#### **GOVERNMENT-UNIVERSITY-INDUSTRY RESEARCH ROUNDTABLE**

The National Academies of

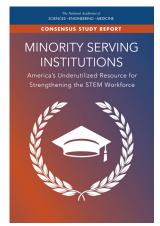
SCIENCES · ENGINEERING · MEDICINE

# USING RESEARCH AND TECHNOLOGY TO ADDRESS COMPOUNDING DISPARITIES

OCTOBER 15-16, 2019

National Academy of Sciences Building WASHINGTON, DC 20418

List of selected reports from the National Academies Press related to the meeting topic.



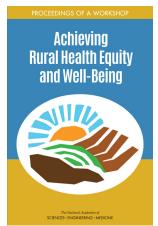
# Minority Serving Institutions: America's Underutilized Resource for Strengthening the STEM Workforce (PGA, HMD, 2019)

There are over 20 million young people of color in the United States whose representation in STEM education pathways and in the STEM workforce is still far below their numbers in the general population. Their participation could help re-establish the United States' preeminence in STEM innovation and productivity, while also increasing the number of well-educated STEM workers. There are nearly 700 minority-serving institutions (MSIs) that provide pathways to STEM educational success and workforce readiness for millions of students of color—and do so in a mission-driven and intentional manner. They vary substantially in their origins, missions, student demographics, and levels of institutional selectivity. But in general, their service to the nation provides a gateway to higher education and the workforce, particularly for underrepresented students of color and those from low-income and first-generation to college backgrounds. The challenge for the nation is how to capitalize on the unique strengths and attributes of these institutions and to equip them with the resources, exceptional faculty talent, and vital infrastructure needed to educate and train an increasingly critical portion of current and future generations of scientists, engineers, and health professionals. Minority Serving Institutions examines the nation's MSIs and identifies promising programs and effective strategies that have the highest potential return on investment for the nation by increasing the quantity and quality MSI STEM graduates. This study also provides critical information and perspective about the importance of MSIs to other stakeholders in the nation's system of higher education and the organizations that support them.

# A Health Equity Approach to Obesity Efforts: Proceedings of a Workshop--in Brief (HMD 2019)

On April 1, 2019, the National Academies of Sciences, Engineering, and Medicine held a public workshop, A Health Equity Approach to Obesity Efforts, in Washington, DC. The workshop explored the history of health equity issues in demographic groups that have above-average obesity risk, and considered principles and approaches to address these issues as part of obesity prevention and treatment efforts. Speaker presentations addressed three areas: current policies and practices that either perpetuate health inequities or advance health equity; mechanisms to support community-driven solutions that can influence the social determinants of health; and approaches for fostering multisector collaboration to address disparities by exploring the issues related to the creation, implementation, and evaluation of equity-oriented programs, policies, and systems changes. Participants also discussed research needs to inform and mobilize equity-centered obesity prevention and treatment actions. This publication briefly summarizes the presentations and discussions from the workshop.

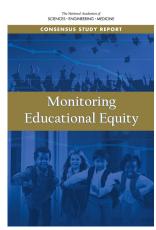


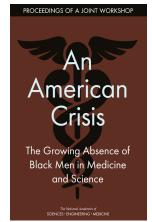


Achieving Rural Health Equity and Well-Being: Proceedings of a Workshop (HMD 2018) Rural counties make up about 80 percent of the land area of the United States, but they contain less than 20 percent of the U.S. population. The relative sparseness of the population in rural areas is one of many factors that influence the health and well-being of rural Americans. Rural areas have histories, economies, and cultures that differ from those of cities and from one rural area to another. Understanding these differences is critical to taking steps to improve health and well-being in rural areas and to reduce health disparities among rural populations. To explore the impacts of economic, demographic, and social issues in rural communities and to learn about asset-based approaches to addressing the associated challenges, the National Academies of Sciences, Engineering, and Medicine held a workshop on June 13, 2017. This publication summarizes the presentations and discussions from the workshop.

### Monitoring Educational Equity (DBASSE 2019)

Disparities in educational attainment among population groups have characterized the United States throughout its history. Education is sometimes characterized as the "great equalizer," but to date, the country has not found ways to successfully address the adverse effects of socioeconomic circumstances, prejudice, and discrimination that suppress performance for some groups. To ensure that the pursuit of equity encompasses both the goals to which the nation aspires for its children and the mechanisms to attain those goals, a revised set of equity indicators is needed. Measures of educational equity often fail to account for the impact of the circumstances in which students live on their academic engagement, academic progress, and educational attainment. Some of the contextual factors that bear on learning include food and housing insecurity, exposure to violence, unsafe neighborhoods, adverse childhood experiences, and exposure to environmental toxins. Consequently, it is difficult to identify when intervention is necessary and how it should function. A revised set of equity indicators should highlight disparities, provide a way to explore potential causes, and point toward possible improvements. Monitoring Educational Equity proposes a system of indicators of educational equity and presents recommendations for implementation. This report also serves as a framework to help policy makers better understand and combat inequity in the United States' education system. Disparities in educational opportunities reinforce, and often amplify, disparities in outcomes throughout people's lives. Thus, it is critical to ensure that all students receive comprehensive supports that level the playing field in order to improve the well-being of underrepresented individuals and the nation.





# An American Crisis: The Growing Absence of Black Men in Medicine and Science: Proceedings of a Joint Workshop (HMD 2018)

Black men are increasingly underrepresented in medical schools and in the medical profession. A diverse workforce is a key attribute of quality healthcare and research suggests that a diverse workforce may help to advance cultural competency and increase access to high-quality health care, especially for underserved populations. Conversely, lack of diversity in the health workforce threatens health care quality and access and contributes to health disparities. In this way, the growing absence of Black men in medicine is especially troubling, because their absence in medicine may have adverse consequences for health care access, quality, and outcomes among Black Americans and Americans overall. To better understand the factors that contribute to the low participation of Black men in the medical profession, facilitate discussion of current strategies used to increase their participation in medical education, and explore new strategies along the educational and professional pipeline that may have potential to increase participation in medicine, the National Academies of Sciences, Engineering, and Medicine and the Cobb Institute jointly convened a 2-day workshop in November 2017, in Washington, DC. This publication summarizes the presentations and discussions from the workshop.

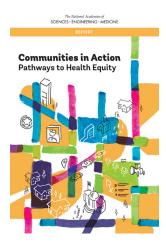
# People Living with Disabilities HEALTH EQUITY, HEALTH DISPARITIES, AND HEALTH LITERACY

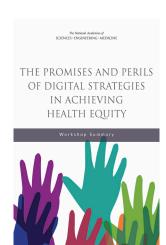
### People Living with Disabilities: Health Equity, Health Disparities, and Health Literacy: Proceedings of a Workshop (HMD 2018)

Poor health literacy has many negative consequences for achieving the quadruple aim of better care, improving the health of the community and the population, providing affordable care, and improving the work life of health care providers, and those consequences disproportionately affect those individuals with disabilities and those who experience health disparities. To better understand how health literacy, health equity, and health disparities intersect for individuals living with disabilities, the Roundtable on the Promotion of Health Equity and the Elimination of Health Disparities and the Roundtable on Health Literacy jointly sponsored a workshop that was held on June 14, 2016, in Washington, DC. This publication summarizes the presentations and discussions from the workshop.

### Communities in Action: Pathways to Health Equity (HMD 2017)

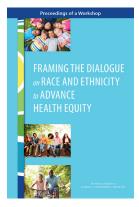
In the United States, some populations suffer from far greater disparities in health than others. Those disparities are caused not only by fundamental differences in health status across segments of the population, but also because of inequities in factors that impact health status, so-called determinants of health. Only part of an individual's health status depends on his or her behavior and choice; community-wide problems like poverty, unemployment, poor education, inadequate housing, poor public transportation, interpersonal violence, and decaying neighborhoods also contribute to health inequities, as well as the historic and ongoing interplay of structures, policies, and norms that shape lives. When these factors are not optimal in a community, it does not mean they are intractable: such inequities can be mitigated by social policies that can shape health in powerful ways. *Communities in Action: Pathways to Health Equity* seeks to delineate the causes of and the solutions to health inequities in the United States. This report focuses on what communities can do to promote health equity, what actions are needed by the many and varied stakeholders that are part of communities or support them, as well as the root causes and structural barriers that need to be overcome.





### The Promises and Perils of Digital Strategies in Achieving Health Equity: Workshop Proceedings (HMD 2016)

Health care is in the midst of a dramatic transformation in the United States. Spurred by technological advances, economic imperatives, and governmental policies, information technologies are rapidly being applied to health care in an effort to improve access, enhance quality, and decrease costs. At the same time, the use of technologies by the consumers of health care is changing how people interact with the health care system and with health information. These changes in health care have the potential both to exacerbate and to diminish the stark disparities in health and well-being that exist among population groups in the United States. If the benefits of technology flow disproportionately to those who already enjoy better coverage, use, and outcomes than disadvantaged groups, heath disparities could increase. But if technologies can be developed and implemented in such a way to improve access and enhance quality for the members of all groups, the ongoing transformation of health care could reduce the gaps among groups while improving health care for all. To explore the potential for further insights into, and opportunities to address, disparities in underserved populations the National Academies of Sciences, Engineering, and Medicine held a workshop in October 2014. The workshop focused on (1) how communities are using digital health technologies to improve health outcomes for racial and ethnic minority populations, (2) how community engagement can improve access to high-quality health information for members of these groups, and (3) on models of successful technology-based strategies to reduce health disparities. This report summarizes the presentations and discussions at the workshop.



# Framing the Dialogue on Race and Ethnicity to Advance Health Equity: Proceedings of a Workshop (HMD 2016)

In February 2016, the National Academies of Sciences, Engineering, and Medicine held a workshop in which speakers shared strategies for individuals, organizations, and communities to advance racial and health equity. Participants discussed increasing awareness about the role of historical contexts and dominant narratives in interpreting data and information about different racial and ethnic groups, framing messages for different social and political outcomes, and readying people to institutionalize practices, policies, and partnerships that advance racial and health equity. This publication serves as a factual summary of the presentations and discussions from the workshop.

### ABOUT THE GOVERNMENT-UNIVERSITY-INDUSTRY RESEARCH ROUNDTABLE (GUIRR)

GUIRR's mission is to convene senior-most representatives from government, universities, and industry to define and explore critical issues related to the national and global science and technology agenda that are of shared interest; to frame the next critical question stemming from current debate and analysis; and to incubate activities of on-going value to the stakeholders. The forum is designed to facilitate candid dialogue among participants, to foster self-implementing activities, and, where appropriate, to carry awareness of consequences to the wider public.

