Advancing Health Services Research to Eliminate Health Care Disparities

Findings from health services research highlight continuing health care disparities in the United States, especially in the areas of access to health care and quality of care.

Although attention to health care disparities has increased, considerable knowledge gaps still exist. A better understanding of how cultural, behavioral, and health system factors converge and contribute to unequal access and differential care is needed.

Research-informed approaches for reducing health care disparities that are feasible and capable of sustained implementation are needed to inform policymakers. More important, for health equity to be achieved, it is essential to create a health care system that provides access, removes barriers to care, and provides equally effective treatment to all persons living in the United States. (*Am J Public Health.* 2019;109:S64–S69. doi: 10.2105/AJPH.2018.304922)

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Considerable attention has focused on understanding how health care factors such as coverage, access, and quality of care contribute to health disparities, with a wealth of evidence clearly indicating that health care disparities exist.[1] Health care disparities refer to inequitable differences between groups in health coverage, access to care, and quality of care received, with these differences contributing to health disparities. Although no longer considered the sole cause of health disparities, health care is now considered an integral social determinant that significantly contributes to creating and perpetuating health disparities.[2] Consequently, understanding how health care disparities occur in the delivery of health care and how to eliminate these health care disparities remains a paramount pursuit for health disparities researchers.

Nearly 17 years have passed since the Institute of Medicine (IOM) released its landmark report, *Unequal Treatment: Confronting Racial and Ethnic Disparities in Health Care*, which summarized the scientific evidence on health disparities at the time.[1] This report brought to light the varied and complex issues that contribute to health care disparities and provided a roadmap for what needed to be done to help eliminate them. Unfortunately, the recommendations of the report have not been achieved, with many research gaps and questions remaining. Although a host of factors, including access to care, quality of care delivered, patient–clinician communication, culture, and behavioral practices and personal beliefs, have been identified as potential causes of health care disparities, a considerable need exists to better understand how these factors converge and result in unequal access and differential care that lead to population-level health disparities.

In 2015, the National Institute on Minority Health and Health Disparities (NIMHD) led a 2-year transagency science visioning initiative for health disparities that included a comprehensive review of the scientific literature and a series of workshops involving leading health disparities experts that aimed to evaluate the current state of knowledge of the field of minority health and health disparities and to identify priority research areas aimed at improving the field. Findings from this initiative are contained in this *AJPH* supplement. We discuss critical areas of research needed to advance our understanding of how health care contributes to health disparities. Furthermore, we aim to challenge the health disparity research community to address critical gaps in the knowledge base so that effective health care solutions can be found to address health disparities and achieve health equity.

HEALTH CARE SYSTEM FACTORS

The fragmented nature of how health care is delivered in the United States contributes strongly to health care disparities. The sources of these disparities are complex, are rooted in historic and contemporary inequities, and involve factors both within and external to the health care delivery system. Of the factors, lack of access to health care and failure to receive timely care are major contributors.[1]

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New models of delivery have emerged that hold promise to reduce health disparities and have been promoted by both providers and payers. For instance, the Institute for Healthcare Improvement promulgated the Triple Aim, which advocates simultaneous improvements in patient experiences and population health and lower cost per capita and has considerable applicability for reductions in health care disparities.[3] Furthermore, the passage of the Patient Protection and Affordable Care Act (Pub L No. 111-148, 124 Stat. 855 [March 2010]; ACA) and current efforts in payment reform signal the beginning of a transformation in health care. An entire new set of structures is being developed to facilitate increased access to care that is cost-effective and of high quality and has the potential to reduce health disparities from a population health perspective. Research efforts are needed to evaluate whether system-level changes have significant effect on reducing health care disparities, whether newly developed patient care models are effective, and whether payer-based changes lead to improved outcomes, including patient satisfaction.

QUALITY OF CARE AND QUALITY IMPROVEMENT

Quality of care received is a significant factor that contributes to health disparities. From a health disparities perspective, a significant gap exists between the quality of care that is delivered to health disparity populations and the care that the health care system can optimally deliver.[4] Understanding whether patients are receiving evidence-based and guideline-driven care is essential for eliminating health care disparities. Although, optimally, patient care should be individualized and patient-centered, standards of care still need to reflect best medical practices.

Two of the most prevalent quality issues are overuse and underuse. Overuse, the provision of health care services for which harms outweigh benefits or that is not necessary, represents poor quality and contributes to higher health care costs. A better understanding of overuse in the US health care system could inform efforts to reduce inappropriate care. However, evidence documenting that racial/ethnic minorities experience a disproportionate overuse of care is limited in the literature and provides an opportunity for further exploration.[5] Clinicians and researchers should try to understand how and why health disparities might be associated with overuse and take appropriate actions. Do characteristics of patients lead to overuse? Clinician bias and stereotypes? Or health care system factors? Studying overuse may provide insight to underuse, which is the failure to provide effective care. Unfortunately, underuse of effective health care interventions is more prevalent among underserved populations.[6] Understanding why disparity populations do not receive care, especially early preventive therapies, is an important inquiry to help reduce health disparities.

On a similar note, understanding how care is delivered is essential to addressing health disparities. Quality improvement methods hold promise in helping health systems identify quality of care problems. These approaches are appealing for addressing disparities because they offer a systematic way to study care delivery and a method for tailoring or changing an intervention over time based on continuous data monitoring. Yet disparities-focused quality improvement remains understudied, with limited attention to core methodologies and outcome measures. Examples in the literature of quality improvement interventions affecting disparities are relatively scarce and reflect a nascent field,[7] but national studies have reported that racial/ethnic disparities have been largely eliminated in the quality of hospital care for Medicare beneficiaries and in the control of hypertension, diabetes, and hyperlipidemia in some Medicare Advantage health plans through quality monitoring and improvement processes.[8,9] Furthermore, the Health Center Program funded by the Health Resources and Services Administration provides care for nearly 26 million of the nation's most vulnerable populations. Health centers improve health outcomes by emphasizing the care management of patients with multiple health care needs and the use of key quality improvement practices, including health information technology. In 2016, nearly all health centers showed improvement on 1 or more clinical quality measures, including exceeding the national average in key diabetes and hypertension measures.[10] Although quality improvement efforts have focused on Medicare and care delivered in federally qualified health centers, efforts are needed to understand how quality improvement tools can be used effectively to reduce health care disparities in all health plans and systems.

PAYMENT REFORM SYSTEMS

In 2014, the ACA was enacted and became a legislative intervention that many believed would be a significant advancement for addressing health disparities by improving individual health and, ultimately, population health. The ACA refers to 2 separate pieces of legislation—the Patient Protection and Affordable Care Act (Pub L No. 111-148) and the Health Care and Education Reconciliation Act of 2010 (Pub L No. 111-152)—that together expand Medicaid coverage to millions of low-income Americans and make numerous improvements to both Medicaid and the Children's Health Insurance Program. The ACA aimed to reform how insurance and health systems work to improve health care access, quality, and individual and public cost. Since these coverage provisions took effect in 2014, uninsured rates have decreased—from 22.3% in 2010 to 12.1% in 2017.[11] Uninsured rates declined most sharply among the poor or near-poor and among Latino, Black, and Asian individuals. Because lack of health care access and insurance coverage are major factors that help perpetuate health disparities, this increase in insurance coverage has significant potential to reduce access barriers. With the passage and implementation of the ACA, a considerable number of research opportunities emerged. It is reasonable to expect that the ACA will directly affect health disparity populations who historically have experienced lower coverage rates and suboptimal access to care.[12]

Perhaps one of the most important unanswered questions might be whether the ACA would lead to more equitable and efficient health care in the long term. Although the ACA provides a first step in ensuring access, how large an effect it will have on disparities in care and

outcomes will be influenced by the repeal of the individual mandate provision as part of the recently passed tax-cut bill and other possible legislative efforts to modify, repeal, or replace it. Even if the ACA continued unchanged, more long-term data are needed to evaluate the potential effect on health care disparities.

The ACA and subsequent legislation, including the Improving Medicare Post-Acute Care Transformation Act of 2014 and the Medicare Access and Children's Health Insurance Program Reauthorization Act of 2015, have empowered the Centers for Medicare and Medicaid Services to implement value-based programs. Public and private payers also are developing alternative payment models to encourage providers to integrate care and be accountable for both the quality and the cost of patient care.[13] Examining payment reform as a tool to achieve equity has not been well studied. Systematic reviews of pay-for-performance initiatives indicate that few have been explicitly designed to reduce disparities, and general pay-for-performance incentives have often failed to reduce disparities.[14,15] Although pay-for-performance programs can increase quality of care and decrease costs, they also may result in unintended consequences. For example, health systems that serve numerous patients with preexisting health conditions that require considerable care and expenditure may not meet performance goals and would be penalized under these programs. When outcomes depend on both clinicians and patients, provider inputs may differ according to patient needs, with implications for reimbursement.[16] Several studies have shown that larger hospitals, teaching hospitals, and safety-net hospitals, which traditionally serve disadvantaged patients, are more likely to rank poorly on quality measures and therefore are more likely to be penalized under pay-for-performance programs than hospitals that do not typically serve these patients.[16]

The Medicare Accountable Care Organization (ACO) program is designed to help reduce cost while improving quality of care for Medicare beneficiaries. Although the ACO program encourages delivery system integration and quality improvement, which may benefit underserved populations who often receive care from clinicians and systems with limited resources, concerns similar to those for pay for performance have emerged.[17] ACOs support consolidation of physicians into larger organizations that may provide enhanced structural capacity for care coordination and quality improvement, but it is not yet clear whether ACOs result in reductions of health disparities, and this knowledge gap presents a unique opportunity for health services research. Similarly, Medicaid ACOs have been established in 12 states, with several other states pursing this option. These Medicaid ACOs seek to drive accountability through 3 key activities: (1) implementing a value-based payment structure, (2) measuring quality improvement, and (3) collecting and analyzing data. As with Medicare ACOs, understanding the risks and benefits of this payment reform system with regard to the elimination of health disparities warrants further study.[18]

PATIENT-CENTERED MEDICAL HOME

Recently, the patient-centered medical home (PCMH) has been endorsed by major primary care organizations and in the ACA as a model with the potential to reform the US health care delivery system and reduce disparities in health care. As defined by the Agency for Healthcare Research and Quality, the PCMH framework has 5 attributes: comprehensive care, patient-centered care, coordinated care, accessible services, and quality and safety.[19] Although the model is still evolving, it aims to improve access to care (e.g., through extended office hours and increased communication between clinicians and patients) while simultaneously reducing costs.[20]

Ideally, a PCMH model should include a health equity dimension that addresses the social determinants of health in a defined population. Many stakeholders in PCMH initiatives believe that an effective primary care system that promotes preventive care and offers community-based services has the potential to advance overall quality of care while reducing health disparities.[21] However, proliferating PCMH initiatives over the past decade have provided little empirical evidence on the effect of the PCMH on reducing health disparities and confronting health inequity. One option to consider is to create an equity metric in evaluating quality of care in health systems. A challenge for researchers is how to best measure various PCMH models in terms of providing optimal health care and also reducing health disparities. Opportunities for further research into how PCMH models can reduce disparities include research studies that evaluate system-based approaches, team-based care, and evidence-based interventions.

PATIENT–CLINICIAN INTERACTION

As the United States becomes more diverse, it is important to understand how culture influences care and contributes to health disparities. Some examples of where cultural competence may reduce quality of care include a mismatch between the biomedical approach to health and disease and the health beliefs and practices of racial/ethnic minority populations, such as those related to illness causation, holistic views of mind and body, the prioritization of symptom management versus disease cure, and family involvement in medical decision-making.[22] Lack of appreciation or awareness on the part of clinicians of patient knowledge, beliefs, or communication styles or of their own biases can result in poor patient–clinician communication with racial/ethnic minority patients. This can be characterized by less patient-centered communication, less discussion of treatment options, and less positive and more disengaged nonverbal behavior by clinicians.[23] Poor patient–clinician communication is associated with disparities in outcomes for chronic diseases and pain management and in patient satisfaction with care.[24]

Health care systems have started to address cultural competence and have adopted different approaches and techniques to improve outcomes and reduce health disparities. Some of these approaches and techniques improve the knowledge and attitudes of health professionals and promote satisfaction with care,[25] but they have not been clearly shown to improve health outcomes.[26] More evidence and better data are needed to illustrate definitively how to deliver culturally competent care. Similarly, additional research is needed to unpack the construct of culturally competent care and to understand the contribution of its different components, including those that are not strictly "cultural," to disparate health outcomes. For example, cultural competency

training for clinicians generally focuses on cultural beliefs, practices, and communication styles of racial/ethnic minority populations, often to the exclusion of other social determinants of health, such as poverty, unhealthy living environments, psychosocial stressors, and racism and discrimination. Such narrowly defined interventions to improve cultural competency may have limited benefit in the reduction of health disparities.

The number of individuals with limited English proficiency in the United States has risen dramatically over the past several decades. An estimated 60 million individuals in the United States speak a primary language other than English, and more than 42% have limited English proficiency.[27] Language barriers encountered in health care have a negative effect on patients with limited English proficiency and are associated with fewer clinician encounters and preventive services, less treatment comprehension, poor adherence to prescribed treatment, lower satisfaction with services, and more adverse events.[27,28] Although interpreter services have been promoted as a means to overcome language barriers and are part of the National Standards for Culturally and Linguistically Appropriate Services, they are not fully used by the health care system because of cost and other logistical constraints. Subsequently, clinicians need to better understand how to best deliver linguistically appropriate services to patients with limited English proficiency to ensure that they receive patient-centered care.

CLINICAL DECISION-MAKING

Another area that is gaining attention and has been identified as contributing to health care disparities is clinical decision-making, especially when guidelines have not been tailored for racial/ethnic groups. Tailoring treatment regimens for racial/ethnic groups is an accepted form of practice and often takes into account behavioral change messages, communication styles, and possible drug responsiveness that might be explained by genetic variation.[29] However, guidelines historically have been established on the basis of homogeneous populations.[30] Population differences with potential pathophysiological and therapeutic implications may be obscured by standards. For instance, data from the Nurses' Health Study show that Asian women had more than double the risk for developing type 2 diabetes than did White women of the same body mass index.[31] This difference has not yet been clearly explained, but data also show that when compared with White persons of similar body mass index, Asian persons have more total body fat. It has been suggested that lower cutoff points for body mass index and abdominal obesity metrics should be used for Asian persons, which may influence decisions to screen for diabetes, for example.[32]

Physiological and therapeutic needs that are obscured by existing standards can contribute to health disparities. Inadequately tailored health care also can lead to disparities in health outcomes. New research is needed to explore how clinicians make medical decisions based on guidelines for their patients. Findings from these studies can provide an understanding of when and how current standards of care may contribute to health disparities. The findings also may inform efforts to improve guidelines, screening, and criteria so that they take into account characteristics of diverse populations, as well as efforts to ensure that the transition to personalized medicine approaches adequately accounts for characteristics of populations and diverse individuals.

STEREOTYPE, BIAS, AND STIGMA

As noted earlier, health care disparities are not fully explained by lack of access and health insurance. In fact, health care disparities often persist among populations covered by health insurance, although they are more pronounced among persons who lack health insurance or live in areas with high levels of poverty. Stereotyping, stigma, biases, and uncertainty on the part of clinicians can contribute to unequal treatment of patients, as can care that is poorly matched to the needs of underserved patients. Disparities also may emerge from patient-level factors. For example, minority patients may be more likely to decline recommended services, adhere poorly to treatment regimens, and delay seeking care for symptoms.[1,4] Studies are needed to better understand how clinicians and patients interact in the health care setting that may result in generating or reducing health care disparities.

In its *Unequal Treatment* report, the IOM identified health care clinician bias, stereotyping, and clinical uncertainty as factors that likely contribute to health care disparities.[1] Studies identified in this report, as well as more recent studies, provide evidence that clinicians hold implicit biases as well as attitudes and beliefs about racial/ethnic groups that can influence health care delivery. In a review of published articles, findings indicate that implicit (unconscious) bias about Black, Latino, and dark-skinned individuals was present among health care professionals of different specialties, training, and experience.[33] Of the 15 reviewed studies, Hall et al.[33] found that 14 identified implicit bias about racial/ethnic groups. Other studies have found that clinicians treat and diagnose disorders in patients from racial/ethnic minority groups differently and involve these patients less often in decision-making compared with White patients.[34,35] Overall, such interactions may contribute to a lack of trust and commitment on the part of the patient, leading to poor treatment adherence.

The IOM's *Unequal Treatment* report suggested that health care professionals use stereotypes as an investigative or cognitive shortcut to develop treatment plans.[1] Furthermore, treatment disparities appear to be greater when clinicians engage in procedures for which standards of care are not well established.[36] The exact mechanisms by which stereotypes and biases result in differences in clinical treatment and referral or the degree to which they lead to health disparities is not well understood. However, a model of implicit bias suggests that bias can affect clinical decisions directly and also can affect treatment through its effects on interpersonal communication.[37]

A growing body of research suggests that experiences of stigma are associated with poor engagement in clinical care and adverse clinical outcomes. However, the effects of stigma and discrimination in health care settings on patient–clinician interactions are not well understood. A potentially fruitful avenue of research is to better understand the social and structural barriers that drive disparities

within the health care system so that engagement in prevention, care, and treatment of illnesses in all individuals can be facilitated.

ROLE OF PATIENT PREFERENCES

Patient preferences have been hypothesized as another causal pathway for health disparities.[38] Although patient preferences are measured differently across disciplines, the decision-making literature defines preferences as patients' valuations of specific health outcomes. The literature has documented that patient preferences are influenced by a considerable number of factors, including trust about medical advice, potential complications and negative outcomes, pain and discomfort, and misperceptions.[1,38] Basic research about patient preferences and values in minority populations is very limited, and thus most decision-making algorithms have never considered these. In addition, only a few studies have explicitly investigated the link between patient preferences and their contribution to health disparities.[39] Of those that have, the evidence is mixed as to whether patient preferences are influential. Understanding how patient preferences among minority populations inform health care seeking and adherence is important, especially for early diagnosis and better disease management, and presents unique opportunities for health services researchers.

Quantifying how much patient preferences contribute to health disparities will be difficult, especially because they are often entangled with other health care factors that have been identified as also contributing to health disparities. For instance, stereotyping by health care professionals can lead to withholding of information and treatment on the basis of assumptions that certain groups do not want to undergo specific types of treatment or need an authoritative recommendation without explanation of choices. This prevents patients from expressing their preferences around care and making informed decisions.[40]

Research on several other issues also could potentially yield valuable insights. For example, exploring the differences between patient preferences that are grounded in personal beliefs about medical treatment and those that arise from wrongly held perceptions could help clinicians understand why patients express the preferences that they do. Research that examines whether preferences are shaped by lived experiences of individuals, especially when perceptions may reflect the actual outcomes of care received in underserved communities, or whether they can be modified by education and outreach can provide information to influence the ways in which clinicians provide counseling to their patients.

CONCLUSIONS

Disparities in health care pose significant moral and ethical dilemmas and result in excess health care expenditures. Understanding why health care disparities occur and how they contribute to population-level health disparities is essential so that more effective equity-promoting interventions in health care systems can be implemented and reductions in health disparities can be ultimately achieved. Payers, systems, and communities must work together with clinicians and patients to identify the causes of disparities in health care. Inadequate, inaccessible, and low-quality medical care is unacceptable. Although national efforts such as the ACA and payment reform can provide a springboard to address disparities, much of the effort will need to be conducted at the regional level. No single solution will eliminate health care disparities. In addition to national policy changes, local health care systems need local solutions. Health systems must commit to tracking equity measures, implementing quality improvement initiatives, building a culturally competent health care system, and fostering and encouraging better relationships between clinicians and patients.

Although attention to health care disparities has increased over the past 2 decades, considerable knowledge gaps still exist, and greater consensus is needed on what should be done to reduce these disparities. The box on page S68 summarizes some of the leading research opportunities that emerged from the science visioning process. Although some of the research opportunities are not novel and have been promoted and advocated by many, considerable gaps in knowledge still exist surrounding these opportunities. Overall, considerable work is still needed to understand why health care disparities occur and to identify solutions. For health equity to be achieved, it is essential to create a health care system that provides access, removes barriers to care, and provides equally effective

HEALTH SERVICES RESEARCH OPPORTUNITIES TO ELIMINATE HEALTH CARE DISPARITIES: NATIONAL INSTITUTE ON MINORITY HEALTH AND HEALTH DISPARITIES SCIENCE VISIONING INITIATIVE

1. Evaluate how newly developed patient care models affect health care disparities.
2. Incorporate and evaluate quality improvement initiatives to reduce health care disparities in health systems and show how they can be disseminated and implemented more broadly.
3. Evaluate the effect of legislative changes on access to and quality of care received by health disparity populations.
4. Examine the effect of payer-based changes on improving health outcomes and patient satisfaction among health disparity populations.
5. Identify patterns of underuse and overuse of health care and how inappropriate care can lead to health disparities.
6. Understand how current standards of care and guidelines may contribute to health disparities.
7. Develop a comprehensive understanding of how to deliver culturally competent care in health care settings.
8. Examine patient preferences and how they contribute to health disparities.

treatment to all persons living in the United States. AJPH

CONTRIBUTORS

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CONFLICTS OF INTEREST

The authors do not have any financial or other competing interests to declare.

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