

### Burnout Among U.S. Medical School Faculty

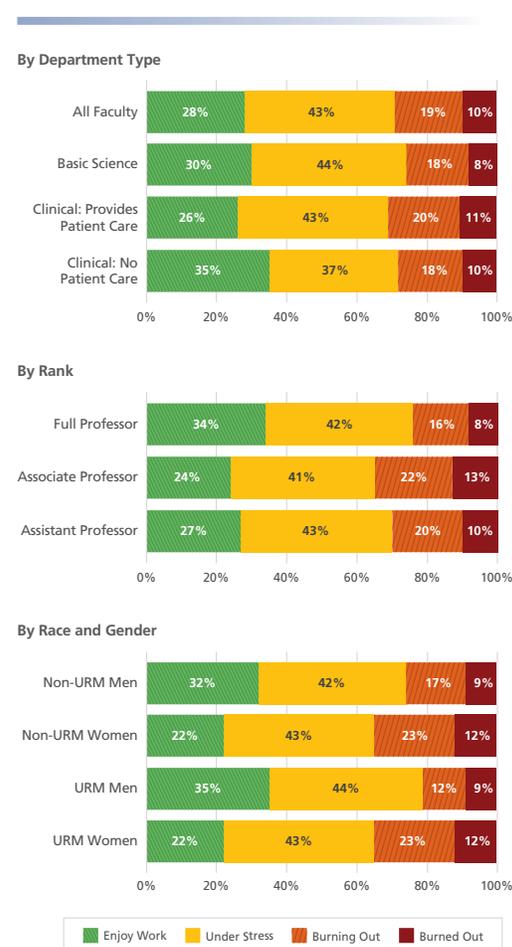
Healthy, happy, and engaged physicians are critical to a healthy U.S. population. Yet, recent studies have found that the percentage of U.S. physicians reporting burnout has been increasing over the past two decades.<sup>1,2</sup> Currently, almost half of U.S. physicians report at least one symptom of burnout.<sup>1,2</sup> Included among these physicians are medical school faculty who play key roles in the health of our nation by training medical students and residents to deliver patient-centered health care, by conducting research on new treatments and innovative health care delivery methods, and by meeting the ever-increasing demand for high-quality clinical care in local communities. Research on physician burnout reveals that the percentage of physicians reporting burnout is similar for academic faculty based in clinical departments at LCME-accredited medical schools and U.S. physicians at large.<sup>3</sup>

Some medical school faculty focus primarily on clinical care activities, and others, on research and education. Although the faculty who focus on research and education are found in both clinical and basic science departments, there is a dearth of research about burnout in this group. Research suggests that the unique, mission-focused roles of all academic medicine faculty are stressful.<sup>4</sup> Most faculty at medical schools perform a variety of roles, including educator, administrator, clinician, and researcher. Exploring the relationship between the primary role (e.g., clinician) and burnout will advance understanding of faculty stress. Given that limited education resources are in place for faculty at medical schools<sup>5</sup> and that there is unprecedented competition for research funding,<sup>6</sup> both of which can amplify stress for faculty, the need to study and understand burnout is acute. Research has shown that certain interventions are associated with reductions in burnout, but that organization-directed interventions are rare.<sup>7</sup>

This *Analysis in Brief (AIB)* provides a snapshot of burnout in three types of faculty at U.S. medical schools: faculty in clinical departments providing patient care, faculty in clinical departments providing no patient care, and faculty in basic science departments. This study examines the prevalence of reported burnout in each of those groups and in specific departments and explores the relationship between burnout and faculty engagement. Results can inform institutional interventions that address workplace and organizational factors contributing to burnout, as well as individual interventions that promote faculty wellness and resiliency.

#### Methods

Data in this *AIB* come from faculty responses to the AAMC StandPoint Faculty Engagement Survey. The data are from a convenience sample of 13 institutions and 7,653 full-time faculty members who responded to the survey between January 2016 and September 2018 (a 74% overall response rate). Institutions partnered with the AAMC to administer the survey to their faculty. The survey uses a nonproprietary, single-item burnout measure that asks respondents to identify their level of stress and symptoms of burnout.<sup>8,9</sup> For purposes of this *AIB*, burnout-measure responses were condensed from a five-point to a four-point scale (see Figure 1). Analysis of the results was conducted in the IBM SPSS Statistics for Windows, version 19, and included descriptive statistics and bivariate correlations. Faculty-reported data are presented by faculty type — faculty in clinical departments providing patient care, faculty in clinical departments providing no patient care, and faculty in basic science departments — as well as by department, gender, race, and rank.



Source: AAMC StandPoint Faculty Engagement Survey.

**Figure 1. Self-reported burnout by medical school faculty, by various demographics.**

Note: Response categories were based on the following StandPoint Faculty Engagement Survey question: "Using your own definition of 'burnout' please select one of the answers below: 1. I enjoy my work. I have no symptoms of burnout. 2. I am under stress, and don't always have as much energy as I did, but I don't feel burned out. 3. I am definitely burning out and have one or more symptoms of burnout, e.g. emotional exhaustion. 4. The symptoms of burnout that I'm experiencing won't go away. I think about work frustrations a lot. 5. I feel completely burned out. I am at the point where I may need to seek help." Numbers 4 and 5 were combined for analysis (as "burned out"). URM = underrepresented minority (faculty not identifying as white or Asian).

**Results**

Results show that all types of medical school faculty reported burnout. Of all faculty respondents, 29% reported experiencing one or more symptoms of burnout. Slight differences exist between faculty subgroups, however, with 31% of faculty who provide patient care in clinical departments reporting one or more symptoms of burnout, compared with 28% of faculty who do not provide patient care in clinical departments and 26% of faculty in basic science departments. A large percentage of all faculty (43%) reported feeling under stress, even if they did not report experiencing burnout symptoms (Figure 1).

Women faculty reported higher levels of burnout than men. Looking at gender and race, 35% of URM (underrepresented minority) and 35% of non-URM women faculty reported burnout, compared with 26% of non-URM men and 21% of URM men. Looking at faculty ranks, associate professors reported the highest levels of burnout, with 35% experiencing symptoms.

Among faculty in basic science departments, those in departments of epidemiology, biostatistics, and medical education (categorized as “Other” in Table 1) reported the highest levels of burnout, with 29% of respondents experiencing one or more symptoms, followed closely by faculty in departments of biochemistry, at 27%. Within clinical departments, neurology faculty reported the highest levels of burnout, with 37% of respondents experiencing one or more symptoms, closely followed by those in departments of preventative medicine and community health (categorized as “Other” in Table 1), at 35%.

Finally, the correlation test results demonstrate that burnout is associated with overall workplace engagement

**Table 1. Self-Reported Burnout by Medical School Faculty, by Department**

Department Name (number of respondents)	Enjoy Work	Under Stress	Burning Out	Burned Out
<b>Basic Sciences</b>	<b>30%</b>	<b>44%</b>	<b>18%</b>	<b>8%</b>
<b>Other (e.g., Biostatistics, Epidemiology) (322)</b>	<b>26%</b>	<b>45%</b>	<b>20%</b>	<b>9%</b>
<b>Biochemistry (135)</b>	<b>30%</b>	<b>43%</b>	<b>19%</b>	<b>8%</b>
Neurosciences (77)	40%	34%	19%	7%
Anatomy (64)	34%	41%	17%	8%
Microbiology (149)	30%	46%	16%	8%
Pharmacology (86)	29%	48%	14%	9%
Genetics (49)	30%	47%	20%	2%
Molecular and Cellular Biology (57)	27%	42%	14%	7%
Physiology (105)	36%	44%	11%	9%
<b>Clinical</b>	<b>28%</b>	<b>42%</b>	<b>19%</b>	<b>11%</b>
<b>Neurology (261)</b>	<b>26%</b>	<b>37%</b>	<b>24%</b>	<b>13%</b>
<b>Other (e.g., Preventative Medicine, Community Health) (145)</b>	<b>22%</b>	<b>43%</b>	<b>27%</b>	<b>8%</b>
<b>Physical Medicine &amp; Rehab (43)</b>	<b>40%</b>	<b>26%</b>	<b>26%</b>	<b>9%</b>
<b>Anesthesiology (454)</b>	<b>23%</b>	<b>43%</b>	<b>20%</b>	<b>14%</b>
<b>OB/GYN (297)</b>	<b>29%</b>	<b>39%</b>	<b>20%</b>	<b>12%</b>
<b>Pediatrics (666)</b>	<b>26%</b>	<b>43%</b>	<b>21%</b>	<b>10%</b>
Radiology (377)	31%	39%	20%	10%
Family Medicine (233)	25%	45%	19%	11%
Radiation Oncology (112)	24%	46%	18%	12%
Medicine (1686)	29%	42%	19%	10%
Emergency Medicine (227)	21%	50%	18%	11%
Pathology (367)	31%	40%	18%	11%
Surgery (445)	33%	38%	18%	11%
Orthopedic Surgery (200)	31%	43%	15%	11%
Otolaryngology (111)	31%	43%	18%	8%
Psychiatry (460)	31%	43%	18%	8%
Dermatology (95)	34%	42%	15%	9%
Ophthalmology (137)	44%	37%	15%	4%
Urology (71)	28%	55%	10%	7%
Neurosurgery (103)	40%	45%	10%	5%

Note: Data are sorted by department and percentage of faculty who report experiencing one or more symptoms of burnout. Bolded departments reported the highest levels of burnout among their faculty.

**Table 2. Faculty Responses to Global Engagement Measures Compared by Self-Reported Burnout**

Global Engagement Outcomes	Enjoy Work	Under Stress	Burning Out	Burned Out
% Satisfaction with department	89%	84%	61%	34%
% Satisfaction with school	85%	74%	55%	31%
% Likely to stay at institution	87%	80%	58%	41%
% Agree would choose to work again at school	88%	82%	64%	37%

outcomes, including satisfaction with one's department and school (0.418,  $P \leq 0.001$ ; 0.399,  $P \leq 0.001$ ) and likelihood of staying at the institution (0.329,  $P \leq 0.001$ ). Further, as self-reported levels of burnout increased among faculty, satisfaction decreased and intent to leave increased. For example, 85% of faculty who did not report experiencing stress or burnout were satisfied with their school as a place to work, compared with 55% of those experiencing one symptom of burnout and 31% of those who reported being burned out. Similarly, 89% of faculty not under stress were satisfied with their department as a place to work, compared with 61% with one symptom of burnout and 34% of those who reported being burned out (Table 2). Reported intent to leave one's institution follows similar patterns, with 87% of faculty not under stress planning to stay at their school over the next one to two years, compared with 41% of those who reported being burned out (Table 2).

### Discussion

This study designed to assess burnout prevalence shows that high percentages of faculty at U.S. medical schools are reporting stress and burnout, whether they are in clinical departments involved in patient care, clinical departments not involved in patient care, or basic science departments. The factors driving reported levels of burnout in various groups may differ, but results

suggest that burnout is prevalent and, therefore, important to track.

This research affirms the importance of examining burnout by demographic groups including specialty, gender, race, and rank. Faculty development programs and related curriculum should address burnout and self-care. Institutions should also consider workplace culture issues that might be affecting stress levels of these groups of faculty. Department chairs who prioritize wellness can also build resilience within their faculty by identifying and addressing problems that might exist in day-to-day experiences specific to a certain specialty. In addition to burnout, faculty reports of general stress (averaging 43%) indicate that there is a need for both institutional and departmental leaders to take swift action in designing new interventions to prevent those who are experiencing stress from developing burnout. Further research is needed to examine what workplace and personal factors might be causing some faculty groups to experience higher levels of burnout than others.

Given that burnout and engagement are correlated and both constructs are linked to individual and organizational outcomes (including intent to leave) and faculty engagement, it is important to track and measure them. In addition to addressing efficiencies through

workplace interventions (e.g., optimizing electronic health records for clinical faculty and providing grant-writing support for research faculty) and wellness and resilience through individual interventions, medical schools can work to promote a culture of wellness that the leaders openly support.<sup>10</sup> Schools can also revise institutional policies and practices to mitigate burnout.

This study contributes to our understanding of burnout in academic medicine by looking at different types of faculty at medical schools, rather than simply at faculty physicians. It may be limited by several factors, however. For example, reports of burnout in previous studies of academic medicine faculty were slightly higher than those in this report,<sup>11</sup> and this may be due to the single-item measure used in this survey. This kind of measure is not used as frequently as the Maslach Burnout Inventory, and it may miss burned-out faculty.<sup>12</sup> Additionally, while this study surveyed many institutions, the sample size was still relatively small. Continuing to research the myriad factors contributing to faculty burnout in academic medicine and sharing effective institutional practices for addressing burnout are critical.

### Notes

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