

# Specialties with Few Underrepresented Applicants Lack Diversity Information on Residency Websites

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## ABSTRACT

**INTRODUCTION:** With the advent of virtual interviews and the increasing accessibility of internet resources, students increasingly rely on program websites for residency application decisions. In this cross-sectional study, we evaluated the presence of diversity or inclusion information in the least diverse US specialties' residency program websites, including dermatology, orthopedic surgery, otolaryngology, plastic surgery, and urology residency programs.

**METHODS:** Two authors independently reviewed each Accreditation Council for Graduate Medical Education-accredited non-military US residency program website and ranked the websites' diversity and inclusion information using six pre-determined criteria based on previous studies in the literature.

**RESULTS:** This study reveals that more than half of residency programs of each specialty met zero of the diversity and inclusion information criteria.

**CONCLUSIONS:** Residency program websites in the least diverse specialties are lacking important information for prospective applicants that may help signal programs' commitment to inclusivity and attract a diverse candidate pool.

**KEYWORDS:** diversity, inclusion, residency, medical education, online, virtual resources, websites

## INTRODUCTION

Expanding the diversity of the health care workforce is crucial for the delivery of culturally competent care.<sup>1</sup> In light of the recent Supreme Court's ruling on affirmative action, it is crucial to understand contributing factors of a culture of diversity and inclusion in medical training. Studies have found that plastic surgery, otolaryngology, orthopedic surgery, dermatology, and urology specialties have some of the lowest underrepresented in medicine (URM) representation among applicants.<sup>2,3</sup> With the advent of virtual interviews and the increasing accessibility of internet resources, students increasingly rely on program websites for residency application decisions.<sup>4</sup>

Prior studies have found that URM students weigh residency program factors related to inclusion, diversity, and culture more than others.<sup>5,6</sup> A program website can open a window into these factors and influence applicants' decisions to apply.<sup>7</sup> In this study, we evaluated the presence of diversity or inclusion information in US plastic surgery, otolaryngology, orthopedic surgery, dermatology, and urology residency program websites.

## METHODS

The Fellowship and Residency Electronic Interactive Database (FREIDA™, American Medical Association, Chicago, Illinois, accessed via FREIDA™ AMA Residency & Fellowship Programs Database (ama-assn.org) was searched for a complete list of 143 dermatology, 209 orthopedic surgery, 131 otolaryngology, 139 plastic surgery or integrated plastic surgery, and 150 urology Accreditation Council for Graduate Medical Education (ACGME)-accredited US residency programs in September 2022. Residency programs that did not have a website, overlapped with another program (i.e., institutions with both plastic surgery and integrated plastic surgery programs), or were a military program were excluded. Two authors independently reviewed each website and ranked the websites' diversity and inclusion information using six pre-determined criteria defined by previous studies in the literature.<sup>8-10</sup> Linked websites and information that was not readily available were not included. Data was obtained between September 2022 and December 2022.

The criteria included the presence of (1) a commitment to, or value toward, diversity in the residency program mission statement, program director's message, or department chair's message, (2) a separate diversity mission statement (stand-alone statement of the same commitment elsewhere on the site), (3) rotations or fellowship opportunities for underrepresented minority medical students, (4) diversity initiatives (any resource dedicated to promoting diversity or inclusion within a program, e.g., mentorship programs, newsletter, certificate program), (5) a diversity page or section, and (6) appointed diversity leadership position(s) or committee(s).

**RESULTS**

**Table 1** displays the number of programs and percentage of programs that meet each criterion by specialty. Urology residency program websites had the highest percentage of programs that met at least one diversity or inclusion criteria (63/139; 45%), and plastic surgery had the lowest percentage (26/85; 31%). Dermatology residency programs had the highest percentages across all specialties in all but one criterion.

**Table 2** shows the proportion of programs by the total number of criteria met. The majority of program websites in all five specialties did not meet any diversity or inclusion criteria. Nine (7%) programs in dermatology met all six criteria, while orthopedic surgery, otolaryngology, plastic surgery, and urology did not have any programs that met all six. Only one plastic surgery program and one urology program met more than two criteria.

**DISCUSSION**

Our study demonstrates that the majority of US residency program websites among US specialties with the least URM representation, including dermatology, orthopedic surgery, otolaryngology, plastic surgery, and urology, do not include any form of inclusive messaging or information on program diversity and inclusion opportunities and initiatives.

Program websites are one of the most accessible ways to obtain reliable information on residency programs. Students depend on them when deciding which programs to apply to, where to interview, and how to rank programs.<sup>7</sup> Residency programs can encourage and recruit URM applicants by providing more complete information on diversity efforts and demonstrating their commitment to inclusivity on websites.

There are several limitations of our study. It should be noted that program website diversity and inclusion information is not limited to the criteria used in this study.

**Table 1.** Diversity or Inclusion Criteria Met on US Residency Program Websites by Specialty

Diversity or Inclusion Criteria	Dermatology No. (%)	Orthopedic Surgery No. (%)	Otolaryngology No. (%)	Plastic Surgery No. (%)	Urology No. (%)
Total No. of Programs	136	201	121	85	139
Any of the criteria:	57 (42)	64 (32)	49 (40)	26 (31)	63 (45)
Stand-alone equal opportunity or nondiscrimination statement	40 (29)	14 (7)	13 (11)	6 (7)	21 (15)
Mention of diversity in mission statement, program director's statement, or department chair's message	40 (29)	40 (20)	30 (25)	10 (12)	20 (14)
Separate diversity section/page	31 (23)	30 (15)	28 (23)	6 (7)	7 (5)
Appointed diversity-related leadership positions	26 (19)	7 (4)	5 (4)	2 (2)	3 (2)
Rotations/ Fellowships for underrepresented in medicine (URM) students	20 (15)	11 (5)	13 (11)	5 (6)	9 (6)
Diversity initiatives	24 (18)	22 (11)	12 (10)	3 (4)	14 (10)

**Table 2.** Number of Criteria Met by Residency Program Websites

No. of Criteria Met	Dermatology (n=136) No. (%)	Orthopedic Surgery (n=201) No. (%)	Otolaryngology (n=121) No. (%)	Plastic Surgery (n=85) No. (%)	Urology (n=139) No. (%)
0	79 (58)	137 (68)	72 (60)	59 (69)	76 (55)
1	16 (12)	29 (14)	23 (19)	18 (21)	54 (39)
2	8 (6)	8 (4)	12 (10)	7 (8)	8 (6)
3	7 (5)	6 (3)	5 (4)	1 (1)	0 (0)
4	11 (8)	16 (8)	6 (5)	0 (0)	1 (1)
5	6 (4)	5 (2)	3 (2)	0 (0)	0 (0)
6	9 (7)	0 (0)	0 (0)	0 (0)	0 (0)

Furthermore, programs with a culture of inclusion may not represent it on their website. For example, programs with fewer resources may not have the funds or time for more complete website development; as a result, their websites may not be as representative of their mission and inclusivity. While residency websites can help with URM applicant recruitment, factors, such as strong mentorship and an inclusive curriculum, are important for fostering diversity and equity within programs.

## CONCLUSION

This study reveals that US residency programs with the least URM representation in the applicant pool lack information on diversity and inclusion on their websites. Many programs have room to highlight their commitment to inclusivity on their websites for prospective applicants. This is one method that can be implemented in a multifactorial approach to attract and support candidates from diverse backgrounds.

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## Disclosures

Conflicts of Interest: The authors have no conflict of interest to declare.

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