CI, 2.13-2.49). The reference group was insured white patients.

Conclusion: Race and insurance status each independently predicts outcome disparities after trauma. African American, Hispanic, and uninsured patients have worse outcomes, but insurance status appears to have the stronger association with mortality after trauma.

Arch Surg. 2008;143(10):945-949

Newsweek

No Insurance? That's a Killer.

Uninsured patients are 50 percent more likely to die of traumatic injuries than those with health insurance.

David Noonan
NEWSWEEK
From the magazine issue dated Nov 10, 2008

Reading medical journals can be a real headache. Sure, the topics are important, but the demands of scientific accuracy make for dense, technical prose. The language is almost always an agony of arcane jargon and clunky grammar. Long, tangled sentences, heavy with terms like "multivariate analyses," are assembled to make small points. Research methods are explained in exhaustive detail, while conclusions are larded with caveats and qualifiers that pretty much render them inconclusive. It's the literary equivalent of wet cement.

Every now and then, however, you come across a statement that is the exact opposite of all that—a few simple words of plain English freighted with meaning. I encountered such a sentence in a study that appeared in the October issue of Archives of Surgery. Here it is: "In brief, insurance represents more than just the ability to pay a bill." That is as clean and concise a summation of a profound and complicated truth as I have come across since I first started paying attention to health-insurance issues more than a decade ago.

Of course, what insurance (and the lack of it) often represents, as numerous studies have shown, is the difference between care and no care, between an early cancer diagnosis and a late diagnosis, between properly managing a chronic condition like asthma and waiting until a dangerous attack occurs. For some of the patients in the Archives of Surgery study, which was led by Johns Hopkins trauma surgeon Adil Haider, what insurance represented was nothing less than the difference between life and death.


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By NICHOLAS BAKALAR
Published: October 20, 2008
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Whether you survive after a serious accident may depend on your race and your health insurance, a new study concludes.
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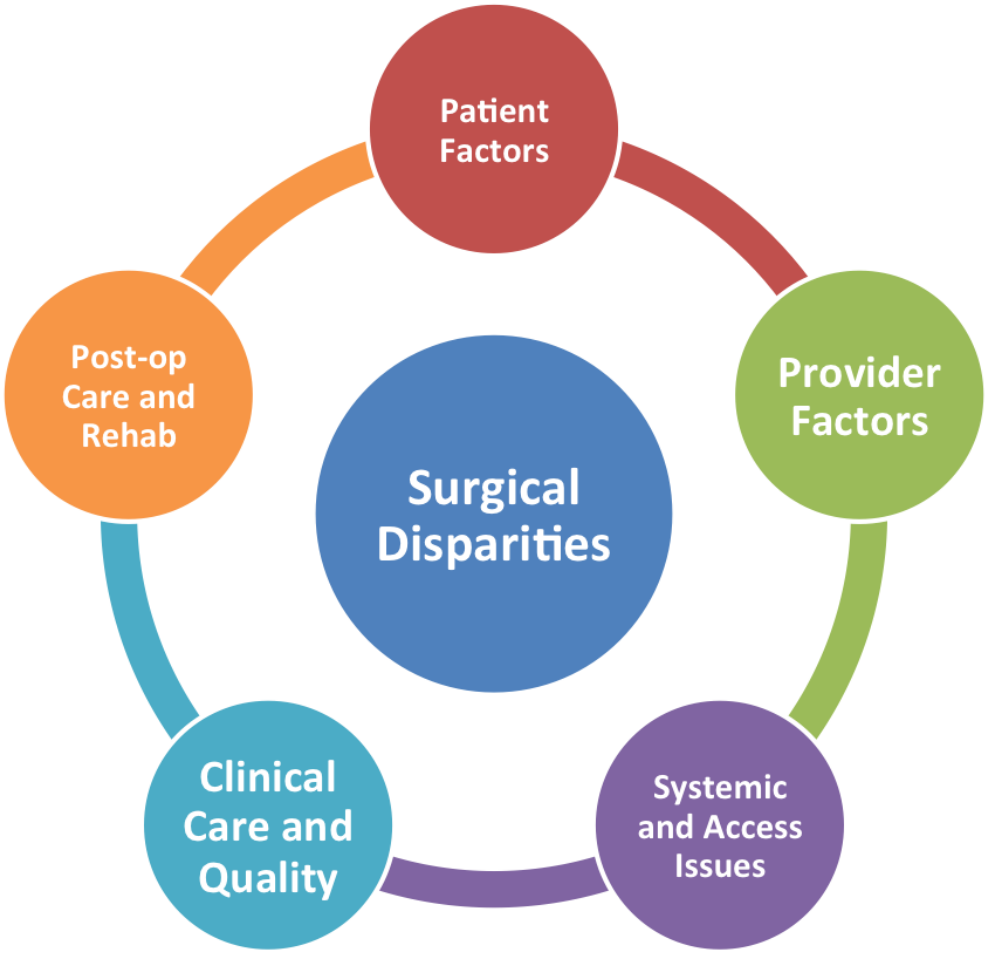


COLLECTIVE REVIEW

Surgical Disparities: A Comprehensive Review and New Conceptual Framework

Maya J Torain, BS, Allysha C Maragh-Bass, PhD, MPH, Irene Dankwa-Mullen, MD, MPH, Butool Hisam, MD, Lisa M Kodadek, MD, Elizabeth J Lilley, MD, MPH, Peter Najjar, MD, MBA, Navin R Changoor, MD, John A Rose Jr, MD, MPH, Cheryl K Zogg, MSPH, MHS, Yvonne T Maddox, PhD, LD Britt, MD, MPH, FACS, Adil H Haider, MD, MPH, FACS

Health care disparities are defined as "differences in the quality of care received by minorities and non-minorities who have equal access to care and no difference in preferences or needs for treatment."[1] Minority populations include, but are not limited to, racial/ethnic minorities, people with disabilities, and lesbian, gay, bisexual, and transgender (LGBT) groups. Multiple types of surgical disparities have been described in the literature.[1-4] Minority status has been frequently associated with surgical disparities and poor surgical outcomes. For example, studies have shown that compared with white patients, racial minority patients have less access to care, satisfaction with care, medically indicated treatments and procedures, and timely follow-up.[2-5] Additionally, socioeconomically disadvantaged groups and rural populations receive poorer quality hospital-based care compared with more affluent and suburban groups, including fewer minimally invasive operations, and limited access to high-volume hospitals.[6,7]

Surgical disparities can be experienced at multiple points along a patient's health care trajectory (Fig. 1).[1,8] This trajectory is composed of a patient's preoperative access to surgical care, intraoperative quality of care received, and postoperative outcomes. Preoperatively, a patient's access to surgery may be shaped by his or her insurance status and proximity to high volume hospitals. During an operation, hospital-level variations in surgical volume and protocol and provider-level variations in practice and decision-making affect the quality of care the patient receives. Postoperatively, surgical disparities take the form of disparate outcomes in morbidity and morality, complications, and availability of quality rehabilitative services. The presence of surgical disparities early in a patient's health care trajectory may increase the likelihood of disparities downstream.[8] Without understanding mechanisms that cause disparities, interventions to modify factors that may potentially mitigate the presence of disparities are severely limited.

A 2013 review by Haider and colleagues[9] proposed a simple method to classify disparities according to patient, provider, and systemic factors. Race/ethnicity, socioeconomic status (SES), and other factors were considered as interplaying issues, each of which affect surgical disparities.[2,3,5,8] The review highlighted the interconnectedness of these factors, as well as the importance of further research to better understand the impact of each factor on surgical care.

Synthesis and purpose

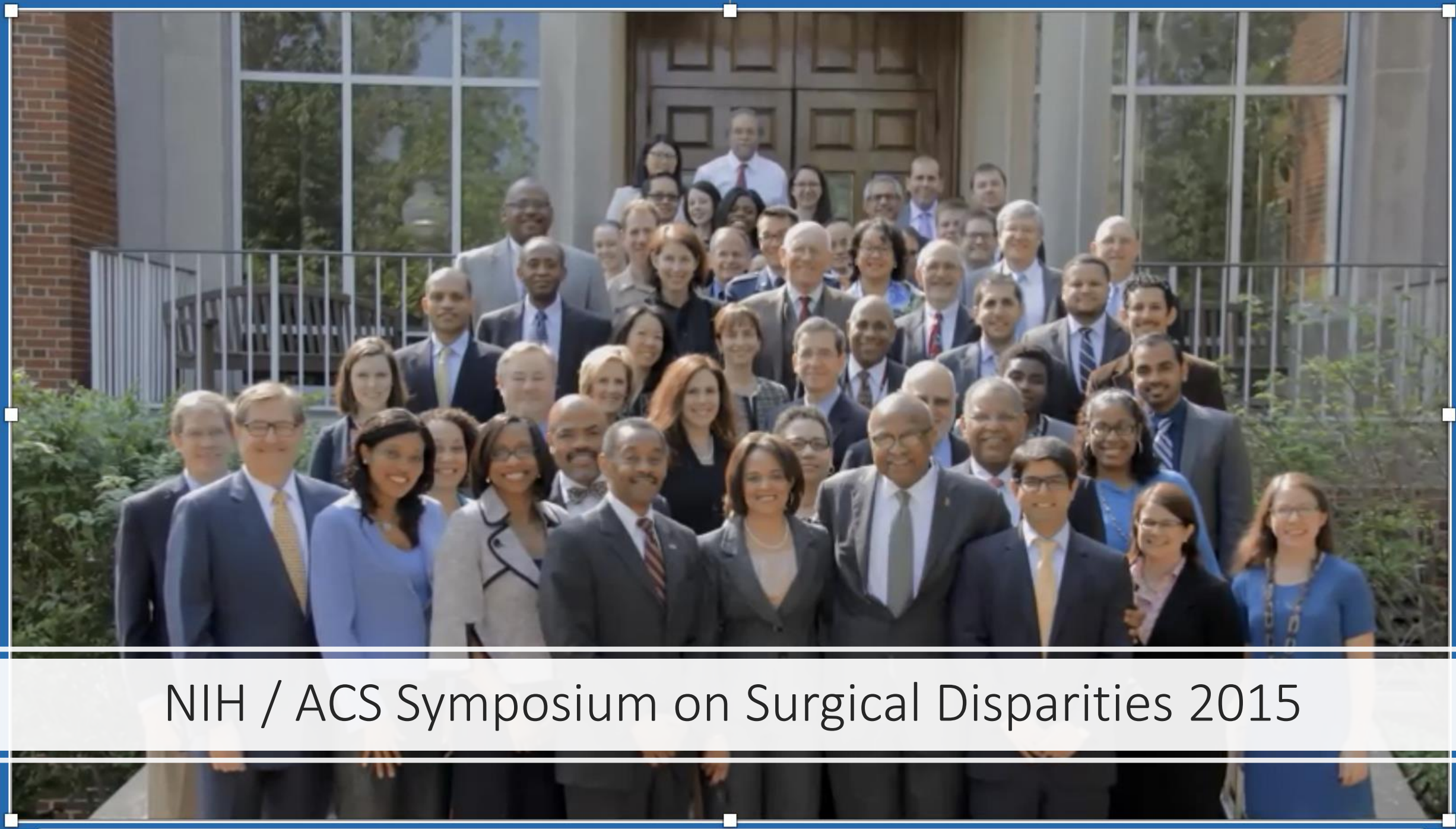
Extant research has documented disparities in surgical outcomes due to factors such as race/ethnicity and SES. More research is needed to conceptualize these and other factors and identify potential causal mechanisms. The objectives of this study were to survey and update extant surgical disparities literature, and synthesize this literature into a framework for conceptualizing and studying inequities as related to their causal mechanism and/or impact. The resultant framework is intended to inform future interventions designed to mitigate disparities in surgical care and outcomes. The themes derived from this review were presented

Disclosure Information: Nothing to disclose.

Received February 11, 2016; Revised April 8, 2016; Accepted April 25, 2016.

From the Center for Surgery and Public Health: Department of Surgery, Brigham and Women's Hospital, Harvard Medical School, and Harvard TH Chan School of Public Health, Boston, MA (Torain, Maragh-Bass, Hisam, Lilley, Najjar, Changoor, Rose, Zogg, Haider); the National Insti-

National Research Action Plan



NIH / ACS Symposium on Surgical Disparities 2015

JAMA Surgery

Special Communication

Setting a National Agenda for Surgical Disparities Research
Recommendations From the National Institutes of Health and American College of Surgeons Summit

Adil H. Haider, MD, MPH; Irene Dankwa-Mullan, MD, MPH; Allysha C. Maragh-Bass, PhD, MPH; Maya Torain, BS; Cheryl K. Zogg, MSPH, MHS; Elizabeth J. Lilley, MD, MPH; Lisa M. Kodadek, MD; Navin R. Changoor, MD; Peter Najjar, MD, MBA; John A. Rose Jr, MD, MPH; Henri R. Ford, MD, MHA; Ali Salim, MD; Steven C. Stain, MD; Shahid Shafi, MD, MPH; Beth Sutton, MD; David Hoyt, MD; Yvonne T. Maddox, PhD; L. D. Britt, MD, MPH

Health care disparities (differential access, care, and outcomes owing to factors such as race/ethnicity) are widely established. Compared with other groups, African American individuals have an increased mortality risk across multiple surgical procedures. Gender, sexual orientation, age, and geographic disparities are also well documented. Further research is needed to mitigate these inequities. To do so, the American College of Surgeons and the National Institutes of Health–National Institute of Minority Health and Disparities convened a research summit to develop a national surgical disparities research agenda and funding priorities. Sixty leading researchers and clinicians gathered in May 2015 for a 2-day summit. First, literature on surgical disparities was presented within 5 themes: (1) clinician, (2) patient, (3) systemic/access, (4) clinical quality, and (5) postoperative care and rehabilitation-related factors. These themes were identified via an exhaustive preconference literature review and guided the summit and its interactive consensus-building exercises. After individual thematic presentations, attendees contributed research priorities for each

Supplemental content at jamasurgery.com

Department of Health and Human Services
Part 1. Overview Information

Participating Organization(s)	National Institutes of Health (NIH)
Components of Participating Organizations	National Institute on Minority Health and Health Disparities (NIMHD) National Cancer Institute (NCI) National Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS) Office of Research on Women's Health (ORWH) National Institute of Nursing Research (NINR)
Funding Opportunity Title	Surgical Disparities Research (R01)
Activity Code	R01 Research Project Grant
Announcement Type	
Related Notices	
Funding Opportunity Announcement (FOA) Number	PAR-16-391
Companion Funding Opportunity	PAR-16-392, R21 Exploratory/Developmental Grant
Number of Applications	See Section III. 3. Additional Information on Eligibility.
Catalog of Federal Domestic Assistance (CFDA) Number(s)	
Funding Opportunity Purpose	The purpose of this Funding Opportunity Announcement (FOA) is to support investigative and collaborative research focused on understanding and addressing disparities in surgical care and outcomes, in minority and health disparity populations. While the goal is to better understand and explore effectiveness of clinical intervention approaches for addressing surgical disparities, this initiative will also seek to identify multi-level strategies at the institutional and systems level.

70 Million USD in Funding

3 R01 Grants (10 M USD)

Key Dates

Posted Date	August 5, 2016
Open Date (Earliest Submission Date)	October 4, 2016
Letter of Intent Due Date(s)	30 days prior to the application due date
Application Due Date(s)	November 4, 2016; June 7, 2017; June 7, 2018 and June 7, 2019, by 5:00 PM local time of applicant organization. All types of non-AIDS applications allowed for this funding opportunity announcement are due on these dates.

AAS Association for Academic Surgery

Research Advocacy: VCC Model

VALIDITY COLLABORATION CONNECTION

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