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Bound in Breadth: Linking a Rural Health Pathway to Family Medicine Careers

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Abstract

Introduction: Studies show that rural health experiences are a major factor in medical students choosing family medicine as a specialty. Interviews of graduates of the Massachusetts Area Health Education Center's (MassAHEC) Rural Health Scholars (RHS) program at the University of Massachusetts Chan Medical School aimed to identify key factors of rural health education that impact family medicine specialty choice.

Methods: A qualitative study of RHS graduates who either planned to or had matched into family medicine was conducted through thematic analysis of coded transcripts from individual interviews, leading to the identification of themes surrounding reasons for and influences on specialty choice.

Results: Analysis of interview responses identified three major aspects of the rural health program that participants described as influencing their specialty choice: broad scope of practice, community orientation, and caring for underserved populations. These were often put in perspective as similarities between family medicine and rural health careers.

Conclusion: This study identifies factors that graduates who chose family medicine described as influencing their choice of specialty, which may help programs emphasize aspects that will strengthen the family medicine workforce.

Introduction

Despite the critical need for primary care, particularly in rural communities, recruiting physicians to fill those spots is an ongoing challenge in the United States. The National Center for Health Workforce Analysis projections identify family medicine as one of the specialties with the lowest number of needed positions filled, with an estimated percent adequacy in 2037 of 73%. The number drops even lower to 68% in nonmetro areas.[1]

Studies have shown that rural health experiences during medical school can contribute to family medicine specialty choice.[2,3] Some of this is explained by family medicine's unique utility in rural areas and focus on treating underserved populations, but research indicates that there are potentially other contributing factors. A comparison of urban and rural health tracks showed that graduates of the rural track were twice as likely

to enter family medicine residencies, and theorized that the introduction to a broad scope of practice in rural settings was a potential factor.[4] Interviews with current students in a rural track revealed an emphasis on "rural identity," often developed by growing up in small towns and participating in outdoor activities.[5] Further exploration is needed to identify which parts of rural health experiences and rural health tracks contribute to family medicine specialty choice, and which factors are present upon entry to medical school. Identifying the specific factors that link the two could help programs emphasize the most effective elements of their rural health programs and potentially apply them to other tracks such as those focusing on urban or underserved populations.

The Massachusetts Area Health Education Center's (MassAHEC) Rural Health Scholars (RHS) program is an optional, longitudinal learning experience that the UMass Chan Department of Family Medicine and Community Health initiated in 2000.[6] While the overarching focus is on providing rural health opportunities, of the 136 RHS students who have graduated, 43 (32%) have opted to practice family medicine. This is in stark contrast to the 2026 school-wide family medicine match rate of 5%[7] and the nationwide rate of 10.7%.[8]

This study of the MassAHEC RHS program interviewed graduates of the program who had either applied to or matched into family medicine residencies and analyzed how participants described aspects of the program that influenced their specialty decision-making.

Methods

A survey of all graduates of the RHS elective (n = 43) who either plan to (n = 3) or currently practice (n = 39) family medicine was conducted to assess current alumni demographics and willingness to participate in future opportunities. Requests for response were sent out via email and collected via Google Forms with two reminders sent to nonresponders to increase completion. The survey was used to identify and recruit interview participants and was not analyzed as part of the study.

To further identify specific elements of rural health training that influenced their decision to pursue family medicine, the 32 respondents were asked via email to participate in a follow-up interview, 24 agreed. These interviews were conducted by current medical students in the RHS program via video chat, had either audio or audio and video recorded, and were then transcribed verbatim. Interviews were conducted in a semistructured format guided by eight questions on career path, current practice, and connections to the RHS program (Table 1). The UMass Chan Institutional Review Board reviewed this project and determined that it was not research involving human subjects as defined by Department of Health and Human Services and Food and Drug Administration regulations (STUDY00001647).

We used an editing organizing style of thematic qualitative analysis where researchers identified "meaningful units or segments of text that both stand on their own and relate to the purpose of the study."[9] Transcripts were reviewed first in their entirety by an RHS student who did not conduct any of the individual interviews

Table 1. Semistructured Interview Guide

Tell me about your time in Rural Health Scholars and your path to family medicine.
During your education, what led to you pursuing family medicine?
What kind of work are you currently passionate about?
What do you wish you had known as a Rural Health Scholars student or resident?
Do you have any advice or comments about the design of Rural Health Scholars?
Are you willing and able to host a current student for rotations or research?

and by physician leaders of the RHS program. Coding was conducted by multiple members of the study team, and codes were developed inductively through review of the transcript data. Potentially meaningful segments were highlighted and briefly summarized with in-document comments then reviewed together as a team. Study team members met regularly to compare codes, discuss differences, and to reach consensus on code definitions and overall themes. Codes were iteratively refined and then grouped into broad thematic categories that represented patterns across the interviews. Initial patterns were discussed as well as the possibility for introducing bias based on many members of the team being either current or past RHS students. Reviewers emphasized the importance of documenting themes that identified both negative and positive outcomes, as well as including patterns that may appear outside the scope of the initial research question. We conducted analysis until no new major themes emerged from additional review or team discussion.

Results

Thirty-eight graduates of the RHS program were contacted successfully for the initial survey; 32 completed the survey, for a response rate of 84%. Of the 32 contacted for follow-up interviews, 24 agreed to participate, for a response rate of 75%.

When discussing their path to family medicine and the way RHS impacted their decision, participants identified three key themes: early exposure to a broad scope of practice, community orientation, and a focus on underserved populations (Table 2).

Students drawn to rural health are often interested in the independence and breadth provided by the location.[10] and students interested in family medicine often similarly point to the broad scope of practice.[11] Many participants in this study reflected on their interest in the broad scope of practice of both rural locations and family medicine. Multiple graduates noted the synergy of combining the two, with concurrent rural locations and family practice providing an even broader scope together than either would alone.

Reflecting the second theme, respondents drew parallels between the community-oriented nature of rural health and family medicine. Many noted the challenges brought by the location-based nature of rural health care and described increased efforts to integrate into communities that may be insular or isolated. Similarly, some respondents noted attempts to integrate into longitudinal family practices with previously-established relationships between patients and physicians. Graduates noted specifically the overlap in history-taking, multigenerational perspectives, and focus on structural determinants of health.

The final theme captured respondents' desire to work with underserved populations. This arose both as a reason for joining RHS and for ultimately choosing family medicine. Practicing in low-resourced areas exposed students to the challenges underserved populations face and the ways that family medicine physicians are uniquely positioned to help. Many graduates drew similarities between skills learned in RHS and the work they aim to do with impoverished and multicultural populations. The broad scope of practice and community-oriented nature of the training seemed to find their ultimate meaning and utility in this connection.

Conclusion

This study identifies factors that graduates who chose family medicine described as influencing their specialty decisions. Participants identified broad scope of practice, community orientation, and commitment to underserved populations that could be emphasized in current rural tracks or incorporated into other affinity tracks with similar goals of increased family medicine or primary care recruitment.

Table 2. Selected Participant Quotes

Broad scope of practice	Community-orientation	Underserved populations
"And it was there [on a rural clinic rotation] that I was like, wow, family medicine docs, they do so much. Their scope of care, like their skills, are so broad and they're really practically helpful for their patients and their communities... And so I do think that experience actually made me decide to do family medicine." —Practicing physician	"When you think about rural health scholars as giving you a lens to think about place and, like, what happens to a place, I think is a really interesting overlay in just life, but also, like, applied to the early physician lens." —Practicing physician	"And I think that family medicine does have a really heavy focus on, you know, helping people who are underserved and expanding access to care. And that was really important to me." —Practicing physician
"Rural health…really just showed me the benefits of being a doctor with, like, a very like full spectrum so that you can be whatever your patients need when they need it. And sort of the also the resourcefulness that comes with working in a rural area and dealing with, you know, low resources and also low staff" —Postresidency fellow	"And I just like think so often about my rotations at [Rural Clinic] and like the kind of integrated approach to care there. And I just am so surprised at like even though I've been practicing in urban settings, how similar the kind of perspective of patients [are.]" —Practicing physician	"I just feel like there's so much overlap between rural and urban underserved communities…And so, like, having that expertise and having, you know, that knowledge available for folks like where they're already getting their care is something that's so valuable. And I feel like that's such a common thread with both urban and rural underserved patients." —Practicing physician
"And one of the reasons I think family medicine mirrors really well with like rural health or just under-resourced care is you learn how to take care of everyone. So from birth to death or cradle to grave is kind of the same. And family medicine trains, so you train in pediatrics, you train in adult, you train in pregnancy care." —Practicing physician	"So then I did my [preceptorship,] which was family medicine at [rural health clinic.] And I sort of saw that in action, you know, patients who were very opinionated about what they want or didn't want. And so you really have to approach things in a patient-centered way...And so I was just like, wow, this is so cool. You know, the patients really, really need this clinic, you know, for their health and to feel like they're being taken care" —Postresidency fellow	"I think [the rural health rotation] just, like, put it into perspective a lot for me that if you choose to work in an underserved environment, whether that's rural or urban, really, but I think especially rural, you can provide a lot of value." —Practicing physician
"But I also knew that in family medicine, I would get a lot of broad training procedures that I would expect to do at hopefully	"Rural Health Scholars was influential in sort of bending my path a little bit and definitely sparked my interest in family	"[underserved populations are] who I wanted to work for and work with and it just kept— it just feels right to be taking care of

(*Continued*)

Table 2. Selected Participant Quotes (continued)

Broad scope of practice	Community-orientation	Underserved populations
at any practice, but especially having that training is helpful if you think you might be going to a more underserved area, including somewhere that's more rural." —Practicing physician	medicine to begin with, just because when I entered...medical school, I was not sure which way I was going... And then working with those folks, shadowing those folks, I realized, well, actually, I really like that interaction and that relationship that they have with their patients." —Practicing physician	this population of people and in this area" —Practicing physician

In medical school, the clinical placement is largely hospital oriented, meaning the family medicine experience most students have is in close proximity to hospital systems and academic centers.[12] In larger centers, there are more opportunities for outside referrals and the patient population is generally lower-acuity.[13] Having a program like RHS that exposes students specifically to family medicine practitioners in rural locations allows them to witness physicians practicing at the top of their license.

This study's primary limitation is its small size and narrow focus. Future studies should involve diverse geographic locations and different models of rural health education. Additionally, only program graduates who were interested in family medicine upon graduation were surveyed. This potentially could have left out students who were originally interested in family medicine who were dissuaded by the program, and students who experienced increased interest in another specialty due to RHS. Despite these limitations, this study's strength is its high response rate as well as its ability to identify a robust set of driving commonalities between rural health and family medicine.

Rural practice and family medicine positions are underfilled nationwide,[1] and rural health tracks have been identified as a potential tool for family medicine recruitment.[13] This study provides insight into how participants perceived rural health training as shaping their interest in family medicine that could be replicated or emphasized by other programs. As such, expanding and strategically leveraging rural health pathways may play a vital role in strengthening the family medicine workforce when it is needed most.

Presentations

A presentation on the same data entitled "Watching Seeds Grow: A Mixed-Methods Approach to Assessing the Impact of MassAHEC's Twenty-Year-Long Rural Health Scholars Program on Medical Student Participants Who Became Family Medicine Physicians" was presented at the New England Rural Health Conference on November 4, 2025.

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Conflict Disclosure

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