



Graduate Medical Education for Rural Practice

Beyond Quality to Excellence in Rural Medical Education

In the century since the Flexner Report, medical education in the United States has become specialized, centralized and urban, embracing uniformly rigorous standards of patient care, education, and research. The apprenticeship training arrangements common in the communities of Flexner's time, although adaptable to local realities, varied widely in quality and have been abandoned. As a result, medical training has been challenged to remain relevant to the needs of those small communities, and a persistent geographical maldistribution of physicians has characterized the past 70-80 years. The opportunity for medical education in this coming century is to recapture the diversity and relevance of distributed training even as quality in patient care, education and research is further improved. Medical education that is uniquely adapted and responsive to the needs of rural underserved communities has the potential to reclaim medicine's social contract with the public.

The proceedings of previous summits in 1990 and 2000 reveal that challenges to rural medical education stubbornly persist.^{1,2} (For this document, rural is defined as located either in a non-metropolitan area or a rural-urban commuting area code of 4 or greater.) Rural physicians continue to demonstrate a satisfaction with practice and a passion for service. Yet, after 30 years of policy initiatives, incentives, and rural-focused programs, the number of physicians in rural practice remains virtually unchanged and insufficient for the needs of rural communities.³ Like the persistent poverty that is present in many rural areas, the successful training, recruitment and retention of rural practitioners continues to elude policy makers. Current methods for selecting and training medical students and residents do not appear to be alleviating the shortage. Both the NRHA and the AAFP have been advocates for the health of rural populations and continue to promote the development and funding of programs that will address this rural health provider shortage.

In the intervening years since those summits, however, much has also changed. The intuitive propositions of those earlier leaders have now been borne out by a preponderance of evidence in support of:

- a. Medical school admission policies that target students with a rural background, students who are more likely to train in primary care and return to rural and underserved practices.⁴
- b. Pipeline strategies for nurturing and sustaining interest in rural practice that provide early, frequent and extended learning experiences in rural settings at all levels of training.
- c. New programs in rural graduate medical education designed for rural places and implemented over the past two decades.⁵

An increasingly robust rural health research infrastructure has established the evidence. Refined definitions of "rural," such as rural-urban commuting area codes (RUCA's), now lend greater clarity to discussions of rural health through more nuanced images of the rural landscape.

Rural training tracks (RTT's) have changed the scale generally thought necessary for a rigorous teaching program to one that fits rural communities. Although they account for only 52 positions among the 2,621 first postgraduate year slots available in family medicine in 2007, RTT's are a demonstrated boon for both recruitment of practitioners and retention of experienced rural faculty, placing 75% of their graduates in rural locations.^{6,7,8} They complement the other 33 ACGME and 42 AOA residency programs located in rural areas in providing the 7.5% of family medicine residency training that occurs in rural areas across the nation.⁹

From a peak of 36 such programs in 2001, rural residency training tracks now number 28. Most follow the original "1-2" configuration, with one year in the usually urban sponsoring institution followed by two years in the rural location. However, refinements to that structure have evolved and provide even more than the requisite 24 months of contiguous rural training, e.g., a sequential "6 + 30 month" pattern. Another example is the more integrated "2-2-2" program, which trains two residents a year for all three years of postgraduate education in the rural community, interspersed with

immersion experiences in the urban setting of the sponsoring institution. Some RTT's have evolved into full-fledged rural "4-4-4" programs. Two programs in North Carolina and West Virginia continue to innovate through formal involvement in the P⁴ Residency Demonstration Initiative, a collaborative effort between the Association of Family Medicine Residency Program Directors, the American Board of Family Medicine, and TransforMED, a practice redesign strategy of the American Academy of Family Physicians.

In all of this it must not be forgotten that many residency programs not located in rural areas have variously configured rural training streams or a rural training focus. Although the rural placement rates of these programs are lower than the RTT's, by virtue of their much larger size and number they ultimately contribute the larger numbers of graduates to the population of rural doctors,

Other changes have altered the landscape of rural medical education. The Residency Review Committee (RRC) for Family Practice of the Accreditation Council on Graduate Medical Education (ACGME), in response to the urging of earlier rural medical educators and in the interest of fostering innovation, has become more receptive to residency program adaptations to the realities of rural places. More women and international medical school graduates are represented in rural education and practice. Critical access hospitals, Federally-Qualified Health Clinics, and Rural Health Clinics provide new venues for patient care and education and a safety net for rural communities.

Successful rural graduate medical education programs have also developed in specialties other than family medicine. Although it has been shown that the more specialized the physician, the less likely that physician will practice in a rural area, family medicine is not the only specialty integral to the health of rural communities. Rural-focused surgical residency programs have been established in New York, North Dakota, and Oregon.¹⁰ The American Boards of Family Medicine and Emergency Medicine continue efforts to define the elements of training necessary to rural practice and reports of rural training experiences for residents in general internal medicine have been published.^{11, 12} Rural education is by nature more interprofessional, with physicians, pharmacists, dentists, nurse practitioners, and other health professionals learning side by side.

Finally, there is an increasing recognition for the value of context in training, career satisfaction and retention. Experiential place integration, an active developmental process based on three 'principles' - security, freedom and identity—first described by Cutchin, is a sound theoretical basis for place-based education and policy.¹³ The pedagogy for rural medical education is best anchored in the experience of rural places, complemented by facilitated reflection and intentional learning from that experience.

In the immediate future, rural residency programs will continue to face the challenges of (1) student recruitment in the face of declining student interest in generalist careers, especially in rural practice, (2) faculty recruitment in the face of declining numbers of rural physicians with a wide range of skills and an interest in teaching, (3) the lack of sustainable funding inherent in the governmental and institutional policies supporting medical education.

To overcome these challenges, the industrial pipeline metaphor must be transformed into something more organic, coherent, sustainable and community-anchored. A pipeline that leaks must be replaced with a stream that is self-renewing, replenished by multiple tributaries, and under girded by a rising water table of community support and endowment funding. Rural medical education must be readily adaptable to changing conditions, aligned with the interests of multiple stakeholders, efficiently linked to desired outcomes and workforce needs, self-renewing and less dependent upon external funding.¹⁴ Academic institutions and communities will benefit from a medical education enterprise that is distributed, rooted, and nourished in diverse underserved communities, is interprofessional in nature, and is adapted in scale and scope to the population it serves.¹⁵

Recommendations

Structure and content of postgraduate rural training:

Learning in context is essential to training for rural practice. Although residents trained in urban environments may be equipped with the necessary knowledge and skills, there is no substitute for personal experience in rural medicine. The rural physician's scope of practice cannot be rigidly proscribed and is best defined by the needs of the community. Therefore the following general curricular structure and content is warranted:

1. Cumulative rural training experience for all medical students and residents with an interest in rural practice should be at least six (6) months in duration.¹⁶
2. Knowledge and skill acquisition in the following areas especially relevant to rural practice:
 - a. Maternity care
 - b. Orthopedics and sports medicine, including basic fracture care
 - c. Surgical and procedural skills, including colposcopy, ultrasound and endoscopy
 - d. Trauma and other emergency care and stabilization, including training in ACLS, ATLS, NRP, PALS, and ALSO
 - e. Critical care in a rural setting
 - f. Occupational health and safety, including recreation, agriculture, mining, and forestry
 - g. Behavioral health and psychiatry, including access issues unique to rural practice
 - h. Practice management in a small practice setting
 - i. Telemedicine, the electronic health record, and other electronic tools and resources
 - j. Public Health, including basic definitions, resources for rural health, access and barrier issues, funding and delivery of rural health care, interdisciplinary teams in rural health, health outcomes and disparities in rural populations, strategies for delivery of care, and cultural competence (UW Competencies)
 - k. Community-oriented primary care

Rural residency programs and medical educators, in addition to specific content particularly relevant to rural practice, should elaborate, teach, and measure general competencies in rural medicine including:

- a. Adaptability—how to shape one’s skill set to the needs of the rural community
- b. Improvisation—how to deliver quality care within the resources and skills you have available in the moment
- c. Life-long learning—how to continually acquire additional knowledge and skills as needed
- d. Collaboration—how to get help from others and work together
- e. Endurance—how to sustain oneself in rural practice

Medicare Funding and Definitions of Rural Training

CMS should deliver on congressional intent and, under the rural exemptions granted in the Balanced Budget Act of 1997 and the Balanced Budget Refinement Act of 1999, eliminate caps on GME funding for both new and existing rural programs in graduate medical education desiring to increase the number of residents, provided that these programs are rural training tracks as defined below or have a significant track record of placing a high proportion of graduates in rural practice.

The BBA (Public Law 105-33) placed a cap on the number of medical residents that are eligible for Medicare direct and indirect GME payments. This limitation has negatively impacted the availability of funding to support rural residency programs. In the BBRA (Public Law 106-113), an exemption for RTT’s was included that was intended to exempt both “1-2” rural and “integrated” RTT’s from the GME funding freeze. Unfortunately, the lack of an accepted formal definition of an integrated RTT has prevented the Centers for Medicare and Medicaid Services (CMS) from exempting those programs from GME funding restrictions. In its rulemaking, CMS asserts that the BBRA does not adequately define an “integrated rural track” and that there is “no existing definition” of this entity. CMS has essentially limited the application of the exemption to 1-2 programs. Subsequent reallocation of residency slots under the Medical Modernization Act of 2003 (Public Law 108-173) did not benefit rural programs as predicted.

So that the exemption for the Integrated RTT may be implemented by CMS, a definition for the Integrated Rural Training Track has been developed by the NRHA Rural Medical Educators group and should be adopted by both CMS and the ACGME. NRHA supports the following definitions of residency programs training physicians for rural practice in any specialty:

1. A traditional rural training track, with at least 24 months practice experience in a rural setting
2. An integrated rural training track with the following required components:
 - a. At least four (4) rural block months to include a rural public and community health experience. During a rural block rotation, the resident is in a rural area for a minimum of 4 weeks or a month.
 - b. A minimum of three (3) months of obstetrical training or an equivalent longitudinal experience
 - c. A minimum of four (4) months of pediatric training to include neonatal, ambulatory, inpatient and emergency

experiences through rotations or an equivalent longitudinal experience.

- d. A minimum of two (2) months of emergency medicine rotations or an equivalent longitudinal experience

The NRHA and AAFP further recommend that the waiver of a cap on GME positions for “rural” programs be extended by including in the definition of “rural” any allopathic or osteopathic residency program which can document that over 50% of its graduates in the last three years are practicing in non-metropolitan areas. Although other arguably more appropriate definitions of “rural” exist, “Non-MSA” is still a reasonable proxy and the easiest data to obtain from existing sources. Better systems for tracking the rurality of graduates’ practice locations are clearly needed.

Congress and CMS should take the opportunity afforded by the relatively small number and size of rural programs to streamline I&R reporting and simplify GME funding of actual resident FTE’s, recognizing that in addition to educational tasks, resident physicians devote at least 40 hours to patient care weekly. They should provide such funding directly to rural programs, decreasing bureaucratic inefficiencies and affording an opportunity for increased accountability, linking funding to both outpatient and inpatient care and to training outcomes.

Academic Support and Rural Leadership

The NRHA and the AAFP urge academic medical centers and clinical departments to financially support and fully integrate rural faculty who practice in communities remote from the academic institution. Strategies for accomplishing these goals include shared rural/urban governance, faculty exchanges, coverage provision for rural faculty by urban peers, and sustained funding of protected academic time.

Faculty living and working in rural places are core to the mission of rural medical education and as such should take the leadership role in advancing training in these settings. They should be recognized with faculty appointments commensurate with that role, encouraged and supported in the scholarship of practice, education and community engagement, and generously included in key decisions and strategic planning within the academic enterprise. Visits to the rural location by university leaders and visits by rural faculty to urban centers are integral to building mutual respect, sharing understanding of the realities of both rural and urban contexts, and establishing trust. The challenges of time and distance can be addressed in part through telephone and videoconferences, but these can only complement and do not substitute for in-person meetings.

Pipeline Activities

In order to implement the pipeline to rural practice in a more sustainable and organic way, rural residency programs must of necessity engage in predoctoral education, research, faculty development, and building community benefit.

Accreditation of Rural Programs

The ACGME should continue to allow flexibility in the development and curricula of rural training programs in adapting to local resources. In addition, since context is an important element of residency education, the ACGME should require the reporting of geographical data identifying the location of the continuity practices and hospitals of all residency programs, enabling the identification of rural training tracks and other programs that are located in rural and other underserved settings.

Community Investment in Rural Training

Rural institutions, including Critical Access hospitals, Rural Health Clinics, and rural FQHC’s, should make sustained investments in health professions education. Rural practitioners should continue to support the training of students and residents in rural environments. Rural communities should support health professions education as an important driver of economic development and public health.

Organizational Support

The NRHA and the AAFP advocate and support collaboration of rural medical faculty, with family physicians and other health care professionals in rural practice through organizational staff support, intentional network development, funded innovation, advocacy and increased research in the area of rural training and retention in rural practice.”

Summary

This paper has summarized the recent history of residency education to prepare physicians to practice in rural environments. It makes specific recommendations relating to the content and conduct of postgraduate training. Most importantly it outlines critical policy changes with regards to funding and definitions of rural training.

Medical education anchored in rural places, nourished and funded through significant federal, state and local community support, and meaningfully connected to both regional academic institutions and local physicians in practice has great potential to address both present and future needs for physicians who provide care to our rural populations.

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