

# Removing Barriers and Facilitating Access: Increasing the Number of Physicians With Disabilities

Lisa M. Meeks, PhD, Kurt Herzer, MD, PhD, MSc, and Neera R. Jain, MS

## Abstract

Nearly one-fifth of the U.S. population has a disability, and many of these Americans experience disparities in the health care they receive. In part, these health care disparities result from a lack of understanding about disability by health care providers. The education of physicians is grounded in a biomedical model that emphasizes pathology, impairment, or dysfunction, rather than a social model of disability that focuses on removing barriers for individuals with disabilities and improving their capabilities. According to a recent report, only 2.7% of medical

students disclosed having disabilities—far fewer than the proportion of people with disabilities in the U.S. population. Including students and other trainees with disabilities—those with lived experiences of disability who can empathize with patients and serve as an example for their peers—in medical education is one mechanism to address the health care disparities faced by individuals with disabilities. At present, medical students and residents with disabilities face structural barriers related to policies and procedures, clinical accommodations,

disability and wellness support services, and the physical environment. Additionally, many face cultural barriers related to the overarching attitudes, beliefs, and values prevalent at their medical school. In this Commentary, the authors review the state of disability in medical education and training, summarize key findings from an Association of American Medical Colleges special report on disability, and discuss considerations for medical educators to improve inclusion, including emerging technologies that can enhance access for students with disabilities.

*Editor's Note: This New Conversations contribution is part of the journal's ongoing conversation on social justice, health disparities, and meeting the needs of our most vulnerable and underserved populations.*

In 2003, a *New York Times* article proclaimed, “Barriers toppling for disabled medical students.”<sup>1</sup> Barriers mentioned in the article included negative attitudes toward disability and inflexible technical standards that might exclude prospective qualified applicants. The article also touted the potential value

that physicians with disabilities could bring to the medical profession, including a greater appreciation for the life experiences of patients with disabilities. Recent academic scholarship and news articles<sup>2–7</sup> have renewed the public’s and the medical community’s interest in the subject of physicians with disabilities. This body of work reveals a sobering reality: Little has changed in the decade and a half since the *New York Times* article. Public and academic debate about whether physicians with disabilities can provide safe and effective care to patients continues, barriers associated with outdated attitudes about the capabilities of individuals with disability remain, and technical standards that do not align with the Americans with Disabilities Act (ADA) persist. In this Commentary, we review the current state of disability in medical education; summarize some of the findings of the Association of American Medical Colleges (AAMC) special report, *Accessibility, Inclusion, and Action in Medical Education: Lived Experiences of Learners and Physicians With Disabilities*<sup>8</sup>; and consider ways of improving inclusion within U.S. academic health centers.

many of these individuals experience significant disparities in the health care they receive.<sup>10</sup> For example, according to one report, women with disabilities are less likely to receive comprehensive screenings including pap smears and breast exams.<sup>11</sup> Further, many primary care settings lack accessible exam tables, weight scales, and bathrooms for patients with disabilities.<sup>12</sup> Contributing to these disparities is a lack of understanding of and meaningful education about not only disability, including its effects on lifestyle, employment, and mobility, but also pertinent federal and state laws.

Recent research shows that when medical students do receive training on disability, especially when this training is informed by individuals with disabilities, they report greater awareness of issues affecting individuals with disabilities and are able to understand disability through both biomedical and social models.<sup>13</sup> Regrettably, a recent survey found that only 52% of 75 responding medical schools provide any disability awareness education for students; the respondents cited a paucity of time and resources and lack of advocacy for the topic as the major reason their curricula did not include disability training.<sup>14</sup> Additionally, the biomedical model of disability, emphasizing pathology, impairment, and/or dysfunction, which is prevalent in many educational and training programs,

Please see the end of this article for information about the authors.

Correspondence should be addressed to Lisa M. Meeks, University of Michigan Medical School, North Campus Research Complex, 2800 Plymouth Rd., Bldg. 14 Room 221, NCRC, Ann Arbor, MI 48109-2800; telephone: (415) 509-0602; e-mail: meekslia@med.umich.edu; Twitter: @meekslisa.

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## The Landscape of Disability in Medicine

Today, 19% of Americans (approximately 56.7 million) have disabilities,<sup>9</sup> and

contributes to the perpetuation of negative assumptions and attitudes about disability. In fact, research suggests that whereas medical students are sympathetic to and display concern for individuals with disabilities when entering school, they are more likely to have negative views about the experience of living with a disability upon graduation.<sup>15</sup> The lack of current awareness training<sup>14</sup> unfortunately mirrors that of a 1994 study,<sup>16</sup> suggesting nearly two decades without meaningful change.

Researchers suggest beneficial changes in the attitudes of nondisabled persons toward disability when the former share equal status with persons with disabilities.<sup>17</sup> Moreover, investigators have reported improved health outcomes, medication adherence, and communication as a result of physician–patient concordance in race, ethnicity, and language.<sup>18</sup> We believe that near-peer relationships with individuals with disabilities and improved education about disability—informed directly by the experiences of peers and other individuals with disabilities—are essential for medical students and other trainees. We believe that meaningful relationships with people with disabilities and intentional disability awareness training are vital for challenging existing beliefs and recognizing the full potential of individuals with disabilities to become health care providers. We also posit that a diverse health care workforce that includes more physicians with disabilities may be uniquely equipped to meet the nuanced needs of patients with disabilities and improve their overall health outcomes—similar to the effects of provider concordance in other marginalized populations.

Despite the benefits (to patients and colleagues alike) of a workforce that embraces physicians with disabilities, relatively few individuals with disabilities work in medicine. Recent research suggests that 2.7% of medical students disclose disabilities and request accommodations.<sup>19</sup> Of these, 10% have disabilities that are more apparent to others (e.g., visual, mobility, auditory disabilities), whereas the disabilities of the remaining 90% are nonapparent and include attentional, learning, psychological, or chronic health disabilities. To our knowledge, data

on the numbers and categorization of disability in residents are not available.

### Identifying Opportunities to Improve Inclusion

In an effort to better understand the experiences of individuals with disabilities in medical education, the AAMC and the University of California, San Francisco School of Medicine partnered to explore the experiences of physicians and physicians-in-training with disabilities. Over a period of six months, researchers (including L.M.M. and N.R.J.) interviewed 47 students, residents, and physicians with disabilities to identify the barriers and facilitators they experienced upon entering and while working to complete their medical education. The findings and considerations of this endeavor (the Lived Experience Project) appear in the special report *Accessibility, Inclusion, and Action in Medical Education: Lived Experiences of Learners and Physicians With Disabilities*.<sup>8</sup>

### Findings

In brief, the researchers found that medical students and residents with disabilities predominantly face two types of barriers: those that are structural in nature, and those that stem from the culture and climate of an institution. Structural barriers, which include restrictive or outdated policies and procedures, a poor understanding of clinical accommodations, a paucity of disability and wellness support services, and a physical environment that limits accessibility, often have very immediate, specific, and practical implications for trainees. For example, both the failure to employ a qualified disability provider proficient in medical education and clinical accommodations, and the application of outdated and discriminatory technical standards that do not accurately reflect the technical skills needed to become a 21st-century physician, directly affect a trainee who could with reasonable accommodations successfully complete a required clinical task.

The barriers that stem from the culture and climate—that is, the attitudes, beliefs, and values demonstrated by members of the medical school community—are equally critical, though sometimes less tangible. Together, these cultural

components and how they manifest in the social environment not only facilitate or impede access but also affect whether an individual thrives. For example, programs whose cultures are driven solely by compliance with the legal obligation to provide reasonable accommodations may contribute to a negative climate for learners with disabilities, while those programs that incorporate disability as a meaningful dimension of diversity may create campus climates where learners with disabilities feel welcome and valued. Other cultural barriers include falsely communicating to medical students and residents that accommodations are not available or otherwise indicating that trainees with disabilities are not part of the medical milieu.

Many of the themes raised by participants in the Lived Experience Project parallel those of other marginalized groups in medical education who encounter unconscious bias and who may experience additional financial burdens.<sup>20,21</sup> Interviewees also discussed feeling the need to perform twice as well as their peers to be accepted, having to advocate for themselves to receive basic services, struggling with stigma, and encountering both covert and overt messages that they did not belong.

We propose that educating people about the social model of disability, increasing the number of physicians with disabilities in practice, and providing reasonable accommodations will mitigate these barriers.

### Considerations for medical educators

Findings from the Lived Experience Project suggest that openness to disability in the admissions process, a peer support network, access to physicians with disabilities as mentors, and a top-down commitment to disability as a form of diversity were most crucial to an accessible and inclusive environment.<sup>8</sup> On the basis of these findings, we encourage medical education program leaders and administrators working across the continuum to consider the following actions to improve access. First, identify different opportunities not only to address programmatic access or admissions for learners with disabilities but also to explore standardization in practice across programs. Second, identify and engage

local disability experts and individuals with disabilities by, for example, inviting them to participate in relevant advisory committees (e.g., admissions, promotions, curriculum, diversity). Third, integrate disability into diversity initiatives, language, and policies.

A sustained commitment to institutional learning and quality improvement, to professional development, and to openness is critical to meaningful inclusion of trainees with disabilities. Good practice calls for annual assessment of institutional policies, processes, services, and physical spaces to ensure that they remain not only accessible to and accommodating of learners with disabilities but also congruent with current practice and case law. Regular professional development for faculty and staff is crucial. Some professional development programs include opportunities to share best practices for working with students with disabilities, training in accessible teaching pedagogies, and modules on disability rights legislation. Integrating disability awareness into medical education curricula and partnering with the local disability community (e.g., advocates and organizations) to co-develop and deliver the content are additional effective practices. Finally, making information about how to disclose disability and request accommodations transparent, readily available, user-friendly, and stigma free for faculty, staff, administrators, students, and applicants is critical.

Achieving full inclusion of individuals with disabilities in medicine will require that programs—across the continuum from premedical education to continuing medical education—take action to reduce structural barriers, improve their culture and climate toward disability, and provide training on the potential for reasonable accommodations (including technological advances) for all employees. Understanding both the benefits of and mechanisms for achieving meaningful inclusion of persons with disabilities is critical for accomplishing this goal.

### Emerging Access

Emerging and existing technology enable qualified learners to meet

technical standards and seamlessly function in the clinical setting. Amplified and visual stethoscopes, standing wheelchairs, dictation and magnification software, automated CPR devices, and Communication Access Real-Time Translation are just a few of the technological developments that have allowed physicians and physicians-in-training who are deaf, who have spinal cord injuries, and who have visual disabilities to complete their medical education and thrive in practice. Additionally, intermediaries allow some physicians and trainees to perform in the clinical setting, using their knowledge of medicine to direct a trained medical professional to conduct procedures that, for reasons of their disability, they cannot perform individually. Intermediaries have, in fact, been successfully employed at a number of medical schools. Notably, alternative learning experiences are also available during residency; for example, qualified internal medicine residents can request accommodations, including waiving the necessary proficiency level for specific procedures, to complete their training programs.<sup>22</sup>

### Determining “Qualified”

Existing and emerging technologies create access and encourage medical educators to think critically about what constitutes “qualified.” The current cadre of medical students, residents, and physicians includes individuals who are blind, who have limited mobility, who are triple amputees, who have dyslexia, who are on the autism spectrum, who have a traumatic brain injury, who use wheelchairs, and who are deaf. A learner’s ability to meet program requirements is multifactorial. Sometimes a person’s disability (e.g., being legally blind) precludes him/her from completing all the requirements of a particular rotation (e.g., surgery), but the school or program may decide to waive these if the rotation is not in the trainee’s intended specialty. Additionally, programs develop their own technical standards and may vary in their openness to certain accommodations. Requirements for graduation are also not uniform across programs. For example, the competency required to pass one program’s obstetrics clerkship—*completing* the delivery of a baby—may not be necessary at another school where the competency is to *assist*

in a delivery. Another example is CPR. The ability to *perform* CPR is often a barrier for applicants with disabilities; however, some programs’ technical standards now state that applicants must be able to *direct or perform* CPR, a much broader requirement. These small adjustments to technical standards and competencies allow students with physical disabilities (including those with chronic illnesses), who may otherwise be deemed “unqualified,” to meet the requirements of their program. Each program’s leaders must determine what, if any, adjustments they are willing to make to the technical standards and competencies that would allow highly qualified medical trainees to graduate to the next level of training. Enlisting the assistance of a qualified individual with expertise in disability enables program leaders to navigate this process and conduct case-by-case reviews of requests for reasonable accommodations in line with ADA requirements.

### Remaining Questions

National dialogue among key stakeholders including medical learners and practicing physicians with disabilities, medical educators, licensing agencies, and disability experts is needed to increase the diversity of the physician workforce through the inclusion of students and residents with disabilities. Those of us in the medical education community must ensure that we meet our obligations under the ADA and support students with disabilities while also ensuring that we do not fundamentally alter essential functions. To increase inclusion, therefore, we must (1) better understand the accommodation needs of the medical trainees with disabilities and (2) develop an evidence-based approach to accommodations.<sup>23,24</sup> Researchers may also advance the mission by endeavoring to address questions of equity for medical students with disabilities. We propose that a robust research agenda would include investigations to further understand the performance trajectory of learners with disabilities, to identify which supports and accommodations are most effective for learners with various disabilities, to increase our collective understanding of the experiences of persons with disabilities in residency and subsequent employment, and to examine the impact of physicians with disabilities on patient care.

While the *letter* of the law protects educational and employment opportunities for qualified individuals with disabilities, the *spirit* of the law inspires the commitment to provide true access and inclusion. Currently, physicians with disabilities contribute to the workforce in small but measurable numbers. Medical schools and residency training programs have the opportunity to lead by example. The findings and considerations offered in the report *Accessibility, Inclusion, and Action in Medical Education: Lived Experiences of Learners and Physicians With Disabilities*<sup>8</sup> provide a yardstick by which schools can measure the policies and procedures that guide their practices. Together, we can build a more diverse and inclusive physician workforce—one that fully embraces physicians with disabilities as unique and essential contributors to 21st-century medicine.

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**L.M. Meeks** is co-principal investigator, Lived Experience Project, faculty member, Department of Family Medicine, and clinician scholar, Institute for Healthcare Policy and Innovation, University of Michigan Medical School, Ann Arbor, Michigan; ORCID: <https://orcid.org/0000-0002-3647-3657>.

**K. Herzer** is physician-scientist, Oscar Health, New York, New York.

**N.R. Jain** is co-principal investigator, Lived Experience Project, and doctoral candidate, University of Auckland, Faculty of Education and Social Work, School of Curriculum and Pedagogy, Auckland, New Zealand; ORCID: <https://orcid.org/0000-0002-2931-2740>.

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