## VIEWPOINT

## Closing the Gender Wage Gap and Achieving Professional Equity in Medicine

## Maryam M. Asgari,

MD, MPH
Massachusetts General
Hospital, Harvard
Medical School,
Boston.

## Phyllis L. Carr, MD

Massachusetts General
Hospital, Harvard Medical School, Boston.

Carol K. Bates, MD Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts.

## Corresponding

Author: Carol K Bates, MD, Beth Israel Deaconess Medical Center, 25 Shattuck St, Boston, MA 02115 (Carol_Bates@hms. harvard.edu).

On July 1, 2018, an updated equal pay law went into effect in Massachusetts to address gender pay disparity. The updates to the Massachusetts Equal Pay Act (MEPA) of 1945 provide more clarity as to what constitutes unlawful wage discrimination and adds protections to ensure greater equity. Among other provisions, the law defines comparable work, makes it illegal to ask about current salary during compensation negotiations, and makes it illegal to penalize or retaliate against employees for discussing their salaries. Why did MEPA need to be updated in 2018? Because 73 years after its enactment, gender pay inequity remains a major concern in society in general and in medicine.

In Massachusetts, women working full time on average still earn only $84.3 \%$ of what men earn. ${ }^{1}$ The gap is even larger for women of color. ${ }^{1}$ In examining the gap by occupation, physicians and surgeons have one of the largest gender pay gaps. ${ }^{2}$ A 2018 report published by the American Association of University Women and based on data from the 2017 US Census and the Bureau of Labor Statistics revealed that the collective wage gap for women physicians is in the billions, with women physicians and surgeons paid
potential selection bias of survey respondents. However, data from a more homogenous cohort consisting of mid-career academic physician researchers revealed similar findings. ${ }^{4}$ Male gender was associated with higher salary (+\$13 399; $P=.001$ ), even after adjustment for specialty, academic rank, leadership positions, publications, and research time. ${ }^{4}$

Perhaps more concerning than the actual presence and magnitude of the gender pay gap among physicians is that the gap is pervasive across medical specialties, has persisted over decades, and has recently widened. In a national physician survey of a faculty cohort over 17 years, the same gender disparity in compensation persisted from 1995 to 2012-2013, ${ }^{5}$ suggesting no real improvement over 2 decades. Recent evidence suggests that the gap may be widening; the Doximity survey ${ }^{3}$ found that women physicians were making $26.5 \%$ less than men physicians the year before the survey was administered. Furthermore, the inequities persisted across all 40 specialties and the 50 metropolitan areas analyzed, although the data were limited to self-reported salary and nonrespondent data could not be captured.

When there are gender gaps in compensation, various rationalizations are often suggested, including differences in work hours, differences in the number of patients seen, and even differences in professional outcomes. With regard to outcomes, recent data suggest that professional outcomes for women physicians are not only equal but may be better. For instance, an observational study of 58344 physicians (32\% women) showed that in-hospital mortality and readmission rates were lower for patients cared for by women hospitalists. Women physicians were more likely to adhere to evidencebased medicine, provide preventive care, and demonstrate patient-centered care in the outpatient setting. ${ }^{6}$ Professional competency appears to be, at a minimum, equal by gender.

Assessing equity is complicated because physician job descriptions vary widely. In general, comparable work is defined as work that requires substantially similar skill, effort, and responsibility and is performed under similar working conditions. The updated MEPA provisions do allow for differential pay based on seniority, merit, geographic location, quantity or quality of sales or revenue, education or training, or travel. For physicians, compensation goes beyond base pay to include bonuses, incentives, and professional reimbursement (including continuing medical education). Newly recruited faculty might be reimbursed for moving costs and might receive signing bonuses and
start-up packages. In academic medicine, institutional support for junior investigators can vary by gender by up to $\$ 1000000$, with women receiving significantly less start-up support from their institutions than men. ${ }^{7}$ Benefits including paid time off, leave, and malpractice insurance (including dollar limits, scope, claims made vs occurrence, and tail/nose coverage) can have clear financial implications. Women physicians who work part time or take a leave of absence, such as for maternity leave, have an estimated loss of $\$ 28000$ in salary. ${ }^{5}$

In addition, some key features of a job description do not easily translate into dollar equivalencies but may have important influences on productivity and income. In clinical practice, allocation of support staff, scribes, examination rooms, and operating room block time can all make practice more or less efficient and productive. For example, assignment of operating room blocks allows surgeons to have guaranteed procedural time and regularity in case scheduling that directly affect surgical case volume and, by extension, income. Inequities in operating room block time could, in theory, explain why orthopedic surgeons have among the highest gender wage gaps, but such data are currently lacking.

Administrative support for nonclinical time, expectations for other duties, and responsibilities such as service on committees and teaching roles all affect the availability of time to produce scholarship. Salary equity analyses are often conducted at the level of a department or institution, but many of the drivers of salary are controlled at the section or divisional level. Clinical practices, research laboratories, and leaders need to assess equitable distribution of research supports, clinical allocations, and citizenship service tasks (such as service on committees and mentoring) to ensure that these are not systematically disadvantaging women's ability to generate revenue and scholarship.

It will take some time to assess the outcomes of the updates to MEPA, especially considering that pay disparities have been a refractory problem. Beyond this law, leaders in medicine must work to mitigate unconscious bias, encourage women to follow their passions rather than steer them away from traditionally male specialties, and embrace the fact that half of the profession may take maternity leave (and some may take paternity leave). Doing so will help close the gender wage gap and contribute to achieving professional equity in medicine beyond salary.

## ARTICLE INFORMATION

Published Online: April 5, 2019
doi:10.1001/jama.2019.4168
Conflict of Interest Disclosures: Dr Asgari reported receiving grants from Pfizer. Dr Bates reported serving as past chair of the steering committee of the Group on Women in Medicine and Science of the Association of American Medical Colleges. No other disclosures were reported.

## REFERENCES

1. Fontenot K, Semenga J, Kollar M. Income and Poverty in the United States: 2017. Washington, DC: US Census Bureau; 2018.
2. Miller K, Vagins DJ. The simple truth about the gender pay gap. American Association of University Women website. https://www.aauw.org/research/ the-simple-truth-about-the-gender-pay-gap/. Fall 2018. Accessed January 31, 2019.
3. Second Annual Physician Compensation Report. Doximity website. https://www.doximity.com/ careers/compensation_report. Published March 2018. Accessed March 11, 2019.
4. Jagsi R, Griffith KA, Stewart A, Sambuco D, DeCastro R, Ubel PA. Gender differences in the salaries of physician researchers. JAMA. 2012;307 (22):2410-2417. doi:10.1001/jama.2012.6183
5. Freund KM, Raj A, Kaplan SE, et al. Inequities in academic compensation by gender: a follow-up to
the National Faculty Survey Cohort Study. Acad Med. 2016;91(8):1068-1073. doi:10.1097/ACM. 0000000000001250
6. Tsugawa Y, Jena AB, Figueroa JF, Orav EJ, Blumenthal DM, Jha AK. Comparison of hospital mortality and readmission rates for Medicare patients treated by male vs female physicians. JAMA Intern Med. 2017;177(2):206-213. doi:10.1001/ jamainternmed.2016.7875
7. Sege R, Nykiel-Bub L, Selk S. Sex differences in institutional support for junior biomedical researchers. JAMA. 2015;314(11):1175-1177. doi:10. 1001/jama.2015.8517
