Reforming the Match: A Proposal for a New 3-Phase System

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The National Resident Matching Program (NRMP) was originally devised in 1952 to bring order to the chaotic residency application process.[1] It currently has 2 phases: The Match and the Supplemental Offer and Acceptance Program (SOAP). Applications are submitted through the Electronic Residency Application Service (ERAS). While this is a significantly superior system to its predecessor, it is not flawless. As both residency applicants and positions have become more competitive, the flaws of the current system are becoming increasingly problematic for all involved parties.

Despite evidence that applying to a greater number of programs does not improve Match rates,[2] applicants feel pressured to apply to more and more programs to avoid going unmatched. In 2018, each applicant submitted a mean of 90.6 applications (mean of 60.3 for US graduates and 136.4 for international graduates).[3] Applicants feel forced to accept interviews at programs which they have minimal interest in attending, to the detriment of other genuinely interested students. This, in turn, pressures other applicants to do the same lest they be disadvantaged. Whipple et al confirmed this vicious cycle using their computer model for competitive residencies, where they found that applying to the maximum number of programs "led to a poor result for the majority of students when all applicants undertook the strategy."[4]

As a result of this vicious cycle, residency programs are inundated with an average of 996 applications per program[5] and have few reliable methods of identifying which of those applicants would seriously consider training there. Interviewing applicants who have no desire to attend that program is a costly endeavor. Gardner and colleagues found that, when accounting for both material and personnel costs, programs spent on average $18,648 ± $13,383 per open position and $1,221 ± $894 per interviewee.[6]

Applying so broadly is costly for applicants as well. Fogel et al[7] found that 84% of applicants believed residency interviews were too expensive, with 64% of applicants spending at least $2,500, and those entering competitive fields spending considerably more. In a study of orthopedic surgery applicants, for example, interview costs averaged $7,119 (range $2,500–$15,000).[8] These figures do not include the cost of the applications themselves or externships, making the total residency application cost significantly higher.

It is clear that the current system is fraught with inefficiency and that all involved parties would be better served by a system where applicants only apply to the programs they would seriously consider attending.

The 3-Phase System

Transitioning the Match to a 3-phase process as outlined below could address the aforementioned problems.

Phase 1

This phase would run from September through December and would function the same as the Match is currently. However, applicants would be limited in the number of positions for which they could apply. The results of Phase 1 would be e-mailed to applicants in the beginning of January. Most interviews already occur within this time frame, so most programs could continue using the systems they have in place. The majority of positions would be anticipated to fill in Phase 1.

Phase 2

This phase would run from January through March. Those who do not match in Phase 1 would proceed to Phase 2. This would again function like the current Match, with applicants applying to open programs, attending in-person interviews, and submitting a rank list. There would be no cap on the number of Phase 2 applications, allowing applicants to apply broadly. The results of Phase 2 would be e-mailed to applicants in March. The majority of unfilled positions from Phase 1 would be expected to fill in Phase 2.

Phase 3

This phase would be the current SOAP week, with daily rounds of interviews and offers. The number of applicants and positions entering the SOAP would likely decrease significantly.

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Discussion

While it may seem like a large departure from the established system, there is precedence for this structure. In Europe, the Universities and Colleges Admissions Service utilizes a multiphase matching process. Based on this, Berger and Cioletti[9] initially proposed adoption of a 3-phase system in their discussion of current issues with the Match. The benefits of this 3-phase system are numerous. Due to the application limit in Phase 1, students could significantly decrease their financial burden by only applying to programs they are genuinely interested in without placing themselves at a disadvantage. Most programs would receive significantly fewer applications, allowing them to more thoroughly assess each applicant, make more informed interview offers, and more productively use the financial resources at their disposal.

One commonly cited concern with limiting applications is that it would disadvantage less-competitive students. However, in this system, these students would have a greater chance of being offered Phase 1 interviews due to the decreased number of applicants per open position and the reduced ability of more competitive applicants to hoard interviews. Additionally, the lack of a cap in Phase 2 would still give these students the ability to apply broadly if needed, without forcing them to do so initially.

In 2019, 12 472 applicants were SOAP-eligible, and 1310 open positions filled during SOAP; this number has been gradually increasing from a low of 878 in 2013.[10] This system would likely transfer many of these SOAP offers to Phase 2. This is preferable, as Phase 2 allows applicants to attend normal interviews, meet the residents and faculty, and see the cities before submitting their rank list, none of which are currently possible. This would relegate SOAP back to a "last resort" system as it was originally intended.

Finally, from a logistical perspective, the majority of applicants would match nearly 4 months earlier than they do now. This would afford them more time to find housing, arrange jobs for their partners, and coordinate their moves. Reducing the length of the recruitment period for most students would also allow them to focus on their medical education, improving their fourth-year educational experience and preparedness for residency.

Limitations

This 3-phase system is one of several possible solutions to the problems inherent to the Match. Prior to implementation, any proposed solution should undergo thorough vetting, with feedback elicited from both medical students and program directors. Extensive modeling will be required to fully assess the effect such a change would have on applicants and residency programs of various calibers. Similarly, determining the exact application limit for Phase 1 should only be done after rigorous statistical analysis. This system would decrease the ritualistic importance of a traditional Match Day, which may be negatively received by some. Finally, while this proposal would likely decrease expenses for the majority of applicants and residency programs, it may also reduce ERAS revenue, the effects of which are presently unknown.

Conclusions

The Match has served as an effective system which significantly improved a chaotic and disorganized process. However, increasing competition and fear of going unmatched have led to rampant over-application, which has been disadvantageous to both applicants and residency programs. As with all things in medicine, an ever-changing environment creates new problems that require new and innovative solutions. This proposed 3-phase system caps the number of applications which may be initially submitted, creates a secondary application phase for those needing to apply more broadly, and moves the first Match Day nearly 4 months earlier. This system leverages the benefits of the current Match while addressing its flaws.

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