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 theme. Suggestions were collated, refined, and prioritized during the latter half of the summit. Breakout sessions yielded 3 to 5 top research priorities by theme. Overall priorities, regardless of theme, included improving patient-clinician communication, fostering engagement and community outreach by using technology, improving care at facilities with a higher proportion of minority patients, evaluating the longer-term effect of acute intervention and rehabilitation support, and improving patient centeredness by identifying expectations for recovery. The National Institutes of Health and American College of Surgeons Summit on Surgical Disparities Research succeeded in identifying a comprehensive research agenda. Future research and funding priorities should prioritize patients’ care perspectives, workforce diversification and training, and systematic evaluation of health technologies to reduce surgical disparities.

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Health care disparities, ie, differences in the burden of disease, injury, violence, or opportunities to achieve optimal health experienced by socially disadvantaged populations, have been well documented.\(^1-3\) Disparities are historically linked to race/ethnicity, socioeconomic status (SES), disability, and sexual orientation/gender identity. For example, a 2006 Medicare study\(^4\) found that African American individuals had higher mortality rates for 88% of surgical procedures. However, hospital volume accounted for some of this disparity, illustrating the interconnectedness of surgical disparities.\(^4,5\) Similarly, a 2010 study\(^6\) of national inpatient data found that each incremental increase in SES was associated with a 7% decrease in mortality risk across numerous cardiovascular and oncologic procedures.

Surgical disparities can occur along any part of the patient care continuum including access, quality of care, and outcomes. They are documented in numerous specialties\(^\text{7}^\) and are associated with race/ethnicity,\(^1,3,8-12\) sex,\(^13-15\) age,\(^10,16-18\) and geography.\(^19-21\) Further research and interdisciplinary collaboration are needed to understand the interrelated factors that affect patient experiences in the surgical setting.\(^1,3,4,7,8\) In acknowledgment of these issues, the National Institutes of Health (NIH) and American College of Surgeons (ACS) came together to create a national research agenda to inform surgical disparities research. The NIH-ACS Summit on Surgical Disparities Research was held May 7 to 8, 2015, at the NIH campus in Bethesda, Maryland.

**Partnership: NIH and ACS**

Both the ACS and the NIH (across its various institutes and particularly through the National Institute of Minority Health and Dispari-
Clinical Review & Education  Special Communication

Setting a National Agenda for Surgical Disparities Research

Box 1. Day 1 Research Priorities Compiled in Order of Frequency (N = 440)

Clinician Factors (n=105 Initial Suggestions)
- Definition of cultural competency/dexterity and its role in agency
- Best practices for cultural competency training, eg, standardization, implementation, and curricula
- Regional variation in culture vs uniform training
- Evaluation of the effect of cultural competency training
- Incentivizing cultural competency training and/or diversification of the health care workforce
- Role of patient-physician communication and trust in surgical outcomes
- Patient advocacy and navigation services
- Evaluation of implicit bias and “unlearning” biases interventions
- Evaluating multiple levels of implicit bias, eg, individual, institutional, and setting
- Race/ethnicity/sex/minority patient-physician dis/concordance
- Use of metrics to evaluate surgical quality
- Effect of centralized vs regionalized care on surgical outcomes

Patient Factors (n=116 Initial Suggestions)
- Patient education and health literacy
- Geography, eg, access to care, travel time, and geocoding
- Patient perceptions and decision making
- Data collection and databases, eg, self-report data and use of proxy measures
- Assessing and evaluating preoperative comorbidity and risk, eg, obesity and diabetes
- Role of social support on patient engagement in care
- Defining and evaluating socioeconomic status and cost to patients, eg, out-of-pocket cost to patients
- Patient-physician communication
- Best practices for patient interventions to improve surgical care outcomes
- Strategies to increase patient engagement in health care
- Role of biology and genetics in disparities and related risk factors
- Engagement of marginalized groups in research, eg, immigrant health, religious groups, and Indian Health Services
- Patient behaviors, attitudes, knowledge, and beliefs about health and surgical care
- Effect of technology and social media on surgical outcomes, eg, mobile health interventions
- Assessing insurance-related factors among patients and outcomes

Systemic and Access Factors (n=90 Initial Suggestions)
- Evaluating the effect of specific interventions, eg, regional quality metrics
- Effects of various payment strategies, eg, relative value units
- Data and information management/technology in health care systems
- Tailored management protocols and guidelines, eg, screening guidelines
- Policy checks and evaluation, eg, Medicaid expansion evaluation and outcomes
- Integration and coordination of care services
- Centers of excellence and regionalization of care
- Use of safety net hospitals
- Specific study ideas, eg, evaluation of shared health care decision making
- Engagement between clinicians and patients
- Adoption of technologies
- Social determinants of health

Clinical Care and Quality Factors (n=70 Initial Suggestions)
- Guideline creation, dissemination, and compliance, eg, best practices for screening guidelines
- Effect of new and existing incentives strategies
- Explanatory power of specific structural metrics, eg, effect sizes and measurement issues
- Quality metric development, measurement, and implementation
- Prioritization of outcomes for patients, eg, shared health care decision making
- Role of technology and electronic health records in patient tracking and loss to follow-up
- Tools and methods for understanding disparities, eg, patient registries, qualitative inquiry
- Patient navigation and advocacy

Postoperative Care and Rehabilitation Factors (n=55 Initial Suggestions)
- Study of longitudinal outcomes, eg, quality of life, functional status, and employment outcomes
- Evaluation of disparities in palliative and end-of-life care
- Increasing access and use of rehabilitation for uninsured populations
- Postoperative care for patients in rural settings
- Wraparound services and continuity of care
- Role of social support (eg, in rehabilitation) and adherence
- Exploring multidisciplinary approaches to disparities in functional outcomes and quality of life
- Establishing best practices for rehabilitation quality and nursing facility care
- Effect of patient culture and language barriers on postoperative outcomes
- Culturally competent shared decision making and incorporation of functional outcomes discussion for all patients

Setting a National Agenda for Surgical Disparities Research

The committee’s goals (ties) prioritize research to mitigate surgical disparities. The ACS formed the Committee on Optimal Access in 2013, stating that “optimal access is the key to quality of care.” The committee’s goals are to develop metrics to assess health care disparities in the various disciplines of surgery, strategies for addressing health care disparities in select surgical environments, best practices in combating surgical disparities, and resources to address health care disparities in surgical patient care.

The NIH established the National Institute of Minority Health and Disparities in 2000, with the mission to lead research to improve...
Planning for the NIH-ACS Summit on Surgical Disparities Research

The planning committee for the summit consisted of leadership from both organizations. They jointly identified and invited experts to the summit that had extensively published peer-reviewed disparities research (eAppendix in the Supplement) and were nationally recognized in the field. The literature review was used to help identify participants. To organize the content discussed in the summit, the planning committee conducted an exhaustive literature review to identify potential thematic areas of surgical disparities research. Further details on our methods and results of this search are now available on the ACS website.24 Planning committee researchers synthesized findings into 5 thematic topics: (1) clinician factors (including physicians, surgeons, nurses, nurse practitioners, physician assistants, and students), (2) patient/host factors, (3) systemic factors and access factors, (4) clinical care and quality factors, and (5) postoperative care and rehabilitation factors. This article presents the thematic areas that guided the summit, organization of thematic and breakout sessions at the summit, and the outcomes of these sessions.

Summit Format

Attendees of the 2015 NIH-ACS Summit on Surgical Disparities Research represented a diverse group of surgeons, researchers, and staff with knowledge and practical experience with surgical disparities research or were content experts from other fields within health care disparities research. Many attendees and planning committee members had diverse clinical experiences and represented multiple countries and racial/ethnic groups. Approximately half of attendees were women. Attendees were also diverse in their experiences in providing care in urban, suburban, and rural settings across multiple geographic regions of the United States, both in community hospitals and academic medical centers.

Following an introduction to the summit and overview of deliverables, the summit conducted an interactive discussion of 5 empirically based thematic areas derived from the literature described earlier. For each theme, a surgical research fellow presented an overview of literature in that field. Next, a nonsurgeon expert in the field presented an elaboration of the literature in each theme, commenting on knowledge gaps and proposing future directions. A video giving further details of this summit format can be found at the ACS website.24

Box 2. Five Overarching Priorities Identified for Surgical Disparities Research at the 2015 National Institutes of Health and American College of Surgeons Summit

<table>
<thead>
<tr>
<th>Research Should Be Directed Toward</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Improving patient-Clinician communication by helping clinicians deliver culturally dexterous, competent care and measuring its effect on the elimination of disparities.</td>
</tr>
<tr>
<td>2. Fostering engagement and community outreach by using technology to optimize patient education, health literacy, and shared decision making in a culturally relevant way; disseminating these technologies; and evaluating their effect on reducing surgical disparities.</td>
</tr>
<tr>
<td>3. Improving care at facilities with a higher proportion of minority surgical and trauma patients. This includes evaluation of regionalization of care vs strengthening of safety-net hospitals within the context of differential access and surgical disparities.</td>
</tr>
<tr>
<td>4. Evaluating the longer-term effect of acute interventions and rehabilitation support within the critical period of injury or illness on functional outcomes and patient-defined perceptions of quality of care.</td>
</tr>
<tr>
<td>5. Improving patient centeredness by identifying expectations for postoperative and postinjury recovery. This includes adhering to patient values regarding advanced health care planning and palliative care needs.</td>
</tr>
</tbody>
</table>

Synopsis of Thematic Presentations

Clinician Factors

Clinician-level factors in surgical disparities refer to variations in physician practice related to factors such as level of training.4 Disparities in clinician factors have been reported, with African American patients receiving less colon, prostate, and lung resections than white patients.25-26 Compared with more affluent patients, patients with lower SES are less likely to receive appropriate surgical services.27-46 Simulated studies demonstrated the effect of implicit bias on physician decision making and require real-world clinical assessment.31-34 Extant research suggests that racial/ethnic minorities receive more racially discordant health care than white patients,1,3 which may contribute to poor physician-patient communication. This can affect ascertainment of informed consent, collection of social histories, and adherence to postoperative care instructions.35 Research is needed to understand the role of cultural dexterity, defined as knowledge, skills, and awareness of physicians in patient interactions in surgical care.36

Patient Factors

Numerous patient factors have been identified as contributors to surgical disparities, including demographic (eg, race/ethnicity), physiologic (eg, immune status), and culture (eg, language). Compared with white patients, when African American patients undergo surgery, they have higher operative mortality and morbidity than white patients.37-46 Compared with more affluent patients, patients with low SES are less likely to receive appropriate surgical services.47,48 Disparities have also been demonstrated for coronary artery bypass grafting, mitral valve procedures, and other surgical outcomes for women compared with men.49,50 Future research must focus on mitigation of disparities via patient-clinician education and systematic approaches to health care equity.
**Systemic and Access Factors**

Systemic and access factors are issues related to patient access to care including health care coverage policies and clinical protocols. Systemic and access factors often interact. For example, while universal health care coverage in Massachusetts reduced disparities in the receipt of minimally invasive operations for common abdominal ailments, other systems-level policies to increase access have exacerbated disparities among low-income and disadvantaged populations. Race/ethnicity and/or SES disparities have been demonstrated in care access and procedures such as emergent vs elective hernia repairs and limb salvage vs amputation in critical limb ischemia. Future research is needed to understand factors, such as time between diagnosis and surgical referral and delays in seeking acute care, to reduce surgical disparities.

**Clinical Care and Quality Factors**

The Institute of Medicine defines quality as “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.” Disparities can be conceptualized as factors related to structure, process, and outcomes. Structural variation accounts for some between-hospital quality differences in outcomes, such that minority patients living in low-SES zip codes are more likely to present to hospitals with low structural quality and experience worse outcomes. Process variations, including choice of procedure, adherence to guidelines, and specialty referral, have all been linked to minority patient status. Less is known about other demographic associations with clinical care and quality, including immigration status, language, rurality, sexual orientation, and gender identity. Future research is needed to understand and promote redesigned care pathways, systems demonstrations, and enhanced measurement and incentives to yield high-value, equitable care.

**Postoperative Care and Rehabilitation Factors**

Relative to other areas of disparities, little is known about disparities in postoperative and rehabilitative care. Previous research provides evidence of racial, ethnic, and insurance disparities related to access to postacute care after traumatic brain injury, spinal cord injury, and orthopedic surgery. Even among patients who receive inpatient rehabilitation, there are still disparities in functional outcomes and timing and use of adjuvant. African American and Hispanic women are more likely to have late initiation of chemotherapy and incomplete treatment, less follow-up, and increased mortality rates relative to white oncology patients. Other studies demonstrate mismanaged care preferences among these groups as well. More research is needed to investigate the social determinants of health in postoperative recovery, long-term outcomes, palliative care, and end-of-life care.

**Identification of Research Priorities**

Summit attendees participated in a thematic ranking exercise over the course of the conference. The entire process was overseen by a PhD-trained health disparities researcher with expertise in qualitative methods. On day 1, a 3-step process was implemented. First, at the completion of each thematic presentation, attendees generated free-response comments by theme. These recommendations were collected at the conclusion of all of the presentations. Next, using pile sorting methods, cards were sorted and collated by facilitators trained in qualitative methods. Third, cards were sorted by similarity in qualitative content of questions, and all frequencies were recorded, yielding between 5 to 15 popular topics per theme.

On day 2, attendees were assigned to 2 consecutive 1-hour breakout sessions. Attendees participated in 2 different thematic sessions so that they could contribute both within and outside their areas of expertise. Breakout sessions were each led by a trained facilitator and a surgical chair with relevant expertise. The coleads facilitated group discussion around etiology, vulnerable populations, ethical and methodological considerations, funding priorities, workforce diversity, and surgical training recommendations. During the first breakout session, each group was asked to narrow down the list of topics that were compiled from day 1 to a list of up to 10 priority topics.

This was accomplished by considering the overall popularity of the topics in day 1 and potential contributions of the topics to reducing surgical disparities, regardless of popularity. In the subsequent breakout session, a separate group of attendees assessed the list generated by the first group and further refined it to identify up to 5 priorities by theme. Results were shared with the entire summit to elicit final comments, and 5 overarching themes were determined. Final deliverables consisted of a list of 5 research priorities by theme and a list of 5 overall research priorities, regardless of theme. On day 1, nearly 60 individuals participated in identifying research priorities for each of the 5 thematic areas. In total, more than 440 comments were gathered, collated, and organized into topics for day 2.

**Results**

Recommendations are detailed by respective theme. The Figure depicts a flowchart of how conference attendees participated in each day of the summit thematic rankings. Box 1 reports the most frequent research topics and related research questions as identified on day 1, which informed day 2 sessions. The Table reports the results of the day 2 breakout sessions, and Box 2 details the top overall research priorities, regardless of theme.

**Clinician Factors**

Day 1 thematic rankings yielded 105 questions related to clinician factors that contribute to surgical disparities (Box 1). Twelve themes emerged after data collation including cultural competence/dexterity, patient advocacy and navigation services, clinician communication, implicit bias/mindfulness, surgical quality metrics, and racial and sex discordance. The most commonly identified topic was the effect of cultural competence and/or dexterity on surgical disparities (37%); followed by the effect of biases on care (28.6%);"
clinician training; (3) implicit bias and mindfulness training and evaluation; (4) improvement and exploration of new and existing surgical quality metrics; and (5) the role and effect of patient-clinician concordance (Box 1). Recommendations for future studies call for focus on the definition and measurement of cultural dexterity training and evaluation and investigating the effect of ancillary staff on improving cultural competence. Training should provide surgeons with the tools to deliver culturally relevant, patient-centered care and adapt to patients of all different cultural backgrounds. In addition, surgical workforce diversification was discussed in breakout sessions as a method to increase cultural dexterity.

Patient Factors

Day 1 thematic rankings yielded 120 research questions related to patient factors (Box 1). Fifteen patient factor themes were identified including social support, socioeconomic status, incidental cost of health care to patient, patient-clinician communication, effect of interventions on outcomes, patient behaviors, technology/social media, and insurance. The most commonly identified topics were the role of patient education and health literacy in patient-clinician communication (13.3%; n = 16); geographic and other barriers to accessing care (11.7%; n = 14); and patient perceptions, decision making, and engagement in personal health/behaviors (10.8%; n = 13).

The top-priority topics identified on day 2 were: (1) the role of patient education and health literacy in patient-clinician communication; (2) patient perceptions, decision making, and engagement in personal health/behaviors; and (3) optimizing preoperative comorbidities and partnering with primary care physicians (Table). Additional recommendations were for tools to evaluate clinician communication and patient level of understanding. Interventions should focus on allowing patients the autonomy to make informed decisions about their surgical health care based on accurate, timely, and culturally dexterous communication. Finally, technologies, including social media and handheld devices, must be leveraged to educate patients and support patient decisions in a culturally competent manner.

**Systemic and Access Factors**

Day 1 thematic rankings yielded 90 research questions related to systemic and access factors (Box 1). Thirteen systemic and access factor themes were identified including tailored management protocols and guidelines, based on factors such as hospital volume and the effect of the social determinants of health on surgical disparities in systemic and access issues. The most commonly identified topics were...
the effects of payment strategies on access issues (eg, relative value units, 13.3%; n = 12) and the use of data and information management to mitigate disparities and improve health records' effect on surgical care? How can the adoption of health information technology be evaluated in its effect on surgical outcomes?

Clinical care and quality factors

Leveraging evidence-based medicine, eg, electronic health records, to reduce disparities and improve adoption of evidence-based care

How can "meaningful use" of electronic health records improve evidence-based care and patient outcomes? How do we strengthen health centers' infrastructure to standardize electronic health record use?

Approaches for standardizing and integrating existing data repositories to mitigate disparities

How are these barriers overcome to ongoing data reporting by health care organizations? How can these barriers be overcome to standardize surgical care, quality, and follow-up?

Evaluating methods for incorporating patient preferences for treatment and expectations for outcomes in surgical decision making

How do we engage patients in shared health care decision making? How can we further incorporate patient preferences in treatment courses? How can we better assess patient expectations for surgical care and/or patient satisfaction?

Summary

The top-priority topics identified on day 2 were: (1) assessing the effects of payment in the context of policy reform, (2) care coordination and integration and tailored guidelines for vulnerable populations, (3) regionalization of care vs strengthening safety net hospitals, (4) role of health care as a mitigating factor of social determinants of health, and (5) the evolution of health technology and electronic health records' effect on research and surgical outcomes (Table). Additional recommendations were to develop strategies that improve access to care for populations that experience surgical disparities. Beyond the effect of socioeconomic disadvantage, future research should assess the effect of the Affordable Care Act in access to care for these populations.90

Table. Day 2 Top Research Priorities and Related Questions by Theme (continued)

<table>
<thead>
<tr>
<th>Research Topic</th>
<th>Sample Research Questions Generated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Evaluating the effect of incentive strategies on disparities</td>
<td>How do we incentivize shared decision-making and its effect on surgical outcomes? What are innovative ways to incentivize quality surgical care?</td>
</tr>
<tr>
<td>Developing and implementing standard data definitions for known and suspected risk factors for disparities</td>
<td>What is a working quality metric for use by health care organizations and clinicians? What is a standard definition of &quot;disadvantaged populations&quot;? How do we define and distinguish the effect of race/ethnicity from factors such as socioeconomic disadvantage and/or health literacy?</td>
</tr>
<tr>
<td>Leveraging existing databases and developing needed methodology to prospectively collect long-term functional, quality of life, and employment outcomes</td>
<td>How can we develop databases to capture longer-term outcomes, including patient-centered outcomes such as quality of life, functional status, compliance, employment, independent living, and disease/procedure-specific outcomes?</td>
</tr>
<tr>
<td>Evaluating communication approaches regarding end-of-life care, palliative care, and postoperative or postinjury expectations for recovery</td>
<td>How do we characterize disparities in palliative care and end-of-life care? How do we understand discrepancies in advanced care planning and quality among surgical patients? How do we address disparities in access to palliative care procedures?</td>
</tr>
<tr>
<td>Exploring barriers to prioritizing patients' values and measuring the effectiveness of these strategies</td>
<td>How do language, cultural, and/or other barriers impede prioritizing patient preferences’ in postoperative care? How do we better engage patients with limited health literacy?</td>
</tr>
<tr>
<td>Exploring the value of postinjury and postoperative recovery and rehabilitation services in terms of cost, quality, and patient-oriented outcomes</td>
<td>How do we set metrics to evaluate postinjury cost and quality and its effect on surgical patient outcomes? How do we reform existing postinjury and postoperative rehabilitation care to improve outcomes for disadvantaged populations?</td>
</tr>
<tr>
<td>Improving access to physical therapy, occupational therapy, and speech therapy with sustainable payment models, eg, teletherapy, to improve rehabilitative outcomes during the critical postacute period</td>
<td>How do payment models and incentive strategies affect postacute care follow-up? How do we evaluate the potential benefit of tele-therapy to rural patients and/or surgical patients of limited mobility? How do we overcome financial barriers to physical therapy, occupational therapy, and speech therapy for patients of low SES backgrounds?</td>
</tr>
</tbody>
</table>

Abbreviation: SES, socioeconomic status.
Clinical Care and Quality Factors

Day 1 thematic rankings yielded 70 questions regarding clinical care and quality (Box 1). Eight primary research themes were identified from the questions. The most commonly identified topic was best practices for developing and implementing evidence-based guidelines (22.9%; n = 16), followed by the effect of incentive strategies and payment (17.1%; n = 12). The top 5 thematic topics identified on day 2 were: (1) leveraging electronic health records to improve adoption of evidence-based care; (2) approaches for standardizing and integrating existing data repositories to mitigate disparities; (3) evaluating methods for incorporating patient preferences for treatment and expectations for outcomes in surgical decision making; (4) evaluating the effect of incentive strategies on disparities; and (5) developing and implementing standard data definitions for known and suspected risk factors for disparities (Table). Recommendations were to prioritize the establishment of effective and efficient quality improvement strategies.

Future research should assess the effect of electronic health records adoption on disparities in surgical care. Research into surgical disparities often requires linking disparate data sets containing information on clinical outcomes, hospital structure, processes of care, and patient demographic information. These linkages are currently challenging because of nonstandard definitions of data elements. As the distinction between equal and equitable care becomes increasingly clear, patient preferences and cultural factors must be taken into account in surgical decision making. Finally, need for novel incentive strategies in the context of pay-for-performance, bundled payments, accountable care organizations, and public reporting was identified.

Postoperative Care and Rehabilitation Factors

Day 1 thematic rankings yielded 55 questions related to postoperative care and rehabilitation factors (Box 1). Ten themes emerged, including the study of longitudinal outcomes, evaluation of disparities in palliative and end-of-life care, the role of social support, and the effect of patient culture on postoperative outcomes. The most commonly identified topic was developing longitudinal methods for assessing outcomes, such as quality of life and functional status (25.5%; n = 14), followed by improving access to outpatient, end-of-life care, palliative care, and advanced care planning (16.4%; n = 9).

The top research areas were: (1) leveraging existing databases to prospectively collect data on long-term functional, quality-of-life, and employment outcomes and develop methods for this purpose; (2) evaluating communication approaches regarding end-of-life care, palliative care, and postoperative or postinjury expectations for recovery; (3) exploring barriers to prioritizing patients’ values and measuring the effectiveness of these strategies; (4) exploring the value of postinjury and postoperative recovery and rehabilitation services in terms of cost, quality, and patient-oriented outcomes; and (5) improving access to physical therapy, occupational therapy, and speech therapy with sustainable payment models (eg, teletherapy) to improve rehabilitative outcomes during the critical postacute period (Table).

Top Overall Research Questions

The final deliverable for the 2015 NIH-ACS Summit on Surgical Disparities Research was the identification of 5 research questions to guide the surgical disparities research agenda (Box 2). Overarching priorities, regardless of theme, called for the following: improving patient-clinician communication, fostering engagement and community outreach by using technology, improving care at facilities with a higher proportion of minority patients, evaluating the longer-term effect of acute intervention and rehabilitation support, and improving patient centeredness by identifying expectations for recovery.

Discussion

The overarching purpose of the 2015 NIH-ACS Summit on Surgical Disparities Research was to create a national research agenda for use by clinicians, researchers, funding organizations, policymakers, and other key stakeholders. The event established a national research agenda intended to inform not only the future of the partnership between the NIH and the ACS but also to provide research agendas and funding priorities for years to come.

The 2-day summit identified nearly 30 research priorities across 5 surgical disparities-related themes (clinician, patient, systemic and access, clinical care and quality, and postoperative care and rehabilitation factors), which were distilled into 5 overarching priority research questions. Surgical disparities represent a complex problem that the collective community of policymakers, clinicians, researchers, funding bodies, and other stakeholders must address. Evidence of this overlap can be seen in the commonality of recommendations for continued evaluation of patient-clinician communication as well as clinician training and patient education related to both patient and clinician factors. Identified research priorities also included overlap between systemic/access and clinical care/quality-related factors. Moreover, many of the known factors associated with surgical disparities were common among the themes, namely race/ethnicity, SES, culture, and geography. However, more research is needed to intervene and mitigate these factors.

Much of the extant literature identifies sociodemographic factors that precipitate surgical disparities. More research is needed to evaluate these issues long term to design interventions to mitigate disparities. Specifically, research is needed to investigate sustainable models of delivering physical, occupational, and speech therapy to patients and identify effects on recovery. Although 30-day morbidity and mortality have been historically important outcome metrics, they fail to capture the information that is most important to patients because outcomes beyond 30-day morbidity and mortality are likely the most pronounced. The effect of cultural barriers, time constraints, and staff limitations and disparities as contributing factors in poor-quality communication about postsurgical expectations for recovery is also formidable. Similarly, given that women make up more than half of the US population, more research is needed to identify sex-specific risk factors and subsequent interventions that may mitigate surgical disparities.

Finally, future research and funding entities should prioritize innovation for improving patient-clinician communication via culturally dexterous approaches.

The findings entailed in this report are not without limitations. The results represent the views of clinicians and scientists at a single research meeting (N = 60). Representatives from affiliated fields,
Setting a National Agenda for Surgical Disparities Research

Conclusions

As a first step in setting the research agenda of the NIH-ACS partnership, the inaugural 2015 NIH-ACS Summit on Surgical Disparities was tasked with developing a pivotal research agenda to guide the future of surgical disparities research. This goal was accomplished thanks to interdisciplinary collaboration between surgeon-scientists, health disparities researchers, federal funding organizations, and policymakers. The findings of this summit will be used to inform funding priorities for key partners owning to a critical interinstitutional alliance among the NIH, the ACS, the Patient-Centered Outcomes Research Institute, and the Agency for Healthcare Research and Quality.

The collaboration inspired by these institutions represents a call for the development of further innovative partnerships to address surgical disparities. We challenge researchers and funding entities to take these priorities to heart and begin moving research in the field of surgical disparities “from knowing to doing.” Within the context of the larger literature, summit results also call for ongoing evaluation of evidence-based practice, rigorous research methodologies, incentives for standardization of care, and building on existing infrastructure to support these advances. With ongoing support and collaboration from the NIH, ACS, and affiliates, best practices for implementation of identified research priorities can be achieved and be used to create more optimal access to equitable quality care for all patients.

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