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Rural access to dermatology services: a call to action

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Abstract

This commentary underscores the urgent issue of limited access to dermatologic care in rural areas, leading to adverse health outcomes. With only 10% of dermatologists practicing in rural America, the "rural mortality penalty" contributes to escalating morbidity and mortality. Disparities in dermatologist distribution, particularly in minority-majority counties with lower incomes, worsen health inequities. Despite these challenges, initiatives such as pipeline programs, rural university offices, rural dermatology residency tracks, teledermatology, and Project ECHO (a collaborative model of medical education and care) are promising. This commentary stresses the need for academic dermatologists to recruit more rural medical students and train more residents with a rural upbringing. This predicts future practice in such communities. Immediate action to address the widening rural dermatology gap is needed. The formation of the Rural Access to Dermatology Society, with its first meeting in the spring of 2024 at the annual meeting of the American Academy of Dermatology, is a key part of this process.

Keywords: access, care, health systems, medical education, rural dermatology

Introduction

The accessibility of health care in rural areas is limited. This leads to poorer health outcomes and longer new patient wait times when compared to

individuals in urban and suburban communities. Unfortunately, over two decades rural mortality rates have not only remained high but also consistently increased [1]. This "rural mortality penalty" remains consistent after controlling for variables of race, education, and income. Lack of access to specialty care has also been associated with higher morbidity, mortality, and unnecessary hospitalizations [2]. In dermatology practice this translates to higher morbidity associated with common skin diseases and higher mortality for patients with skin cancer, especially melanoma [3].

Discussion

Where do we stand right now? Just 10% of dermatologists practice in rural America with over 40% practicing in the 100 most populated areas of the U.S. [4]. As of 2018, almost 90% of counties in the United States had zero dermatologists. Most counties with African American, Hispanic, and American Indian majorities had zero dermatologists. Counties in need of a dermatologist also had a median income level \$10,000 less than counties with a dermatologist [4]. Despite the increasing demand for dermatologic care, patients in rural, poor, and high-minority areas do not have acceptable access to dermatologic services. Furthermore, only about 6% of medical students intending to pursue dermatology plan to practice in rural areas [5]. Those planning rural practice cite a desire to serve underserved populations, tend to have higher educational debt, and report family and educational

debt as an important factor influencing specialty selection [5].

Despite these grim statistics, there is hope. Data consistently demonstrates the importance of a medical student's upbringing in a rural community as a strong predictor for future practice in these communities [6]. Unfortunately, the number of students enrolled in medical school from rural areas of the U.S. dropped by 28% over a 15-year period, representing less than 5% of total incoming medical students in 2017. Students from underrepresented racial/ethnic minority groups in medicine with rural backgrounds made up less than 0.5% of these new medical students [6]. In addition, training medical students and residents to rural areas fosters a commitment to serve underserved communities.

Several programs have been working to incorporate rural dermatology residency slots including University of Mississippi Medical Center (UMMC), Saint Louis University, Pennsylvania State University, and University of Alabama at Birmingham. The UMMC Department of Dermatology and Residency Program have been focused on a variety of initiatives over the last 12 years aimed at bringing dermatologic care to rural Mississippi. Their "all of the above" approach includes teledermatology, Project ECHO during which dermatologists provide distant learning to assist rural primary care physicians to care for their dermatologic patients, and a monthly free rural clinic in the Delta, the poorest area in the state [7]. However, the greatest impact was achieved by establishing a rural university clinic and a rural dermatology residency track to plant dermatologists in rural communities where they continue to live and work [7].

The time is now. Academic dermatologists need to develop collaborations in medical centers to engage in plans to recruit more rural medical students. Unfortunately, rural applicants face unique challenges in the medical school application process. For example, although rural applicants have higher average GPAs compared to their urban peers, they have lower average MCAT scores [6]. Additionally, owing to the scarcity of rural primary and specialty physicians, rural applicants often have less research experience and less access to physician mentors as their urban and suburban peers.

We must start by developing pipelines to deliver rural science, technology, engineering and mathematics (STEM) college students to medical school. Many of these students know little about dermatology having been exposed only to primary care physicians in their towns. Providing shadowing opportunities may help develop an interest in dermatology. Of course, these students with a rural background may be intimidated by the highly competitive dermatology application process which places a strong emphasis on standardized test scores, published research, and high grades. Mentoring is required to help them to compete effectively. Promising strides have also been made to address this problem through the recent transition to a pass/fail grading system for Step 1 as well as the development of the signaling system to better align applicants with program interests.

Finally, efforts to diversify our dermatology residency programs with a more holistic application process to identify medical students from underserved, rural communities who demonstrate an interest to return to their rural communities to practice. Upstream educational outreach initiatives include organized mentorship and pipeline programs for medical students in their first year of school, financial assistance, and policy reforms to recruit more rural medical students and dermatology residents to enhance access to dermatological care in rural USA.

Conclusion

Dermatologists are urged to actively engage in ongoing initiatives aimed at bridging the rural dermatology gap in access to care. These initiatives encompass various strategies, such as creating rural residency training slots, establishing rural academic offices and satellite clinics, refining the holistic review of dermatology residency applicants, supporting programs like the American Academy of Dermatology (AAD)/Nth Dimensions Scholars Program, promoting rural teledermatology outreach, and implementing Project ECHO to equip primary care physicians in rural areas to manage common dermatologic conditions. The collaboration of faculty, community dermatologists, dermatology

residents, and medical students with diverse rural perspectives is a potent tool in advancing these initiatives. Thus, the inaugural meeting of the Rural Access to Dermatology Society (RADS) occurred in association with the spring AAD 2024 Annual meeting. RADS aims to facilitate collaboration, brainstorming, and the implementation of strategies to enhance rural access to dermatology, aligning with the goals outlined in the AAD's Strategic Plan. Please join us, either in-person or virtually, or reach out by Email: (mlogue.md@gmail.com). Medical students and dermatology residents are especially

encouraged to participate, contributing to the collective effort to improve dermatologic care in rural communities. Together we can make a difference.

Potential conflicts of interest

Robert T Brodell has participated in multi-center clinical trials with Corevitas (Formerly Corrona) Psoriasis Registry, Sanofi and Novartis. Remaining authors declare no conflicts of interest.

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