

Using Disadvantaged Status in the Residency Ranking Process May Result in Higher Ranked and More Matched Underrepresented in Medicine Applicants

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Setting and Problem

One of the core principles of holistic review in residency recruitment is creating an equitable process for all applicants, with a goal to increase diversity in graduate medical education and ultimately the physician workforce.¹ We wanted to create a standardized process for identifying and giving preference to applicants who were disadvantaged in order to create a more equitable process for ranking applicants. One goal was to increase the number of those underrepresented in medicine² (UIM) in our Match class through a standardized process. The intervention took place at a large internal medicine program located in Morgantown, West Virginia, during the 2022 and 2023 recruitment seasons.

Intervention

Disadvantaged status was first defined by the program director (PD), associate program directors (APDs), chief residents, and vice chair of education by committee discussion. It was agreed that disadvantaged status would be assigned to the following applicants: first generation college graduate, orphans or those with experience in the foster care system, those with housing instability, parental unemployment or poverty, and refugees. We also allowed for special exceptions that may qualify as disadvantaged but may not fall under the above categories and would be brought to committee discussion. Disadvantaged status was ascertained through the Electronic Residency Application Service (ERAS) application and during the interview process. There were no specific interview questions that were directed or encouraged by interviewers that addressed disadvantaged status.

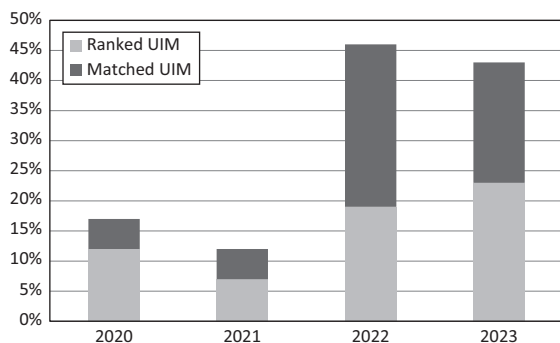
If a candidate was identified as disadvantaged, they received 10 points in the ranking algorithm. Other components of the ranking algorithm included: West Virginia ties (15 points), United States Medical Licensing Examination (USMLE) Step 1/Comprehensive Osteopathic Medical Licensing Examination (COMLEX) 1 pass (5 points), USMLE Step 2/COMLEX 2 score (up to 20 points), Medical Student Performance Evaluation and letters of recommendation (up to 20 points), Gold Humanism (5 points), and interview (up to 25 points), for a total of 100 possible points.

A rank list was formulated based on the scoring system above, with the highest ranked applicant being closest to 100. After the rank list was created, a rank meeting was held with the PD, APDs, core faculty, and chief residents. Applicants could be moved on the rank list based on discussion of each applicant to create a final rank list.

The rank lists and Match results for 2020 and 2021, prior to the intervention, were compared with the rank lists and Match results for 2022 and 2023. Percentages of UIM applicants in the part of the rank list above the last matched applicant were compared between the pre- and post-intervention lists. Percentages of matched UIM applicants were compared between the pre- and post-intervention Match results. Relative risk for disadvantaged status in UIM applicants was also calculated.

Outcomes to Date

In 2020 and 2021, 12% (20 of 162) and 7% (9 of 128) of applicants above the last matched applicant were UIM, respectively. In 2022 and 2023, after the intervention, 19% (23 of 122) and 23% (28 of 123) of applicants above the last matched applicant were UIM, respectively. With respect to Match outcomes, prior to the intervention, 5% (1 of 20) of applicants who matched in 2020 and 2021 were UIM.



FIGURE

Comparison of Pre- and Post-Intervention Percentages of Ranked Underrepresented in Medicine (UIM) Applicants Above Last Matched Applicant and Pre- and Post-Intervention Matched UIM Applicants

After the intervention, 27% (6 of 22) of applicants in 2022 and 20% (4 of 20) of applicants in 2023 were UIM. Results are illustrated in the FIGURE. Relative risk for being categorized as disadvantaged for UIM applicants was 4.4 compared to non-UIM applicants.

One important limitation of this intervention is that disadvantaged status relies solely on the applicant's self-report and may fail to identify a number of applicants who do not report the defined criteria. However, with the supplemental ERAS application it became much easier to identify disadvantaged status within the impactful experience portion. Creating a

ranking algorithm that gives preference for disadvantaged status may increase the chances of matching UIM applicants.

References

1. Gonzaga AMR, Appiah-Pippim J, Onumah CM, Yialamas MA. A framework for inclusive graduate medical education recruitment strategies: meeting the ACGME standard for a diverse and inclusive workforce. *Acad Med.* 2020;95(5):710-716. doi:10.1097/ACM.0000000000003073
2. Association of American Medical Colleges. Underrepresented in medicine definition. Accessed October 10, 2023. <https://www.aamc.org/what-we-do/mission-areas/diversity-inclusion/underrepresented-in-medicine>



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