

Gender Distribution in Pediatric Hospital Medicine Leadership

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Pediatric Hospital Medicine (PHM), a field early in its development and with a robust pipeline of women, is in a unique position to lead the way in gender equity. We describe the proportion of women in divisional and fellowship leadership positions at university-based PHM programs (n = 142). When compared with the PHM field at large, women appear to be underrepresented as PHM

division/program leaders (70% vs 55%; $P < .001$) but not as fellowship directors (70% vs 66%; $P > .05$). Women appear proportionally represented in associate/assistant leadership roles when compared with the distribution of the PHM field at large. Tracking these trends overtime is essential to advancing the field. *Journal of Hospital Medicine* 2021;16:31-33. © 2021 Society of Hospital Medicine

There is a growing appreciation of gender disparities in career advancement in medicine. By 2004, approximately 50% of medical school graduates were women, yet considerable differences persist between genders in compensation, faculty rank, and leadership positions.¹⁻³ According to the Association of American Medical Colleges (AAMC), women account for only 25% of full professors, 18% of department chairs, and 18% of medical school deans.¹ Women are also underrepresented in other areas of leadership such as division directors, professional society leadership, and hospital executives.⁴⁻⁶

Specialties that are predominantly women, including pediatrics, are not immune to gender disparities. Women represent 71% of pediatric residents¹ and currently constitute two-thirds of active pediatricians in the United States.⁷ However, there is a disproportionately low number of women ascending the pediatric academic ladder, with only 35% of full professors² and 28% of department chairs being women.¹ Pediatrics also was noted to have the fifth-largest gender pay gap across 40 specialties.³ These disparities can contribute to burnout, poorer patient outcomes, and decreased advancement of women known as the “leaky pipeline.”^{1,8,9}

There is some evidence that gender disparities may be improving among younger professionals with increasing percentages of women as leaders and decreasing pay gaps.^{10,11} These potential positive trends provide hope that fields in medicine

early in their development may demonstrate fewer gender disparities. One of the youngest fields of medicine is pediatric hospital medicine (PHM), which officially became a recognized pediatric subspecialty in 2017.¹² There is no literature to date describing gender disparities in PHM. We aimed to explore the gender distribution of university-based PHM program leadership and to compare this gender distribution with that seen in the broader field of PHM.

METHODS

This study was Institutional Review Board–approved as non-human subjects research through University of Chicago, Chicago, Illinois. From January to March 2020, the authors performed web-based searches for PHM division directors or program leaders in the United States. Because there is no single database of PHM programs in the United States, we used the AAMC list of Liaison Committee on Medical Education (LCME)–accredited US medical schools; medical schools in Puerto Rico were not included, nor were pending and provisional institutions. If an institution had multiple practice sites for its students, the primary site for third-year medical student clerkship rotations was included. If a medical school had multiple branches, each with its own primary inpatient pediatrics site, these sites were included. If there was no PHM division director, a program leader (lead hospitalist) was substituted and counted as long as the role was formally designated. This leadership role is herein referred to under the umbrella term of “division director.”

We searched medical school web pages, affiliated hospital web pages, and Google. All program leadership information (divisional and fellowship, if present) was confirmed through direct communication with the program, most commonly with division directors, and included name, gender, title, and presence of associate/assistant leader, gender, and title. Associate division directors were only included if it was a formal leader-

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TABLE. Proportions of Women in PHM Leadership Positions and P Values for Comparisons With PHM Field at Large^a

Type of leader	Proportion of women, % (95% CI)	P value
Division leadership		
Division director (n=146)	55 (47-63)	<.001
Associate division director (n=27)	81 (63-92)	.3
Fellowship leadership		
Fellowship director (n=53)	66 (53-77)	.5
Assistant fellowship director (n=34)	82 (66-92)	.1
Combined division and fellowship leadership		
Any primary director (n=199)	57 (50-65)	<.001
Any assistant/associate director (n=61)	82 (70-91)	.04

^aThe most conservative available estimate of women in the PHM field at large (70% according to the 2019 ABP PHM board applicants) has been used for all comparisons.

ship position. Associate directors of research, quality, etc, were not included due to the limited number of formal positions noted on further review. Of note, the terms “associate” and “assistant” are referring to leadership positions and not academic ranks.

Fellowship leadership was included if affiliated with a US medical school in the primary list. Medical schools with multiple PHM fellowships were included as separate observations. The leadership was confirmed using the methods described above and cross-referenced through the PHM Fellowship Program website. PHM fellowship programs starting in 2020 were included if leadership was determined.

All leadership positions were verified by two authors, and all authors reviewed the master list to identify errors.

To determine the overall gender breakdown in the specialty, we used three estimates: 2019 American Board of Pediatrics (ABP) PHM Board Certification Exam applicants, the 2019 American Academy of Pediatrics Section on Hospital Medicine membership, and a random sample of all PHM faculty in 25% of the programs included in this study.⁴

Descriptive statistics using 95% confidence intervals for proportions were used. Differences between proportions were evaluated using a two-proportion z test with the null hypothesis that the two proportions are the same and significance set at $P < .05$.

RESULTS

Of the 150 AAMC LCME-accredited medical school departments of pediatrics evaluated, a total of 142 programs were included; eight programs were excluded due to not providing inpatient pediatric services.

Division Leadership

The proportion of women PHM division directors was 55% (95% CI, 47%-63%) in this sample of 146 leaders from 142 programs (4 programs had coleaders). In the 113 programs with standalone PHM divisions or sections, the proportion of wom-

en division directors was 56% (95% CI, 47%-64%). In the 29 hospitalist groups that were not standalone (ie, embedded in another division), the proportion of women leaders was similar at 52% (95% CI, 34%-69%). In 24 programs with 27 formally designated associate directors (1 program had 3 associate directors and 1 program had 2), 81% of associate directors were women (95% CI, 63%-92%).

Fellowship Leadership

A total of 51 PHM fellowship programs had 53 directors (2 had codirectors), and 66% of the fellowship directors were women (95% CI, 53%-77%). A total of 31 programs had 34 assistant directors (3 programs had 2 assistants), and 82% of the assistant fellowship directors were women (95% CI, 66%-92%).

Comparison With the Field at Large

The inaugural ABP PHM board certification exam in 2019 had 1,627 applicants with 70% women (95% CI, 68%-73%) (Suzanne Woods, MD, email communication, December 4, 2019). The American Academy of Pediatrics Section on Hospital Medicine, the largest PHM-specific organization, has 2,299 practicing physician members with 71% women (95% CI, 69%-73%) (Niccole Alexander, email communication, November 25, 2019). Our random sample of 25% of university-based PHM programs contained 1,063 faculty members with 72% women (95% CI, 69%-75%).

The Table provides P values for comparisons of the proportion of women in each of the above-described leadership roles compared to the most conservative estimate of women in the field from the estimates given above (ie, 70%). Compared with the field at large, women appear to be underrepresented as division directors (70% vs 55%; $P < .001$) but not as fellowship directors (70% vs 66%; $P = .5$). There is a higher proportion of women in all associate/assistant director roles, compared with the population (82% vs 70%; $P = .04$).

DISCUSSION

We found a significant difference between the proportion of women as PHM division directors (55%) when compared with the proportion of women physicians in PHM (70%), which suggests that women are underrepresented in clinical leadership at university-based pediatric hospitalist programs. Similar findings are described in other specialties, including notably adult hospital medicine.⁴ Burden et al found that only 16% of hospital medicine program leaders were women despite an equal number of women and men in the field. PHM has a much larger proportion of women, compared with that of hospital medicine, and yet women are still underrepresented as program leaders.

We found no disparities between the proportion of women as PHM fellowship directors and the field at large. These results are similar to those of other studies, which showed a higher number of women in educational leadership roles and lower representation in roles with influence over policy and allocation of resources.^{13,14} Although the proportion of women in educational roles itself is not a concern, there is evidence

that these positions may be undervalued by some institutions, which provide these positions with lower salaries and fewer opportunities for career advancement.^{13,14}

Interestingly, women are well-represented in associate/assistant director roles at both the division and fellowship leader level when comparing the distribution in those roles with that of the PHM field at large. This finding suggests that the pipeline of women is robust and potentially may indicate positive change. Alternatively, this finding may reflect a previously described phenomenon of the “sticky floor” in which women are “stuck” in these supportive roles and do not necessarily advance to higher-impact positions.¹⁵ We found a statistically significant higher proportion of women in the combined group of all associate/assistant directors compared with the overall population, which raises the concern that supportive leadership roles may represent “women’s work.”¹⁶ Future studies are needed to track whether these women truly advance or whether women are overrepresented in supportive leadership positions at the expense of primary leadership positions.

Adequate representation of women alone is not sufficient to achieve gender equity in medicine. We need to understand why there is a lower representation of women in leadership positions. Some barriers have already been described, including gender bias in promotions,¹⁷ higher demands outside of work,¹⁸ and lower pay,³ though none are specific to PHM. A further qualitative exploration of PHM leadership would help describe any barriers women in PHM specifically may be facing in their career trajectory. In addition, more information is needed to explore the experience of women with intersectional identities in PHM, especially since they may experience increased bias and discrimination.¹⁹

Limitations of this study include the lack of a centralized list of PHM programs and data on PHM workforce. Our three estimates for the proportion of women in PHM were similar at 70%-71%; however, these are only proxies for the true gender distribution of PHM physicians, which is unknown. PHM leadership targets of close to 70% women would be reflective of the field at large; however, institutional variation may exist, and ideally leadership should be diverse and reflective of its faculty members. Our study only describes university-based PHM programs and, therefore, is not necessarily generalizable to non-university programs. Further studies are needed to evaluate any potential differences based on program type. In our study, gender was used in binary terms; however, we acknowledge that gender exists on a spectrum.

CONCLUSION

As a specialty early in development with a robust pipeline of women, PHM is in a unique position to lead the way in gender equity. However, women appear to be underrepresented as division directors at university-based PHM programs. Achieving proportional representation of women leaders is imperative for tapping into the full potential of the community and ensuring that the goals of the field are representative of the population.

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