# The Development of Best Practice Recommendations to Support the Hiring, Recruitment, and Advancement of Women Physicians in Emergency Medicine 

Esther K. Choo, MD, MPH, Dara Kass, MD, Mary Westergaard, MD, Susan H. Watts, PhD,<br>Nicole Berwald, MD, Linda Regan, MD, Susan B. Promes, MD, MBA, Kathleen J. Clem, MD, Sandra M. Schneider, MD, Gloria J. Kuhn, DO, PhD, Stephanie Abbuhl, MD, and Flavia Nobay, MD


#### Abstract

Background: Women in medicine continue to experience disparities in earnings, promotion, and leadership roles. There are few guidelines in place defining organization-level factors that promote a supportive workplace environment beneficial to women in emergency medicine (EM). We assembled a working group with the goal of developing specific and feasible recommendations to support women's professional development in both community and academic EM settings. Methods: We formed a working group from the leadership of two EM women's organizations, the Academy of Women in Academic Emergency Medicine (AWAEM) and the American Association of Women Emergency Physicians (AAWEP). Through a literature search and discussion, working group members identified four domains where organizational policies and practices supportive of women were needed: 1) global approaches to supporting the recruitment, retention, and advancement of women in EM; 2) recruitment, hiring, and compensation of women emergency physicians; 3) supporting development and advancement of women in EM; and 4) physician health and wellness (in the context of pregnancy, childbirth, and maternity leave). Within each of these domains, the working group created an initial set of specific recommendations. The working group then recruited a stakeholder group of EM physician leaders across the country, selecting for diversity in practice setting, geographic location, age, race, and gender. Stakeholders were asked to score and provide feedback on each of the recommendations. Specific recommendations were retained by the working group if they achieved high rates of approval from the stakeholder group for importance and perceived feasibility. Those with $>80 \%$ agreement on importance and $>50 \%$ agreement on feasibility were retained. Finally, recommendations were posted in an open online forum (blog) and invited public commentary.


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#### Abstract

Results: An initial set of 29 potential recommendations was created by the working group. After stakeholder voting and feedback, 16 final recommendations were retained. Recommendations were refined through qualitative comments from stakeholders and blog respondents. Conclusions: Using a consensus building process that included male and female stakeholders from both academic and community EM settings, we developed recommendations for organizations to implement to create a workplace environment supportive of women in EM that were perceived as acceptable and feasible. This process may serve as a model for other medical specialties to establish clear, discrete organization-level practices aimed at supporting women physicians.


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The presence of gender disparities in medicine, specifically within the field of emergency medicine (EM), has been noted in regards to salary, career advancement, and resource allocation. ${ }^{1-5}$ Disparities begin upon entry into the job market ${ }^{2}$ (i.e., before productivity or merit can account for them) and persist despite analyses that account for a broad range of potential confounders, including choice of specialty, part-time work, level of training, and career aspirations. A study recently published in JAMA analyzed over 90,000 U.S. physicians and found gender disparities in reaching full professor status, even after correcting for age, years since residency, and measures of research productivity. ${ }^{6}$

In 2000, Cydulka et al. ${ }^{7}$ published a study addressing gender disparities in academic EM. The study, a survey of academic EM physicians in the United States, found that despite comparable training, women faculty lagged behind men in terms of academic achievement. Women were less likely to hold major leadership positions, spent a greater percentage of time in clinical and teaching activities, published less in peer-reviewed journals, and were less likely to achieve senior academic rank in their medical schools. A lower proportion of women were board-certified in EM. It is likely that gender disparities in EM have persisted in the subsequent years since this study. In 2006, Cheng et al. ${ }^{8}$ found only $7.5 \%$ of academic emergency departments (ED) were chaired by women; those chaired by men, on average, had faculty that were only $22 \%$ female. A 2009-2010 survey of chairs and chiefs of EDs with residency programs found that female EM faculty made $10 \%$ to $13 \%$ less than male faculty. ${ }^{9}$ In 2014, an updated survey of academic EM faculty found that female gender was negatively associated with having a major leadership role and with attaining associate or full professor rank, even after adjusting for years in practice. ${ }^{10}$

In 2008, The Taskforce on Women in Academic Emergency Medicine put forth detailed recommendations for national professional organizations, medical school deans, department chairs, and women faculty that described ways to improve the opportunities for women in academic EM. ${ }^{11}$ However, recommendations more broadly applicable outside of academic EM settings are still lacking. Such a resource could provide female physicians benchmarks to gauge the supportiveness of a potential place of employment and assist organizations in creating an environment that optimizes the productivity and longevity of its female employees.

We established a working group to develop recommendations aimed at improving the recruitment, retention, and advancement of women in EM. The working group sought to establish a body of general recommendations that organizations could implement to support women and that provided some consensus on what constitutes reasonable and expected efforts toward gender equity. From the outset, the recommendations were intended to be both practical and feasible and to apply to women in a wide variety of practice settings in the United States. Although prior publications ${ }^{11-13}$ have outlined means by which healthcare institutions may improve the working environment for women in medicine, we sought to address a critical gap by: 1) providing recommendations specifically developed for our specialty, 2) including both academic and community practitioners in the development of guidelines, and 3) making realistic implementation a key component of the recommendation, to make widespread dissemination possible.

This paper describes how we identified broad domains affecting women in EM and, subsequently, developed specific recommendations within each domain. The recommendations are intended to serve as an initial framework that EDs nationwide can use and adapt to their own individualized practices. Importantly, we sought to initiate the process by engaging a national network of diverse stakeholders who would arrive at common practices necessary to improve the working environment for women in EM and likely to be feasible to implement in a wide variety of settings.

## METHODS

A working group of 11 members was formed from leaders of two EM professional women's organizations (Academy for Women in Academic Emergency Medicine [AWAEM], American Academy of Women Emergency Physicians [AAWEP]) who in the preceding years had been involved in faculty development and education on gender issues experienced by women physicians. The working group created the recommendations using a mixed-methods approach of successive rounds of quantitative and qualitative feedback and modification over the course of 1 year. This process allowed us to identify key domains needing gender-equitable guidelines and specific recommendations within these domains. The consensus building process occurred in three stages, described below.

## Consensus Building Process

Stage One: Initial Generation of Ideas. A review of the literature for recommendations created to support women in medicine and other fields was performed. From this review, and through extensive discussion, the working group identified four domains that all members felt were applicable to the majority of women in EM, highly influential on the careers of women in EM, and amenable to organizational action. These domains were: 1) global, overarching approaches to supporting the recruitment, retention, and advancement of women in EM; 2) recruitment, hiring, and compensation of women emergency physicians; 3) supporting professional development and advancement of women in EM; and 4) physician health and wellness (in the context of pregnancy, childbirth, and maternity leave). The working group then developed specific recommendations for achieving gender equity within each domain. For this first stage, the objective was to be as broad and inclusive as possible to inspire, rather than limit, solutions to gender-based issues.

Stage Two: Stakeholder Feedback and Scoring. The working group recruited a diverse body of stakeholders to participate in the consensus building process. Stakeholders included leaders of academic and community EM organizations (e.g., American College of Emergency Physicians [ACEP], Society for Academic Emergency Medicine [SAEM], American Academy of Emergency Medicine [AAEM], Council of Emergency Medicine Residency Directors [CORD], and the Emergency Medicine Residents' Association). Stakeholder selection started by approaching the highest ranking officer (e.g., president, chair) of each of these organizations; the president was asked to participate and also asked to recommend other potential participants from the leadership within their organization. From all the potential participants identified in this manner, 27 stakeholders were purposively selected for diversity in regards to gender, race and ethnicity, geographic location, and practice environment. Nonphysician stakeholders included lawyers with experience in gender equity in the workplace. The initial set of broad-based potential recommendations was disseminated to stakeholders for response based on three criteria:

- Should the recommendation be included in the final list of recommendations for supporting women in the EM workplace? [Yes/No]
- Is the recommendation feasible in your practice setting? [Four-point Likert scale, Not feasible/Minimally feasible/Moderately feasible/Very feasible]
- Can the recommendation be improved? If so, how? [open-ended question]

Stakeholders were also provided free-text space for any general comments about each recommendation and were asked to suggest any additional recommendations not represented in the initial list. Stakeholder feedback was collated and reviewed by the working group. A priori, we decided to retain recommendations that were endorsed by at least $80 \%$ of the stakeholder group, a cutoff that has been used in prior consensus work ${ }^{14}$ and in guidelines for obtaining expert consensus. ${ }^{15}$ Our
logic was that adoption of a recommendation was unlikely to happen without strong acceptability of its importance and that our goal for the first round of recommendations was to identify items that were of highest priority for implementation. The group agreed that an $80 \%$ cutoff reflected strong acceptance of a recommendation, while allowing for the fact that achieving $100 \%$ consensus was unlikely, especially for more innovative recommendations. We chose a lower value for the feasibility question, including items with at least $50 \%$ stating that the action was moderately or very feasible in their practice setting, to include recommendations that were possible and relevant for larger, higher capacity organizations and to prevent premature closure.

The working group met to review all written comments and to decide collaboratively on additional revisions to content and language. The revised document was sent to the stakeholder group with the same questions; however, this second round did not result in further significant modifications of the recommendations.

Stage Three: Public Commentary. To allow for input from EM physicians across the country, the revised recommendations were posted online in a blog created for this purpose (WordPress.com). The link to the blog and a message inviting review and public commentary was disseminated through EM organizational list serves (e.g., AAWEP, AWAEM, Academy of Academic Chairs of Emergency Medicine, CORD) and announcements in organization newsletters. The blog remained open for a one-month period, during which three reminders for participation were sent out. To encourage participation, anonymous commentary was allowed on the blog; however, those who posted were asked to voluntarily provide practice environment, years of practice, and geographic region of residence. At the conclusion of this commentary period, the working group reviewed and, through discussion, achieved consensus on the feedback from the blog that should be incorporated into the final document.

As a final step, the working group developed the final recommendations into a summary format consistent with ACEP and SAEM policy statements. These summary recommendations were presented to the board of directors of the two organizations and formally adopted.

## RESULTS

Summary of stakeholder scoring can be found in Data Supplement S1 (available as supporting information in the online version of this paper). Sixteen ( $55 \%$ ) of the initial 29 recommendations were retained. Of the 13 recommendations that were eliminated, all 13 had less than $80 \%$ stakeholder support for retention; nine were thought to be feasible by fewer than $50 \%$ of the stakeholders. Recommendations with the least support in terms of perceived feasibility were those that involved creating specific resources to enhance the availability of childcare, including: "Develop back up/emergency child care for employees through an insurance product or

Table 1
Recommendations for Supporting the Recruitment, Retention, and Advancement of Women in EM

## 1. Global Approaches

CONTEXT: Many institutions have unintentional, pervasive gender bias. Exposing any inadvertent disparities is a critical step toward eliminating inequality.
1A. The Need for Individualized Approaches to the Implementation of Best Practices
RECOMMENDATION (1A.1): Physician employers will conduct needs assessments on a regular basis (preferably annually) to determine which gender-specific policies and practices are needed within a given group. They will also update their members regularly on the status of such goals.
1B. Culture Change for Elimination of Gender Bias in EM
CONTEXT: To eliminate gender bias in EM, awareness of bias throughout an organization is needed. Policies implemented to create parity among employees should be publicized, endorsed by leadership, understood by all, and effectively utilized by employees. Leadership education and buy-in are crucial for the successful achievement of gender equity.
RECOMMENDATION (1B.1): Provide regular discrimination awareness training for those responsible for recruiting and hiring to
highlight unconscious biases in hiring, evaluation and retention of physicians, and education on approaches that will prevent bias. Consider partnership with organizational or local diversity groups for training and educational resources.
RECOMMENDATION (1B.2): Elect and support an ombudsman or confidential liaison within the employing organization (departmental or organizational, as appropriate), who is responsible for discussions of bias-related issues between employers and employees. This person should have ongoing training about the recognition of organizational bias and inequality (online training, conferences, organizational representation).
RECOMMENDATION (1B.3): Establish an advisory committee responsible for reviewing the search and recruitment process at regular intervals for equitable recruitment and hiring. This advisory committee would work toward attracting a diverse applicant pool and decreasing potential biases within the interview process. This would be achieved by broad advertisement of available positions, identifying and addressing significant gender differentials between the applicant pool and invited candidates, evaluating potential biases in evaluation of candidates, and addressing concerns of potential bias raised by candidates. 1C. Seeking Equitable Compensation
CONTEXT: Persistent gender inequality in compensation is well documented and cannot be fully explained by choice of specialty or part-time work.
RECOMMENDATION (1C.1): Conduct periodic audits of unjustified gender disparities in compensation.
2. Family-friendly Policies for Recruitment and Retention of Women in EM

2A. Creating a Supportive Environment for Potential Employees
CONTEXT: Providing support for partners and families may assist in physician recruitment and will result in longer-term satisfaction of the employee. Many organizations have substantial existing resources but may need to make these more visible to potential employees at the time of recruitment. Further, broaching these topics at the outset may mitigate associated stigma or apprehension around discussing them.
RECOMMENDATION (2A.1): Promote collaborative, interdepartmental approaches for dual recruiting (recruitment of both partners/spouses) as well as discussion and implementation of creative hiring solutions for dual EM spouses (i.e., job sharing).
RECOMMENDATION (2A.2): Organizational gender-specific policies (including delineation of parental and family leave policies) should be provided to prospective applicants, with opportunities to discuss these policies with administrators and peers at the recruiting organization, if desired.
RECOMMENDATION (2A.3) Create a centralized portal (webpage, social media platform, written document, resource book) that provides information to potential employees about the available resources related to spousal and family-friendly support. Examples of different classifications within the portal could include but not limited to finding job search support for the partner/ spouse, potential contacts with departmental connections, vetted lists of family support options (e.g., childcare, school districts). 2B. Family-oriented Administrative Policies
CONTEXT: Responsibilities of dependent care providers, regardless of gender, need to be considered to support professional promotion and retention.
RECOMMENDATION (2B 1): Implement family-supportive scheduling practices for all physicians, for example: scheduling critical departmental meetings and functions during hours typically covered by school/childcare services and allowing meetings to be conducted and attended via phone or electronic media.
RECOMMENDATION (2B.2): Explore and consider implementing childcare subsidy programs for all employees (e.g., dependent care flexible spending accounts).
RECOMMENDATION (2B.3): Explore and advertise options for emergency/back-up dependent care for employees. This is an approach commonly used by some companies (including hospitals and universities) to minimize lost workdays among their employees, but may not be well known or utilized.
3. Supporting Development and Advancement of Women in EM

3A. Developing Networking and Mentorship Opportunities for Women in EM
CONTEXT: There is a marked gender discrepancy in EM. Although females comprise $50 \%$ of medical school classes, they make up only $25 \%$ of EM-trained physicians. An even smaller percentage of women are in major leadership positions within EM. This may reflect inadequate mentorship and networking opportunities to support professional success within our field. RECOMMENDATION (3A.1): Support a multifaceted career-networking program for women. Such a program might include: creating a mentoring program for all women in the organization; creating funds to support mentorship and networking activities; providing memberships in gender specific organizations (e.g., AWAEM, AAWEP, AMWA); supporting travel to conferences and training programs for professional development of women; providing administrative time to allow for departmental representation on diversity committees; or creating lectures or workshops within the organization to address issues of career development for women in medicine.
3B. Facilitating the Advancement of Women in EM
CONTEXT: Physicians with family responsibilities may have a slower rate of advancement or fail to meet requirements for institutional advancement. Even when family supportive policies are available, they may be poorly advertised or employees may be reluctant to use them due to fears that peers or supervisors might perceive utilizers of such policies to be less qualified.

Table 1 (continued)


#### Abstract

RECOMMENDATION (3B.1): In academic settings, educate faculty about organizational "stop-the-clock" policies and, if they exist, consider opt-out implementation. (Stop the clock refers to extension of organizational promotion time limits to allow time for dealing with major family events, such as childbirth or serious illness. Opt-out implementation assumes that everyone will use family supportive policies and must take action not to use them.) This type of approach decreases the stigma of having to request a family supportive policy. RECOMMENDATION (3B.2): Monitor the use and advertise the utility of family-related policies to ensure that all employees feel comfortable using them without penalty and to identify any negative connotations or unintended adverse consequences associated with these policies. 4. Health and Wellness Among Women Physicians

4A. Attaining Compassionate and Healthy Family Leave Policies CONTEXT: Physicians who experience a significant life event (i.e., family crisis; an increase in work burden at home; or an event such as pregnancy, birth, or adoption) will benefit from supportive work policies and a stable income surrounding the time of the event. RECOMMENDATION (4A.1): Develop a policy that recognizes the physical health and financial needs of employees experiencing a significant life event. Such a program may include: guaranteeing physicians paid time off for family leave around the birth/ adoption of a child; treating medical and family leave similarly in terms of paid time off, back-up coverage, and flexible scheduling; offering graduated return to work after a significant life event; or offering job shares or flexible scheduling for the first 6 months after the birth or adoption of a child. RECOMMENDATION (4A.2): Consider providing physicians with salary support surrounding devastating illness or death of a loved one as financially feasible within their organization. 4B. Supporting Healthy Pregnancies Among EM Physicians CONTEXT: EM has been identified as a physically taxing career. With circadian rhythm disruption, high-stress environments, lack of scheduled breaks, and time spent on one's feet, EM is a physically taxing profession and may place pregnant women at risk for adverse events. RECOMMENDATION (4B.1): Modify clinical staffing patterns and personal shift requirements (e.g., set schedules) to minimize physical stress on pregnant staff. Ideally, the physician and her employer would come to a mutually agreeable solution dependent on the individual physician's needs. Consider taking pregnant women off overnight shifts during the third trimester, if desired. 4C. Basic Lactation Resources for EM Physicians CONTEXT: Breastfeeding for the first year of life is recommended by the American Academy of Pediatrics. However, in practice, adequate lactation facilities are sometimes unavailable or difficult to access due to location or workload. RECOMMENDATION (4C.1): Provide clean, private, nonbathroom facilities for lactation within or immediately adjacent to the ED, equipped with a phone, refrigerator, sink, and computer if possible. RECOMMENDATION (4C.2): Ensure that physicians are able to leave the department during shift for lactation needs without compromising patient care.


$\mathrm{EM}=$ emergency medicine.

## Table 2

ACEP Best Practices Policy Statement/SAEM Policy Statement

The ACEP/SAEM is committed to supporting women over the course of their EM careers and recommends that employers adopt policies and practices that will enable women to have productive and sustained careers. Such policies will enable our specialty to maintain a diverse and talented workforce, thereby strengthening the field as a whole.

- Employers should implement policies and practices aimed at ensuring unbiased recruitment and hiring and parity in advancement and compensation among employees.
- Employers should promote and support networking and mentorship opportunities for their women physicians.
- Employers should strive to implement family-supportive practices that further the professional advancement and retention of employees who have childcare and other dependent care responsibilities.
- Employers should seek to create a culture in which family-supportive policies are visible, easily accessible, and used without fear of penalty or stigma. This culture should be evident at the time of recruitment.
- Employers should adopt policies to support physicians during significant life events (e.g., pregnancy, childbirth, adoption, major medical illness).
- The needs of pregnant and postpartum women should be supported with flexible scheduling options and adequate lactation facilities. The ACEP/SAEM believes that women should not have to choose between their career and their family and that employers' efforts to recognize and consider all aspects of physicians' lives ultimately furthers a medical career.

ACEP = American College of Emergency Physicians; EM = emergency medicine; SAEM = Society for Academic Emergency Medicine.
with local contracts" ( $7 \%$ of stakeholders thought feasible); "Provide travel funds for dependent travel and childcare to allow physicians to attend professional meetings" (7\% thought feasible); and "Subsidize childcare during meetings or special events" ( $13 \%$ thought feasible).

There were 333 unique visitors to the public blog site with 1,178 views, and 28 comments; representative blog
comments are shown in Data Supplement S2 (available as supporting information in the online version of this paper). While the blog comments did not lead to the addition or deletion of recommendations, they did inform the wording and framing of specific recommendations. For example, one blog comment read, "I think one of the best ideas would be to stop calling them maternity/paternity, but rather consider 'family leave' as
an umbrella term for all leave issues." In response, some of the language in the recommendations alluding to "women-friendly" was changed to "family friendly" to recognize that both men and women may have substantial domestic responsibilities.

Review of preexisting gender equity policies, in addition to establishment of de novo policies, was also incorporated into the recommendations. The final set of recommendations created by this consensus building process is shown in Table 1. The policy statement, accepted by ACEP ${ }^{16}$ and SAEM are available online (http://www.acep.org/Physician-Resources/Policies/Pol-icy-Statements/Maximizing-the-Potential-of-Women-in-Emergency-Medicine) and shown in Table 2.

## DISCUSSION

The process described here built on previous work addressing gender disparities in medicine, incorporating a broad variety of stakeholders to create consensus around recommendations for potentially feasible best practices in recruiting, retaining, and supporting women in EM. The goal of the process was to provide employers and administrators with a variety of opportunities to improve the workplace for women in their organizations.

Specialty-specific recommendations for supporting women in medicine are still lacking. Innovative programs, such as those at the University of Pennsylvania, Stanford, and Indiana University, ${ }^{17-19}$ are examples of successful institutional efforts. However, these programs are academic, highly specialized, and wellresourced, and their success may not transfer easily to other types of settings. ${ }^{12,17,18,20}$ Therefore, our process overlaid potential policies with feedback from stakeholders responsible for hiring and financial decisions in a variety of practice settings, emphasizing perceived real-world feasibility in our evaluation and selection process. Ultimately, we selected a targeted set of guidelines that were broadly endorsed by both male and female physician leaders in our specialty. Our recommendations may help address the potential bottleneck between repetitive discussions about how to address gender disparities in medicine and widespread implementation and evaluation of gender-specific workplace policies.

In the decade since the 2000 study, ${ }^{7}$ women have made ostensible strides in the field of EM. Thirty-seven percent of EM residents are women, ${ }^{21}$ and women have now held leadership positions in every major EM organization, including the presidency of ACEP, SAEM, CORD, and the American Board of Emergency Medicine. ACEP, SAEM, and AAEM have active women's groups: the AAWEP, AWAEM, and the Women in Emergency Medicine Committee, respectively. ${ }^{22}$ Nevertheless, available evidence supports the persistence of gender disparities across fields of medicine and in EM. The described recommendations for closing the gender gap in EM are intended to assist departments, practice groups, and hospitals that hire EM physicians in establishing gender equitable practices and to serve as a reference for physicians looking to work in settings supportive of women.

## LIMITATIONS

Our process had a number of limitations. It did not establish actual feasibility, only perceived feasibility by stakeholder physicians. Also, because we prioritized inclusivity in our selection process, some of the recommendations we retained were considered "not feasible" or "minimally feasible" by some stakeholders. Of note, however, there were only four recommendations that fewer than $70 \%$ stakeholders felt were feasible, and thus most retained recommendations were considered feasible in multiple practice settings. Nevertheless, we acknowledge that many of the recommendations will require significant time and effort to implement; even considering potential returns on the investment in terms of decreasing physician turnover and increasing engagement and productivity, the cost-benefit analysis will likely require longer-term projections than many short-term budget cycles tolerate. Further work will be needed to determine the actual costs of implementing each of these recommendations and whether they are a sustainable investment for organizations.

To provide flexibility and to optimize relevance to a broad range of settings, many of the recommendations advise practices without describing how exactly to implement them. Therefore, individual organizations will need to select the recommendations that are possible within their setting and to devise specific means of implementing them to maximize their effectiveness. In the future, we may have a better understanding of how to adapt recommendations to a wide variety of workplace circumstances in which gender biases may play a role and be able to provide more tailored guidance around implementation, especially for policies involving maternity leave and lactation resources, hiring practices, salary and benefits, and family leave.

Our recommendations are derived from a relatively small sample of participants and may not represent very small, rural, or remote practice settings completely. Although we did allow for a 1-month period of public commentary, only 28 individuals participated. Recommendations may also have a disproportionately academic influence for two reasons. First, although they were vetted through working community EM physicians, the working group was primarily made up of physicians employed in academic environments. Second, published data on this topic, including studies on interventions for creating institutional environments supporting women, are more available for academic medical settings than nonacademic settings. However, practices developed for academic settings may also be relevant and adaptable to nonacademic settings (e.g., academic "stop the clock" policies may be relevant for promotion to ED director or other nonacademic administrative roles). Overall, more research is needed to develop, implement, and measure the outcomes of initiatives that have the potential to improve the environment for women in a variety of practice settings in EM.

## CONCLUSION

In summary, we used a three-step consensus building process engaging men and women stakeholders from
across the country from a variety of practice settings, to create recommendations developed with the intention of supporting the recruitment, retention, and advancement of women physicians in emergency medicine. These recommendations provide a variety of means by which organizations can aim to create a culture that is transparent in its efforts to create a diverse and equitable workplace, with the ultimate goal of improving the sustainability and productivity of its workforce. The process described here may serve as a model for other medical specialties to begin to address common factors affecting women physicians' success and advancement with the ultimate goal of improving the workplace for all physicians.

## References

1. Lo Sasso AT, Richards MR, Chou CF, Gerber SE. The $\$ 16,819$ pay gap for newly trained physicians: the unexplained trend of men earning more than women. Health Aff (Millwood). 2011;30:193-201.
2. Seabury SA, Chandra A, Jena AB. Trends in the earnings of male and female health care professionals in the United States, 1987 to 2010. JAMA Intern Med 2013;173:1748-50.
3. Jagsi R, Griffith KA, Stewart A, Sambuco D, DeCastro R, Ubel PA. Gender differences in salary in a recent cohort of early-career physician-researchers. Acad Med 2013;88:1689-99.
4. Jagsi R, Motomura AR, Griffith KA, Rangarajan S, Ubel PA. Sex differences in attainment of independent funding by career development awardees. Ann Intern Med 2009;151:804-11.
5. Sege R, Nykiel-Bub L, Selk S. Sex differences in institutional support for junior biomedical researchers. JAMA 2015;314:1175.
6. Jena AB, Khullar D, Ho O, Olenski AR, Blumenthal DM. Sex differences in academic rank in US medical schools in 2014. JAMA 2015;314:1149.
7. Cydulka RK, D'Onofrio G, Schneider S, Emerman CL, Sullivan LM. Women in academic emergency medicine. Acad Emerg Med 2000;7:999-1007.
8. Cheng D, Promes S, Clem K, Shah A, Pietrobon R. Chairperson and faculty gender in academic emergency medicine departments. Acad Emerg Med 2006;13:904-6.
9. Watts SH, Promes SB, Hockberger R. The Society for Academic Emergency Medicine and Association of Academic Chairs in Emergency Medicine 20092010 emergency medicine faculty salary and benefits survey. Acad Emerg Med 2012;19:852-60.
10. Brafman R, Choo EK, Cydulka R, MacConaghy L, Nestor E, D'Onofrio G. Revisiting the status of women in academic emergency medicine. In: Society for Academic Emergency Medicine (SAEM) Annual Meeting; Dallas, TX; 2014.
11. Kuhn GJ, Abbuhl SB, Clem KJ. Recommendations from the Society for Academic Emergency Medicine
(SAEM) Taskforce on women in academic emergency medicine. Acad Emerg Med 2008;15:762-7.
12. Villablanca AC, Beckett L, Nettiksimmons J, Howell LP. Career flexibility and family-friendly policies: an NIH-funded study to enhance women's careers in biomedical sciences. J Womens Health (Larchmt) 2011;20:1485-96.
13. Valantine H, Sandborg CI. Changing the culture of academic medicine to eliminate the gender leadership gap: 50/50 by 2020. Acad Med 2013;88:1411-3.
14. London KS, Singal B, Fowler J, Prepejchal R, Simmons S, Finefrock D. A Delphi method analysis to create an emergency medicine educational patient satisfaction survey. West J Emerg Med 2015;16:1106-8.
15. Lynn MR. Determination and quantification of content validity. Nurs Res 1986;35:382-5.
16. Maximizing the Potential of Women in Emergency Medicine. ACEP Policy Statement. 2014. Available at: http://www.acep.org/Physician-Resources/Poli-cies/Policy-Statements/Maximizing-the-Potential-of-Women-in-Emergency-Medicine/. Accessed Jun 20, 2015.
17. Welch JL, Jimenez HL, Walthall J, Allen SE. The women in emergency medicine mentoring program: an innovative approach to mentoring. J Grad Med Educ 2012;4:362-6.
18. Pati S, Reum J, Conant E, et al. Tradition meets innovation: transforming academic medical culture at the University of Pennsylvania's Perelman School of Medicine. Acad Med 2013;88:461-4.
19. Westring AF, Speck RM, Dupuis Sammel M, et al. Culture matters: the pivotal role of culture for women's careers in academic medicine. Acad Med 2014;89:658-63.
20. Valantine HA, Grewal D, Ku MC, et al. The gender gap in academic medicine: comparing results from a multifaceted intervention for stanford faculty to peer and national cohorts. Acad Med 2014;89:90411.
21. Report on Residents. American Association of Medical Colleges (AAMC). Table B3. Number of Active Residents, by Type of Medical School, GME Specialty, and Gender. 2014-2015 Active Residents; 2015.
22. Academy of Women in Academic Emergency Medicine. Available at: http://community.saem.org/ saem/communities/viewcom. Accessed October 19, 2016.

## Supporting Information

The following supporting information is available in the online version of this paper:

Data Supplement S1. Stakeholder Scoring of Specific Recommendations Within Domains ( $\mathrm{N}=24$ ).

Data Supplement S2. Sample Comments from Online Forum.


[^0]:    From the Department of Emergency Medicine, Alpert Medical School of Brown University (EKC), Providence, RI; the Ronald O. Perelman Department of Emergency Medicine, New York University School of Medicine (DK), New York, NY; the Department of Emergency Medicine, University of Wisconsin School of Medicine \& Public Health (MW), Madison, WI; the Department of Emergency Medicine, Paul L. Foster School of Medicine, Texas Tech University Health Sciences Center El Paso (SHW), El Paso, TX; the Department of Emergency Medicine, Staten Island University Hospital (NB), Staten Island, New York; the Department of Emergency Medicine, Johns Hopkins Medical Institutions (LR), Baltimore, MD; the Department of Emergency Medicine, Penn State University (SBP), Hershey, PA; the Department of Emergency Medicine, Loma Linda University (KJC), Loma Linda, CA; the Hofstra Northshore LIJ School of Medicine, North Shore University Hospital (SMS), Manhasset, NY; the John Peter Smith Hospital (SMS), Fort Worth, TX; the Department of Emergency Medicine, Wayne State University School of Medicine (GJK), Detroit, MI; the Department of Emergency Medicine at the Perelman School of Medicine at the University of Pennsylvania, Philadelphia, PA; and the Department of Emergency Medicine, University of Rochester School of Medicine (FN), Rochester, NY.
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    Supervising Editor: Jesse M. Pines, MD, MBA, MSCE.
    Address for correspondence and reprints: Esther K. Choo, MD, MPH; e-mail: echoMD@gmail.com.

