Rural family medicine training in Canada

JAMES T.B. ROURKE, MD, CCFP(EM)
LESLIE L. ROURKE, MD, CCFP

OBJECTIVE To examine the status of postgraduate family medicine training that occurs in rural family practice settings in Canada and to identify problems and how they are addressed.

DESIGN A retrospective questionnaire sent to all 18 Canadian family medicine training programs followed by a focus group discussion of results.

SETTING Canadian university family medicine training programs.

PARTICIPANTS Chairs or program directors of all 18 Canadian family medicine training programs and people attending a workshop at the Section of Teachers of Family Medicine annual meeting.

MAIN OUTCOME MEASURES Extent of training offered, educational models used, common problems for residents and teachers.

RESULTS Nine of 18 programs offer some family medicine training in a rural practice setting to some or all of their first-year family medicine residents, and 99 of 684 first-year family medicine residents did some training in a rural practice. All programs offer some training in a rural practice to some or all of the second-year residents, and 567 of 702 second-year residents did some training in a rural setting. In 12 of 18 programs, a rural family medicine block is compulsory. Education models for training for rural family practice vary widely. Isolation, accommodation, and supervision are common problems for rural family medicine residents. Isolation and faculty development are common problems for rural physician-teachers. Programs use various approaches to address these problems.

CONCLUSIONS The variety of postgraduate training models for rural family practice used in the 18 training programs reflects different regional health care needs and resources. There is no common rural family medicine curriculum. Networking through a rural physician-teachers group or a faculty of rural medicine could further the development of education for rural family practice.

OBJECTIF Examiner la situation de la formation postdoctorale en médecine familiale offerte en milieu rural canadien et identifier les problèmes et les pistes de solutions.

CONCEPTION Questionnaire rétrospectif envoyé aux 18 programmes canadiens de résidence en médecine familiale suivi d'une session de groupe pour discuter des résultats.

CONTEXTE Les programmes universitaires canadiens de résidence en médecine familiale.

PARTICIPANTS Les directeurs de département ou les directeurs des 18 programmes canadiens de résidence en médecine familiale et les individus qui ont participé à un atelier lors de la rencontre annuelle de la Section des enseignants en médecine familiale.

PRINCIPALES MESURES DES RÉSULTATS L'étendue de la formation offerte, les modèles éducatifs utilisés et les problèmes courants vécus par les résidents et les enseignants.

RÉSULTATS Neuf des 18 programmes offrent une certaine formation en médecine familiale dans un contexte rural à quelques-uns ou à tous leurs résidents de 1re année, c'est-à-dire que 99 des 684 résidents de 1re année ont reçu une partie de leur formation en milieu rural. Par ailleurs, tous les programmes offrent une certaine formation en pratique rurale à quelques-uns ou à tous leurs résidents de 2e année, c'est-à-dire que 567 des 702 résidents de 2e année ont reçu une partie de leur formation en milieu rural. Dans 12 des 18 programmes, le stage de médecine familiale en milieu rural est obligatoire. On constate de grandes variations entre les modèles éducatifs de formation en médecine rurale. L'isolement, l'hébergement et la supervision sont des problèmes courants pour les résidents de médecine familiale en milieu rural. L'isolement et la formation professorale sont des problèmes courants chez les médecins enseignants du milieu rural. Les programmes font appel à différentes approches pour solutionner ces problèmes.

CONCLUSIONS La variété des modèles de formation postdoctorale applicables au milieu rural et utilisés par les 18 programmes de formation reflète les différences régionales en termes de besoins et de ressources en soins de santé. Il n'y a pas de programme commun de formation pour la médecine en milieu rural. Le mise sur pied d'un réseau constitué d'un groupe d'enseignants du milieu rural ou la création d'une faculté de médecine rurale pourrait favoriser l'amélioration de la formation préparatoire à la pratique en milieu rural.

Can Fam Physician 1995;41:993-1000.

Drs James *and* Leslie Rourke *practise and teach rural family medicine in Goderich, Ont, and are Assistant Professors (part-time) in the Department of Family Medicine at The University of Western Ontario in London.*

Rural family medicine training in Canada

VAST RURAL AREAS THAT HAVE shortages of physicians make it more difficult to provide adequate, accessible health care in rural Canada. Over the last decade the departments of family medicine in Canada have responded to the need for training physicians for rural family practice by incorporating a rural experience for most family medicine residents and the opportunity for in-depth rural family medicine training for some.[1] This study examines postgraduate family medicine training for rural family practice in Canada with a view to identifying strengths and needs for improvement.

In Canada, students enter medical school after completing 2, 3, or more years of undergraduate university studies. Fourteen of the 16 medical schools' programs are 4 years in length. The remaining two are 3 years in length. Family medicine training is provided at 18 family medicine training programs (*Table 1*) as a 2-year postgraduate program accredited by and leading to certification examination by the College of Family Physicians of Canada (CFPC).[2] Family medicine block time during this 2-year program varies from the prescribed minimum of 8 months to a maximum of 12 months, some of which can be in a rural setting. The remaining time is spent in hospital rotations and electives or selectives. An optional third year can be taken for advanced skills training, such as anesthesia, emergency medicine, or obstetrics.

The choice of rural family practice as a career depends on many variables, including rural background, medical school selection processes, rural learning experience during medical school, and the quality and nature of postgraduate family medicine training.[1,3-6] Postgraduate education for rural family practice includes both appropriate in-hospital rotations and some rural family medicine block time.[7-9] Several Canadian models have been described.[10-14] Our present study specifically examines the portion of family medicine block training that is done in a rural setting within the 2-year family medicine training program.

Rural family practice sites can vary from communities with no hospitals to communities with small active hospitals. In the latter setting, family physicians provide most of the in-hospital care including emergency medical care, obstetrics, and anesthesia in addition to their office practice, nursing home duties, and home visits.[3,15,16] Most Canadian studies of rural practice use the Statistics Canada definition of rural, which includes communities up to 10 000 population. Sometimes a geographic distance modifier is added. The 1992 Canadian Medical Association report on underserviced regions used distances of less than 60 km, 60 to 160 km, and more than 160 km from an urban centre of 50 000 people or more.[1] The 1993 Ontario Ministry of Health–Ontario Medical Association Interim Agreement on Economic Arrangements provides for special continuing medical education and locum help for physicians practising in communities of fewer than 10 000 people located farther than 80 km from a major referral centre where the population exceeds 50 000.[17] In our questionnaire, rural practice and rural setting refer to "a community with less than 10 000 population."

The objectives of this study were to examine the present status of training that occurs in rural family practice settings in Canadian postgraduate family medicine programs and to identify problems and how they are addressed in order to determine strengths of, difficulties with, and possible improvements to postgraduate family medicine training in rural family practice.

METHODS

A five-page questionnaire was sent in July 1993 to the chairs or program directors of all 18 family medicine training programs in Canada. All were completed and returned. The results

Table 1. **Canadian postgraduate family medicine training programs**

- University of British Columbia
- University of Calgary
- University of Alberta
- University of Saskatchewan
- University of Manitoba
- University of Western Ontario
- McMaster University
- Lakehead University, affiliated with McMaster University (Northwestern Ontario Family Medicine Program)
- University of Toronto
- Queen's University
- University of Ottawa
- Laurentian University, affiliated with University of Ottawa (Northeastern Ontario Family Medicine Program)
- Université de Sherbrooke
- Université de Montreal
- McGill University
- Université Laval
- Dalhousie University
- Memorial University

were presented to a CFPC Section of Teachers of Family Medicine workshop, "Successful Resident Teaching in Rural Community Practice," held in November 1993. This workshop functioned as a focus group, adding a qualitative dimension to the survey, and forms the basis for the discussion in this paper.

RESULTS

Models and lengths of rotation

Total family medicine block time varied from 8 to 12 months. The rural family medicine block generally occurs during second year, although half of the programs offer a rural family medicine block to some or all first-year family medicine residents. Ninety-nine of 684 first-year family medicine residents did some training in a rural practice. All of the programs offer a rural family medicine block to some or all of second-year residents. Most (567 of 702) second-year residents did some training in a rural setting. In 12 of 18 programs, a rural family medicine block is compulsory. Ten programs had short compulsory rural blocks: five for 1 month, four for 2 months, and one for 3 months. Two programs had long compulsory rural medicine blocks: one for 4 months and one for 6 months. Optional rural family medicine blocks ranged from 1 to 12 months.

Resident acceptance

Residents' ratings for rural family medicine blocks were reported as equal to or higher than other family medicine blocks.

Addressing resident problems

The 18 chairs or program directors were asked to describe any problems or difficulties their residents have with their rural family medicine training block and how these are addressed (*Table 2*).

The greatest problem was isolation. The programs listed a variety of ways to address this problem. These included placing two residents at each site, maintaining regular phone contact with other faculty, establishing a resident "buddy" for monthly contact, assigning a faculty adviser, returning to base for combined learning and social sessions, using computer and fax communications, offering on-site visits by rural coordinators, and establishing weekly base teaching sessions with a monthly support group for the "out of town" residents. The next most commonly listed resident problems were accommodation and resident supervision.

Table 2. **Resident problems or difficulties**

PROBLEMS OR DIFFICULTIES	NO. OF PROGRAMS REPORTING (N=18)
Isolation	11
Accommodation	5
Resident supervision	5
Travel	1
Lack of intensive skill training	1
Specialty education	1
No hospital affiliation	1

Addressing difficulties for rural physician-teachers

The 18 chairs or program directors were asked to describe any problems or difficulties that their rural physician-teachers have and how these are addressed (*Table 3*). As with the resident problems, the largest issue for rural physician-teachers was isolation.

The problem of isolation was partly addressed through faculty development. Respondents were specifically asked how they provide and encourage faculty development for their rural physician teachers (*Table 4*). Seventeen of the 18 programs listed some funded faculty development programs. Despite the many types of faculty development, in some cases the amount is summed up in one respondent's comment, "but I fear we do not do nearly enough."

Four programs listed communication with site visits or meetings of the rural program coordinator with rural

physician-teachers as other ways to address isolation. Specific aspects of department and program support are listed in *Table 5*.

DISCUSSION

Successful rural family medicine education depends on a variety of factors, including undergraduate experience, resident interest and background, the overall postgraduate family medicine training program, the rural family medicine block experience, the rural faculty, and program support. This study examined the portion of family medicine block training that is done in a rural setting within the 2-year family medicine training program.

Table 3. **Rural physician-teacher problems or difficulties**

PROBLEMS OR DIFFICULTIES	NO. OF PROGRAMS REPORTING (N=18)
Isolation (from university)	7
Faculty development	5
Inadequate compensation	3
Integration of residents into community hospitals	1
Patient acceptance and patient "fatigue"	1
Time for supervision evaluation	1
Dealing with "troublesome" residents	1
Lack of feedback from program	1
Developing sufficient academic activity	1
Recruitment and retention of physician-teachers	1

The information in this study of rural family practice training in Canada was obtained from questionnaires sent to the chairs and program directors of the 18 family medicine training programs. All 18 were completed and returned, eliminating concerns about responder bias. The information supplied, however, is limited in that it was not obtained directly from rural family medicine residents and rural physician-teachers. That would require a much larger study and resources beyond the scope of this project.

The Section of Teachers of Family Medicine workshop, "Successful Resident Teaching in Rural Community Practice," provided focus group qualitative validation of the questionnaire results and the basis for the discussion part of this paper. The discussion will be broadly divided into resident and learning issues and rural physician-teacher and teaching issues.

Resident and learning issues

A variety of factors contribute to the popularity and high ratings for rural family practice training. Generally residents are welcomed into the communities and feel more personally involved. Rural family practice teaching provides diverse clinical learning opportunities with a mixture of office, housecalls, nursing home, and hospital responsibilities including inpatient care, obstetrics, and emergency work. In local hospitals residents can have a more responsible role in patient care than in large tertiary centres where there are many other more senior residents. The typical one-on-one placement of a resident with a rural physician-teacher encourages Socratic mentorship and strong personal relationships. Despite the popularity and high ratings for rural family practice training, our study results indicate several issues and problems that should be discussed and addressed.

Goals and models. The results show a variety of approaches to rural family medicine education among the 18 postgraduate family medicine training programs in Canada. There are no set objectives, curriculum, or standard model for rural family medicine training in Canada. Experiences range from a brief 1-month exposure to rural family practice to a 12-month in-depth contextual rural family medicine education.

Most Canadian family medicine residents have some exposure to a rural family practice, mainly through

compulsory 1- or 2-month second-year rural family medicine blocks. This short experience provides a sample of the joys and challenges of a rural family practice and can encourage some to choose this as a career. It is too short, however, for residents to take much responsibility within the rural family practice and does not allow an in-depth rural medicine education. With the short model, most of the family medicine learning is done in the traditional family medicine university centres. The short duration minimizes the difficulties of isolation from families and peers.

Longer in-depth rural family medicine training models range from 4 months to 12 months of rural family medicine block time. Such a long rural placement is optional at most of the family medicine programs; at two it is compulsory. Because the rural placement forms a large part or all of the family medicine block for those residents, education must go beyond a rural practice experience and cover the many general aspects and objectives of family medicine education.[2] This can pose a considerable challenge with the need for group learning activity and family medicine course work in addition to case-based experiential learning.

Most long training blocks in rural family medicine occur during the second year. This allows residents to develop general family practice skills and to do course work and group learning activities within the traditional university-centred family medicine teaching unit during the first year.

With the long rural placement model, resident group learning activities are important for educational reasons and are essential for peer social support and interaction, which can be difficult or lacking in the rural setting. If rural block residents are located within a 1- to 1.5-hour commuting distance of the university, course work and group learning activities can be provided through a half- or whole day weekly group activity and seminar series at the university. When distances are greater, regularly scheduled 2-day or longer resident conferences can be held either at the university or in various sites.

Isolation from peers and family. Isolation from peers and family is the most difficult problem for family medicine residents in a rural setting, especially during long rural family medicine blocks. It can be particularly difficult for minorities and for residents with spouses or children who cannot move with them to the rural training setting. Having just completed a very social medical school experience, first-year residents often have more difficulty adjusting to the rural practice setting than second-year residents.

The cost of transportation to ameliorate some of this isolation can be prohibitive for residents who are already deeply in debt from their previous educational costs. University or government support for return transportation can be crucial to the residents' acceptance of and benefit from rural training. Adequate accommodation also needs to be provided. Other approaches include development of a buddy system with other residents and involvement of the rural practice coordinator and faculty advisers for the residents. Ready access to fax communication and computer communication bulletin boards can also help.

The role of community physician-teachers in helping residents feel

Table 4. **Faculty development**

FORM OF DEVELOPMENT ACTIVITY	NO. OF PROGRAMS REPORTING (N=18)
Annual or semi-annual retreat or workshop	11
Funding for attending Section of Teachers of Family Medicine conference	6
Site visits	1
Monthly teleconferences	1
Masters level courses	1
"Grateful Med" software and training	1
University-based faculty development	1

welcomed cannot be understated. Rural physician-teachers need to be attentive to and supportive of the residents' various needs. This often involves helping them feel integrated, not only in the medical practice and professional community, but also in the community at large (involving leisure and recreational activities). Residents, like other people, also have health care needs. While at times it might be convenient for the rural physician-teacher to provide medical care to the resident, this is inappropriate and can lead to a conflicting blurring of relationship boundaries. Alternative arrangements, however, must be facilitated.

Table 5. **Department and program support:** *Respondents were asked specific questions about program support.*

PROGRAM SUPPORT	NO. OF PROGRAMS REPORTING (N=18)
Physician responsible for the rural component of residency program	16
Specific secretarial support for the physician in this role	16
Resident accommodation paid primarily by university or government	14
Resident responsible for some or all of resident accommodation costs	5
Rural physician-teacher responsible for some or all of resident accommodation costs	4
Resident travel costs to and from university paid by university or government	17
Videotape equipment paid for by university or government	11
Physician-teacher travel costs to and from university paid by university or government	17
Stipend* paid by university to physician-teacher in addition to the fee-for-service billing of the resident	13

**The stipend varied from "peanuts" to more than $1000/mo.*

Rural physician-teacher and teaching issues

Like rural family practice, teaching rural family medicine brings many joys and challenges. Teaching is an excellent but sometimes humbling way to remain current in skills and knowledge, as the residents not only bring new ideas from their recent university training, but also often ask difficult questions. As the family medicine residents are often involved in patient care with physicians other than their supervisor, this can have a beneficial spillover effect for other physicians in the community.

Rural physicians sometimes become physician-teachers to add a midcareer interest and challenge to what has become, for them, a comfortable routine. This requires some letting go and delegation of some direct patient care to the resident. For some this can be quite difficult. Many rural physician-teachers find having one resident at a time still allows them to see many of their patients while the resident sees some. This level of shared care tends to be reasonably well accepted by the rural physician's patients as well, although patient "fatigue" with seeing residents can be a problem, particularly in practices where there is a high turnover of residents, such as in the short 1- or 2-month rural experience model.

Faculty development is an important concern for rural physician-teachers and their departments of family medicine. Some physicians find teaching easier than others, but for all it is a skill that can be developed. Teaching involves a body of knowledge and teaching skills that can be learned. This is particularly important for physician-teachers who have residents with them for a long, in-depth rotation where they will be responsible for not only providing a rural experience but teaching fundamental family medicine knowledge and skills. Rural physician-teachers need to keep up-to-date in knowledge and skills not only in general family medicine but also in the fields of obstetrics, emergency medicine, and sometimes anesthesia. This can be a daunting task.

Fitting in necessary teaching and clinical commitments makes juggling schedules more complicated. Obstetrics and emergency calls,

however, are in fact easier to handle with two pairs of hands rather than one.

Funding issues are an important concern. Several premises can be made. The rural physician-teacher's total income and time commitment should be about the same as if not teaching. Some of the time that would be spent providing purely clinical work should now be spent teaching. This includes time for one-on-one clinical supervision, direct viewing, videotape review, patient chart reviews, joint rounds, tutorials, and other scheduled and formal discussion time. Rural physician-teachers also need time for faculty development, the necessary administrative and meeting commitments, and we hope, some time for rural practice research to advance the discipline.

To sustain these programs, funding needs to be provided for teaching and associated activities. Some of this comes from the residents' clinical earnings, which generate teaching time; however, the physician-teacher will be involved in supervising those patient encounters as well. Usually further departmental funding is required to make up the shortfall and also to cover the additional office expenses that are required for a resident. These include additional staff time used in explaining teaching to patients and the need for increased office space. Universities should provide videotaping equipment or should install one-way mirrors for direct viewing of residents with patients. When universities pay either little or no stipend, rural physician-teachers will be less committed to teaching and residents are more likely to feel used as a locum within a less-than-optimal learning and teaching environment.

Isolation is also a problem for rural physician-teachers. While rural physician-teachers have their own community support for clinical work and social activity, teaching is often a new interest and experience that is not necessarily shared by other physicians in that community. It is helpful if, in each rural teaching community, at least two physicians share the teaching responsibility and commitment. This encourages shared development of this endeavour and provides a sounding board during rough times. (It also gives residents more than one role model and a balancing view if the resident has conflicts with one physician-teacher.) Communication by teleconference, fax, and computer networking with other rural physician-teachers and the rural program coordinator is essential but no substitute for personal contact and site visits.

An ill, troubled, or troubling resident poses a particular challenge in a long rural family medicine block. The rural physician is less able to go down the hall and talk to another experienced physician-teacher about the issue and could be tempted to become inappropriately overinvolved, as local resources are often limited. Under these circumstances, the rural coordinator becomes invaluable. Often site visits and discussions can help resolve the issues and underlying conflicts, and both resident and rural physician-teacher can carry on in an improved relationship. Depending on the troubling issues or illness, however, alternative arrangements, such as placing the resident in another setting, could be required.

Conclusion

There is a shortage of family physicians in many of the vast rural areas in Canada. Education is a key factor in recruitment and retention of rural physicians. Exposure to the joys and challenges of rural practice encourages family medicine residents to consider rural practice as a career.

Providing some family medicine training within the context of the rural family practice setting is an important part of education for rural family practice. Canadian family medicine training programs have responded to this challenge by developing a variety of models that integrate training in the rural setting into the 2-year postgraduate family medicine program. These vary from 1-month compulsory rural family

medicine blocks to fully integrated rural family medicine training models where all of the family medicine block time occurs within the context of the rural setting. This variety of models has developed in response to different regional health care needs and resources and provides residents applying for family medicine training positions the flexibility of choosing training models that best suit their learning needs and personal situation. This approach, however, lacks the cohesion of a common rural medicine curriculum.

Common problems with family medicine education in rural settings include isolation, accommodation, and supervision for rural residents, and isolation and faculty development for rural physician-teachers. These are difficult to address, but many positive strategies have been developed in the 18 family medicine training programs. Networking through a physician-teachers' group or a faculty of rural medicine could facilitate the development of rural practice education through discussion of problems and sharing of approaches and solutions. ■

Acknowledgments

We thank all 18 chairs and program directors of the Canadian postgraduate family medicine training programs for completing the survey. We thank the participants in our session, "Successful Resident Teaching in Rural Community Practice," for their contributions to the discussion at the Section of Teachers of Family Medicine annual meeting in November 1993.

Correspondence to: *Drs James and Leslie Rourke, Family Physicians, 53 North St, Goderich, ON N7A 2T5*

References

1. Canadian Medical Association. *Report of the Advisory Panel on the Provision of Medical Services in Underserviced Regions.* Ottawa: Canadian Medical Association, 1992.
2. College of Family Physicians of Canada. *General information and regulations on program accreditation and examinations.* Mississauga, Ont: College of Family Physicians of Canada, 1993.
3. Rourke J. Politics of rural health care: recruitment and retention of physicians. *Can Med Assoc J* 1993;148:1281-4.
4. Blackwood R, McNab J. A portrait of rural family practice: problems and priorities. In: *The family physician as primary health care provider. A report on the multiple roles of the family physician in the Canadian health care system.* Mississauga, Ont: The College of Family Physicians of Canada, 1993:15-27.
5. Carter R. The relationship between personal characteristics of physicians and practice location in Manitoba. *Can Med Assoc J* 1987; 136:366-8.
6. Rabinowitz HK. Recruitment, retention and follow up of graduates of a program to increase the number of family physicians in rural and underserved areas. *N Engl J Med* 1993;328:934-9.
7. Carter R. Training for rural practice: what's needed? *Can Fam Physician* 1987;33:1713-5.
8. Longhurst MF. Training for rural practice: what is the core curriculum? *Can Fam Physician* 1987;33:2763-7.
9. Rourke J. Postgraduate education for rural family practice. *Can Fam Physician* 1988; 34:1057-60.
10. Whiteside CBC, Longhurst MF. Establishment of a community-based residency training program. *Can Fam Physician* 1987; 33:2751-4.
11. Finnemore BI. Residency training north of the treeline. *Can Fam Physician* 1988;34:1547-8.
12. Hirsh M, Wootton JSC. Family medicine in rural communities. The McGill experience. *Can Fam Physician* 1990;36:2011-6.
13. Fine JPH. The rural physician as preceptor. *Can Fam Physician* 1990;36:2020-6.
14. Thorne S. Move to decentralize family practice residencies may help solve MD maldistribution problems. *Can Med Assoc J* 1993;148:1601-2.
15. Rourke J. Perspectives on rural medical care in Ontario. *Can Fam Physician* 1991; 37:1581-4,1647.
16. Rourke J. Small hospital medical services in Ontario. Part 1: Overview. *Can Fam Physician* 1991;37:1589-94.
17. Rourke J. Politics of rural medical care: forces for change. *Ont Med Rev* 1994; 61(8):17-22.

• • •