# Changes and Challenges in Rural Graduate Medical Education: The Family Medicine Spokane Rural Training Track Experience in Colville, Wash.

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**ABSTRACT:** *Rural community-based graduate medical education programs in family practice are considered wise investments in America's future because they generate highly trained physicians who typically settle and practice in rural communities. In recent years, however, federal funding cutbacks and revised accreditation requirements have threatened the viability of these programs. In Colville, Wash., Mount Carmel Hospital has responded by agreeing to continue its collaboration with the Northeast Washington Medical Group to fully fund the cost of the Family Medicine Spokane Rural Training Track family practice residency program.*

Family Medicine Spokane (FMS) was established in 1972 as one of the initial four family practice residency programs started by the University of Washington School of Medicine's Department of Family Medicine. The other three members of this inaugural group were located in Seattle. The affiliated family practice residency network has since grown to include 16 programs located in five states (Washington, Alaska, Montana, Idaho and Wyoming).

Spokane has a population of just fewer than 200,000 and is located on the eastern border of Washington. The provision of health care is a major portion of the local economy, with consultation and referral service provided from the eastern slopes of the Cascade Mountains across the Idaho panhandle through western Montana and Canada. Eastern Washington is largely rural, characterized by 46 communities with populations of 1,000 to 5,000, another 13 between 5,000 and 25,000, and only five communities with populations greater than 25,000. Many of these communities are presently underserved or in danger of becoming so.

The educational objective of FMS is to prepare its graduates to practice in underserved areas of the rural and urban Pacific Northwest. The curriculum emphasizes training in obstetrics (24 weeks, including 16 weeks of high-risk training), surgery, emergency medicine, intensive care unit/cardiology, pediatrics and procedural medicine. Eight weeks of clerkships com-

pleted with physicians in rural communities are also required. FMS selects its residents from among applicants stating a strong interest in rural family practice. Additionally, family physicians practicing in surrounding rural communities precept in the family practice center, participate in clinical and didactic teaching, and discuss the attributes and shortcomings of medical and personal life in rural areas. Once or twice a year, residents go on "field trips" to rural communities to meet with rural providers, hospital administrators and community leaders. Through Summer 2000, the program had 168 graduates (two of whom have retired or no longer practice family medicine), with 89 (54 percent) currently practicing in rural communities (rural is defined as a community with a population of less than 25,000 located more than 25 miles from a town larger than 25,000). One hundred forty-nine graduates (90 percent) practice in Washington, Alaska, Montana, Idaho, Wyoming or Oregon. Eighty-five graduates practice in Washington, 29 (34 percent) of them in rural areas (Table 1). Nationally, 24 percent of all family practice residency graduates from 1994 to 1997 are located in rural communities (American Academy of Family Physicians, 1999).

Curricular features designed to promote rural placement developed from the recognition that certain aspects of the original FMS program could have had the opposite effect. Based in a small city, FMS conducted the majority of its teaching in large tertiary-care hospitals, where the primary teachers, role models and mentors were nonfamily physicians. Graduates from such a program predictably might feel more comfortable practicing in an urban rather than a rural environment.

In 1985, a proposal was submitted to the Accreditation Council for Graduate Medical Education (ACGME) proposing a new "one–two model" of family practice residency training to be called the Family Medicine Spokane Rural Training Track (FMSRTT). The goals of the program were to establish an educational environment specifically to prepare graduates for rural practice. The first year of residency would be completed in Spokane and at FMS, where residents completed required rotations difficult to conduct in a rural setting (e.g., high-risk obstetrics, inpatient pediatrics, neonatal intensive care and acute and intensive care medicine). The second and third years of the program were to be conducted in a carefully selected rural community and based in the office of an existing group of physicians. Family physicians were to be emphasized as the primary faculty and to serve as role models and mentors to their residents. One family physician was to assume the role of site coordinator, responsible for working with FMS to assure compliance with the ACGME Program Requirements for Residency Education in Family Practice. All members of the primary group had to be supportive of the FMSRTT and participate in teaching residents assigned to that site. The family physician faculty had to include obstetrics, pediatrics, inpatient medicine and appropriate surgical care in their practices, and be willing to teach these skills to their residents. Importantly, other physicians needed to be located nearby or willing to travel to the rural site to teach residents (e.g., neurology, rheumatology, dermatology, urology, ENT, psychiatry and gynecology). The office of the primary faculty was to become the principal location for ambulatory care teaching and continuity of care. This facility needed to meet all of the space, equipment, staffing and record system requirements of a "family practice center." Each rural community was to have a hospital that maintained obstetrical, surgical, emergency medicine and critical care services that would become the primary inpatient-training environment for the residents. The hospital had to be of sufficient size and have an adequate number of occupied teaching beds to provide a patient load and a variety

**Table 1. Family Medicine Spokane (FMS) and the Family Medicine Spokane Rural Training Track (FMSRTT) Graduate Summary 1974–2000.**[1]

| Practice Location | FMS (n=168) | FMSRTT (n=18) |
|---|---|---|
| Washington | 85 (29) | 12 (11) |
| Idaho | 17 (13) | 0 |
| Montana | 21 (16) | 0 |
| Alaska | 4 (2) | 3 (3) |
| Oregon | 21 (16) | 2 (1) |
| Wyoming | 1 (1) | 0 |
| Other states | 17 (12) | 1 (0) |

1. Graduates in rural practice listed in parentheses. Rural is defined as a community with a population of less than 25,000 located more than 25 miles from a town with a population larger than 25,000.

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of problems to support the education of the residents assigned to the site.

## The Colville FMSRTT Site

In 1986, the Northeast Washington Medical Group (NEWMG) located in Colville became the first FMSRTT site. Colville is a town of about 5,000 population, located 75 miles north of Spokane. A population of about 10,000 resides within its ZIP code, and medically, it serves an estimated 30,000 persons living in northeastern Washington. The NEWMG is a multispecialty group consisting of 25 providers, including 10 family physicians, four internists (cardiology, gastroenterology, pulmonary and general internal medicine), three emergency room physicians, two surgeons, a radiologist, an orthopedist and four midlevel practitioners. Specialized training for residents is provided in: EGD, colonoscopy, flexible sigmoidoscopy, colposcopy, LEEP, endometrial biopsy, IUD placement, breast biopsy, mammography, ultrasound, vasectomy, hemorrhoidal banding, cryosurgery, nasopharyngoscopy, joint aspiration, treadmill and standard outpatient radiology. A clinical psychologist and ophthalmologist in Colville also teach residents. Subspecialty clinics conducted by visiting consultants provide teaching for residents in ENT, neurology, orthopedics and plastic surgery. In 1999, there were 39,789 outpatient visits to the NEWMG, resulting in 1,580 hospital admissions. A graduate of the FMS program has served as the FMSRTT site coordinator since 1986.

Mount Carmel Hospital is the base for inpatient resident education in Colville. The hospital was constructed at its present site adjacent to NEWMG in 1952, and is operated by Providence Services of Eastern Washington. This well-maintained facility has undergone several major renovations in recent years. It has received several national awards during the past 10 years, including the American Hospital Association's (AHA's) "One of Ten Best Hospitals Under 50 Beds, Nationwide, Which Shows Strategic Options for Survival" in 1990, the AHA Nova Award, and Top 100 Hospitals: Benchmarks for Success, 1995. Mount Carmel employs more than 150 and in 1999 had 1,580 admissions, 218 deliveries, 238 surgeries and 7,646 outpatient visits. Members of the medical staff, hospital administration and other employees understand and are supportive of the philosophy of the FMSRTT and are willing to teach, supervise and evaluate residents during their inpatient experience.

There have been 11 graduates from the Colville FMSRTT site. Four have remained in Colville, joining three graduates from FMS at the NEWMG, where they currently serve as faculty to residents. Consensus among these graduates is that living in Colville during their residency while practicing at NEWMG and Mount Carmel helped them and their families elect to remain in Colville. The 2000 graduate from Colville has established his practice in a nearby eastern Washington rural community. The Colville FMSRTT selects one resident annually and presently has a first-year resident in Spokane and a second- and third-year resident in Colville.

## The FMSRTT Site in Goldendale

The FMSRTT is conducted in Goldendale, Wash., a rural community of nearly 5,000 located more than 250 miles from Spokane near the Columbia River gorge. This site received ACGME accreditation in 1990. The primary faculty is a group of five family physicians and two midlevel practitioners. Additional faculty support is provided in surgery, ENT, internal medicine, urology and obstetrics and gynecology in The Dalles, Ore., located 30 miles from Goldendale. A clinical psychologist and visiting consultants also teach residents in the family practice center. Goldendale has had two graduates, one of whom has remained to serve as primary faculty while the second practices in a nearby rural community. There are currently a second-year and a third-year resident in Goldendale and a first-year resident in Spokane.

## FMSRTT Experience

The FMSRTT has had 18 graduates. Seventeen of the 18 practice in Washington, Alaska and Oregon, and 15 are in rural practice. There are 12 graduates in eastern Washington; 11 (92 percent) practice in rural communities.

The FMSRTT remains a popular choice among applicants. There were 131 applicants for the year 2000 that were prescreened by Spokane, Colville and Goldendale. Thirty-eight were invited to interview, and 23 interviews were conducted. Following an interview in Spokane with residents and faculty, applicants travel to Colville, where they initially meet informally with the second- and third-year residents. The next day interviews with the site coordinator, faculty, residents and hospital administrator are conducted along with

tours of Mount Carmel and NEWMG. A similar process follows in Goldendale. Colville and Goldendale each have their own match number and prepare their rank list for submission to the National Resident Match Program. This list is prepared by the faculty and residents and approved by the hospital administrator.

## *Challenges for the FMSRTT and Colville*

The experience with the FMSRTT program has shown it to be a high-quality and cost-efficient model that has effectively placed its graduates in rural communities, particularly in or near the training sites. However, this model can best be described as "fragile" and "vulnerable." The teaching resources, both faculty and patients, can be disturbed if the economy of the community changes or key faculty leave the area. Additionally, the new ACGME program requirements for Residency Education in Family Practice, implemented in July 1997, and the Balanced Budget Act (BBA) of 1997 have had profound effects on the FMSRTT.

The new ACGME program requirements had three elements that necessitated change in the way the FMSRTT was conducted. First was the requirement that each rural site select one resident each year so that there would be at least one second-year and third-year resident at the site to ensure peer interaction. The FMSRTT had operated such that a site had only one resident at a time: When a third-year resident graduated, a new second-year resident would arrive. This "economized" on space, teaching resources and funding requirements at the rural site. The new ACGME requirement caused or contributed to the closure of three FMSRTT sites that had been accredited between 1987 and 1997. The Ellensberg site had two graduates. Other reasons cited for its closure were limited space and faculty resources, changes in the physician "mix" in the community and the opening of a new University of Washington family practice residency 35 miles away. The Omak site had three graduates, all of whom are currently practicing in rural northwest communities. The third site, in Moses Lake, closed before its first resident arrived in the community.

The second important element of the new ACGME program requirements stipulated that residents could be away from their rural site no more than two months in each of their second and third years. With the FMSRTT being the first accredited rural-based residency program, the ACGME had permitted three months in each year away from the rural site to supplement resident education. The reduction from a total of six months to four months for each resident necessitated a revision of the overall curriculum. Those revisions included increasing the amount of inpatient pediatrics and obstetrics in the first year and called on the rural sites to provide more medicine and surgery rotations. In retrospect, this has been a positive curricular change.

Third was the requirement that if only one resident was seeing patients in the family practice center, the preceptor could engage in other activities to a maximum of 50 percent. In order to comply with this requirement, only one resident was scheduled in the family practice center at a time and faculty who had no other responsibility 50 percent of the time were scheduled to be available to provide active precepting of the resident.

Although recently approved revisions in the BBA of 1997 may provide some benefit to the FMSRTT in future years, the implementation of the initial act caused major changes. The "cap" limited the number of reimbursable resident FTEs to those reported in each hospital's 1996 year-end cost report. The FMSRTT is considered to be an "established" or "existing" residency program because of its initial accreditation in 1986, although individual training sites were approved in subsequent years. Over the years, not all of the accredited sites have had residents assigned to them each year. In 1996, Goldendale had no residents, while residents were assigned to the now-closed site in Omak. To preserve the total number of resident FTEs from 1996 and enable the redistribution of residents among training sites, a Medicare Medical Resident Limit Affiliation Agreement was created among the participating hospitals in Spokane, Colville and Goldendale. The BBA also had an indirect effect on the program by reducing payments to rural providers for such services as hospital inpatient and outpatient care. As a result of reduced patient care revenue, NEWMG determined that it was no longer able to provide financial support for the FMSRTT, although it remained committed to providing program administration by the site coordinator, faculty teaching time, a full-time nurse and all space, equipment and supplies necessary to conduct the training of residents. Consistent with the collaboration between NEWMG and Mount Carmel Hospital and their commitment to the FMSRTT, the hospital subsequently agreed to fully fund the cost of the residency program conducted in Colville, which for 2000–2001 is $128,000. Mount Carmel's decision

was based on its past experience with the residency, including the following factors.

The FMSRTT:

- is deemed a high-quality, cost-responsible family practice residency that has placed four of its graduates in Colville;
- has been beneficial in recruiting additional physicians to Colville, providing them with the opportunity to teach family practice residents;
- introduced new clinical services and technologies to Colville;
- provided regular medical education programs to physicians and hospital staff in Colville;
- provided two full-time family practice residents for the community; and
- enhanced the overall quality of medical care provided in Colville.

## *Conclusions*

The FMSRTT has met its educational goals in providing an alternative model of graduate medical education designed specifically to prepare its graduates for practice in the rural Pacific Northwest. Seventeen of the 18 graduates practice within the region and 15 (83 percent) practice in rural communities. Ten graduates practice in or near their rural training sites, including four in Colville, two in Ellensburg and one in Goldendale. Changes in the Program Requirements for Residency Education in Family Practice in 1997 and the BBA have both had profound effects on the program, necessitating the closure of three training sites. Our experience has shown the FMSRTT offers high-quality, cost-effective graduate medical education that has been well subscribed to by medical school applicants. However, rural-based graduate medical education is a fragile model vulnerable to changes in the local economy, a reduction in the number of key physician faculty and changes in the outside funding of graduate medical education and patient care services. Mount Carmel Hospital and the Northeast Washington Medical Group have collaborated in conducting the FMSRTT in Colville since 1986. Their ability to appreciate the local benefits of rural-based graduate medical education and their willingness to support the financial and educational requirements have enabled the FMSRTT to continue as a national leader in the education of family practice residents.

## *References*

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