Reap What You Sow: Which Rural Surgery Training Programs Currently Exist and Do Medical Students Know of Their Existence?

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BACKGROUND: There exists an acute need to recruit and train general surgeons for rural communities. To assist medical students interested in rural surgery, the American College of Surgeons (ACS) website lists general surgery residencies, which are tailored to train the rural surgeon by providing exposure to endoscopy, gynecology, urology, orthopedics, and otolaryngology. Another available reference is the American Medical Association Fellowship and Residency Electronic Database (FREIDA). FREIDA allows programs to indicate availability of a rural training scheme. This is an effort to identify programs which demonstrate a commitment to training rural surgeons and evaluate accessibility of this information to medical students.

METHODS: Each ACGME general surgery residency program in the United States and Canada received an electronic survey. They were queried on commitment to training rural surgeons and their ability to provide 3 to 12 months of subspecialty training.

RESULTS: Of the 261 programs surveyed, 52 (19.9%) responses were obtained; 11 had established rural tracks and 15 were willing to customize a program. We identified 14 additional rural training programs not identified by either the ACS website or FREIDA. In total, 44 programs identified by ACS, FREIDA, and our survey indicate they can accommodate the rural surgical resident.

CONCLUSIONS: For a medical student interested in rural surgery, several obstacles must be overcome to find the appropriate residency program. A complete and updated list of established tracks or customizable training schemes does not exist. Review of the ACS website and FREIDA online in addition to our survey has identified 44 of 261 (16.9%) ACGME accredited programs either with an existing rural surgical track or willing to customize their program accommodate a resident. To facilitate the recruitment of medical students into rural surgery, we support the maintenance of a complete and routinely updated list that identifies available training programs. (J Surg Ed ▮:▮▮▮-▮▮▮. © 2017 Association of Program Directors in Surgery. Published by Elsevier Inc. All rights reserved.)

KEY WORDS: general surgery, rural surgery, training, residency, recruitment

ACGME COMPETENCIES: Medical Knowledge, Practice-Based Learning and Improvement

INTRODUCTION

The most recent census of the United States estimates that 19.4% of the population resides in rural parts of the country.[1] The medical community is well aware of the acute need to recruit and train general surgeons for rural communities. In response, the ACS established the Advisory Council for Rural Surgery in 2012 to "identify, investigate, and rectify the challenges of rural surgical practice.[2]

One of the difficulties in recruiting rural surgeons is offering appropriate exposure to trainees during residency. Significant variation exists between rural and urban surgical practices. For example, it is estimated that up to one-eighth of a rural surgeon's practice consists of subspecialty procedures such as vascular, obstetrics/gynecology, orthopedics, urology, otolaryngology, and thoracic surgery.[3] Endoscopy is also widely used in the rural setting, with studies suggesting that more than 40% of all procedures performed by a rural general surgeon are endoscopy.[4]

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Training rural surgeons must be tailored to preparing residents for common subspecialty diagnostics and procedures.

Rural surgery training tracks focus on operative variety and exposure to subspecialty rotations. The 5 most common program structures consist of either a rural rotation, or a dedicated track with subspecialty and rural rotations, or a dedicated year of rural surgery, or a fellowship after residency, or a transition to practice program.[5]

Programs dedicated to rural exposure tend to graduate a majority of their residents directly into practice as opposed to pursuing subspecialty fellowships.[6] Large urban training programs have also adopted elective rural rotations, which offer the benefit of a broad operative experience without fellows. The absence of fellows allows for senior residents to be involved in more complex cases to increase operative skill and confidence. Despite the existence of well-established programs capable of preparing rural surgeons, residency applicants have little knowledge of them.

Recruitment of medical students into existing rural surgical tracks is poorly organized. Occasionally, medical schools expose their students to rural practices in an effort to raise awareness and attract these students to the field of rural medicine. Although exposure during medical school has proven an effective way to recruit students, there is little guidance as to which programs are available for training. In order to assist interested students, the American College of Surgeons (ACS) website has listed general surgery residencies that are tailored to train the rural surgeon. The list currently contains 12 programs that offer substantial exposure to rural surgery.[7] The American Medical Association sponsored Fellowship and Residency Electronic Information Database (FREIDA) is a compiled list of ACGME accredited programs in the United States and Canada. FREIDA is frequently used by medical students and allows an applicant to filter all ACGME programs by "rural" classification. It is important to note that while the "rural" filter yields 29 program sites that offer some form of rural surgical exposure, it does not include all 12 programs listed by the ACS.[8]

Lack of an easily accessible comprehensive list of training programs for medical students who are seeking rural surgical residency positions is a major obstacle for potential rural surgeons to obtain proper training or exposure.

MATERIALS AND METHODS

FREIDA online listed 261 ACGME general surgery training programs in the United States and Canada for the year of 2016 to 2017. Contact e-mails and phone numbers were collected from this database. An electronic survey was sent to each general surgery residency program. The Illinois Critical Access Hospital Network (ICAHN) sponsored the distribution of the survey by reviewing the format and allowing the use of their program in e-mail survey requests. Each program was queried on its commitment to training rural surgeons, and specifically its ability to provide 3 to 12 months of subspecialty training. Medical students followed up with additional correspondence including phone calls and e-mails to maximize the response rate. This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

RESULTS

Of the 261 programs surveyed, 52 (19.9%) responses were obtained; 11 had an established rural track and 15 were willing to customize a training program for an interested resident. The survey identified 7 established rural training programs not included on the ACS website and 3 programs not included on FREIDA. Furthermore, the survey identified 11 programs willing to customize a rural track that were not included on FREIDA or ACS (Table 1).

The survey identified an additional 14 rural training programs not identified by either the ACS website or FREIDA. In total, 44 programs identified by ACS, FREIDA, and the survey state that they are able to accommodate the rural surgical resident by providing the appropriate exposure and training.

Totally, 78% (41) of responses were submitted by the program director, with the rest being submitted by various members of the program administration. One program submitted 3 responses to the survey, via different members of the staff. Since all 3 responses were consistent, only 1 response was included in the analysis. Two programs submitted information without identifying their program title, one of which indicated that they would be willing to customize a track. These responses were included in Table 2. Any program that did not respond to the survey received another e-mail with a subsequent phone call. Of note, phone calls often went unanswered. The programs that were contacted via phone rarely had knowledgeable staff available to answer questions about exposure to rural surgical experiences.

A portion of the survey was a set of multiple choice questions dedicated to programs that either currently have an established track or those that are not able to customize a track. Existing programs were queried on the details of the rural exposure (total months spent on subspecialty rotations and total length of program) and programs who deemed themselves incapable of providing the exposure were queried on which obstacles they faced. Importantly, 28% (7) admit that training rural surgeons is not considered a mission of their program. These findings are summarized in Table 2.

CONCLUSIONS

For a medical student pursuing a career in rural surgery, there are several obstacles to overcome while searching for appropriate residency programs. Although many programs have either established a rural surgery track or are willing to customize a training scheme, a complete and updated list of such programs does not exist. Review of the ACS website and FREIDA online in addition to our survey has identified 44 of 261 (16.9%)