



# Family Medicine Graduate Medical Education Training for Rural Practice

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## Family practice in rural communities

Family practice is the specialty most likely to be found in rural communities. Family physicians constitute nearly 90 percent of all primary care rural physicians' and are the only source of medical care in many remote rural communities. The low population density that characterizes rural areas often cannot support the practices of physicians in the narrower subspecialties.

Rural family practice presents an exciting and challenging opportunity for family physicians. Instead of being hemmed in by restrictions in highly competitive urban settings, the rural family physician has an opportunity to practice a broad scope of family medicine. Limits are usually based only on the physician's training, experience and demonstrated abilities. The economic turf wars of urban communities are also usually absent in rural areas'.

Most rural family physicians express a high degree of satisfaction with rural practice, even in the smallest communities' Among the many reasons for satisfaction expressed by rural family physicians is the feeling that their services are essential to their communities and deeply appreciated by the people they serve. Satisfied rural family physicians often cite their ability to provide continuing and comprehensive care to a broad mix of individuals and families from all socioeconomic backgrounds.<sup>2</sup>

In addition to the opportunity to practice the full range of family medicine, there are numerous other professional benefits to rural practice, such as close relationships with colleagues and the community hospital. Today's rural practices are increasingly characterized by innovative practice arrangements. This makes it possible to share the workload through call schedules and coverage, thus enabling rural physicians — even in

remote areas — to practice the type of sophisticated family medicine for which they have been trained, as well as to maintain close links with professionals and facilities within and outside of the immediate community. Furthermore, arrangements for salaried practice) often sought by new residency graduates, are becoming much more prevalent in rural areas.

Changes in the health care organization and delivery system are making rural practice more attractive to family physicians. Satisfaction levels from those practicing in rural areas continue to increase.<sup>3</sup> Federal and state governments have enacted policies supporting placement of family physicians in rural areas. In addition, federal policies have been instituted to support rural hospitals as stabilizing factors in rural communities. Improved funding opportunities allow for new-start community health centers. There are regional and state support programs for recruitment and locum tenens. Communication technology (e.g., teleconferencing, telemedicine) allows for improved ease of practice and reduced professional isolation. The Federal Communications Commission's Universal Services Fund supports telemedicine technology in rural practices.

However, training family physicians for rural practice continues to be a challenge. Results from surveys conducted by the AAFP indicate that the clinical practices of rural family physicians differ from those of their urban colleagues. For example, rural family physicians are more likely to provide routine and high-risk obstetric care, to perform major and minor surgery, to reduce and cast fractures, and to perform gastrointestinal endoscopies. Primary care in the rural setting also includes a stronger emphasis on emergency care and the stabilization and transportation of patients with medical emergencies and *trauma*\*.

## Strategies to promote rural family practice

A number of strategies have been implemented over the last 20 years by family practice residency programs and federal and state governments to promote rural family practice among new physicians. Rural residency tracks have been developed to prepare students for rural family medicine. Residents complete the first year of training in an urban-based program and the last 2 years in a rural community. Among the 474 family medicine residency programs in this country, 29 have established separately accredited rural training tracks, and 143 programs offer a fellowship in rural medicine.

Residents in rural training tracks often participate in preceptorships in a rural primary care environment where they learn what it means to be a rural family physician. They acquire the skills necessary to diagnose and manage health problems unique to rural areas. In addition, they learn surgical skills necessary for rural practice, as surgery in rural hospitals is significantly different than in large urban hospitals. Rural family physicians are often the surgical assistant at the table, or must provide large portions of postoperative care.

Surveys of graduates of rural residency tracks place 76 percent of respondents in a rural community, and 61 percent in federally designated health professional shortage areas'. Thirty-nine percent were near their hometown and 45 percent were near the community in which they completed residency training. Ninety-four percent reported that their rural training was adequate or better.<sup>5</sup>

The quality of rural training programs can be measured by the curricular elements offered that are critical for rural training; that the training program has a stated mission for rural practice education; and that the training program employs faculty members with specific experience in rural practice and training.

## Requisite skills and curricular elements necessary for rural family physicians

Recently, family practice residency directors, educators, and private family practitioners were surveyed regarding requisite skills for a successful rural family physician. The results indicate that certain curricular elements should be emphasized for residents anticipating practice in rural or medically isolated communities. The educational needs for rural family physicians differ strongly

from their urban counterparts. These elements are as follows:

- I. First-hand rural training experience
- II. Expanded clinical experience
- III. Rural-specific topics
  - A. Obstetrics and gynecology
  - B. Trauma and emergency care
  - C. Critical care
  - D. Surgery and procedural skills
  - E. Occupational health
  - F. Orthopedics and sports medicine
  - G. Behavioral health and psychiatry
- IV. Practice management
- V. Community-oriented primary care

Residency training in family practice involves rotations through many different specialties. Variations exist between programs with regard to the amount of time spent with individual specialties. In addition, programs offer second- and third-year residents the opportunity to plan an elective curriculum (generally three to six months out of the total 36-month residency) to acquire specific practice skills. The following information should help both residents and program directors design elective time that optimally prepares residents for rural practice. Experience should be obtained in the following areas:

1. Hands-on rural training
  - A. At least a two-month rotation in a rural family practice setting. If possible, ongoing exposure to a rural community or communities throughout training is ideal
  - B. Small rural hospital experience, including facility operations, medical staff structure, resource availability, and funding/reimbursement issues of hospitals in rural settings
  - C. An ongoing, integrated curriculum that provides exposure to rural health care delivery issues, such as provider and consultant availability, health care access, transportation issues, resource availability, tertiary care support, and team-based approaches to health care delivery
  - D. Behavioral and cognitive skills training in lifestyle issues surrounding living in rural areas for the physician, his or her partner and family
  - E. Exposure to and discussion of the unique social issues of rural practice, including strategies for successful management of issues of community integration, rural lifestyle, after hours patient responsibilities, call, interpersonal relationships with colleagues, emergency department cover-

age, communication resource utilization, community leadership, privacy, confidentiality, personal health, and maintaining a healthy balance between practice, personal and family demands

- F. Experiences that foster the self-confidence and skills necessary to function effectively in a setting with limited resources and staff
  - G. Experience participating as a team member in the delivery of health care to a community by utilization of resources such as public health departments, mental health networks, chambers of commerce, offices of rural health, and primary care networks
2. Expanded clinical experience
- A. Occupational health: agricultural, industrial (including mining), environmental, and communicable diseases and workplace stressors
  - B. Women's health
    - 1. Obstetrical care including high-risk emergency care, and obstetric procedures such as ultrasonography, outlet forceps, vacuum extraction, and caesarean-section
    - 2. Gynecologic care including preventive care, emergency care and procedures such as dilation and curettage (D and C), colposcopy, cervical biopsy, endometrial biopsy, and postpartum tubal ligation
  - C. Pediatrics
    - 1. Neonatal stabilization and transport
    - 2. Pediatric procedures including umbilical line placement, intubation, resuscitation, interosseus infusion, spinal tap, venipuncture, and arterial puncture
  - D. Trauma and emergency care
    - 1. Emergency cardiac care (management of acute myocardial infarction, arrhythmias and cardiogenic shock, emergency transport)
    - 2. Trauma (management, initial assessment and stabilization, preparation for transfer), procedural skills such as intubation, thoracentesis, paracentesis, central line placement, chest tube placement, criothyroidotomy, and pericardiocentesis
    - 3. Advanced interpretation of acute-condition radiographs (extremities, chest, spine, abdomen, etc.)
    - 4. Complex laceration evaluation and repair
  - 5. Psychiatric emergencies, including diagnosis, pharmacologic management stabilization, transfer and referral, and follow-up
  - 6. Poison and toxic exposure management, including use of computerized reference materials and a poison control center
  - 7. ACLS, ATLS, ALSO, PALS and neonatal resuscitation (NRP) certifications
- E. Critical care
- 1. Enhanced ICU/CCU experiences, including management of unstable cardiac trauma, and other critically ill patients, with an emphasis on the use of technology commonly available in rural hospitals
  - 2. Stabilization and transport of critically ill patients
  - 3. Follow-up and preventive cardiology procedures including treadmill
- F. Surgery and procedural skills
- 1. Surgical emergency evaluation and management
  - 2. First surgical assisting with postoperative care skills in collaboration with outreach surgeons
  - 3. Consultation and collaborative management with local and outreach surgeons
  - 4. Office procedural skills (vasectomy, fine-needle aspiration and biopsy, joint aspiration, dermatological procedures)
  - 5. Gastrointestinal endoscopies; flexible sigmoidoscopy, colonoscopy
  - 6. Enhanced surgical skills in some settings (emergency appendectomy, etc.)
  - 7. Placement and management of catheters, venous and arterial lines
  - 8. Anesthetic skills for conscious sedation, spinal anesthesia, emergency anesthesia
- G. Orthopedics and sports medicine
- 1. Fracture management including closed reduction, splint application and advanced casting
  - 2. Reduction of dislocations
  - 3. Consultation and collaborative management with local and outreach orthopedic surgeons
  - 4. Soft tissue injury management
  - 5. Enhanced sports medicine experience, including athletic training, team physician services
- H. Behavioral and mental health and psychiatry
- 1. Psychopharmacology

2. Domestic violence
  3. Palliative care
  4. Case management team approach to chronically mentally ill
  5. Crisis intervention skills
  6. Team approach to behavioral health
  7. Short-term psychotherapy and counseling skills
  8. Marital counseling
  - I. Geriatrics
3. Practice management and leadership training
    - A. Professional and personal time management
    - B. Leadership and adult lifelong learning skills
    - C. Organizational management
    - D. Delivery of medical care utilizing the model including development of collaborative and interactive relationships with nurse practitioners, physician assistants, social workers, physical therapists, home health nurses and hospice workers
    - E. Use of telemedicine, telehealth, distance learning, video conference resources for communication, consultation, professional networking, and continuing education needs
    - F. Applications of computer systems and other information technologies pertinent to clinical practice and medical practice management, including office and hospital information management systems, remote access to the internet, use of Web sites and computer-based systems for medical library searches, and patient education databases
    - G. Office human resources management and systems development
    - H. Small office systems development and management, including development of patient education materials, office policies and procedures, clinical care plans, quality assurance plans and strategic planning mechanisms
    - I. Familiarity with economic and political issues identified common to successfully practice medicine and manage a business in a small rural community setting
    - J. Conflict resolution and negotiation skills
    - K. Knowledge and experience with reimbursement systems, contracts
  4. Community-oriented primary care
    - A. Experiences that foster community-oriented delivery of health care and the role of family physicians in community public health, school health, community leadership community development and political action
    - B. Public health education principles
    - C. Public speaking and management of small group meeting skills
    - D. Knowledge of issues to barriers to access to care, including financial, geographic, transportation and cultural
    - E. Curriculum in cross-cultural communication and competency
    - F. Knowledge and skills in community sanitation systems and water quality assurance
    - G. Exposure to the role of the family physician as medical examiner
    - H. The role of the family physician as medical director
    - I. The role of the family physician in interaction with delivery of medical care at correctional facilities

## Summary

Residents interested in rural family practice should periodically review their training and discuss their career plans with residency program faculty and directors. Physicians in rural private practice can also provide valuable education and career planning assistance. In addition, residency programs should develop rural curricular elements in concert with rural family physicians to ensure adequate training electives for residents. These special considerations for specific curricular needs have been developed by members of the American Academy of Family Physician's Commission on Education and Committee on Rural Health. For more information, contact the AAFP at (800) 274-2237, or [www.aafp.org](http://www.aafp.org).

## References

1. Center for Policy Studies in Family Practice and Primary Care. The effect of accredited (rural training tracks on physician placement. *Am Fam Physician* 2000;62(1):22.
2. Norris T, ed. *Rural Family Practice: You can make a difference*. Kansas City, Mo.: Committee on Rural Health, American Academy of Family Physicians, 1997.
3. Norris T. Educational needs of rural physicians. *J Am Board Fam Pract* 1996;9(2):90.
4. *Primary Care: America's Health in a New Era*. Washington DC: Institute of Medicine. National Academy Press, 1996.
5. Rosenthal TC, McGuigan MH, Andersen G. Rural residency tracks in family practice: graduate outcomes. *Fam Med* 2000;32(3):174-7.