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Rural Surgery—A Crisis in Wisconsin

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Ithough great emphasis has been placed on the shortage of primary care physicians in this country, an equally important and looming crisis is the deficit of rural general surgeons.1 For a small community, the loss of its general surgeon can be devastating. This issue is particularly acute in Wisconsin, where there are many small communities and multiple critical access hospitals spread over a large geographic area. Many of the approximately 500 general surgeons in Wisconsin currently practice in rural environments. However, trainees from Wisconsin surgical programs often do not choose rural practice. In 2011-2012, although there were 24 positions

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Doctor Kent is the A.R. Curreri Professor of Surgery and chair of the University of Wisconsin School of Medicine and Public Health (UWSMPH) Department of Surgery; Dr. Foley is professor of surgery, vice chair of clinical operations for the Division of General Surgery, and director of the General Surgery Residency Program; and Dr. Golden is the dean of the UWSMPH, Robert Turell Professor in Medical Leadership, and vice chancellor for medical affairs, UW-Madison. available in Wisconsin for rural surgeons, 12 of the 16 graduates of general surgical residencies sought specialized fellowships.² These numbers exemplify the mismatch between the supply and demand for rural general surgeons. They also are the reason the University of Wisconsin School of Medicine and Public Health's (UWSMPH) Department of Surgery created an innovative Rural Residency Training Track, as described below.

Why Is Rural Surgery Unattractive?

While many small communities have the resources and population to support a single surgeon, it is rare to find individuals willing to take the 24/7 call associated with solo practice. Some surgeons overcome this by developing partnerships with surgeons from neighboring communities, but this creates the burden of covering multiple hospitals that may be many miles apart.

Also, for surgeons who have trained in an urban environment, the transition to rural life can be challenging for both the surgeons and their spouses. Rural hospitals, comparatively, have limited technology and related infrastructure, and this may preclude the surgeons' abilities to perform some procedures that represent the mainstay of general surgery training. Alternatively, rural surgeons often are called upon to perform interventions that are not emphasized during general surgery residency, including endoscopy, colonoscopy, C-section, obstetrics, hand surgery and urological interventions. The average general surgeon performs 23 different operations, and this spectrum is even greater for surgeons who practice in rural environments.³ Moreover, the economics of running a private solo or small group practice in today's health care environment have become challenging.

Finally, most general surgery residents do not have significant exposure to surgeons who can serve as role models for careers in rural surgery. These many factors have caused a precipitous drop in the number of general surgery residents willing to embark on a career in rural surgery.

Why Should Rural General Surgery Be Preserved?

Obtaining surgical care far away from home is disruptive for patients and their families. For specialized care, this may be necessary. However, routine surgical care can and should be provided locally, in a way that is more efficient, less costly and more desirable for the patient.

Furthermore, the importance of rural surgeons to the economic stability of small hospitals and rural communities can be substantial. Surgical procedures often produce the critical margin that sustains the fragile economics of a critical access hospital. Moreover, in many small communities, the local hospital is the largest employer. Finally, the practice of rural surgery can provide an exceptionally rewarding career for the right individual. Rural surgeons enjoy substantial independence, and in an era of increasing specialization, they retain the ability to perform a wide variety of surgical procedures. Surgeons who enjoy highly satisfying careers in rural practice draw a sense of deep fulfillment from their many positive contributions to the health and vitality of their communities.

Solutions

While several issues have contributed to the rural surgery crisis, key aspects of surgical training are among the prime factors.⁴⁻⁶ Most medical students who are interested in rural surgery find themselves in university-based surgical residencies in urban environments, where the focus is on highly specialized and complex surgery. Without exposure to and mentorship from rural community practitioners, these individuals will most likely seek fellowships after their residencies to gain further specialization. Seven years later, they likely have long forgotten their prior aspirations to develop careers in rural surgery.

We believe that university-based programs such as ours must develop novel strategies to address this crisis. To that end, in 2014 we created an innovative Rural Residency Training Track. This program, which is accredited by the National Resident Review Committee in Surgery, offers a new and distinct categorical position called "UW Rural Residency."

The new program's curriculum differs from our standard surgical training. It incorporates rotations that are designed to broaden the trainee's expertise in surgical areas essential to small community practice, including additional rotations in endoscopy/colonoscopy, ENT, orthopedics, urology, and gynecology. It provides a major focus on trauma and emergency general surgery. Importantly, 18 months

Table 1: Grant Support

The first two grants listed below are designed for program development.

The last one will pay the salary/benefits of the first 3 residents for their entire 5 years of clinical training.

1. Title: Development of a Rural Surgery Residency Training Program.

Sponsor: Wisconsin Rural Physician Residency Assistance Program (WRPRAP) Dates of Award: July 1, 2013-July 1, 2016 Total Award: \$375,000 Pl: Eugene F. Foley, MD

2. Title: Development of a Rural Surgery Residency Training Program

Sponsor: Wisconsin Department of Health Services Dates of Award: June 1, 2014-June 1, 2017 Total Award: \$530,000 Pl: Eugene F. Foley, MD

3. Title: Rural Surgery Residency Training Program, Stipend Grant Sponsor: Wisconsin Department of Health Services Dates of Award: July 1, 2015-June 30, 2022 Total Award: \$1,125,000 PI: Eugene F. Foley, MD

Abbreviation = PI, principal investigator

of the 5-year program will be devoted to rotations throughout Wisconsin. These rotations will immerse trainees in the rural surgical environment and give them the opportunity to develop mentored relationships with community general surgeons. We have created partnerships with surgical practices in Neenah and Waupun, Wisconsin, and are discussing additional relationships.

Selection criteria for this track will be rigorous, and it will be essential that prospective trainees demonstrate passion for careers as rural surgeons. We are recruiting our first resident for this program, and that person will begin training in July 2015. More than 100 applicants with declared interest in rural community practice have applied for that 1 position.

We believe this innovative rural surgery track will create a cohort of new surgeons with the breadth of skills necessary to launch successful careers in rural practice. The trainees' immersion in rural environments and their exposure to outstanding community-based role models during the critical years of residency training should solidify their vision of highly satisfying lives as rural surgeons.

Summary

Recruitment of general surgeons to practice in rural environments is challenging. We believe that innovative training programs focusing on the specific needs and experiences of rural surgical practice can play an important role in addressing this clinical workforce issue. For practical reasons, our program will start out small, but if 50 centers around the nation were to establish a similar rural track, we could see a substantial collective impact over time. We hope our new program will serve as a model for the development of other university-based residency training programs with similar opportunities.

We are grateful to have received state funding to support the development and early implementation of this program (see Table). We commend the state for understanding the importance of primary care surgery, and we look forward to measuring and reporting the impact of our rural training program on rural surgical care in Wisconsin.

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