

HOD ACTION: Recommendations in Council on Medical Report 2 adopted as amended and the remainder of the report filed.

REPORT 2 OF THE COUNCIL ON MEDICAL EDUCATION (November 2021)  
A Study to Evaluate Barriers to Medical Education for Trainees with Disabilities  
(Reference Committee C)

## EXECUTIVE SUMMARY

The Americans with Disabilities Act (ADA), which was enacted in 1990 and amended in 2008, protects people with disabilities from discrimination; works to provide fair access to goods, services, and education; and promotes equal opportunity. The ADA was amended to specify and expand on who is considered disabled and lowered the burden of proof to establish oneself as a person with a disability. An impairment or disability does not need to prevent or significantly restrict a major life activity to be considered as substantially limiting, and not every impairment will qualify as a disability. An individualized assessment is required to determine if the individual's impairment substantially limits a major life activity as compared to most people in the general population.

Among the employed U.S. adult population (ages 16 and older), 5.8 percent report some sort of disability (that is, difficulties with hearing, vision, cognition, mobility, selfcare, and independent living). Recent data indicate that 4.6 percent of enrolled medical students have requested an accommodation for a disability, a percentage that has grown recently. Attention deficit hyperactivity disorder was the most commonly reported disability, followed by psychological disability and learning disability. Considerably less is known of the prevalence of disabilities in residents and fellows in graduate medical education (GME). Results from a recent national survey suggest that approximately 3 percent of practicing physicians have a disability.

Medical schools maintain technical standards that inform a prospective or current medical student what a school's expectations are for cognitive, sensory, and mobility abilities. GME institutions are required to have policy regarding accommodations for disabilities consistent with all applicable laws and regulations. Students and residents with disabilities may encounter two types of barriers—structural and cultural. Structural barriers may include restrictive and outdated policies and procedures, the inability to locate or correctly interpret the technical standards for a given institution, poor understanding of clinical accommodations, a lack of disability and wellness support services, and a physical environment that limits accessibility. Cultural barriers include the attitudes, beliefs, and values of the medical community.

Learners with disabilities require access to information to make informed decisions about whether an educational environment has the appropriate resources and institutional culture to support necessary accommodations. Institutions should review and evaluate their technical standards to ensure that they embrace the functional capabilities of individual learners. Standards should emphasize what the learner can do rather than what they cannot do. Institutions, both undergraduate and graduate, should have readily available designated disability service providers who are expert in the ADA and aware of current resources and strategies to best process accommodation requests. Research on which accommodations are most effective in clinical learning environments will assist in determining future strategies for creating a safe and inclusive medical workforce.

## REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 2, November 2021

Subject: A Study to Evaluate Barriers to Medical Education for Trainees with Disabilities

Presented by: Niranjan V. Rao, MD, Chair

Referred to: Reference Committee C

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1 American Medical Association (AMA) Policy D-295.929, “A Study to Evaluate Barriers to  
2 Medical Education for Trainees with Disabilities,” directs our AMA to “work with relevant  
3 stakeholders to study available data on: (1) medical trainees with disabilities and consider revision  
4 of technical standards for medical education programs; and (2) medical graduates with disabilities  
5 and challenges to employment after training.”

6  
7 This report, which is in response to this directive, includes: 1) a brief summary of the Americans  
8 with Disabilities Act and its later amendment, as well as a summary of Section 504 of the  
9 Rehabilitation Act of 1973; 2) a review of available data on the prevalence of disabilities among  
10 medical students, residents, and physicians; 3) examples of accommodations made for medical  
11 learners and physicians as well as types of barriers; and 4) a discussion of proposed  
12 recommendations.

13  
14 **BACKGROUND**  
15

16 The Americans with Disabilities Act (ADA), which was enacted in 1990 and amended in 2008,  
17 protects people with disabilities from discrimination; works to provide fair access to goods,  
18 services, and education; and promotes equal opportunity. The ADA was amended to specify and  
19 expand on who is considered disabled and lowered the burden of proof to establish oneself as a  
20 person with a disability. The law requires an interactive process between a job applicant (or  
21 employee or student) and the employer (or educational program) to share information about the  
22 nature of the disability and limitations that may affect the individual’s ability to perform essential  
23 duties. The employer (or educational program), in turn, must engage in a flexible dialogue that  
24 addresses the employee’s specific disability and investigate reasonable accommodations that allow  
25 equal access to the work (or educational) environment.<sup>1</sup> Section 504 of the Rehabilitation Act of  
26 1973 works with the ADA, in that it prohibits discrimination against an otherwise qualified person  
27 with a disability in programs or activities that receive federal funding.<sup>2,3</sup>

28  
29 In the amended ADA, a disability is defined as a “physical or mental impairment that substantially  
30 limits one or more life activities; a record (or past history) of such an impairment; or being  
31 regarded as having a disability.”<sup>4</sup> This contrasts with an impairment, which is a loss of function  
32 that results from some cause, injury, or body part. An impairment does not need to significantly  
33 restrict a major life activity to be considered as substantially limiting and not every impairment will  
34 qualify as a disability. An individualized assessment is required to determine if an individual’s  
35 impairment substantially limits a major life activity as compared to most people in the general  
36 population. With the exception of eyeglasses or contact lenses, a determination of whether an  
37 impairment substantially limits a major life activity is made without regard to improvement  
38 resulting from mitigating factors, such as medication or hearing aids. Non-ameliorative effects also

1 may be considered when determining if an impairment is substantially limiting, including negative  
2 side effects of medication or burdens associated with following a particular treatment regimen.<sup>4,5</sup>  
3

4 *Medical School Accreditation Standards Regarding Student Disabilities*  
5

6 The Liaison Committee on Medical Education (LCME) accredits medical education programs  
7 leading to the MD degree in the United States. Requirements concerning medical students with  
8 disabilities are addressed in Standard 10.5: A medical school develops and publishes technical  
9 standards for the admission, retention, and graduation of applicants or medical students in  
10 accordance with legal requirements. Element 10.5 provides further detail:

11  
12 Element 10.5: Technical standards for the admission, retention, and graduation of  
13 applicants or medical students: A statement by a medical school of the: 1) essential  
14 academic and non-academic abilities, attributes, and characteristics in the areas of  
15 intellectual-conceptual, integrative, and quantitative abilities; 2) observational skills; 3)  
16 physical abilities; 4) motor functioning; 5) emotional stability; 6) behavioral and social  
17 skills; and 7) ethics and professionalism that a medical school applicant or enrolled  
18 medical student must possess or be able to acquire, with or without reasonable  
19 accommodation, in order to be admitted to, be retained in, and graduate from that school's  
20 medical educational program.<sup>6</sup>  
21

22 In addition, schools are to communicate Standard 10.5 in hard copy and/or online in a manner that  
23 is easily available to and accessible by the public.  
24

25 In assessing compliance with Standard 10.5, the LCME survey team during the site visit (typically  
26 occurring every eight years) will ask the school to provide the following information:<sup>7</sup>  
27

- 28 1. How does the medical school disseminate its technical standards for admission, retention,  
29 and graduation to potential and actual applicants, enrolled medical students, faculty, and  
30 others?
- 32 2. How are medical school applicants and/or medical students expected to document that they  
33 are familiar with and capable of meeting the technical standards, with or without  
34 accommodation (e.g., by formally indicating that they have received and reviewed the  
35 standards)?

37 In addition, Element 3.4, Anti-Discrimination Policy, requires that a medical school has policy in  
38 place to ensure that it does not discriminate on the basis of age, disability, gender identity, national  
39 origin, race, religion, sex, sexual orientation, or any basis protected by federal law. This language,  
40 revised by the LCME in October 2019, is in effect for schools in the academic year 2021-2022.  
41 Schools will be asked to describe how their anti-discrimination policy is made known to members  
42 of the medical education community.  
43

44 The American Osteopathic Association's Commission on Osteopathic College Accreditation  
45 (COCA) accredits medical education programs leading to the DO degree in the United States.  
46 Element 9.1 addresses admissions policies for a college of osteopathic medicine (COM):  
47

48 A COM must establish and publish, to the public, admission requirements for potential  
49 applicants to the osteopathic medical education program and must use effective policies and  
50 procedures for osteopathic medical student selection for admission and enrollment, including  
51 technical standards for admissions. A COM must tie all admissions to the COM mission.

1       Submission 9.1: Admission Policy

- 2       1. Provide all admission requirements and policies and procedures for osteopathic  
3            medical student selection and enrollment.  
4       2. Provide a copy of the technical standards required of matriculants.  
5       3. Provide a public link to where the documents are published.

6  
7       In addition, Element 1.5 addresses non-discrimination:

8  
9       A COM must demonstrate non-discrimination in the selection of administrative personnel,  
10            faculty and staff, and students based on race, ethnicity, color, sex, sexual orientation, gender,  
11            gender identity, national origin, age or disabilities, and religion.<sup>8</sup>

12  
13       Furthermore, the Educational Council on Osteopathic Principles (ECOP) has recommended non-  
14            academic criteria for admission and continued program participation for osteopathic medical  
15            students enrolled in DO programs. A “Technical Standards Document,” made available through  
16            ECOP and distributed by the American Association of Colleges of Osteopathic Medicine  
17            (AACOM) defines the reasonable expectations of osteopathic medical students and physicians in  
18            performing common and important functions of the osteopathic physician.<sup>9</sup>

19  
20       *Residency/Fellowship Program Accreditation Standards Regarding Trainee Disabilities*

21  
22       The Accreditation Council for Graduate Medical Education (ACGME) accredits residency and  
23            fellowship programs and sets requirements for programs as well as the institutions in which  
24            training occurs.

25  
26       The ACGME’s Common Program Requirements (CPRs) outline resources that must be provided to  
27            residents and fellows.<sup>10</sup> The program, with its sponsoring institution, must ensure a healthy and  
28            safe learning and working environment that, among other things, provides “accommodations for  
29            residents with disabilities consistent with the Sponsoring Institution’s policy.” [I.D.2.e]. In  
30            addition, the program director and the leadership team must “ensure the program’s compliance  
31            with the Sponsoring Institution’s policies and procedures on employment and non-discrimination”  
32            [II.A.4.a.(13)]. Finally, the learning environment must be a “professional, equitable, respectful,  
33            and civil environment that is free from discrimination, sexual and other forms of harassment,  
34            mistreatment, abuse, or coercion of students, residents, faculty, and staff” [VI.B.6.].

35  
36       The ACGME’s Institutional Requirements delineate the responsibility of the sponsoring institution  
37            regarding graduate medical education (GME). Among other services provided to trainees, such as  
38            behavioral health counseling, the institution “must have a policy, not necessarily GME-specific,  
39            regarding accommodations for disabilities consistent with all applicable laws and regulations.”  
40            [IV.H.4.]<sup>11</sup>

41  
42       In all situations for UME and GME, accommodations for an individual with a disability are  
43            expected, provided that the accommodation does not fundamentally alter the program, service, or  
44            activity associated with the job function or if it would impose undue financial or administrative  
45            burden upon the program or institution.

1 PREVALENCE OF DISABILITIES AMONG MEDICAL STUDENTS, RESIDENTS/FELLOWS,  
 2 AND PHYSICIANS

3  
 4 Among the employed U.S. adult population (ages 16 and older), 5.8 percent report some sort of  
 5 disability (that is, difficulties with hearing, vision, cognition, mobility, self-care, and independent  
 6 living). The most commonly reported disability for employed adults is mobility (2.0 percent),  
 7 followed by hearing (1.8 percent), cognitive (1.7 percent), vision (1.3 percent), independent living  
 8 (1.0 percent), and self-care (0.4 percent).<sup>12</sup>

9  
 10 Two major surveys have been conducted to assess the prevalence and categories of disabilities  
 11 among students of MD-granting medical schools. Medical school staff responsible for assisting  
 12 students with implementing accommodations for their disabilities were surveyed in 2016.<sup>13</sup>  
 13 Complete data were provided by 89 of 133 schools surveyed. Disabilities were reported for 2.7  
 14 percent of total enrollment, ranging from 0 percent to 12 percent. Attention deficit hyperactivity  
 15 disorder (ADHD) was the most prevalent disability (33.7 percent), followed by learning disabilities  
 16 (21.5 percent); psychological disabilities, such as depression or anxiety (20.0 percent); chronic  
 17 health issues (13.1 percent); other functional impairment (3.9 percent); visual impairment (3.0  
 18 percent); mobility disability (2.5 percent); and deafness (2.2 percent).

19  
 20 A follow-up survey in 2019 allows a comparison across time for the same schools.<sup>14</sup> Overall, the  
 21 87 schools that responded in 2019 with complete data reported that 2,600 students had a disability,  
 22 representing 4.6 percent of enrollment, a 69 percent increase compared to 2016. Data for the 64  
 23 schools that responded to both surveys is presented in the table.

| Number of MD students ( percent) with a disability, 2016 and 2019 |             |             |
|---|-------------|-------------|
|   | 2016        | 2019        |
| ADHD  | 369 (32.3)  | 617 (30.4)  |
| Learning disability   | 245 (21.4)  | 371 (18.3)  |
| Psychological disability  | 233 (20.4)  | 655 (32.3)  |
| Chronic health disabilities                                       | 152 (13.3)  | 365 (18.0)  |
| Mobility disability   | 38 (3.3)    | 74 (3.6)    |
| Visual disabilities   | 34 (3.0)    | 46 (2.3)    |
| Deaf or hard of hearing   | 20 (1.8)    | 25 (1.2)    |
| Other functional impairment                                       | 51 (4.5)    | 49 (2.4)    |
| Overall disabilities  | 1,142 (2.7) | 2,028 (4.6) |

24 The increase overall, and the changes in the reported type of disability, may represent more  
 25 students with disabilities being admitted to medical school, more existing students reporting a  
 26 disability, more complete reporting by the schools, more psychological disability presenting during  
 27 medical school (the largest difference between years), or a combination of these factors.<sup>14</sup>

28  
 29 A third survey has documented the prevalence and categories of disabilities among students of DO-  
 30 granting medical schools.<sup>15</sup> Using the same techniques as the surveys of MD-granting schools, 32  
 31 eligible DO medical schools were surveyed, and 24 responded. Similar to MD schools, ADHD,  
 32 psychological disabilities, and chronic health disabilities were most frequently reported. Compared  
 33 to the total 2019 MD data (not shown), DO-granting schools reported significantly higher rates of  
 34 ADHD (33.5 percent) among those students with a disability than MD-granting programs (29.1  
 35 percent), and lower rates of psychological disability (23.7 percent vs 32.3 percent). Other  
 36 disabilities were reported at similar rates.

1 Less is known about the prevalence of disabilities in residents and fellows in GME. A recent  
2 survey of academic family medicine departments (n=191) concerning prevalence of residents with  
3 disabilities as well as residency program processes for accommodation, found relatively few  
4 department chairs reporting having residents in the preceding five years who had a disability. Fifty  
5 percent of the 66 respondents reported no resident with a disability, 16.7 percent reported one  
6 resident, and 33.3 percent reported two to five residents.<sup>16</sup> There are more than 700 family  
7 medicine GME programs in the United States, so these findings may not be representative of  
8 family medicine residency programs overall.  
9

10 The GME environment, in which the learner is also an employee, may discourage trainees from  
11 disclosing disabilities, either during the interview for a residency position or after joining the  
12 program.<sup>17</sup> Furthermore, the difference in administrative structure in GME, compared to medical  
13 school, may challenge residents/fellows seeking accommodation, and thus deter them from  
14 reporting a disability.<sup>18</sup> Nonetheless, it can be assumed that disabilities reported in medical school  
15 will continue to be experienced by trainees in GME.  
16

17 Information on the prevalence of disabilities among practicing physicians is also relatively scarce.  
18 One survey distributed in 2014 to 148 family medicine department chairs found that 31 (of the 88  
19 respondents) reported faculty with a physical or sensory disability.<sup>19</sup> The most common disabilities  
20 reported for the 50 faculty members were mobility, hearing, and mental health problems. Only  
21 seven of the department chairs knew of these disabilities at hiring. A similar survey conducted in  
22 2019 found fewer family medicine department chairs reporting faculty members with disabilities  
23 (21 chairs reporting out of 68 respondents).<sup>16</sup> Both surveys had low response rates, and it is likely  
24 that disability among faculty physicians is under-reported. A national survey of physicians in 2019  
25 included questions regarding disabilities. Of 6,000 physicians (a representative sample), 178 (3.1  
26 percent of the weighted sample) self-identified as having a disability. The most commonly reported  
27 disability was a chronic health condition (30.1 percent), followed by psychological (14.2 percent),  
28 other disabilities (e.g., essential tremors) (13.4 percent), hearing (12.1 percent), ADHD (10.4  
29 percent), visual (7.8 percent), and learning (2.6 percent). Multiple disabilities were reported by 15.7  
30 percent.<sup>20</sup> The proportion of physicians reporting a disability is considerably lower than that  
31 reported by the employed adult population overall<sup>12</sup> and may reflect under-reporting and/or that the  
32 profession of medicine is perceived as inhospitable and discouraging to those with disabilities.  
33

#### 34 EXAMPLES OF ACCOMMODATION

35

36 Similar to data on the prevalence of disabilities, information on the types of accommodations  
37 provided is more common for medical students than for physicians. The most frequent  
38 accommodations reported in 2016 by medical schools for students with disabilities include the  
39 following:

- 40 • Testing, such as providing extra time and/or low distraction environments (97.8 percent)
- 41 • Facilitated learning, such as note takers and/or recorded lectures (69.7 percent)
- 42 • Assistive technologies, such as text-to-speech (42.7 percent)
- 43 • Clinical, such as leaves of absence and/or relief from overnight call (34.8 percent)
- 44 • Housing, such as single rooms and reserved parking (23.6 percent)
- 45 • Hearing-related, such as employing a transcriptionist or sign language interpreter (18.0  
46 percent)
- 47 • Ergonomic (15.7 percent)<sup>13</sup>

48  
49 In the follow-up survey in 2019, questions about accommodations were divided into didactic and  
50 clinical environments and results were similar. Testing accommodations were most often reported

1 in the didactic years (100 percent of schools), but 75 percent of schools reported this  
2 accommodation for the clinical years as well. Facilitated learning was reported only for didactic  
3 years by 77.4 percent of schools, as were ergonomic accommodations (35.7 percent).  
4 Accommodations in the clinical environment were reported by 68.7 percent of schools.<sup>14</sup> In the  
5 similar study of DO-granting schools, all DO students disclosing disability received a form of  
6 didactic or clinical accommodations, compared to 93.3 percent of MD students. Accommodations  
7 to the clinical environment, such as a decelerated clinical year or release from overnight call, were  
8 more frequently provided in MD-granting programs when compared to DO-granting programs  
9 (68.7 percent vs 21.7 percent).<sup>15</sup>

10  
11 New and existing technologies allow trainees to meet standards and work within a clinical setting.  
12 For example, amplified and visual stethoscopes, standing wheelchairs, dictation software, and  
13 Communication Access Real-Time Translation have allowed students and physicians with  
14 disabilities, such as hearing/visual impairment or spinal cord injuries, to earn their medical degrees  
15 and enter practice. Intermediaries can also be used in the clinical setting, in which students or  
16 physicians direct trained professionals to perform actions that the disabled individuals cannot  
17 conduct themselves.<sup>21</sup> An example of an adaptive environment for a deaf medical student in a one-  
18 month visiting rotation in emergency medicine has been described in which a designated health  
19 care interpreter, captioning added to instructional videos in online learning platforms, an adaptive  
20 headset, and specialized medical sign language developed for the rotation (for terms not in  
21 American Sign Language) were successfully integrated into the rotation.<sup>1</sup>

22  
23 In a study of family medicine faculty, the most commonly reported accommodations provided for  
24 faculty with disabilities were adjusting the work schedule and providing additional time to  
25 complete tasks. Also common was the use of assistive technology and durable equipment.<sup>19</sup>

26  
27 In a review of medical school technical standards, found online or available upon request, roughly  
28 40 percent of schools provided information on types of accommodations allowed for hearing,  
29 vision, and mobility disabilities. Of those, 97 percent allowed auxiliary aids for all three types of  
30 disabilities. A slightly smaller number of schools (approximately 85 percent) provided information  
31 on whether intermediaries (such as interpreters) were allowed as accommodations; few schools  
32 allowed them (approximately 15 percent).<sup>3</sup>

33  
34 **BARRIERS FACED BY TRAINEES**

35  
36 A recent report by the Association of American Medical Colleges (AAMC), “Accessibility,  
37 Inclusion, and Action in Medical Education: Lived Experiences of Learners and Physicians with  
38 Disabilities,”<sup>18</sup> represents the culmination of in-depth interviews with students, residents, and  
39 physicians with disabilities. Several of the report’s many recommendations are highlighted below.

40  
41 The report describes two types of barriers confronting students and residents with disabilities—  
42 structural and cultural. Structural barriers include restrictive and outdated policies and procedures,  
43 poor understanding of clinical accommodations, a lack of disability and wellness support services,  
44 and a physical environment that limits accessibility. These barriers can have immediate and  
45 practical implications for trainees.<sup>21</sup> Cultural barriers include the attitudes, beliefs, and values of the  
46 medical community.

47  
48 *Medical School Technical Standards and Facilitating Access*

49  
50 The technical standards (TS) that a medical school publishes are used to inform a prospective or  
51 current medical student about a school’s expectations for cognitive, sensory, and mobility

1 abilities. The AAMC has released guidelines for TS and a handbook on students with disabilities,  
2 but it is up to schools to develop their own standards.<sup>22</sup> There is great variability between schools,  
3 with some using inclusive, detailed language and identifying possible accommodations, such as  
4 interpreters and transcriptionists. Other schools state, for example, that students need to hear  
5 "adequately" for communication and that an intermediary is not appropriate, or that "significant"  
6 disabilities must be disclosed. Leaving the definition of "adequately" and "significant" up to a  
7 prospective student may deter those with disabilities from applying.<sup>22</sup>

8  
9 Clear, easily obtainable TS are important for prospective students with disabilities in ascertaining  
10 which schools may be welcoming and supportive. In 2016 Zazove et al. published the results of a  
11 study to determine the availability of TS in medical schools and evaluated the language used in TS  
12 relative to the ADA.<sup>3</sup> Their research covered the years 2012-2014 and included all MD- and DO-  
13 granting schools. They found that 84 percent of all schools had TS available on their websites. Ten  
14 percent of MD schools and six percent of DO schools did not have TS on their websites or make  
15 their TS available even after two inquiries. One-third of schools used language that expressed a  
16 willingness to provide accommodations for disabilities, 49 percent used equivocal language, five  
17 percent used unsupportive language, and 14 percent did not provide information on  
18 accommodations. One-third of schools required full function of hearing, 26 percent required full  
19 function of vision, and 24 percent required full mobility functionality. Roughly 10 percent did not  
20 provide information on function level required. Overall, schools with language in the TS that  
21 expressed a willingness to accommodate students with disabilities were also more likely to allow  
22 reasonable accommodations, assume responsibility for providing those accommodations (rather  
23 than the student), accept auxiliary aides, and accept intermediaries. Additional study is required to  
24 determine any changes in the number of schools making available their TS and their willingness to  
25 provide accommodations.

26  
27 A criticism leveled at many TS is that there may be a focus on deficits rather than on the ability to  
28 perform the work.<sup>23</sup> An "organic" standard requires students to demonstrate physical, cognitive,  
29 behavioral, and sensory abilities without assistance. For example, students are expected to have  
30 hearing ability at a particular decibel level without assistance. A "functional" standard focuses on  
31 the student's abilities, with or without assistive technology or accommodation, and may state that  
32 students must be able to obtain the necessary information by hearing or other means. McKee et al.<sup>23</sup>  
33 discuss how organic TS are based on three assumptions that are not derived from empirical  
34 evidence: 1) accommodations pose patient safety risks; 2) accommodations are costly; and 3)  
35 graduates, even those with disabilities, should be able to pass licensure exams without  
36 accommodation.

37  
38 Concerning patient safety, no legal case has been found to demonstrate harm to a patient based on  
39 an accommodation provided to a physician with a disability. Physicians and students with  
40 disabilities typically are aware of their limitations and develop strategies to adapt to the  
41 environment. The costs of accommodation vary greatly. The ADA does not allow cost to justify  
42 discrimination toward students or physicians with disabilities. Medical schools,  
43 residency/fellowship programs, and employers are ultimately responsible for paying for reasonable  
44 accommodations. Assistive technologies rapidly change, and appropriate, cost-effective  
45 accommodations can be found on industry and government websites. The ADA requires licensure  
46 examinations to provide appropriate accommodations such as sign language interpreters and  
47 extended test time. The incorporation of accommodation into the testing environment thus mimics  
48 the learning and practicing environment of the student or physician, and the examination assesses  
49 performance more accurately than if the disabled test taker were denied accommodation.<sup>23</sup>

1 The Association of Academic Physiatrists has addressed the issue of updating medical school TS.<sup>24</sup>  
2 Stating that a functional approach to TS promotes inclusivity by emphasizing abilities rather than  
3 limitations, its report describes standards that allow students to use accommodations and permit  
4 incorporation of technological and medical advances as they become available. Functional TS  
5 describe what skills the student must master—e.g., effective communication with patients and the  
6 care team—but not the manner in which the student must achieve them (e.g., must use vision, etc.).  
7 Changes in medical practice and medical education coincide with an increased use of assistive  
8 technology, for all health professionals regardless of limitations. Team-based care, new  
9 information management skills, and an emphasis on problem-solving skills rather than  
10 memorization of facts combined with competency-based education can allow for performance  
11 assessment of students with disabilities using reasonable accommodations. Students can  
12 demonstrate mastery of skills through alternative methods.  
13

14 *Entry to GME*

15  
16 Students in or graduates from MD-granting medical schools who are applying to U.S. residency  
17 programs generally must pass or at least have taken USMLE® Step 1 and Step 2 to be offered an  
18 interview invitation from a residency program. The National Board of Medical Examiners®  
19 (NBME), which co-owns the USMLE with the Federation of State Medical Boards, provides a  
20 process through which a prospective exam taker can request disability accommodations for the  
21 examinations. Extensive documentation of the disability as well as evidence of previous  
22 educational examination and educational accommodations is required. The NBME requests at least  
23 60 days to process a request. Applicants who have applied for and received accommodations for  
24 Step 1 must apply again for accommodations for Step 2.<sup>25</sup> Medical schools provide timelines for  
25 students who may seek accommodation from the NBME and advise a minimum of 6 months to  
26 include document preparation, submission, and review by the NBME plus additional time in case  
27 of an appeal.<sup>26,27</sup> Students, however, have anecdotally reported lengthier response times from the  
28 NBME, resulting in delays in taking the exam(s), which have in turn impacted application to and  
29 acceptance into residency programs.  
30

31 Similarly, students in or graduates from DO-granting institutions who are applying to U.S.  
32 residency programs generally must pass or at least have taken COMLEX-USA Examination Level  
33 1 and Level 2 to be offered an interview invitation from a residency program. The National Board  
34 of Osteopathic Medical Examiners® (NBOME) provides a process through which a prospective  
35 exam taker can request disability accommodations for the examinations. Documentation of the  
36 disability and a completed application is required. The NBOME states that the process may require  
37 90 days from receipt of a completed application to process a request, though additional time may  
38 be necessary prior to rendering a decision.<sup>28</sup>  
39

40 Once in GME, similar to the undergraduate environment, structural barriers for disabled learners  
41 include an absence of 1) clearly defined policies and processes; 2) a knowledgeable and  
42 responsible point person for facilitating accessibility requests; and 3) an understanding of legal  
43 requirements under the ADA.<sup>18</sup>  
44

45 The ACGME requires that sponsoring institutions have policy regarding accommodations for  
46 disabilities and that GME programs both provide accommodations for residents with disabilities  
47 consistent with the employing sponsoring institution as well as comply with that institution's policy  
48 on employment and nondiscrimination. Unlike medical school TS, there is no requirement as to  
49 where or how an applicant to a training program can find that information. A recent review was  
50 conducted of institutional policies of the 50 largest training institutions to assess compliance with  
51 the ACGME's Common Program Requirements and Institutional Requirements (I.D.2.e, and

1 IV.H.4., respectively) concerning disability.<sup>29</sup> The review also analyzed GME policy in terms of  
2 alignment with recommendations included in the AAMC's report (mentioned above) on disability.  
3 The majority of institutions maintained a GME policy online (76 percent) or provided one upon  
4 request (18 percent). Of the 47 institutions with GME policy available, 32 (68 percent) contained a  
5 statement on disability in compliance with ACGME requirements, 23 with the statement found  
6 online. Of those institutions with a disability policy, 12 (38 percent) included language that  
7 encouraged disability disclosure, 17 (53 percent) provided a statement regarding the confidential  
8 nature of documentation regarding accommodation, and 19 (59 percent) described a procedure for  
9 disclosing disabilities and requesting accommodation. The AAMC report on accessibility and  
10 inclusion in medical education recommends institutions have on staff a designated point person(s)  
11 for disability concerns, through which accommodation requests should pass. Of the institutions  
12 with policy reviewed, only 5 reported such a process. Over half of the 32 institutions required  
13 residents to disclose a disability to program directors (some to program directors and a member of  
14 human resources), not in line with AAMC recommendations. In addition, findings from the survey  
15 of chairs of family medicine departments found that while 56.3 percent of chairs reported they had  
16 a written policy for disability disclosure, 36.6 percent did not know if they had one, and seven  
17 percent reported no written policy available. As found in the above study of institutions, over half  
18 of family medicine department chairs confirmed that the program director was the contact for  
19 disability disclosure, which can be a conflict of interest and against recommendations.<sup>16</sup>

20  
21 Clearly stated and easily found accommodation policies can help applicants determine if a program  
22 and its institution are willing to work with the resident to maximize the learning environment.  
23 Ambiguous or absent policies may lead an applicant to assume that the program will not make  
24 accommodations, which will discourage applying to the program, or, if accepted, may prevent the  
25 resident from seeking assistance with a disability.<sup>30</sup> Students are encouraged to discuss  
26 accommodations with a program immediately after matching into the program to ensure ample  
27 time for implementing schedule changes or accommodations; however, students may be reluctant  
28 to do so if they perceive that a disability will be seen as a liability.<sup>18, 30</sup>

29  
30 It is possible that some disabilities may be less apparent in virtual versus live interviews (e.g.,  
31 physical disabilities). A review of the literature on best practices for virtual interviews for  
32 residency did not include a discussion on the impact of virtual interviews may have on disability  
33 disclosure.<sup>31</sup>

34  
35 A designated, qualified person responsible for processing requests for accommodation and  
36 managing disability services is essential to ensure that residents are confident that the process is  
37 administered professionally and confidentially. A disabilities service provider may be within the  
38 human resources department or a part of an institution-wide disabilities committee. The provider or  
39 committee will be aware of the legal obligations of the ADA, unlike program directors or program  
40 staff, who may not be.<sup>30</sup> A program may offer accommodations to residents with apparent  
41 disabilities; residents with non- or less-apparent disabilities, but who are uncomfortable disclosing  
42 disabilities to program directors, may not receive an offer. Without clearly stated policy and an  
43 expert to manage the interactive process of determining reasonable accommodations, residents may  
44 fruitlessly disclose their disabilities to staff who are without knowledge or authority to assist and  
45 may experience delays in obtaining accommodations.<sup>30</sup>

46  
47 **BALANCE WITH PATIENT SAFETY**

48  
49 Melnick cautions that the laudable goal of increasing inclusion must be balanced against the  
50 medical profession's responsibility to place the interests of patients "above the interests of aspiring  
51 students."<sup>32</sup> Furthermore, the profession has done little to develop consensus on what

1 accommodations would fundamentally alter the formation and assessment of a physician. Medical  
2 schools employ TS to provide guidance, but GME lacks similar standards. A goal of current  
3 medical education is to prepare a physician who can demonstrate proficiency in the  
4 undifferentiated practice of medicine. State licensing authorities lack consensus on what comprises  
5 essential physical and cognitive capabilities for physicians. Melnick proposes discussion and  
6 research on what those essential abilities are, so that individual learners with disabilities can be  
7 supported in a way that does not alter the profession's ability to teach and assess those essential  
8 abilities. Meeks et al.<sup>21</sup> also propose an ecological study to measure the performance path of  
9 learners with disabilities, identify what assistance and accommodations are best suited to various  
10 disabilities, track the employment experiences of physicians with disabilities, and examine the  
11 effect of those physicians on patient care. Little is known about the process by which physicians  
12 with disabilities find employment, although it is assumed that they are guided by past experience  
13 with the ADA process and responses of various educational and institutional administrations.  
14

15 CURRENT AMA POLICY

16

17 AMA policies related to this topic are listed in the Appendix.

18

19 SUMMARY AND RECOMMENDATIONS

20

21 The medical education community should accelerate the pace of inclusion of physicians with  
22 disabilities for several reasons. The ADA stipulation that institutions cannot discriminate against a  
23 qualified individual on the basis of disability and requires institutions to make reasonable  
24 accommodations to allow the individual equal opportunity to participate in the institution's  
25 programs (or employment). Second, in 2016 the U.S. population was estimated to have a disability  
26 rate of 12.8 percent (some estimates are higher), increasing by 7.6 percent since 2010.<sup>11</sup> The rate at  
27 which medical students present with disabilities is also growing—specifically, 4.6 percent of  
28 students enrolled in 2019 compared to 2.7 percent in 2016. Although the number of physicians with  
29 disabilities in the health care workforce is small, estimated at 3.1 percent, it is believed that these  
30 physicians can better understand and empathize with patients with disabilities. A more diverse  
31 population of medical students and physicians, including those with disabilities, can introduce new  
32 approaches to care, both for patients with and without disabilities.<sup>23</sup> Improved education about  
33 disability coupled with the opportunity to learn directly from peers with disabilities in the medical  
34 education setting can challenge existing beliefs about disabilities and increase awareness of the  
35 potential of both patients and physicians with disabilities.<sup>22</sup>

36

37 To increase access to medical education for learners with disabilities, it is important that applicants,  
38 either to medical schools or residency programs, have ready access to the information necessary to  
39 make an informed decision about whether that educational environment has the appropriate  
40 resources and institutional culture to support necessary accommodations. Institutions should review  
41 and evaluate their technical standards to remove restrictive "organic" standards and replace them  
42 with "functional" standards that emphasize what learners can do rather than what they cannot do.  
43 Institutions, undergraduate and graduate, should have readily available designated disability service  
44 providers who are knowledgeable about the ADA and aware of current resources and strategies to  
45 best process accommodation requests. Providers of high-stakes examinations need to remain  
46 responsive and flexible in reviewing and approving accommodations, especially if the number of  
47 exam takers with disabilities increases. Research on which accommodations are most effective in  
48 the patient care and learning environment will assist in determining future strategies for creating a  
49 safe and inclusive medical workforce. Future study may be warranted to examine challenges to  
50 employment after training for individuals with disabilities, as there are limited data available on  
51 physicians with disabilities in the workforce.

1 The Council on Medical Education therefore recommends that the following recommendations be  
2 adopted and the remainder of this report be filed:  
3

- 4 1. That our American Medical Association (AMA) urge that all medical schools and graduate  
5 medical education (GME) institutions and programs create, review, and revise technical  
6 standards, concentrating on replacing “organic” standards with “functional” standards that  
7 emphasize abilities rather than limitations, and that those institutions also disseminate these  
8 standards and information on how to request accommodations for disabilities in a  
9 prominent and easily found location on their websites. (Directive to Take Action)  
10
- 11 2. That our AMA urge all medical schools and GME institutions to a) make available to  
12 students and trainees a designated, qualified person or committee knowledgeable trained in  
13 the application of the Americans with Disabilities Act, Section 504 of the Rehabilitation  
14 Act of 1973, and available support services and b) encourage students and trainees to avail  
15 themselves of any needed support services, and c) foster a supportive and inclusive  
16 environment where students and trainees with disabilities feel comfortable accessing  
17 support services. (Directive to Take Action)  
18
- 19 3. That our AMA encourage the National Board of Medical Examiners and National Board of  
20 Osteopathic Medical Examiners, and member boards of the American Board of Medical  
21 Specialties and the American Osteopathic Association to evaluate and enhance their  
22 processes for reviewing requests for accommodations from applicants with disabilities in  
23 order to reduce delays in completion of licensing the USMLE and COMLEX, and initial  
24 board certification examinations. This should includeing an assessment of the experience  
25 of those applicants and the development of a transparent communication process that keeps  
26 applicants informed about the expected timeline to address their requests. These processes  
27 should require neither proof of accommodation nor proof of poor academic performance  
28 prior to the time at which a need for accommodation was requested. (Directive to Take  
29 Action)  
30
- 31 4. That our AMA encourage research and broad dissemination of results in the area of  
32 disabilities accommodation in the medical environment that includes: the efficacy of  
33 established accommodations; innovative accommodation models that either reduce barriers  
34 or provide educational approaches to facilitate the avoidance of barriers; impact of disabled  
35 learners and physicians on the delivery of health care to patients with disabilities; and  
36 research on the safety of established and potential accommodations for use in clinical  
37 programs and practice. (Directive to Take Action)  
38
- 39 5. That our AMA rescind Policy D-295.929, “A Study to Evaluate Barriers to Medical  
40 Education for Trainees with Disabilities,” as having been fulfilled by this report. (Rescind  
41 HOD Policy)  
42
- 43 6. That AMA Policy D-90.991, “Advocacy for Physicians with Disabilities,” be reaffirmed  
44 (Reaffirm HOD Policy)

Fiscal note: \$2,500.

## APPENDIX: RELEVANT AMA POLICY

### *D-90.991, "Advocacy for Physicians with Disabilities"*

1. Our AMA will study and report back on eliminating stigmatization and enhancing inclusion of physicians with disabilities including but not limited to: (a) enhancing representation of physicians with disabilities within the AMA, and (b) examining support groups, education, legal resources and any other means to increase the inclusion of physicians with disabilities in the AMA.
2. Our AMA will identify medical, professional and social rehabilitation, education, vocational training and rehabilitation, aid, counseling, placement services and other services which will enable physicians with disabilities to develop their capabilities and skills to the maximum and will hasten the processes of their social and professional integration or reintegration.
3. Our AMA supports physicians and physicians-in-training education programs about legal rights related to accommodation and freedom from discrimination for physicians, patients, and employees with disabilities.

### *H-65.965, "Support of Human Rights and Freedom"*

#### Our AMA:

- (1) continues to support the dignity of the individual, human rights and the sanctity of human life,
- (2) reaffirms its long-standing policy that there is no basis for the denial to any human being of equal rights, privileges, and responsibilities commensurate with his or her individual capabilities and ethical character because of an individual's sex, sexual orientation, gender, gender identity, or transgender status, race, religion, disability, ethnic origin, national origin, or age;
- (3) opposes any discrimination based on an individual's sex, sexual orientation, gender identity, race, religion, disability, ethnic origin, national origin or age and any other such reprehensible policies;
- (4) recognizes that hate crimes pose a significant threat to the public health and social welfare of the citizens of the United States, urges expedient passage of appropriate hate crimes prevention legislation in accordance with our AMA's policy through letters to members of Congress; and registers support for hate crimes prevention legislation, via letter, to the President of the United States.

#### Work Plan for Maintaining Privacy of Physician Medical Information D-180.991

The AMA shall recommend that medical staffs, managed care organizations and other credentialing and licensing bodies adopt credentialing processes that are compliant with the Americans with Disabilities Act and communicate this recommendation to all appropriate entities.

### *H-90.987, "Equal Access for Physically Challenged Physicians"*

Our AMA supports equal access to all hospital facilities for physically challenged physicians as part of the Americans with Disabilities Act.

### *H-200.951, "Strategies for Enhancing Diversity in the Physician Workforce"*

Our AMA (1) supports increased diversity across all specialties in the physician workforce in the categories of race, ethnicity, gender, sexual orientation/gender identity, socioeconomic origin and persons with disabilities; (2) commends the Institute of Medicine for its report, "In the Nation's Compelling Interest: Ensuring Diversity in the Health Care Workforce," and supports the concept that a racially and ethnically diverse educational experience results in better educational outcomes; and (3) encourages medical schools, health care institutions, managed care and other appropriate groups to develop policies articulating the value and importance of diversity as a goal that benefits all participants, and strategies to accomplish that goal.

*9.5.4, "Civil Rights & Medical Professionals"*

Opportunities in medical society activities or membership, medical education and training, employment and remuneration, academic medicine and all other aspects of professional endeavors must not be denied to any physician or medical trainee because of race, color, religion, creed, ethnic affiliation, national origin, gender or gender identity, sexual orientation, age, family status, or disability or for any other reason unrelated to character, competence, ethics, professional status, or professional activities.

AMA Principles of Medical Ethics: IV: Balance with patient safety

## REFERENCES

- <sup>1</sup> Meeks LM, Engelman A, Booth A, Argenyi M. Deaf and hard-of-hearing learners in emergency medicine. *West J of Emerg Med.* 2018;19(6):1014-1018.
- <sup>2</sup> ADAAA & Section 504: Understanding Section 504. National Center for Learning Disabilities. <https://www.nclld.org/archives/action-center/learn-the-law/understanding-section-504>. Accessed September 23, 2019.
- <sup>3</sup> Zazove P, Case B, Moreland C, et al. U.S. medical schools' compliance with the Americans with Disabilities Act: Findings from a national study. *Acad Med.* 2016;91(7):2016. doi 10:1097/ACM.0000000000001087.
- <sup>4</sup> Fact Sheet on the EEOC's Final Regulations Implementing the ADAAA. U.S. Equal Employment Opportunity Commission. [https://www1.eeoc.gov//laws/regulations/adaaa\\_fact\\_sheet.cfm](https://www1.eeoc.gov//laws/regulations/adaaa_fact_sheet.cfm). Accessed September 23, 2019.
- <sup>5</sup> ADAAA Effective Tomorrow—Ready for Its 9 Rules of Construction? *HR Daily Advisor* <https://hrdailyadvisor.blr.com/2011/05/22/adaaa-effective-tomorrow-ready-for-its-9-rules-of-construction>. Accessed December 13, 2019.
- <sup>6</sup> Functions and Structure of a Medical School: Standards for Accreditation of Medical Education Programs Leading to the MD Degree. March 2018. <https://lcme.org/publications/>. Accessed December 13, 2019.
- <sup>7</sup> Survey Report Template for Full Survey Visit Reports. October 2019. <https://lcme.org/publications/>. Accessed December 13, 2019.
- <sup>8</sup> Accreditation of Colleges of Osteopathic Medicine: COM Continuing Accreditation Standards. July 1, 2019. Commission on Osteopathic College Accreditation. <https://osteopathic.org/wp-content/uploads/2018/02/com-continuing-accreditation-standards.pdf>. Accessed December 13, 2019.
- <sup>9</sup> Educational Council on Osteopathic Principles. Technical Standards Document. [https://www.aacom.org/docs/default-source/councils/aacom\\_ecop\\_technical\\_standards\\_2009.pdf?sfvrsn=1f226197\\_4](https://www.aacom.org/docs/default-source/councils/aacom_ecop_technical_standards_2009.pdf?sfvrsn=1f226197_4). Accessed July 28, 2021.
- <sup>10</sup> ACGME Common Program Requirements (Residency). July 1, 2020. Accreditation Council for Graduate Medical Education. [https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPResidency2020\\_TCC.pdf](https://www.acgme.org/Portals/0/PFAssets/ProgramRequirements/CPResidency2020_TCC.pdf). Accessed January 10, 2021.
- <sup>11</sup> ACGME Institutional Requirements. July 1, 2018. Accreditation Council for Graduate Medical Education. <https://www.acgme.org/Portals/0/PFAssets/InstitutionalRequirements/000InstitutionalRequirements2018.pdf>. Accessed December 18, 2019.
- <sup>12</sup> Estimates based on analysis of the 2017 American Community Survey (ACS) Public Use Microdata Sample (PUMS) by W. Erickson, Cornell University. Provided January 6, 2020.
- <sup>13</sup> Meeks LM, Herzer KR. Prevalence of self-disclosed disability among medical students in U.S. allopathic medical schools. *JAMA.* 2016;316(21):2271-2272. doi:10.1001/jama.2016.10544.
- <sup>14</sup> Meeks LM, Case B, Herzer K, et al. Change in the prevalence of disabilities and accommodation practices among U.S. medical schools, 2016 vs 2019. *JAMA.* 2019;322(20):2022-2024. doi:10.1001/jama.2019.15372.
- <sup>15</sup> Meeks LM, Case B, Plegue M et al. National prevalence of disability and clinical accommodations in medical education. *J Med Educ Curric Dev.* 2020;7:1-4. doi.org/10.1177/2382120520965249

<sup>16</sup> Meeks LM, Case B, Joshi H, Harper D, Graves L. Disability policies and practices in family medicine residencies: A CERA study. *Fam Med*. 2021; 53(3):211-4. doi: 10.22454/FamMed.2021.726731.

<sup>17</sup> Shehab SS. How do we evaluate doctors with disabilities? *In-House*. November 11, 2018. <https://in-housestaff.org/how-do-we-evaluate-doctors-with-disabilities-1148>. Accessed September 16, 2019.

<sup>18</sup> Meeks LM, Jain NR. Accessibility, Inclusion, and Action in Medical Education: Lived Experiences of Learners and Physicians with Disabilities. Washington, DC: Association of American Medical Colleges; 2018. <https://store.aamc.org/accessibility-inclusion-and-action-in-medical-education-lived-experiences-of-learners-and-physicians-with-disabilities.html>.

<sup>19</sup> Churgay CA, Smith MA, Woodard L, Wallace LS. A survey of family medicine department chairs about faculty with disabilities: a CERA study. *Fam Med*. 2015;47(10):775-81.

<sup>20</sup> Nouri Z, Dill M, Conrad S, Moreland C, Meeks LM. Estimated prevalence of US physicians with disability: Results from the National Sample Survey of Physicians (NSSP). *JAMA Netw Open*. 2021;4(3):e211254. doi:10.1001/jamanetworkopen.2021.1254

<sup>21</sup> Meeks LM, Herzer K, Jain NR. Removing barriers and facilitating access: Increasing the number of physicians with disabilities. *Acad Med*. 2018;93(4):540-543. doi:10.1097/ACM.0000000000002112.

<sup>22</sup> Argenyi M. Technical standards and deaf and hard of hearing medical school applicants and students: interrogating sensory capacity and practice capacity. *AMA J Ethics*. 2016;18(10):1050-1059. doi: 10.1001/journalofethics.2016.18.10.sect1-1610.

<sup>23</sup> McKee M, Case B, Fausone M, et al. Medical schools' willingness to accommodate medical students with sensory and physical disabilities: Ethical foundations of a functional challenge to "organic" technical standards. *AMA J Ethics*. 2016;18(10):993-1002. doi: 10.1001/journalofethics.2016.18.10.medu1-1610.

<sup>24</sup> Kezar LB, Kirschner KL, Clinchot DM, et al. Leading practices and future directions for technical standards in medical education. *Acad Med*. 2019 Apr;94(4):520-527. doi: 10.1097/ACM.0000000000002517.

<sup>25</sup> USMLE® Test Accommodations. <https://www.usmle.org/test-accommodations/forms.html>. Accessed June 29, 2021.

<sup>26</sup> University of Michigan Medical School. [https://medstudents.medicine.umich.edu/sites/default/files/downloads/Accommodations%20for%20Step%20Exams\\_0.pdf](https://medstudents.medicine.umich.edu/sites/default/files/downloads/Accommodations%20for%20Step%20Exams_0.pdf). Accessed June 29, 2021.

<sup>27</sup> University of California San Francisco. <https://sds.ucsf.edu/usmle-exams>. Accessed June 29, 2021.

<sup>28</sup> Test Accommodations. <https://www.nbome.org/assessments/comlex-usa/comlex-usa-level-2-ce/test-accommodations/>. Accessed July 28, 2021.

<sup>29</sup> Meeks LM, Taylor N, Case B, et al. The unexamined diversity: disability policies and practices in US graduate medical education programs. *J Grad Med Educ*. 2020;12(5):615-619. doi:org/10.4300/JGME-D-19-00940.1

<sup>30</sup> Meeks LM, Jain NR, Moreland C, et al. Realizing a diverse and inclusive workforce: Equal access for residents with disabilities. *J Grad Med Educ*. 2019;11(5):498-503. [doi.org/10.4300/JGME-D-19-00286.1](https://doi.org/10.4300/JGME-D-19-00286.1).

<sup>31</sup> Wolff M, Burrows H. Planning for virtual interviews: Residency recruitment during a pandemic. *Acad Pediatr*. 2021;21:24-31.

<sup>32</sup> Melnick DE. Balancing responsibility to patients and responsibility to aspiring physicians with disabilities. *Acad Med.* 2011;86(6):674-676. doi: 10.1097/ACM.0b013e318217e956.