

HOD ACTION: Recommendations in Council on Medical Education Report 4 adopted as amended and the remainder of the report filed.

REPORT 4 OF THE COUNCIL ON MEDICAL EDUCATION (November 2021)
Medical Student Debt and Career Choice
(Reference Committee C)

EXECUTIVE SUMMARY

American Medical Association (AMA) Policy H-305.925 (22), “Principles of and Actions to Address Medical Education Costs and Student Debt,” asks our AMA to:

Formulate a task force to look at undergraduate medical education training as it relates to career choice, and develop new polices and novel approaches to prevent debt from influencing specialty and subspecialty choice.

To implement the policy, the Council on Medical Education developed a task force comprising representatives of AMA member sections as well as the National Association of Advisors for the Health Professions. The task force held two calls, in April and July, to review the literature on this topic, discuss the issues and potential solutions, and develop recommendations for consideration by the Council on Medical Education.

The task force reflected on a multitude of issues related to medical student career choice and the influence of debt; these include trends in medical student debt, gaps in financial literacy among medical students, the potential role of debt on diversity of the medical profession, and the impact of loan forgiveness programs and free medical school tuition.

Although high levels of medical school debt are a personal concern from a financial perspective for many medical students, trainees, and physicians, the ultimate impact of debt on career choice is variable and is not strongly associated with specialty selection. The Council on Medical Education will continue to monitor the literature and data regarding the influence of medical education debt on the physician workforce, especially with regard to the potentially intersecting impacts of race/ethnicity, socioeconomic status, and other key sociodemographic factors.

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REPORT OF THE COUNCIL ON MEDICAL EDUCATION

CME Report 4, November 2021

Subject: Medical Student Debt and Career Choice

Presented by: Niranjan Rao, MD, Chair

Referred to: Reference Committee C

1 American Medical Association (AMA) Policy H-305.925 (22), “Principles of and Actions to
2 Address Medical Education Costs and Student Debt,” asks our AMA to:

3
4 Formulate a task force to look at undergraduate medical education training as it relates to
5 career choice, and develop new polices and novel approaches to prevent debt from influencing
6 specialty and subspecialty choice.

7
8 During the 2019 Annual Meeting of the AMA House of Delegates (HOD), testimony before
9 Reference Committee C was in support of this addition to policy. Indeed, education debt continues
10 to be a significant burden on medical students, residents, and physicians. The AMA has numerous
11 policies on this topic and advocates to legislators for mechanisms to alleviate or eliminate
12 education debt. Similarly, the AMA continues to call for improved workforce planning, to ensure
13 access to health care services nationwide, particularly in underserved rural and urban areas and in
14 specific fields of need (e.g., primary care).

15
16 DEVELOPMENT OF THE TASK FORCE

17
18 To implement the policy, the Council on Medical Education assigned the chair of its 2019-2020
19 undergraduate medical education committee (Robert Goldberg, DO) as lead for the task force,
20 which comprised representatives of the following AMA sections, along with the National
21 Association of Advisors for the Health Professions (NAAHP):

- 22
23
- | | |
|-------------------------------|-----------------------------|
| • Medical Student Section | Faith Crittenden |
| • Resident and Fellow Section | Gunjan Malhotra, MD |
| • Young Physicians Section | Hilary Fairbrother, MD, MPH |
| • Academic Physicians Section | Hal B. Jenson, MD, MBA |
| • Women Physicians Section | Anita Ravi, MD, MPH, MSHP |
| • Minority Affairs Section | Frank Clark, MD |
| • Senior Physicians Section | Louis Weinstein, MD |
| • NAAHP | Francie Cuffney, PhD |
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32 The task force held two teleconferences, in April and July; appointed representatives contributed
33 the expertise and unique perspectives of their specific demographic groups to the background and
34 recommendations of this report.

1 TRENDS IN MEDICAL STUDENT DEBT

2
 3 As with tuition and expenses across higher education, data on medical student debt reflect a
 4 continuing upward trend. The Association of American Medical Colleges (AAMC) reports that
 5 median medical school debt in 2019 was \$200,000, which increased from \$195,000 in 2018.¹ Data
 6 for osteopathic medical school programs reflect a similar upward trend, according to the American
 7 Association of Colleges of Osteopathic Medicine (AACOM), with an overall median expected debt
 8 for matriculants in 2019 at \$192,000—up nine percent over the previous two years.² AACOM data
 9 also show that median expected debt for entering students at private osteopathic schools is
 10 \$200,000, versus \$160,000 for those in public osteopathic schools.

11
 12 These data show a significant and growing debt burden on medical students in aggregate but may
 13 disguise the actual debt load that many individual students face, due to a sizeable and growing
 14 cross-section of students who report no medical student debt. The proportion of those reporting no
 15 debt has been increasing and appears concentrated in students from wealthy backgrounds. The
 16 reported percentage of 2015 medical school graduates who graduated with no medical school debt
 17 was 21.5 percent; this figure grew to 28.7 percent for 2019 graduates.¹ Although this trend may at
 18 first glance seem positive, report Grischkan et al., it may have negative consequences both for the
 19 diversity of the physician workforce and physician distribution across medical specialties, in that
 20 “primary care-oriented fields seem to have less of an increase in graduates without debt.”³ In fact,
 21 as Grischkan et al. note, six specialties are experiencing the largest absolute increase in no debt;
 22 radiology, dermatology, neurology, obstetrics and gynecology, ophthalmology, and pathology—
 23 many of which are competitive choices for careers among medical school graduates seeking to
 24 match into a residency program. In short, it appears that higher overall debt is concentrated among
 25 a smaller number of individuals. This underscores the potential misinterpretations that may arise
 26 from viewing these data in aggregate, which may cloud the overall picture, as a significant subset
 27 of students have outside funding sources to offset debt, including personal or family wealth,
 28 scholarships, debt relief through military service, and loan forgiveness due to future service in an
 29 underserved urban and rural area.

30
 31 One of the largest contributors to medical school debt is rising tuition. According to the AAMC,
 32 the cost of allopathic medical education has been increasing steadily for both public and private
 33 institutions, as shown in Table 1, with a 20 percent to 23 percent increase in less than a decade.⁴
 34 Similar data from the AACOM (see Table 2) show a 30 percent to 34 percent increase over 11
 35 years.⁵

36
 37 Table 1. Average tuition, U.S. allopathic medical school programs (public and private)

	2012-2013		2019-2020	
	In-state	Out of state	In-state	Out of state
Public	\$23,954	\$45,047	\$32,520	\$56,001
Private	\$42,407	\$43,943	\$55,337	\$56,946

38
 39
 40
 41
 42
 43
 44 Table 2. Mean tuition, U.S. osteopathic medical school programs (public and private aggregated)

	2008-2009		2019-2020	
	In-state	Out of state	In-state	Out of state
	\$33,420	\$38,683	\$50,563	\$55,853

1 It is important to note that while tuition has been steadily increasing, it has not discouraged
2 applications to medical school; this number as well as overall enrollments have continued to
3 increase over the last decade for both allopathic⁶ and osteopathic⁷ medical school programs. These
4 increases in tuition could influence specialty choice among graduates of public versus private
5 medical schools in different ways. Phillips et al. reported that high educational debt deters
6 graduates of public medical schools from choosing primary care but does not appear to influence
7 private school graduates in the same way. They note that “[r]educing debt of selected medical
8 students may be effective in promoting a larger primary care physician workforce.”⁸

9
10 GAPS IN FINANCIAL LITERACY AMONG MEDICAL STUDENTS

11
12 While the increase in medical school costs is a significant factor in rising medical student debt, it is
13 also important to consider the relative lack of financial education among medical students as a
14 concern.

15
16 A study of first- and fourth-year medical students by Jayakumar et al. found low levels of financial
17 literacy and lack of preparedness for managing personal finances, including strategies for effective
18 saving and investing and practice management.⁹ Equally concerning, the study’s authors describe
19 the lack of improvement in financial literacy between entering and graduating medical students,
20 regardless of whether their medical school offered such education. They conclude that reform
21 efforts in undergraduate medical education by institutions and policymakers should encompass
22 improvements to existing curricula to fill this gap in medical students’ knowledge, and ensure that
23 financial counseling is tailored to meet students’ needs and occurs before key personal finance
24 decisions are made.

25
26 The Liaison Committee on Medical Education, which accredits medical school programs in the
27 U.S. leading to the MD (allopathic) degree, includes as part of its accreditation standards a
28 requirement that programs provide the following services to students:

29
30 *12.1 Financial Aid/Debt Management Counseling/Student Educational Debt*

31
32 *A medical school provides its medical students with effective financial aid and debt*
33 *management counseling and has mechanisms in place to minimize the impact of direct*
34 *educational expenses (i.e., tuition, fees, books, supplies) on medical student indebtedness.*

35
36 Similarly, the Commission on Osteopathic College Accreditation, the accrediting body for
37 osteopathic medical school programs, has the following requirements related to debt counseling
38 and student debt outcomes:

39
40 *Element 9.7: Financial Aid and Debt Management Counseling*

41
42 *A COM [college of medicine] must provide its students with counseling to assist them with*
43 *financial aid applications and debt management.*

44
45 *Submission 9.7: Financial Aid and Debt Management Counseling*

46
47 *1. Provide a description of all financial aid and debt counseling sessions provided to*
48 *its students, including:*

49 *a. When the financial aid and debt counseling sessions are/were provided to the*
50 *students;*

51 *b. The OMS year during which students are required to receive these sessions;*

1 *c. A roster of students that received financial aid and debt counseling.*

2
3 *Element 11.3: Student Debt Outcomes*

4
5 *A COM and/or its parent institution must collect and publish data on the debt load and student*
6 *loan default rates of its students in such a way that applicants can be aware of the information.*

7
8 *Submission 11.3: Student Debt Outcomes*

- 9
10 *1. Provide the current average debt for the last four years of students.*
11 *2. Provide a public link to where the information is published.*
12 *3. For each of the four academic years preceding the submission of this information,*
13 *provide the student loan default rate for all federal financial aid obtained under the*
14 *Higher Education Act of 1965 (HEA), as amended, including financial aid provided*
15 *under Title IV of the HEA.*

16
17 DEBT AND DIVERSITY

18
19 In considering the connections between career choice and medical student debt, it is imperative to
20 examine the differences in financial circumstances and barriers that exist for subsets of medical
21 graduates.

22
23 Data regarding debt that account for racial/ethnic diversity of medical students and physicians
24 demonstrate that Black/African American and Hispanic/Latina/o/x medical students graduate with
25 higher levels of medical school debt compared to the overall population. According to AACOM,
26 91 percent of Black/African American and 88 percent of Hispanic/Latina/o/x entering students
27 expect to graduate with medical education debt—versus 77 percent of Asian entering students and
28 86 percent of white students.¹⁰ These trends have been supported by other studies that report higher
29 debt burden in Black medical students compared to other races/ethnicities. A study by Dugger et al.
30 found that 77.3 percent of Black medical students anticipated debt in excess of \$150,000 upon
31 graduation, versus White (65.1 percent), Hispanic (57.2 percent), and Asian students (50.2
32 percent).¹¹ These findings are supported by Jolly¹² and Phillips et al.¹³ (Dugger et al. do note that
33 Hispanic students are a “notable exception to this general relationship,” and call for research of the
34 “relatively high matriculation and low debt of Hispanics in comparison to other minority groups.”)

35
36 The literature concerning medical school debt among students from groups historically
37 marginalized in medicine is limited, it is important to consider additional disparities that exist in
38 medical school. While the current evidence reflects higher amounts of debt for Black/African
39 American and Hispanic/Latina/o/x groups, students from minoritized groups also experience a
40 higher incidence of discrimination and burnout and may have more limited access to resources
41 compared to non-minoritized medical students. Medical student debt levels are negatively
42 associated with mental well-being and academic outcomes, according to a review by Pisaniello et
43 al.¹⁴ Perceived risk of not completing an educational program creates additional burden regarding
44 one’s ability to ultimately repay educational debt. It is important to lower these hurdles for
45 minoritized students; improved strategies and programs for decreasing and mitigating medical
46 school debt and its impacts is only one aspect of addressing systemic disparities within medical
47 education.

1 FACTORS THAT INFLUENCE MEDICAL CAREER CHOICE

2
3 It is inarguable that high levels of medical school debt are a personal concern from a financial
4 perspective for many medical students, trainees, and physicians. Increasing evidence suggests that
5 the impact of debt on career choice is variable and is not strongly associated with specialty
6 selection, including the choice of primary care fields.^{15,16,17,18}

7
8 In contrast, the strongest and most predictive influences of specialty choice, according to the
9 AAMC survey of 2019 medical school graduates,¹ are the following:

10

11 <u>Influence</u>	12 <u>Percent</u>
13 Fit with personality, interests, and skills	87.2
14 Content of specialty	83.4
15 Role model influence	50.9

16 These data have been consistent, in that they represent the three most frequently cited influences on
17 specialty choice by each of the past five classes of medical school graduates, from 2015 to 2019.

18
19 A recent systematic literature review and meta-analysis of 75 studies encompassing more than
20 880,000 individuals by Yang et al.¹⁹ outlined the factors influencing medical students' choice of
21 subspecialty training; as shown, student debt was cited as a factor by the fewest respondents:

22

23 <u>Factor</u>	24 <u>Percent</u>
25 Academic interests	75.3
26 Competencies	55.2
27 Controllable lifestyles or flexible work schedules	53
28 Patient service orientation	50
29 Medical teachers or mentors	46.9
30 Career opportunities	44
31 Workload or working hours	37.9
32 Income	34.7
33 Length of training	32.3
34 Prestige	31.2
35 Advice from others	28.2
36 Student debt	15.3

37 Income is certainly among the drivers of career choice; this variable is even more critical when
38 considering lifetime earning potential. Leigh et al. reported that estimates of additional lifetime
39 earnings for the broad categories of surgery, internal medicine, and pediatric subspecialties and
40 other specialties over that for primary care were \$1,587,722, \$1,099,655, and \$761,402
41 respectively. For 41 specific specialties, the top additional earnings compared with family medicine
42 as reference were neurological surgery (\$2,880,601), medical oncology (\$2,772,665), and radiation
43 oncology (\$2,659,657). The authors conclude, "After accounting for varying residency years and
44 discounting future earnings, primary care specialties earned roughly \$1 [million to] \$3 million less
45 than other specialties."²⁰

46
47 Aside from the numbers, career satisfaction continues to be complex and multifaceted. Physician
48 career satisfaction has been linked to better health care, patient satisfaction, and improved patient
49 outcomes. Career satisfaction and dissatisfaction vary across specialty as well as by age, income,
50 and region. A 2002 study by Leigh et al. found a "relatively high proportion of dissatisfied
51 physicians among those practicing certain 'procedural' specialties" (including ophthalmology,

1 otolaryngology, and orthopaedic surgery), which the authors deemed “puzzling” due to the high
2 income and prestige associated with these fields. In contrast, physicians practicing some
3 “cognitive” specialties (e.g., infectious diseases, geriatrics, and pediatrics) were unlikely to be
4 dissatisfied. The authors conclude that the advent of recent changes wrought by managed care is
5 responsible for the levels of dissatisfaction among these procedural fields.²¹

6
7 Several current and future events may also become relevant with regard to the impact of medical
8 student debt upon career choice. With the transition of the United States Medical Licensing
9 Examination® (USMLE®) Step 1 exam to pass/fail reporting, previously perceived barriers to
10 consideration of certain specialties may become less relevant to applicants. Increasing emphasis on
11 holistic review of applicants may also affect medical student specialty choice. In addition, given
12 the impact of the COVID-19 pandemic, there may be significant changes in the application process
13 resulting from necessary innovation to adapt to travel limitations. Although it would be impossible
14 to predict the impact of the changing landscape of medical education and medical student
15 assessment, these factors may become relevant over time and warrant continued monitoring and
16 potential future study.

17 18 LOAN FORGIVENESS PROGRAMS AND FREE TUITION

19
20 In one study of the role of debt and loan forgiveness/repayment programs in osteopathic medical
21 graduates’ plans to enter primary care, the use of loan forgiveness programs has been associated
22 with choosing primary care specialties. Scheckel et al. found that “Graduates with high debt burden
23 were more likely to enter primary care fields and use loan forgiveness/repayment programs.”²²
24 In addition, Richards et al. found a strong association between participation in loan forgiveness
25 programs and medical service in underserved areas.²³ These programs therefore serve a dual
26 purpose—to mitigate the impact of medical school debt on career choice and help increase the
27 medical workforce in underserved areas.

28
29 Some, however, have questioned the value of loan forgiveness programs. In their study, Phillips et
30 al. state that it is surprising that individuals with high debt were “significantly less likely to pursue
31 a career with a government-owned or subsidized practice, including an FQHC [federally qualified
32 health center], rural health clinic, the Indian Health Service, the Public Health Service, a state or
33 local government-operated clinic, or the Department of Veterans Affairs.”²⁸ They conclude,
34 “Existing National Health Service Corps [NHSC] loan repayment opportunities may not offer
35 adequate incentives to primary care physicians with high debt,” and call for policy changes,
36 including increased investment in the NHSC, reform of the Public Service Loan Forgiveness
37 program, and federal support for academic primary care.

38
39 Similarly, Asch, Grischkan, and Nicholson comment that loan repayment programs can create
40 “perverse incentives” and may conflict with each other, leading to a financial disincentive to enter
41 primary care careers. They also state that loan repayment does nothing to address the underlying
42 costs of medical education and only provides a benefit to those who pursue participation in such
43 programs.²⁴

44
45 Additionally, free tuition and full scholarships alone were also not associated with students
46 choosing primary care, conclude Nguyen and Bounds; they posit that concerns with work
47 environment and lifestyle may dissuade those who were initially interested in primary care from
48 staying with that decision, aside from any tuition and scholarship assistance.²⁵ This finding is
49 important, in that the number of medical schools offering free tuition is growing, with seven total
50 as of April 2019 (although some such offerings are limited to the first few graduating classes at
51 newly accredited medical schools).²⁶ An article in *AAMC News* on the increase in free medical

1 schools notes that such efforts are unlikely to augment the primary care workforce, although they
2 could attract a more diverse pool of applicants and allow for graduates to pursue their passion,
3 regardless of profit. The article highlights data from the AAMC that debt has “little influence” on
4 choice of specialty.²⁷ In addition, the authors opine that efforts to enhance compensation and
5 reimbursements for primary care medical specialties, change negative perceptions of low prestige
6 (all too common among a subset of medical education role models and mentors), and improve the
7 primary care practice environment for these physicians could be more fruitful as a means to
8 increase the primary care workforce. Future research by the Council on Medical Education and
9 other stakeholders should monitor the impact of free tuition and scholarships on specialty choice
10 and debt, as well as workforce composition and physician satisfaction.

11 CONCERNS WITH THE PUBLIC SERVICE LOAN FORGIVENESS (PSLF) PROGRAM

12 At the June 2021 of the AMA HOD, attendees discussed the Public Service Loan Forgiveness
13 (PSLF) program. Discussion centered around concerns about the denial rate of PSLF applications,
14 lack of transparency of and communication about program requirements, and oversight and
15 accountability of PSLF loan servicers. Council on Medical Education offered to incorporate
16 discussion of the issue into this report.

17 A 2017 [report](#) by the Council on Medical Education, “Expansion of Public Service Loan
18 Forgiveness,” provided background on the PSLF program, a taxpayer-funded program through
19 which debt relief is afforded individuals to work in public service careers, such as teachers and
20 social workers, as well as medical professionals. PSLF forgives the remaining balance on Direct
21 Loans after the individual makes 120 qualifying monthly payments under a qualifying repayment
22 plan while working full-time for a qualifying employer. According to Federal Student Aid, an
23 office of the U.S. Department of Education ([https://studentaid.gov/manage-loans/forgiveness-](https://studentaid.gov/manage-loans/forgiveness-cancellation/public-service)
24 [cancellation/public-service](https://studentaid.gov/manage-loans/forgiveness-cancellation/public-service)), PSLF requirements specify that recipients must:

- 25 • be employed by a U.S. federal, state, local, or tribal government or not-for-profit
26 organization;
- 27 • work full-time for that agency or organization;
- 28 • have Direct Loans (or consolidate other federal student loans into a Direct Loan);
- 29 • repay loans under an income-driven repayment plan; and
- 30 • make 120 qualifying payments.

31 Despite the promise of the program, it has been beset by challenges and administrative difficulties,
32 leading to “astronomical” denial rates, as the authors of Resolution 314-J-21 deemed it. A 2019
33 *New York Times*’ article ([https://www.nytimes.com/2019/11/28/us/politics/student-loan-](https://www.nytimes.com/2019/11/28/us/politics/student-loan-forgiveness.html)
34 [forgiveness.html](https://www.nytimes.com/2019/11/28/us/politics/student-loan-forgiveness.html)) ascribed blame for the program’s failures to “loan servicers who at best failed to
35 inform borrowers of what was needed to qualify, to the single company in charge of the program
36 that has been repeatedly cited for shoddy service, mismanagement and poor record keeping, to
37 lawmakers who wrote in a baffling list of requirements, and to the Education Department, which
38 has failed to step in and correct the problem.”

39 A 2019 report from the Government Accountability Office ([https://www.gao.gov/products/gao-19-](https://www.gao.gov/products/gao-19-595)
40 [595](https://www.gao.gov/products/gao-19-595)) calls for increased availability of information on the program and decreasing/combining the
41 number of application steps to make PSLF less confusing for borrowers.

42 A contrarian viewpoint, expressed by the founder of Student Loan Planner at
43 <https://www.studentloanplanner.com/pslf-snowball-effect/>, takes a more sanguine approach to the

1 PSLF and its prospects for debt relief. He writes, “The PSLF success rate for applications will be
2 exponentially increasing over the next few years thanks to the ‘PSLF Snowball Effect.’” For
3 medicine in particular, he adds that, due to the timing of the development of the program, and the
4 10-year window for the 120-payment requirement, physicians will not be receiving PSLF “en
5 masse” until 2024.

6 7 AMA’S FEDERAL ADVOCACY EFFORTS REGARDING STUDENT LOAN DEBT

8
9 The AMA’s Advocacy Group has been active in advocating before Congress for legislation that
10 ensures continued funding of key programs, such as loan forgiveness, that help ensure availability
11 of physicians in specific fields of medicine and/or underserved geographic areas to satisfy the
12 nation’s health care workforce needs.

13
14 *Consolidated Appropriations Act, 2021 (H.R. 133)*

15
16 This legislation (see
17 [https://rules.house.gov/sites/democrats.rules.house.gov/files/BILLS-116HR133SA-RCP-116-
18 68.pdf](https://rules.house.gov/sites/democrats.rules.house.gov/files/BILLS-116HR133SA-RCP-116-68.pdf)) encompasses extension for community health centers, the National Health Service Corps,
19 and teaching health centers that operate graduate medical education (GME) programs. It includes
20 \$4 billion in funding from 2019-2023 for community health centers and the National Health
21 Service Corps and provides \$310 million in additional funding from 2021-2023 for the National
22 Health Service Corps. It also provides additional funding, until 2023, for teaching health centers
23 that operate GME programs. (Sec. 301)

24
25 Specific relevant sections of the legislation include the following:

26 27 Promoting Rural Hospital GME Funding Opportunity

28
29 This section makes changes to Medicare graduate medical education (GME) Rural Training Tracks
30 (RTT) program to provide greater flexibility for hospitals not located in a rural area that established
31 or establish a medical residency program (or rural tracks) in a rural area or establish an accredited
32 program where greater than 50 percent of the program occurs in a rural area to partner with rural
33 hospitals and address the physician workforce needs of rural areas. (Sec. 127)

34 35 Medicare GME treatment of hospitals establishing new medical residency training programs after 36 hosting medical resident rotators for short durations

37
38 This section allows hospitals to host a limited number of residents for short-term rotations without
39 being negatively impacted by a set permanent full time equivalent (FTE) resident cap or a Per
40 Resident Amount (PRA). A hospital must report full-time equivalent residents on its cost report for
41 a cost reporting period if the hospital trains at least 1.0 full-time-equivalent residents in an
42 approved medical residency training program or programs in such period. (Sec. 131)

43 44 Student Financial Assistance

45
46 A total of \$24.5 billion shall be provided for carrying out Title IV of HEA and the maximum Pell
47 Grant that a student can be eligible for during 2021-2022 will be \$5,432. (Title III)

1 Student Aid Administration

2
3 A total of \$1.9 billion will remain available through September 30, 2022 to carry out HEA and the
4 Public Health Service Act, allowing students to pick from multiple servicers for their student loans
5 and providing more support and transparency for borrowers. (Title III)

6
7 Strategy to prioritize and expand educational and professional exchange programs with Mexico

8
9 The section calls for assessment of the feasibility of fostering partnerships between universities in
10 the United States and medical school and nursing programs in Mexico to ensure that Mexican
11 programs have accreditation standards that are in line with the Accreditation and Standards in
12 Foreign Medical Education and Accreditation Commission For Education in Nursing, so that
13 Mexican medical and nursing students can pass medical and nursing licensing examinations,
14 respectively, in the United States. (Sec. 1904)

15
16 General Provisions

17
18 A total of \$50 million for public service loan forgiveness under the normal terms. (Sec. 311)

19
20 Health Workforce

21
22 A total of \$50 million will be available for grants to public institutions of higher education to
23 expand or support graduate education for physicians provided by such institutions. Priority will be
24 given to public institutions located in states with a projected primary care shortage in 2025. Grants
25 are limited to public institutions in states in the top quintile of states with a projected primary care
26 shortage in 2025. (Title II)

27
28 Distribution of additional residency positions

29
30 This section supports Medicare physician workforce development by providing for the distribution
31 of 1,000 additional Medicare-funded GME residency positions. Not less than 10 percent of the
32 aggregate number of these new positions will be given to each of the following categories: rural
33 hospitals, hospitals that are already above their Medicare cap for residency positions, hospitals in
34 states with new medical schools or new locations and branch campuses, and hospitals that serve
35 Health Professional Shortage Areas. However, a hospital may not receive more than 25 additional
36 full-time equivalent residency positions. (Sec. 126). On June, 28, 2021, the AMA provided
37 [comments](#) about how the new 1,000 GME slots should be distributed. The AMA also signed on to
38 a [letter](#) discussing this same issue.

39
40 Higher Education Emergency Relief Fund

41
42 Funding will be provided to defray expenses associated with COVID-19, to carry out student
43 support activities authorized by the HEA that address needs related to COVID-19, and to provide
44 financial aid grants to students which may be used for any component of the student's cost of
45 attendance or for emergency costs that arise due to COVID-19, including tuition, food, housing,
46 health care, or childcare. Additional funding will be provided for Historically Black Colleges and
47 Universities, Tribal Colleges and Universities, Hispanic Serving Institutions, and certain other
48 institutions. (Sec. 314)

1 FAFSA Simplification

2

3 This provision makes it easier to apply for federal aid and makes that aid predictable. This
4 provision provides a formula for determining the amount of need that a student has including
5 tuition, room and board, dependents, book stipends, transportation, and personal expenses. It also
6 considers parents' and spouses' potential financial contributions or lack thereof. (Title VII)

7

8 Emergency Financial Aid Grants

9

10 Students receiving qualified emergency financial aid grants after March 26, 2020, will not have
11 those grants included in their gross income for purposes of the Internal Revenue Code. (Sec. 277)

12

13 *Other Loan Forgiveness Legislation*

14

15 The AMA offered technical assistance toward creation of the Health Heroes 2020 Act (H.R. 6650/
16 S. 3634), which proposes to bolster the National Health Service Corps (NHSC) by providing an
17 additional \$25 billion for both loan repayment and scholarship programs in fiscal year 2020 to
18 increase the number of medical professionals in underserved communities. In addition, the
19 proposal increases the mandatory NHSC funding level from \$310 million to \$690 million for fiscal
20 years 2021-2026 to increase scholarship and loan forgiveness awards and meet the nation's
21 growing health needs.

22

23 The AMA has voiced its support for the Strengthening America's Health Care Readiness Act,
24 which increases supplemental funding for the NHSC by \$10 billion. This increased funding will be
25 used for additional loan repayment and scholarship programs. Moreover, the bill contains a 40
26 percent set-aside for historically underrepresented minorities in health care and provides mentoring
27 and early recruitment for minorities. Additionally, the bill provides \$50 million for a National
28 Disaster Medical System (NDMS) pilot program, which would bolster health emergency surge
29 capacity.

30

31 The AMA has also supported the Student Loan Forgiveness for Frontline Health Workers Act in
32 the 116th and the 117th Congresses and urged the U.S. House of Representatives and the U.S.
33 Senate to quickly pass this legislation. If adopted, this act would provide total student loan
34 forgiveness for physicians, residents, and medical students who aid in responding to the COVID-19
35 crisis.

36

37 The AMA also drafted a letter to Congressional leaders in 2020 regarding the "phase four"
38 coronavirus relief package intended to confront the economic impact of the COVID-19 pandemic.
39 For resident physicians and early graduated medical students whose debt averages over \$200,000
40 per individual, the AMA urged Congress to provide at least \$20,000 of federal student loan
41 forgiveness or \$20,000 of tuition relief. The AMA believes these benefits should also be made
42 available to third- and fourth-year medical students who are willing, and deemed competent, to
43 begin providing early direct patient care for patients with COVID-19, or who are making other
44 significant contributions to the pandemic response through research, public health, and
45 telemedicine efforts.

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47 Other AMA advocacy in 2021 toward alleviating the medical education debt burden includes the
48 following:

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- On March 24, the AMA signed on to a [letter](#) offering support for the “Resident Physician Shortage Reduction Act.” This bipartisan legislation would gradually raise the number of Medicare-supported GME positions by 2,000 per year for seven years, for a total of 14,000 new slots. A share of these positions would be given to hospitals with diverse needs including hospitals in rural areas, hospitals serving patients from health professional shortage areas (HPSAs), hospitals in states with new medical schools or branch campuses, and hospitals already training over their caps. On April 8, the AMA sent a [letter](#) supporting S. 924, the “Rural America Health Corps Act.” This legislation would establish a demonstration program to provide payments on qualified loans for individuals eligible for, but not currently participating in, the National Health Service Corps (NHSC) Loan Repayment Program who agree to a five-year period of obligated full-time service in a rural health professional shortage area.
 - On May 13, the AMA sent letters supporting [H.R. 2917](#) and [S. 1443](#), the “Retirement Parity for Student Loans Act,” which would permit 401(k), 403(b), SIMPLE, and governmental 457(b) retirement plans to make voluntary matching contributions to workers as if their student loan payments were salary reduction contributions.
 - On May 18, the AMA signed on to a [letter](#) asking that federal support for physician training be included in upcoming legislative efforts to improve the nation’s infrastructure, and reaffirmed our support for the “Resident Physician Shortage Reduction Act of 2021,” which asks for 14,000 additional Medicare-supported GME positions.
 - On May 24, the AMA sent a [letter](#) supporting H.R. 3441, the “Substance Use Disorder Workforce Act,” which would provide 1,000 additional Medicare-supported graduate medical education (GME) positions in hospitals that have, or are in the process of establishing, accredited residency programs in addiction medicine, addiction psychiatry, or pain medicine.
 - On May 25, the AMA sent a [letter](#) voicing support for S. 1438, the “Opioid Workforce Act of 2021,” which would provide 1,000 additional Medicare-supported graduate medical education (GME) positions in hospitals that have, or are in the process of establishing, accredited residency programs in addiction medicine, addiction psychiatry, or pain medicine. This is the companion bill for the “Substance Use Disorder Workforce Act.”
 - On June 10, the AMA sent a [letter](#) in support of the “Doctors of Community Act” or “DOC Act.” This legislation would permanently authorize the Teaching Health Center Graduate Medical Education (THCGME) program. As such, if passed, this legislation would help ensure that patients in underserved areas continue to have access to needed health care services.
 - On June 23, the AMA sent a letter voicing support for the “Physician Shortage GME Cap Flex Act of 2021.” This legislation would help to address the national physician workforce shortage by providing teaching hospitals an additional five years to set their Medicare GME cap if they establish residency training programs in primary care or specialties that are facing shortages. ([House](#); [Senate](#))
 - On July 1, the AMA sent a [letter](#) supporting H.R. 4122, the “Resident Education Deferred Interest (REDI) Act,” which would allow borrowers to qualify for interest-free deferment on their student loans while serving in a medical or dental internship or residency program.

1 *Higher Education Act (HEA) Reauthorization*

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3 The HEA was last comprehensively reauthorized in 2008 by the Higher Education Opportunity Act
4 of 2008, which authorized most HEA programs through FY2014; it was extended through FY2015,
5 under the General Education Provisions Act (GEPA). Many HEA programs that had been due to
6 expire at the end of FY2015 were provided additional funding under a variety of appropriations
7 bills and continuing resolutions, because Congress has not been able to agree on comprehensive
8 reauthorization legislation. Earlier in 2020, Congressional lawmakers were close to reaching an
9 agreement to update the HEA, but the emergence of the pandemic put this effort on hold. Today,
10 with the potential growing for a long-term economic downturn related to the COVID-19 pandemic,
11 and as more people seek to further their education as a result, the need to reauthorize the HEA is
12 more pressing than ever, and the AMA will continue advocacy in this regard.

13
14 RELEVANT AMA POLICY

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16 Our AMA calls for addressing and reducing the burden of medical education debt among students,
17 residents/fellows, and physicians through the following policies:

- 18 • H-305.925, “Principles and Actions to Address Medical Education Costs and Student
19 Debt”
- 20 • H-310.907, “Resident/Fellow Clinical and Educational Work Hours.”

21
22 Similarly, the AMA backs strategies to combat rising costs for medical education:

- 23 • D-305-983, “Strategies to Combat Mid-year and Retroactive Tuition Increases”
- 24 • H-305.988, “Cost and Financing of Medical Education and Availability of First-Year
25 Residency Positions”

26
27 The AMA supports loan forgiveness incentives and reduction in student loan interest rates for
28 residents/fellows, physicians working in Veterans Affairs facilities, and those pursuing careers in
29 research:

- 30 • D-305.984, “Reduction in Student Loan Interest Rates”
- 31 • D-510.990, “Fixing the VA Physician Shortage with Physicians”
- 32 • H-460.995, “Support for Careers in Research”

33
34 The AMA endorses expansion of financial incentives, aid, relief options to recruit and train
35 primary care physicians, especially those in rural and urban underserved areas:

- 36 • H-200.949, “Principles of and Actions to Address Primary Care Workforce”
- 37 • H-465-988, “Educational Strategies for Meeting Rural Health Physician Shortage”

38
39 The AMA recommends increasing diversity in the physician workforce to address underserved
40 areas via loan forgiveness programs and diversity pipeline programs, and improve transparency
41 regarding tuition requirements:

- 42 • D-200.982, “Diversity in the Physician Workforce and Access to Care”
- 43 • D-200.985, “Strategies for Enhancing Diversity in the Physician Workforce”

44
45 SUMMARY AND RECOMMENDATIONS

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47 After considering potential trends/solutions related to the connection between medical student debt
48 and career choice and analyzing the peer-reviewed literature to ascertain whether existing data
49 support these hypotheses, this report finds little solid evidence for a strong link between debt and
50 career choice. This finding, however, may be limited by the lack of available data on the potentially

1 intersecting impacts of race/ethnicity, socioeconomic status, and other key sociodemographic
2 factors. In addressing the workforce need for primary care and other fields, a more deliberate
3 approach to planning by federal agencies and stakeholder organizations may be helpful. The
4 composition of the physician workforce is ultimately the result of economic and personal decisions
5 by individual students, residents, and physicians to pursue professional satisfaction in whichever
6 medical field, practice setting, and location that is right for them. Balancing the impact of these
7 individual choices with society's workforce and population health needs may require new and/or
8 improved programs (including financial incentives) that serve as inducements for those decisions
9 that best serve the common good and ensure access to needed health care services for all
10 Americans, now and in the future.

11
12 In addition, the AMA should closely monitor the PSLF program, particularly over the next few
13 years, to ensure that it is a viable option for debt relief for physicians. If the denial rates for
14 physician applicants continue to remain unacceptably high, further federal advocacy to encourage
15 reforms to the program is recommended, as reflected in the proposed emendations to AMA policy
16 below.

17
18 The Council on Medical Education therefore recommends that the following recommendations be
19 adopted and the remainder of this report be filed:

- 20
21 1. That our American Medical Association (AMA) encourage key stakeholders to collect and
22 disseminate data on the impacts of medical education debt on career choice, especially with
23 regard to the potentially intersecting impacts of race/ethnicity, socioeconomic status, and
24 other key sociodemographic factors. (New HOD Policy)
25
26 2. That our AMA monitor new policies and novel approaches to influence career choice
27 based on the key factors that affect the decision to enter a given specialty and subspecialty.
28 (New HOD Policy)
29
30 3. That our AMA amend Policy H-305.925 (20), "Principles of and Actions to Address
31 Medical Education Costs and Student Debt," by addition and deletion, to read as follows:

32
33 "Related to the Public Service Loan Forgiveness (PSLF) Program, our AMA supports
34 increased medical student and physician ~~benefits~~ participation in the program, and will: (a)
35 Advocate that all resident/fellow physicians have access to PSLF during their training
36 years; (b) Advocate against a monetary cap on PSLF and other federal loan forgiveness
37 programs; (c) Work with the United States Department of Education to ensure that any cap
38 on loan forgiveness under PSLF be at least equal to the principal amount borrowed; (d)
39 Ask the United States Department of Education to include all terms of PSLF in the
40 contractual obligations of the Master Promissory Note; (e) Encourage the Accreditation
41 Council for Graduate Medical Education (ACGME) to require residency/fellowship
42 programs to include within the terms, conditions, and benefits of program appointment
43 information on the employer's PSLF program qualifying status ~~of the employer~~; (f)
44 Advocate that the profit status of a physician's training institution not be a factor for PSLF
45 eligibility; (g) Encourage medical school financial advisors to counsel wise borrowing by
46 medical students, in the event that the PSLF program is eliminated or severely curtailed;
47 (h) Encourage medical school financial advisors to increase medical student engagement in
48 service-based loan repayment options, and other federal and military programs, as an
49 attractive alternative to the PSLF in terms of financial prospects as well as providing the
50 opportunity to provide care in medically underserved areas; (i) Strongly advocate that the
51 terms of the PSLF that existed at the time of the agreement remain unchanged for any

- 1 program participant in the event of any future restrictive changes; (j) Monitor the denial
2 rates for physician applicants to the PSLF; and (k) Undertake expanded federal advocacy,
3 in the event denial rates for physician applicants are unacceptably high, to encourage
4 release of information on the basis for the high denial rates, increased transparency and
5 streamlining of program requirements, consistent and accurate communication between
6 loan servicers and borrowers, and clear expectations regarding oversight and accountability
7 of the loan servicers responsible for the program; (l) Work with the United States
8 Department of Education to ensure that applicants to the PSLF and its supplemental
9 extensions, such as Temporary Expanded Public Service Loan Forgiveness (TEPSLF), are
10 provided with the necessary information to successfully complete the program(s) in a
11 timely manner; and (m) Work with the United States Department of Education to ensure
12 that individuals who would otherwise qualify for PSLF and its supplemental extensions,
13 such as TEPSLF, are not disqualified from the program(s).” (Modify Current HOD Policy)
14
15 4. That our AMA rescind Policy H-305.925 (22), “Principles of and Actions to Address
16 Medical Education Costs and Student Debt,” as having been fulfilled through this report:
17
18 ~~“Formulate a task force to look at undergraduate medical education training as it relates to~~
19 ~~career choice, and develop new policies and novel approaches to prevent debt from~~
20 ~~influencing specialty and subspecialty choice.” (Rescind HOD Policy)~~

Fiscal note: \$1,000.

*Acknowledgment: The AMA appreciates the assistance with this report of David Mata, MS, MD
Candidate, Class of 2023, Stritch School of Medicine at Loyola University Chicago.*

APPENDIX: RELEVANT AMA POLICY

H-305.925, "Principles of and Actions to Address Medical Education Costs and Student Debt"

The costs of medical education should never be a barrier to the pursuit of a career in medicine nor to the decision to practice in a given specialty. To help address this issue, our American Medical Association (AMA) will:

1. Collaborate with members of the Federation and the medical education community, and with other interested organizations, to address the cost of medical education and medical student debt through public- and private-sector advocacy.
2. Vigorously advocate for and support expansion of and adequate funding for federal scholarship and loan repayment programs--such as those from the National Health Service Corps, Indian Health Service, Armed Forces, and Department of Veterans Affairs, and for comparable programs from states and the private sector--to promote practice in underserved areas, the military, and academic medicine or clinical research.
3. Encourage the expansion of National Institutes of Health programs that provide loan repayment in exchange for a commitment to conduct targeted research.
4. Advocate for increased funding for the National Health Service Corps Loan Repayment Program to assure adequate funding of primary care within the National Health Service Corps, as well as to permit: (a) inclusion of all medical specialties in need, and (b) service in clinical settings that care for the underserved but are not necessarily located in health professions shortage areas.
5. Encourage the National Health Service Corps to have repayment policies that are consistent with other federal loan forgiveness programs, thereby decreasing the amount of loans in default and increasing the number of physicians practicing in underserved areas.
6. Work to reinstate the economic hardship deferment qualification criterion known as the "20/220 pathway," and support alternate mechanisms that better address the financial needs of trainees with educational debt.
7. Advocate for federal legislation to support the creation of student loan savings accounts that allow for pre-tax dollars to be used to pay for student loans.
8. Work with other concerned organizations to advocate for legislation and regulation that would result in favorable terms and conditions for borrowing and for loan repayment, and would permit 100% tax deductibility of interest on student loans and elimination of taxes on aid from service-based programs.
9. Encourage the creation of private-sector financial aid programs with favorable interest rates or service obligations (such as community- or institution-based loan repayment programs or state medical society loan programs).
10. Support stable funding for medical education programs to limit excessive tuition increases, and collect and disseminate information on medical school programs that cap medical education debt, including the types of debt management education that are provided.
11. Work with state medical societies to advocate for the creation of either tuition caps or, if caps are not feasible, pre-defined tuition increases, so that medical students will be aware of their tuition and fee costs for the total period of their enrollment.
12. Encourage medical schools to (a) Study the costs and benefits associated with non-traditional instructional formats (such as online and distance learning, and combined baccalaureate/MD or DO programs) to determine if cost savings to medical schools and to medical students could be realized without jeopardizing the quality of medical education; (b) Engage in fundraising activities to increase the availability of scholarship support, with the support of the Federation, medical schools, and state and specialty medical societies, and develop or enhance financial aid opportunities for medical students, such as self-managed, low-interest loan programs; (c) Cooperate with postsecondary institutions to establish collaborative debt counseling for entering first-year medical students; (d) Allow for flexible scheduling for medical students who encounter financial difficulties

that can be remedied only by employment, and consider creating opportunities for paid employment for medical students; (e) Counsel individual medical student borrowers on the status of their indebtedness and payment schedules prior to their graduation; (f) Inform students of all government loan opportunities and disclose the reasons that preferred lenders were chosen; (g) Ensure that all medical student fees are earmarked for specific and well-defined purposes, and avoid charging any overly broad and ill-defined fees, such as but not limited to professional fees; (h) Use their collective purchasing power to obtain discounts for their students on necessary medical equipment, textbooks, and other educational supplies; (i) Work to ensure stable funding, to eliminate the need for increases in tuition and fees to compensate for unanticipated decreases in other sources of revenue; mid-year and retroactive tuition increases should be opposed.

13. Support and encourage state medical societies to support further expansion of state loan repayment programs, particularly those that encompass physicians in non-primary care specialties.

14. Take an active advocacy role during reauthorization of the Higher Education Act and similar legislation, to achieve the following goals: (a) Eliminating the single holder rule; (b) Making the availability of loan deferment more flexible, including broadening the definition of economic hardship and expanding the period for loan deferment to include the entire length of residency and fellowship training; (c) Retaining the option of loan forbearance for residents ineligible for loan deferment; (d) Including, explicitly, dependent care expenses in the definition of the “cost of attendance”; (e) Including room and board expenses in the definition of tax-exempt scholarship income; (f) Continuing the federal Direct Loan Consolidation program, including the ability to “lock in” a fixed interest rate, and giving consideration to grace periods in renewals of federal loan programs; (g) Adding the ability to refinance Federal Consolidation Loans; (h) Eliminating the cap on the student loan interest deduction; (i) Increasing the income limits for taking the interest deduction; (j) Making permanent the education tax incentives that our AMA successfully lobbied for as part of Economic Growth and Tax Relief Reconciliation Act of 2001; (k) Ensuring that loan repayment programs do not place greater burdens upon married couples than for similarly situated couples who are cohabitating; (l) Increasing efforts to collect overdue debts from the present medical student loan programs in a manner that would not interfere with the provision of future loan funds to medical students.

15. Continue to work with state and county medical societies to advocate for adequate levels of medical school funding and to oppose legislative or regulatory provisions that would result in significant or unplanned tuition increases.

16. Continue to study medical education financing, so as to identify long-term strategies to mitigate the debt burden of medical students, and monitor the short-and long-term impact of the economic environment on the availability of institutional and external sources of financial aid for medical students, as well as on choice of specialty and practice location.

17. Collect and disseminate information on successful strategies used by medical schools to cap or reduce tuition.

18. Continue to monitor the availability of and encourage medical schools and residency/fellowship programs to (a) provide financial aid opportunities and financial planning/debt management counseling to medical students and resident/fellow physicians; (b) work with key stakeholders to develop and disseminate standardized information on these topics for use by medical students, resident/fellow physicians, and young physicians; and (c) share innovative approaches with the medical education community.

19. Seek federal legislation or rule changes that would stop Medicare and Medicaid decertification of physicians due to unpaid student loan debt. The AMA believes that it is improper for physicians not to repay their educational loans, but assistance should be available to those physicians who are experiencing hardship in meeting their obligations.

20. Related to the Public Service Loan Forgiveness (PSLF) Program, our AMA supports increased medical student and physician benefits the program, and will: (a) Advocate that all resident/fellow physicians have access to PSLF during their training years; (b) Advocate against a monetary cap on

PSLF and other federal loan forgiveness programs; (c) Work with the United States Department of Education to ensure that any cap on loan forgiveness under PSLF be at least equal to the principal amount borrowed; (d) Ask the United States Department of Education to include all terms of PSLF in the contractual obligations of the Master Promissory Note; (e) Encourage the Accreditation Council for Graduate Medical Education (ACGME) to require residency/fellowship programs to include within the terms, conditions, and benefits of program appointment information on the PSLF program qualifying status of the employer; (f) Advocate that the profit status of a physicians training institution not be a factor for PSLF eligibility; (g) Encourage medical school financial advisors to counsel wise borrowing by medical students, in the event that the PSLF program is eliminated or severely curtailed; (h) Encourage medical school financial advisors to increase medical student engagement in service-based loan repayment options, and other federal and military programs, as an attractive alternative to the PSLF in terms of financial prospects as well as providing the opportunity to provide care in medically underserved areas; (i) Strongly advocate that the terms of the PSLF that existed at the time of the agreement remain unchanged for any program participant in the event of any future restrictive changes.

21. Advocate for continued funding of programs including Income-Driven Repayment plans for the benefit of reducing medical student load burden.

22. Formulate a task force to look at undergraduate medical education training as it relates to career choice, and develop new polices and novel approaches to prevent debt from influencing specialty and subspecialty choice.

H-310.907, "Resident/Fellow Clinical and Educational Work Hours"

Our AMA adopts the following Principles of Resident/Fellow Clinical and Educational Work Hours, Patient Safety, and Quality of Physician Training:

1. Our AMA supports the 2017 Accreditation Council for Graduate Medical Education (ACGME) standards for clinical and educational work hours (previously referred to as "duty hours").
2. Our AMA will continue to monitor the enforcement and impact of clinical and educational work hour standards, in the context of the larger issues of patient safety and the optimal learning environment for residents.
3. Our AMA encourages publication and supports dissemination of studies in peer-reviewed publications and educational sessions about all aspects of clinical and educational work hours, to include such topics as extended work shifts, handoffs, in-house call and at-home call, level of supervision by attending physicians, workload and growing service demands, moonlighting, protected sleep periods, sleep deprivation and fatigue, patient safety, medical error, continuity of care, resident well-being and burnout, development of professionalism, resident learning outcomes, and preparation for independent practice.
4. Our AMA endorses the study of innovative models of clinical and educational work hour requirements and, pending the outcomes of ongoing and future research, should consider the evolution of specialty- and rotation-specific requirements that are evidence-based and will optimize patient safety and competency-based learning opportunities.
5. Our AMA encourages the ACGME to:
 - a) Decrease the barriers to reporting of both clinical and educational work hour violations and resident intimidation.
 - b) Ensure that readily accessible, timely and accurate information about clinical and educational work hours is not constrained by the cycle of ACGME survey visits.
 - c) Use, where possible, recommendations from respective specialty societies and evidence-based approaches to any future revision or introduction of clinical and educational work hour rules.
 - d) Broadly disseminate aggregate data from the annual ACGME survey on the educational environment of resident physicians, encompassing all aspects of clinical and educational work hours.

6. Our AMA recognizes the ACGME for its work in ensuring an appropriate balance between resident education and patient safety, and encourages the ACGME to continue to:

- a) Offer incentives to programs/institutions to ensure compliance with clinical and educational work hour standards.
- b) Ensure that site visits include meetings with peer-selected or randomly selected residents and that residents who are not interviewed during site visits have the opportunity to provide information directly to the site visitor.
- c) Collect data on at-home call from both program directors and resident/fellow physicians; release these aggregate data annually; and develop standards to ensure that appropriate education and supervision are maintained, whether the setting is in-house or at-home.
- d) Ensure that resident/fellow physicians receive education on sleep deprivation and fatigue.

7. Our AMA supports the following statements related to clinical and educational work hours:

- a) Total clinical and educational work hours must not exceed 80 hours per week, averaged over a four-week period (Note: "Total clinical and educational work hours" includes providing direct patient care or supervised patient care that contributes to meeting educational goals; participating in formal educational activities; providing administrative and patient care services of limited or no educational value; and time needed to transfer the care of patients).
- b) Scheduled on-call assignments should not exceed 24 hours. Residents may remain on-duty for an additional 4 hours to complete the transfer of care, patient follow-up, and education; however, residents may not be assigned new patients, cross-coverage of other providers' patients, or continuity clinic during that time.
- c) Time spent in the hospital by residents on at-home call must count towards the 80-hour maximum weekly hour limit, and on-call frequency must not exceed every third night averaged over four weeks. The frequency of at-home call is not subject to the every-third-night limitation, but must satisfy the requirement for one-day-in-seven free of duty, when averaged over four weeks.
- d) At-home call must not be so frequent or taxing as to preclude rest or reasonable personal time for each resident.
- e) Residents are permitted to return to the hospital while on at-home call to care for new or established patients. Each episode of this type of care, while it must be included in the 80-hour weekly maximum, will not initiate a new "off-duty period."
- f) Given the different education and patient care needs of the various specialties and changes in resident responsibility as training progresses, clinical and educational work hour requirements should allow for flexibility for different disciplines and different training levels to ensure appropriate resident education and patient safety; for example, allowing exceptions for certain disciplines, as appropriate, or allowing a limited increase to the total number of clinical and educational work hours when need is demonstrated.
- g) Resident physicians should be ensured a sufficient duty-free interval prior to returning to duty.
- h) Clinical and educational work hour limits must not adversely impact resident physician participation in organized educational activities. Formal educational activities must be scheduled and available within total clinical and educational work hour limits for all resident physicians.
- i) Scheduled time providing patient care services of limited or no educational value should be minimized.
- j) Accurate, honest, and complete reporting of clinical and educational work hours is an essential element of medical professionalism and ethics.
- k) The medical profession maintains the right and responsibility for self-regulation (one of the key tenets of professionalism) through the ACGME and its purview over graduate medical education, and categorically rejects involvement by the Centers for Medicare & Medicaid Services, The Joint Commission, Occupational Safety and Health Administration, and any other federal or state government bodies in the monitoring and enforcement of clinical and educational work hour regulations, and opposes any regulatory or legislative proposals to limit the work hours of practicing physicians.

- l) Increased financial assistance for residents/fellows, such as subsidized child care, loan deferment, debt forgiveness, and tax credits, may help mitigate the need for moonlighting. At the same time, resident/fellow physicians in good standing with their programs should be afforded the opportunity for internal and external moonlighting that complies with ACGME policy.
 - m) Program directors should establish guidelines for scheduled work outside of the residency program, such as moonlighting, and must approve and monitor that work such that it does not interfere with the ability of the resident to achieve the goals and objectives of the educational program.
 - n) The costs of clinical and educational work hour limits should be borne by all health care payers. Individual resident compensation and benefits must not be compromised or decreased as a result of changes in the graduate medical education system.
 - o) The general public should be made aware of the many contributions of resident/fellow physicians to high-quality patient care and the importance of trainees' realizing their limits (under proper supervision) so that they will be able to competently and independently practice under real-world medical situations.
8. Our AMA is in full support of the collaborative partnership between allopathic and osteopathic professional and accrediting bodies in developing a unified system of residency/fellowship accreditation for all residents and fellows, with the overall goal of ensuring patient safety.
9. Our AMA will actively participate in ongoing efforts to monitor the impact of clinical and educational work hour limitations to ensure that patient safety and physician well-being are not jeopardized by excessive demands on post-residency physicians, including program directors and attending physicians.

H-465.988, "Educational Strategies for Meeting Rural Health Physician Shortage"

1. In light of the data available from the current literature as well as ongoing studies being conducted by staff, the AMA recommends that:
 - A. Our AMA encourage medical schools and residency programs to develop educationally sound rural clinical preceptorships and rotations consistent with educational and training requirements, and to provide early and continuing exposure to those programs for medical students and residents.
 - B. Our AMA encourage medical schools to develop educationally sound primary care residencies in smaller communities with the goal of educating and recruiting more rural physicians.
 - C. Our AMA encourage state and county medical societies to support state legislative efforts toward developing scholarship and loan programs for future rural physicians.
 - D. Our AMA encourage state and county medical societies and local medical schools to develop outreach and recruitment programs in rural counties to attract promising high school and college students to medicine and the other health professions.
 - E. Our AMA urge continued federal and state legislative support for funding of Area Health Education Centers (AHECs) for rural and other underserved areas.
 - F. Our AMA continue to support full appropriation for the National Health Service Corps Scholarship Program, with the proviso that medical schools serving states with large rural underserved populations have a priority and significant voice in the selection of recipients for those scholarships.
 - G. Our AMA support full funding of the new federal National Health Service Corps loan repayment program.
 - H. Our AMA encourage continued legislative support of the research studies being conducted by the Rural Health Research Centers funded by the National Office of Rural Health in the Department of Health and Human Services.
 - I. Our AMA continue its research investigation into the impact of educational programs on the supply of rural physicians.

J. Our AMA continue to conduct research and monitor other progress in development of educational strategies for alleviating rural physician shortages.

K. Our AMA reaffirm its support for legislation making interest payments on student debt tax deductible.

L. Our AMA encourage state and county medical societies to develop programs to enhance work opportunities and social support systems for spouses of rural practitioners.

2. Our AMA will work with state and specialty societies, medical schools, teaching hospitals, the Accreditation Council for Graduate Medical Education (ACGME), the Centers for Medicare and Medicaid Services (CMS) and other interested stakeholders to identify, encourage and incentivize qualified rural physicians to serve as preceptors and volunteer faculty for rural rotations in residency.

3. Our AMA will: (a) work with interested stakeholders to identify strategies to increase residency training opportunities in rural areas with a report back to the House of Delegates; and (b) work with interested stakeholders to formulate an actionable plan of advocacy with the goal of increasing residency training in rural areas.

4. Our AMA will undertake a study of issues regarding rural physician workforce shortages, including federal payment policy issues, and other causes and potential remedies (such as telehealth) to alleviate rural physician workforce shortages.

D-305.984, "Reduction in Student Loan Interest Rates"

1. Our AMA will actively lobby for legislation aimed at establishing an affordable student loan structure with a variable interest rate capped at no more than 5.0%.

2. Our AMA will work in collaboration with other health profession organizations to advocate for a reduction of the fixed interest rate of the Stafford student loan program and the Graduate PLUS loan program.

3. Our AMA will consider the total cost of loans including loan origination fees and benefits of federal loans such as tax deductibility or loan forgiveness when advocating for a reduction in student loan interest rates.

4. Our AMA will advocate for policies which lead to equal or less expensive loans (in terms of loan benefits, origination fees, and interest rates) for Grad-PLUS loans as this would change the status quo of high-borrowers paying higher interest rates and fees in addition to having a higher overall loan burden.

5. Our AMA will work with appropriate organizations, such as the Accreditation Council for Graduate Medical Education and the Association of American Medical Colleges, to collect data and report on student indebtedness that includes total loan costs at completion of graduate medical education training.

D-510.990, "Fixing the VA Physician Shortage with Physicians"

1. Our AMA will work with the VA to enhance its loan forgiveness efforts to further incentivize physician recruiting and retention and improve patient access in the Veterans Administration facilities.

2. Our AMA will call for an immediate change in the Public Service Loan Forgiveness Program to allow physicians to receive immediate loan forgiveness when they practice in a Veterans Administration facility.

3. Our AMA will work with the Veterans Administration to minimize the administrative burdens that discourage or prevent non-VA physicians without compensation (WOCs) from volunteering their time to care for veterans.

4. Our AMA will: (a) continue to support the mission of the Department of Veterans Affairs Office of Academic Affiliations for expansion of graduate medical education (GME) residency positions;

and (b) collaborate with appropriate stakeholder organizations to advocate for preservation of Veterans Health Administration funding for GME and support its efforts to expand GME residency positions in the federal budget and appropriations process.

5. Our AMA supports postgraduate medical education service obligations through programs where the expectation for service, such as military service, is reasonable and explicitly delineated in the contract with the trainee.

6. Our AMA opposes the blanket imposition of service obligations through any program where physician trainees rotate through the facility as one of many sites for their training.

H-460.995, "Support for Careers in Research"

Our AMA: (1) recognizes the serious decline in the number of physicians seeking to prepare for a career in research, which is fundamental to the advancement of the practice of medicine, and urges that: (a) medical students be made aware of the challenging and important career option of biomedical research, and (b) schools of medicine be made aware of the impending shortage and provide increased opportunities for students to participate in research; and (2) supports policies and legislation designed to increase the number of physician-investigators. Such support should include encouragement for training of physicians in careers in biomedical research and for supportive legislation to make physician-investigators eligible for forgiveness in certain government scholarship and loan programs for qualified candidates in numbers consistent with national needs.

H-200.949, "Principles of and Actions to Address Primary Care Workforce"

1. Our patients require a sufficient, well-trained supply of primary care physicians--family physicians, general internists, general pediatricians, and obstetricians/gynecologists--to meet the nation's current and projected demand for health care services.

2. To help accomplish this critical goal, our American Medical Association (AMA) will work with a variety of key stakeholders, to include federal and state legislators and regulatory bodies; national and state specialty societies and medical associations, including those representing primary care fields; and accreditation, certification, licensing, and regulatory bodies from across the continuum of medical education (undergraduate, graduate, and continuing medical education).

3. Through its work with these stakeholders, our AMA will encourage development and dissemination of innovative models to recruit medical students interested in primary care, train primary care physicians, and enhance both the perception and the reality of primary care practice, to encompass the following components: a) Changes to medical school admissions and recruitment of medical students to primary care specialties, including counseling of medical students as they develop their career plans; b) Curriculum changes throughout the medical education continuum; c) Expanded financial aid and debt relief options; d) Financial and logistical support for primary care practice, including adequate reimbursement, and enhancements to the practice environment to ensure professional satisfaction and practice sustainability; and e) Support for research and advocacy related to primary care.

4. Admissions and recruitment: The medical school admissions process should reflect the specific institution's mission. Those schools with missions that include primary care should consider those predictor variables among applicants that are associated with choice of these specialties.

5. Medical schools, through continued and expanded recruitment and outreach activities into secondary schools, colleges, and universities, should develop and increase the pool of applicants likely to practice primary care by seeking out those students whose profiles indicate a likelihood of practicing in primary care and underserved areas, while establishing strict guidelines to preclude discrimination.

6. Career counseling and exposure to primary care: Medical schools should provide to students career counseling related to the choice of a primary care specialty, and ensure that primary care physicians are well-represented as teachers, mentors, and role models to future physicians.
7. Financial assistance programs should be created to provide students with primary care experiences in ambulatory settings, especially in underserved areas. These could include funded preceptorships or summer work/study opportunities.
8. Curriculum: Voluntary efforts to develop and expand both undergraduate and graduate medical education programs to educate primary care physicians in increasing numbers should be continued. The establishment of appropriate administrative units for all primary care specialties should be encouraged.
9. Medical schools with an explicit commitment to primary care should structure the curriculum to support this objective. At the same time, all medical schools should be encouraged to continue to change their curriculum to put more emphasis on primary care.
10. All four years of the curriculum in every medical school should provide primary care experiences for all students, to feature increasing levels of student responsibility and use of ambulatory and community-based settings.
11. Federal funding, without coercive terms, should be available to institutions needing financial support to expand resources for both undergraduate and graduate medical education programs designed to increase the number of primary care physicians. Our AMA will advocate for public (federal and state) and private payers to a) develop enhanced funding and related incentives from all sources to provide education for medical students and resident/fellow physicians, respectively, in progressive, community-based models of integrated care focused on quality and outcomes (such as the patient-centered medical home and the chronic care model) to enhance primary care as a career choice; b) fund and foster innovative pilot programs that change the current approaches to primary care in undergraduate and graduate medical education, especially in urban and rural underserved areas; and c) evaluate these efforts for their effectiveness in increasing the number of students choosing primary care careers and helping facilitate the elimination of geographic, racial, and other health care disparities.
12. Medical schools and teaching hospitals in underserved areas should promote medical student and resident/fellow physician rotations through local family health clinics for the underserved, with financial assistance to the clinics to compensate their teaching efforts.
13. The curriculum in primary care residency programs and training sites should be consistent with the objective of training generalist physicians. Our AMA will encourage the Accreditation Council for Graduate Medical Education to (a) support primary care residency programs, including community hospital-based programs, and (b) develop an accreditation environment and novel pathways that promote innovations in graduate medical education, using progressive, community-based models of integrated care focused on quality and outcomes (such as the patient-centered medical home and the chronic care model).
14. The visibility of primary care faculty members should be enhanced within the medical school, and positive attitudes toward primary care among all faculty members should be encouraged.
15. Support for practicing primary care physicians: Administrative support mechanisms should be developed to assist primary care physicians in the logistics of their practices, along with enhanced efforts to reduce administrative activities unrelated to patient care, to help ensure professional satisfaction and practice sustainability.
16. There should be increased financial incentives for physicians practicing primary care, especially those in rural and urban underserved areas, to include scholarship or loan repayment programs, relief of professional liability burdens, and Medicaid case management programs, among others. Our AMA will advocate to state and federal legislative and regulatory bodies, among others, for development of public and/or private incentive programs, and expansion and increased funding for existing programs, to further encourage practice in underserved areas and

decrease the debt load of primary care physicians. The imposition of specific outcome targets should be resisted, especially in the absence of additional support to the schools.

17. Our AMA will continue to advocate, in collaboration with relevant specialty societies, for the recommendations from the AMA/Specialty Society RVS Update Committee (RUC) related to reimbursement for E&M services and coverage of services related to care coordination, including patient education, counseling, team meetings and other functions; and work to ensure that private payers fully recognize the value of E&M services, incorporating the RUC-recommended increases adopted for the most current Medicare RBRVS.

18. Our AMA will advocate for public (federal and state) and private payers to develop physician reimbursement systems to promote primary care and specialty practices in progressive, community-based models of integrated care focused on quality and outcomes such as the patient-centered medical home and the chronic care model consistent with current AMA Policies H-160.918 and H-160.919.

19. There should be educational support systems for primary care physicians, especially those practicing in underserved areas.

20. Our AMA will urge urban hospitals, medical centers, state medical associations, and specialty societies to consider the expanded use of mobile health care capabilities.

21. Our AMA will encourage the Centers for Medicare & Medicaid Services to explore the use of telemedicine to improve access to and support for urban primary care practices in underserved settings.

22. Accredited continuing medical education providers should promote and establish continuing medical education courses in performing, prescribing, interpreting and reinforcing primary care services.

23. Practicing physicians in other specialties--particularly those practicing in underserved urban or rural areas--should be provided the opportunity to gain specific primary care competencies through short-term preceptorships or postgraduate fellowships offered by departments of family medicine, internal medicine, pediatrics, etc., at medical schools or teaching hospitals. In addition, part-time training should be encouraged, to allow physicians in these programs to practice concurrently, and further research into these concepts should be encouraged.

24. Our AMA supports continued funding of Public Health Service Act, Title VII, Section 747, and encourages advocacy in this regard by AMA members and the public.

25. Research: Analysis of state and federal financial assistance programs should be undertaken, to determine if these programs are having the desired workforce effects, particularly for students from disadvantaged groups and those that are underrepresented in medicine, and to gauge the impact of these programs on elimination of geographic, racial, and other health care disparities. Additional research should identify the factors that deter students and physicians from choosing and remaining in primary care disciplines. Further, our AMA should continue to monitor trends in the choice of a primary care specialty and the availability of primary care graduate medical education positions. The results of these and related research endeavors should support and further refine AMA policy to enhance primary care as a career choice.

D-200.982, "Diversity in the Physician Workforce and Access to Care"

Our AMA will: (1) continue to advocate for programs that promote diversity in the US medical workforce, such as pipeline programs to medical schools; (2) continue to advocate for adequate funding for federal and state programs that promote interest in practice in underserved areas, such as those under Title VII of the Public Health Service Act, scholarship and loan repayment programs under the National Health Services Corps and state programs, state Area Health Education Centers, and Conrad 30, and also encourage the development of a centralized database of scholarship and loan repayment programs; and (3) continue to study the factors that support and

those that act against the choice to practice in an underserved area, and report the findings and solutions at the 2008 Interim Meeting.

D-305.983, "Strategies to Combat Mid-year and Retroactive Tuition Increases"

Our AMA will: (1) assist state medical societies in advocacy efforts in opposition to mid-year and retroactive tuition increases, tuition taxes, and any other attendance-based taxes by any government entity at both public and private medical schools; (2) make available, upon request, the judicial precedent that would support a successful legal challenge to mid-year tuition increases; and (3) continue to encourage individual medical schools and universities, federal and state agencies, and others to expand options and opportunities for financial aid to medical students.

H-305.988, "Cost and Financing of Medical Education and Availability of First-Year Residency Positions"

Our AMA:

1. believes that medical schools should further develop an information system based on common definitions to display the costs associated with undergraduate medical education;
2. in studying the financing of medical schools, supports identification of those elements that have implications for the supply of physicians in the future;
3. believes that the primary goal of medical school is to educate students to become physicians and that despite the economies necessary to survive in an era of decreased funding, teaching functions must be maintained even if other commitments need to be reduced;
4. believes that a decrease in student enrollment in medical schools may not result in proportionate reduction of expenditures by the school if quality of education is to be maintained;
5. supports continued improvement of the AMA information system on expenditures of medical students to determine which items are included, and what the ranges of costs are;
6. supports continued study of the relationship between medical student indebtedness and career choice;
7. believes medical schools should avoid counterbalancing reductions in revenues from other sources through tuition and student fee increases that compromise their ability to attract students from diverse backgrounds;
8. supports expansion of the number of affiliations with appropriate hospitals by institutions with accredited residency programs;
9. encourages for profit-hospitals to participate in medical education and training;
10. supports AMA monitoring of trends that may lead to a reduction in compensation and benefits provided to resident physicians;
11. encourages all sponsoring institutions to make financial information available to help residents manage their educational indebtedness; and
12. will advocate that resident and fellow trainees should not be financially responsible for their training.

D-200.985, "Strategies for Enhancing Diversity in the Physician Workforce"

1. Our AMA, independently and in collaboration with other groups such as the Association of American Medical Colleges (AAMC), will actively work and advocate for funding at the federal and state levels and in the private sector to support the following: (a) Pipeline programs to prepare and motivate members of underrepresented groups to enter medical school; (b) Diversity or minority affairs offices at medical schools; (c) Financial aid programs for students from groups that are underrepresented in medicine; and (d) Financial support programs to recruit and develop faculty members from underrepresented groups.

2. Our AMA will work to obtain full restoration and protection of federal Title VII funding, and similar state funding programs, for the Centers of Excellence Program, Health Careers Opportunity Program, Area Health Education Centers, and other programs that support physician training, recruitment, and retention in geographically-underserved areas.
3. Our AMA will take a leadership role in efforts to enhance diversity in the physician workforce, including engaging in broad-based efforts that involve partners within and beyond the medical profession and medical education community.
4. Our AMA will encourage the Liaison Committee on Medical Education to assure that medical schools demonstrate compliance with its requirements for a diverse student body and faculty.
5. Our AMA will develop an internal education program for its members on the issues and possibilities involved in creating a diverse physician population.
6. Our AMA will provide on-line educational materials for its membership that address diversity issues in patient care including, but not limited to, culture, religion, race and ethnicity.
7. Our AMA will create and support programs that introduce elementary through high school students, especially those from groups that are underrepresented in medicine (URM), to healthcare careers.
8. Our AMA will create and support pipeline programs and encourage support services for URM college students that will support them as they move through college, medical school and residency programs.
9. Our AMA will recommend that medical school admissions committees use holistic assessments of admission applicants that take into account the diversity of preparation and the variety of talents that applicants bring to their education.
10. Our AMA will advocate for the tracking and reporting to interested stakeholders of demographic information pertaining to URM status collected from Electronic Residency Application Service (ERAS) applications through the National Resident Matching Program (NRMP).
11. Our AMA will continue the research, advocacy, collaborative partnerships and other work that was initiated by the Commission to End Health Care Disparities.
12. Our AMA opposes legislation that would undermine institutions' ability to properly employ affirmative action to promote a diverse student population.
13. Our AMA: (a) supports the publication of a white paper chronicling health care career pipeline programs (also known as pathway programs) across the nation aimed at increasing the number of programs and promoting leadership development of underrepresented minority health care professionals in medicine and the biomedical sciences, with a focus on assisting such programs by identifying best practices and tracking participant outcomes; and (b) will work with various stakeholders, including medical and allied health professional societies, established biomedical science pipeline programs and other appropriate entities, to establish best practices for the sustainability and success of health care career pipeline programs.
14. Our AMA will work with the AAMC and other stakeholders to create a question for the AAMC electronic medical school application to identify previous pipeline program (also known as pathway program) participation and create a plan to analyze the data in order to determine the effectiveness of pipeline programs.

REFERENCES

- ¹ Medical School Graduation Questionnaire: 2019 All Schools Summary Report. Bethesda, MD: Association of American Medical Colleges; 2019. <https://www.aamc.org/system/files/2019-08/2019-gq-all-schools-summary-report.pdf>. Accessed June 23, 2020.
- ² AACOM 2019-2020 Academic Year Survey of Graduating Seniors. Bethesda, MD: American Association of Colleges of Osteopathic Medicine; 2020. Available at: https://www.aacom.org/docs/default-source/data-and-trends/aacom-2019-2020-academic-year-entering-student-survey-summary-report.pdf?sfvrsn=f2380f97_4. Accessed June 23, 2020.
- ³ Grischkan, J., George, B. P., Chaiyachati, K., Friedman, A. B., Dorsey, E. R., & Asch, D. A. (2017). Distribution of medical education debt by specialty, 2010-2016. *JAMA internal medicine*, 177(10), 1532-1535. Available at: <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2652831>. Accessed July 1, 2020.
- ⁴ 2013-2020 Tuition and Student Fees Report. Bethesda, MD: Association of American Medical Colleges; 2020. <https://www.aamc.org/data-reports/reporting-tools/report/tuition-and-student-fees-reports>. Accessed June 30, 2020.
- ⁵ Osteopathic College Tuition and Fees (1st year) 2019-20 and Historical. Bethesda, MD: American Association of Colleges of Osteopathic Medicine; 2020. https://www.aacom.org/docs/default-source/data-and-trends/tuition-fees_2019-20_2008-09.pdf?sfvrsn=d1b83597_10. Accessed June 30, 2020.
- ⁶ Applicants, Matriculants, Enrollment, and Graduates to U.S. Medical Schools, 2010-2011 through 2019-2020, Bethesda, MD: Association of American Medical Colleges; 2020. https://www.aamc.org/system/files/2019-11/2019_FACTS_Table_1_0.pdf. Accessed June 30, 2020.
- ⁷ Trends in Osteopathic Medical School Applicants, Applications, Enrollment, and Graduates. Bethesda, MD: American Association of Colleges of Osteopathic Medicine; 2020. https://www.aacom.org/docs/default-source/data-and-trends/trends-aeg.xlsx?sfvrsn=c3ba4c97_98. Accessed June 30, 2020.
- ⁸ Phillips, J. P., Petterson, S. M., Bazemore, A. W., & Phillips, R. L. (2014). A retrospective analysis of the relationship between medical student debt and primary care practice in the United States. *Annals of Family Medicine*, 12(6), 542-549.
- ⁹ Jayakumar, K. L., Larkin, D. J., Ginzberg, S., & Patel, M. (2017). Personal financial literacy among US medical students. *MedEdPublish*, 6. Available at: <https://www.mededpublish.org/manuscripts/847>. Accessed July 1, 2020.
- ¹⁰ AACOM 2019-2020 Academic Year Survey of Graduating Seniors. Bethesda, MD: American Association of Colleges of Osteopathic Medicine; 2020. Available at: https://www.aacom.org/docs/default-source/data-and-trends/aacom-2019-2020-academic-year-entering-student-survey-summary-report.pdf?sfvrsn=f2380f97_4. Accessed June 23, 2020.
- ¹¹ Dugger, R. A., El-Sayed, A. M., Dogra, A., Messina, C., Bronson, R., & Galea, S. (2013). The color of debt: racial disparities in anticipated medical student debt in the United States. *PloS one*, 8(9), e74693. Available at: <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0074693>. Accessed July 2, 2020.
- ¹² Jolly P (2005). Medical school tuition and young physicians' indebtedness. *Health Affairs* 24: 527–535. Available at: <https://www.healthaffairs.org/doi/full/10.1377/hlthaff.24.2.527>. Accessed July 2, 2020.

- ¹³ Phillips JP, Weismantel DP, Gold KJ, Schwenk TL (2010) Medical student debt and primary care specialty intentions. *Family Medicine* 42: 616. Available at: <https://fammedarchives.blob.core.windows.net/imagesandpdfs/pdfs/FamilyMedicineVol42Issue9Phillips616.pdf>. Accessed July 2, 2020.
- ¹⁴ Pisaniello, M. S., Asahina, A. T., Bacchi, S., Wagner, M., Perry, S. W., Wong, M. L., & Licinio, J. (2019). Effect of medical student debt on mental health, academic performance and specialty choice: a systematic review. *BMJ open*, 9(7), e029980. <https://bmjopen.bmj.com/content/9/7/e029980.full>. Accessed July 2, 2020.
- ¹⁵ Fritz, E. M., Van Den Hoogenhof, S., & Braman, J. P. (2019). Association between medical student debt and choice of specialty: a 6-year retrospective study. *BMC medical education*, 19(1), 395. Available at: <https://bmcmeduc.biomedcentral.com/articles/10.1186/s12909-019-1797-2>. Accessed July 2, 2020.
- ¹⁶ Gil, J. A., Waryasz, G. R., Liu, D., & Daniels, A. H. (2016). Influence of medical student debt on the decision to pursue careers in primary care. *Rhode Island Medical Journal*, 99(7), 19. Available at: <https://pdfs.semanticscholar.org/ec87/7ea3d2bb05641db9d322e7740c6219a73b22.pdf>. Accessed July 1, 2020.
- ¹⁷ Kahn, M. J., Markert, R. J., Lopez, F. A., Specter, S., Randall, H., & Krane, N. K. (2006). Is medical student choice of a primary care residency influenced by debt?. *Medscape General Medicine*, 8(4), 18. Available at: <https://europepmc.org/article/med/17415301>. Accessed July 2, 2020.
- ¹⁸ Ling, S., Jacobs, R., Ponton, R., Slark, J., Verstappen, A., Webster, C. S., & Poole, P. (2018). Influence of student debt on health career location and specialty. *Journal of Primary Health Care*, 10(1), 54-61. Available at: <https://pdfs.semanticscholar.org/deff/a789dcae79fa8a5de3c489a802222da54a26.pdf>. Accessed July 1, 2020.
- ¹⁹ Yang, Y., Li, J., Wu, X., Wang, J., Li, W., Zhu, Y., ... & Lin, H. (2019). Factors influencing subspecialty choice among medical students: a systematic review and meta-analysis. *BMJ open*, 9(3), e022097. Available at: <https://bmjopen.bmj.com/content/9/3/e022097>. Accessed July 3, 2020.
- ²⁰ Leigh, J. P., Tancredi, D., Jerant, A., Romano, P. S., & Kravitz, R. L. (2012). Lifetime earnings for physicians across specialties. *Medical care*, 50(12), 1093–1101.
- ²¹ Leigh JP, Kravitz RL, Schembri M, Samuels SJ, Mobley S. Physician Career Satisfaction Across Specialties. *Arch Intern Med*. 2002;162(14):1577–1584. Available at: <https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/212212>. Accessed July 4, 2020.
- ²² Scheckel, C. J., Richards, J., Newman, J. R., Kunz, M., Fangman, B., Mi, L., & Poole Jr, K. G. (2019). Role of debt and loan forgiveness/repayment programs in osteopathic medical graduates' plans to enter primary care. *J Am Osteopath Assoc*, 119(4), 227-235. Available at: https://jaoa.org/aoa/content_public/journal/jaoa/937923/227.pdf. Accessed July 2, 2020.
- ²³ Richards, J. R., Scheckel, C. J., Kunz, M., Newman, J. R., Poole Jr, K. G., & Mi, L. (2018). Practice area intentions of graduates of colleges of osteopathic medicine: what role does debt play. *J Am Osteopath Assoc*, 118(6), 384-388. Available at: <https://jaoa.org/article.aspx?articleid=2683113>. Accessed July 2, 2020.
- ²⁴ David A. Asch, Justin Grischkan, Sean Nicholson. The Cost, Price, and Debt of Medical Education. July 2, 2020. *N Engl J Med* 2020; 383:6-9.
- ²⁵ Nguyen, B. M., & Bounds, G. (2019). Factors affecting specialty choice among doctors who received tuition scholarships. *Family medicine*, 51(3), 276-281. Available at: <https://journals.stfm.org/familymedicine/2019/march/nguyen-2018-0252/>. Accessed July 2, 2020.

²⁶ Terry K. Washington University Med School Latest to Offer Free Tuition. Medscape. Available at: <https://www.medscape.com/viewarticle/912009>. Accessed July 3, 2020.

²⁷ Budd K. Will free medical school lead to more primary care physicians? AAMC News, December 2, 2019. Available at: <https://www.aamc.org/news-insights/will-free-medical-school-lead-more-primary-care-physicians>. Accessed July 3, 2020.