Health disparities adversely affect groups of people who have systematically experienced greater social and/or economic obstacles to health based on their racial or ethnic group, religion, socioeconomic-status, gender, age or mental health; cognitive, sensory or physical disability; sexual orientation or gender identity; geographic location; or other characteristics historically linked to discrimination or exclusion (Healthy People 2020). In this issue, we discuss the determinants of health that impact care related to the ear in order to promote awareness and engagement in measuring and correcting them.

Health Equity in Neurotology: Where Do We Begin?
by Matthew Bush, MD PhD FACS

The COVID-19 pandemic has had massive social, economic, and health impacts across the globe and has drawn attention to amplified, long-standing inequities in health and healthcare. As we have witnessed global suffering and seen evidence of systemic racism, we are compelled to consider equity in Neurotology. In spite of a wide array of resources and technology, significant discrepancies persist in the equitable access to and utilization of health care. Clinical outcomes may vary widely among different populations and there is a pressing need to understand and address, in a broader sense, the factors that influence equity in Neurotology. But how? Where do we begin? Our pursuit of equity will require broader perspectives and deeper investigations into the domains of social determinants of health. This information will be foundational to develop culturally intelligent and inclusive interventions to promote health equity for all.

The social determinants of health (SDH) are defined by the World Health Organization as “the conditions in which people are born, grow, work, live, and age.” These determinants can be broken into the following domains: healthcare access and quality, education access and quality, social and community context, economic stability, and neighborhood and built environment. SDH not only directly impact one’s health but also play a role in the strength and distribution of health disparities. Furthermore, there is a clear link between race and the social determinants of health in which the various physical, social, and economic factors affected by discrimination increase health disparities among minorities. Examples of disparities in each of these domains can be identified in Neurotology.

The Healthcare domain includes access and utilization of services and the understanding of one’s health. Some of the factors that reside under this domain include type of insurance coverage, provider availability, and health literacy, and healthcare quality. For example, safety-net hospitals, which see a higher proportion of uninsured and Medicaid patients, can have poorer post-operative outcomes and increased length of stay, relevant to skull base surgery.

The domain of Quality and Access to Education includes high school graduation rates, enrollment in higher education or vocational training, general language and
literacy, and early childhood education. Parental level of education plays a clear role in pediatric hearing health care utilization and cochlear implant outcomes.

The **Social and Community Context** domain focuses on the connections between the social conditions and how they impact the overall health and well-being for patients. This category includes support systems, community engagement, and social integration. Discrimination based on race, ethnicity, gender, or sexual orientation falls within this context. There is some evidence of racial disparities in management of vestibular schwannoma, otogenic intracranial abscess, and hearing loss. The reasons for these disparities are not entirely clear and will require research and concentrated effort to define and address them.

**Economic stability** connects financial resources with health. This domain includes employment, income, poverty, debt, expenses, secure housing and food, each linked to utilization and outcomes in cochlear implantation. The last domain of this framework is **Neighborhood and Built Environment**, which includes safety and quality of housing, transportation access and utilization, water and air quality, neighborhood crime, and rurality. Location of residence, such as urban versus rural, has played a role in pediatric hearing loss identification and treatment.

Domains within the SDH are interconnected and their complex interplay impacts both healthcare delivery and outcomes. For example, access to subspecialty care is impacted by the healthcare domain (type of insurance and provider availability), but also by economic stability, neighborhood and built environment (urban transportation, rurality), social support systems (family caregivers) and others. A recent study in the general surgery literature quantified surgical disparities by calculating a proportional surgical ratio, which is based on health status and observed/expected surgical procedures. This type of ratio has been used to define the higher utilization of surgical procedures for advanced disease/emergency cases and lower utilization of elective surgical procedures among vulnerable less healthy populations compared with healthier populations. This type of ratio could be used in Neurotology to quantify utilization and access to surgical care in our field and inform the development of interventions to promote timely delivery of care. Understanding how SDH influence access to and the delivery of Neurotologic care is key to outcomes research, quality improvement initiatives and allocation of resources, each necessary to achieve health equity.

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**ANNOUNCING THE INAUGURAL**

**ANS Diversity and Inclusion Committee Underrepresented in Medicine Otology/Neurotology Travel Grant**

The Diversity & Inclusion Committee is accepting applications for two scholarships for the 2021/22 academic year to assist medical students with travel expenses for external rotations. Through this scholarship, we seek to engage URiM students in research and clinical activities related to the ear, hearing and balance so that they can learn about our field and gain the experience needed to promote a career in otology/neurotology. The successful applicant will receive a $1000 scholarship to support travel and housing expenses for a chosen clinical rotation that requires significant travel from their home institution. A member of the ANS will be identified to provide mentorship to the recipient. Requirements and details are provided on our website or can be obtained by emailing Dr. Stephanie Moody at moodysa@evms.edu. Members are encouraged to promote the scholarship to eligible students.
“Achieving Equity in Surgical Healthcare”

A Special Virtual Event Sponsored by ANS Diversity and Inclusion Committee and the American Otological Society.

**Date/Time:** JUNE 14, 2021 7:00 – 8:30 PM EST

A forum to discuss obstacles in the delivery of equitable healthcare for all people regardless of race, geographic location, socioeconomic, and other social determinants of health and to provide tools for society members to engage with their diverse patient populations and combat disparities. Open to all.

**Keynote Speaker:** L.D. Britt, MD, MPH, Professor and Chairman of the Department of Surgery at Eastern Virginia Medical School. Dr. Britt is the paragon of an academic surgeon who has authored more than 300 publications and 3 textbooks, serves on numerous editorial boards, and has been recognized with the most prestigious teaching and service awards in the nation, including the Edith J. Levit Distinguished Service Award from the NBME, The Dr. Martin Luther King, Jr. Community Award, the Surgeon General’s Medallion and the Distinguished Service Medal. Dr. Britt is the past Chairman of the American College of Surgeons Board of Regents as well as a Past President of the Academy of Master Surgeons Educators of the ACS. He was recently awarded an NIH grant entitled, “Developing Disparities-Sensitive Surgical Quality Metrics Across the Continuum of Care” with the goal to determine a suite of robust surgical disparities-sensitive measures across the continuum of care that can be used to develop targeted interventions aimed at eradicating disparities and improving outcomes.

**Speakers:**
- Carrie Nieman, MD, MPH Assistant Professor of Otolaryngology at Johns Hopkins
- Anil Lalwani, MD Professor of Otolaryngology/Head and Neck Surgery at Columbia University

**Moderated by:** Stephanie Moody Antonio, MD and Ana Kim, MD

“Whether we consider ourselves members of the ‘House of Surgery’ or citizens of the ‘Village of Surgery’ where there are housing neighborhoods, we have an unbreakable contract with society to provide optimal care for the surgical patient.”

“Without access, there can be no quality”
**Your DI Committee at work**

1. Implemented a Pledge for Diversity for ANS leaders
2. Updated ANS Profile page to collect demographic information to help steer a data-driven diversity plan. (Don’t forget to update yours!)
3. Added line item on ANS Profile page to allow members to indicate areas of expertise and interest in speaking opportunities
4. Established a diversity and inclusion education page on the ANS website
5. Planned a webinar on disparities in otology/neurotology
6. Established a travel grant for students of under-represented minority groups interested in otolaryngology
7. Promoting ease of access to meetings for people with hearing impairment

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**News and Resources**

SUO Webinar available online: “Pathologizing Racism: Unlearning to Achieve Equity in Medicine.” With speaker, Edwin Lindo, JD. [https://www.canva.com/design/DAEOXA3RWjg/view](https://www.canva.com/design/DAEOXA3RWjg/view)

Upcoming panel at ACIA presented by Matthew Bush and panel: “Social Justice and Hearing Health Care: Addressing Equity in Cochlear Implantation.” April 30, 2021


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**The Current State of Disparities Research in Otology/Neurotology** by Michael Hoa and Sarah Mowry

Health equity is the state wherein everyone has fair and just opportunity to be as healthy as possible. Health equity requires removing obstacles such as poverty and discrimination as well as the consequences of each such as powerlessness, lack of trust, and limited access to a safe home, gainful employment, education, and health insurance. Health disparities research explores contributions of social determinants of health on health, healthcare utilization, and medical/surgical outcomes and seeks to develop policies and community interventions that reduce disparities and promote equity. An increasing recognition that lack of attention to equity may needlessly increase health expenditures in the US.

In order to understand the current state of disparity research within our subspecialty of neurotology/otology, we engaged in a PRISMA-based systematic review of the literature. Preliminary analysis suggests while some SDH are reported more frequently, there is a significant paucity in reporting, highlighting a need for future standardization and reporting of these features as they relate to surgical outcomes. In further efforts, we aim to identify both commonly reported and neglected SDH and to identify both common otologic diseases that would benefit from a greater focus on SDH as they relate to access and outcomes. In setting these goals, we seek to begin the process of building a roadmap for future work by identifying opportunities for greater in-depth investigation into health disparities and surgical outcomes in our subspecialty.