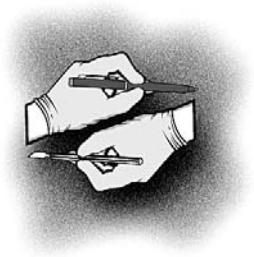

Big cities and bright lights: rural- and northern-trained physicians in urban practice

Raymond W. Pong, PhD

Centre for Rural and Northern Health Research, Laurentian University and Northern Ontario School of Medicine Sudbury, Ont.

Benjamin T.B. Chan, MD, MPH, MPA

Saskatchewan Health Quality Council and College of Medicine, University of Saskatchewan, Saskatoon, Sask.

Tom Crichton, MD

Northern Ontario School of Medicine Sudbury, Ont.

James Goertzen, MD

McMaster University, Faculty of Health Sciences, Hamilton, Ont.

William McCready, MD

Northern Ontario School of Medicine Sudbury, Ont.

Jim Rourke, MD, MClSc(FM)

Faculty of Medicine, Memorial University of Newfoundland, St. John's, Nfld.

Correspondence to: Raymond W. Pong, Centre for Rural and Northern Health Research, Laurentian University, Ramsey Lake Road, Sudbury ON P3E 2C6

This article has been peer reviewed.

Introduction: Rural medical education is increasing in popularity in Canada. This study examines why some family physicians who completed their residency training in northern Ontario decided to practise in urban centres.
Methods: We used a qualitative research method. We interviewed 14 graduates of the Family Medicine North program and the Northeastern Ontario Family Medicine program. The interview transcripts were content-analyzed.
Results: There were different pathways leading to urban practice. While some pathways were straightforward, others were more complicated. Most participants offered multiple reasons for choosing to work in urban areas, suggesting that the decision-making processes could be quite complex. Family and personal factors were most frequently mentioned as reasons for choosing the urban option. The needs of the spouse and the children were especially important. Most of the participants had no plans to return to rural medical practice, but even these physicians retained some vestiges of rural practice.
Conclusion: Most Canadian medical schools now offer some rural medical training opportunities. The findings of this study provide some useful insights that could help medical educators and decision-makers know what to expect and understand how practice location decisions are made by doctors.

Introduction : La formation en médecine rurale gagne en popularité au Canada. Cette étude examine les raisons pour lesquelles des médecins de famille qui ont terminé leur résidence dans le nord de l'Ontario ont décidé de pratiquer dans des centres urbains.
Méthodes : Nous avons utilisé une méthode de recherche qualitative. Nous avons interviewé 14 diplômés du programme de médecine familiale du nord et du programme de médecine familiale du nord-ouest de l'Ontario. Nous avons analysé le contenu du compte rendu des entrevues.
Résultats : Les voies menant à la pratique en milieu urbain différaient. Même si certaines étaient directes, d'autres étaient plus compliquées. La plupart des participants ont présenté de multiples raisons pour justifier leur décision de travailler en milieu urbain, ce qui indique que les processus de prise de décision pourraient être très complexes. Ils ont mentionné le plus souvent des facteurs familiaux et personnels pour justifier leur choix de l'option urbaine. Les besoins des conjoints et des enfants étaient particulièrement importants. La plupart des participants ne prévoyaient pas retourner pratiquer la médecine en milieu rural, même s'ils en gardaient quelques vestiges.
Conclusion : La plupart des facultés de médecine du Canada offrent maintenant des possibilités de formation en médecine rurale. Les résultats de cette étude présentent des aperçus utiles qui pourraient aider les éducateurs en médecine et les décideurs à savoir à quoi s'attendre et à comprendre comment les médecins choisissent l'endroit où ils pratiqueront.

INTRODUCTION

Shortages of physicians in rural areas have been a long-standing problem in Canada as well as in many other countries. A study by Pong and Pitblado[1] has shown that just under 16% of family physicians and only 2.4% of specialists

© 2007 Society of Rural Physicians of Canada

were located in rural and small-town Canada, where slightly over 21% of the population resided in 2004. Many attempts have been made in this country to recruit physicians to work in non-urban areas and to keep them there as long as possible, mostly by offering them financial and other incentives or by improving rural physicians' practice environment; however, these have had varying degrees of success.[2–4]

In recent years, more attention has been paid to medical education as a long-term solution. It has been shown that physicians from a rural background and those with extensive rural exposure during medical education are more likely to become rural physicians,[5–8] but not all physicians trained in rural settings end up practising in rural communities. Some of them choose to work in urban centres.

Relying mostly on surveys, many studies conducted in Canada and other countries have examined factors that influence physicians' decisions to work or not to work in rural areas and to stay or not to stay in rural practice.[9–13] In 1991, the Canadian Medical Association surveyed 400 physicians who had relocated their medical practices from rural to urban areas.[14] Factors that were found to be important in shaping the decisions of physicians to forsake rural practice were (in descending order of importance) work hours, children's education, spouse's job opportunities, recreation, professional backup, cultural opportunities, availability of specialty services, opportunity for additional training and earning potential.

With few exceptions, past studies have focused mostly on rural physicians or former rural physicians who may or may not have received formal training in rural medicine. It is likely that most of them acquired rural practice skills experientially since rural medical education is a relatively recent phenomenon in Canada.[15] By contrast, the subjects of the present study are physicians who have received 2 or more years of training specifically designed to familiarize them with non-urban practice settings and to equip them to work in northern Ontario or rural areas.

This study is one component of a larger research project — supported by the Canadian Institutes of Health Research — whose overall objective is to examine the extent to which rural medical education in Canada is successful in producing rural physicians. Our component of the research project seeks to understand why some family physicians who were trained in northern Ontario opted for "big cities and bright lights" instead of working in rural communities.

Methods

Research context

Two 2-year family medicine residency programs were established in northern Ontario in 1991 to prepare physicians for medical practice in northern Ontario and rural communities. The Sudbury-based Northeastern Ontario Family Medicine (NOFM) program was affiliated with the family medicine program of the University of Ottawa, and the Thunder Bay-based Family Medicine North (FMN) program with McMaster University (it should be noted that both programs have since been incorporated into the new Northern Ontario School of Medicine of Laurentian University and Lakehead University). Most of the clinical training took place in northern Ontario. Except in the initial years, the 2 programs combined accepted about 30 residents annually.

Participants

For our study, we chose graduates of FMN and NOFM practising in urban centres at the time of the research. We chose these 2 programs because they are the first full-fledged family medicine residency programs in Ontario with a mission to train physicians for northern or rural practice and because they have produced a sizeable number of graduates. The 2 programs are also sufficiently similar in nature that they can be examined together.

The names of graduates who completed their family medicine training at FMN and NOFM between 1993 and 2002 and their contact information, if available, were provided by the 2 programs. We contacted all graduates who were known to be working in "larger urban centres" at the time and asked if they would be willing to take part in the study. Fourteen were successfully contacted and agreed to participate.

This study used a qualitative research methodology. In-depth interviews were conducted over the telephone by 2 researchers. The interviews took place from late 2003 to early 2004. The interviews followed an interview protocol, but the participants were encouraged to speak freely and provide whatever information they felt was relevant. The interviews lasted about 40 minutes on average. The interviews were tape recorded with the permission of the interviewees and transcribed verbatim by a research assistant. The transcripts were then perused and content-analyzed by the first author.

The content analysis focused on several themes, including background characteristics of the participants, reasons for doing residency training in northern Ontario, career paths and transition to urban practice, reasons for practising in cities, likes and dislikes about rural and urban medical practice, and future practice plans. All transcripts were then read a second time and the initial content analysis was reviewed to ensure proper interpretation, classification and inclusion of information.

Definition of rural

Since this study focuses on knowing why some FMN and NOFM graduates decided to practise in larger urban centres, it is necessary to determine what "larger urban centres" mean in the present context. In Canada, there are no officially sanctioned or universally accepted definitions of "rural." Communities with a population of less than 10 000 and that are not in close proximity to a city are generally considered rural.[16] Similarly, there is no consensus on what "northern" means. In the present study, "northern" refers mostly to northern Ontario as defined administratively by the provincial government (i.e., the region of the province that is north of, and including, the District of Parry Sound).

Northern Ontario is not entirely rural or remote. There are several small and mid-sized cities such as North Bay, Sault Ste. Marie, Sudbury and Thunder Bay. Thus it is the mandate of the 2 programs to train family physicians to work in northern Ontario cities as well as in small or remote communities.

In this study, Sudbury (population 155 000) and Thunder Bay (population 120 000) are put in the "larger urban centre" category, because practising in these 2 urban centres may be more like practising in other mid-sized cities than in rural or remote communities. Both cities have a fairly large regional tertiary care hospital, other health care services (e.g., cancer treatment centres, mental health programs and nursing homes) and a considerable number of specialists. Thus, for the purpose of this study, "larger urban centres" refer to cities with a population of 100 000 or more (including those in northern Ontario). This also corresponds to the Census Metropolitan Area definition used by Statistics Canada.

This component of the research project was approved by the Research Ethics Board at Laurentian University. All interviewees gave informed consent verbally over the telephone.

Results

We conducted 14 interviews of family physicians. Since the FMN graduates as a group did not differ substantially from the NOFM graduates as a group with respect to demographic characteristics and the nature of their responses, the 2 programs are not distinguished in the presentation of findings. When a quote from a participant is used, the individual is identified only by his or her identification number (in parentheses).

Characteristics and practice locations of research subjects

Table 1 presents the characteristics of the subjects and Table 2 shows their practice locations at the time of the interviews. It is worth noting that most of the subjects did not come from a rural background. Most of them obtained their undergraduate medical degrees from universities in Ontario. Close to one-half of the interviewees were practising in northern Ontario (i.e., in Sudbury and Thunder Bay), with the remainder working in mid-sized or large cities in southern Ontario or other provinces such as Ottawa, Windsor and Edmonton. However, no one practised in very large cities such as Toronto and Vancouver.

Transition to urban practice

The interviewees were asked to indicate where they had practised since completion of their residency training. If they had worked in more than one community, they were asked to identify each community,

Table 1. Respondents' (n = 14) demographic and medical training characteristics

Characteristic	No. of respondents
Sex	
Male	8
Female	6
Rural background	
Yes	4
No	10
Program	
NOFM (Sudbury)	8
FMN (Thunder Bay)	6
Year of completion of residency	
1993–96	7
1997–99	4
2000–02	3

NOFM = Northeastern Ontario Family Medicine program; FMN = Family Medicine North program.

how long they had worked in each place, the nature of their practice and why they decided to relocate. The information was used to chart a career path for each physician and to establish patterns of transition to urban practice.

Several patterns can be identified. Five physicians started practising in an urban setting immediately after graduating from FMN or NOFM. Six physicians gravitated toward urban practice following a short period of working as locum tenens (most of the locums were in rural areas), travelling and (or) further medical training. Both of these patterns suggest little (for those doing rural locums) or no rural practice before working in an urban setting. The third pattern is characterized by a period of rural practice lasting one or more years followed by the transition to an urban practice. There are 2 physicians in this category. One physician moved back and forth between rural communities and cities.

Reasons for choosing urban practice

In analyzing in-depth interviews, it is useful to know what factors were not reported by the interviewees as being responsible for their decisions to practise in cities. First, their decision to work in cities was not because they were disinterested in rural practice. Most thought that rural practice was more rewarding, particularly in terms of autonomy, variety of clinical work and respect from patients. When asked to compare their current urban practice with their previous rural practice, several subjects expressed what could be described as a sentiment of rural nostalgia. As one subject remarked, "urban family practice is boring, to a large extent, I should say" (respondent 07).

Second, the decision to move to urban practice was not because physicians were insufficiently prepared for rural practice. As a matter of fact, almost all respondents had nothing but praise for the 2 residency programs and the preparation they provided for northern or rural practice. When asked to comment on the quality of his residency training, one interviewee said it gave him "an increased level of confidence in the [northern] practice setting" (respondent 14).

Third, only one physician mentioned that there was no opportunity to set up a practice in a rural community in which he and his family would have liked to live. In other words, lack of medical practice opportunities in rural areas was not a major reason for physicians ending up in cities.

Finally, none of the respondents indicated that they felt inadequately compensated for rural practice. One physician admitted: "I get paid more to work in a rural area than I do to work [in a city]" (respondent 03). In other words, the decision to work in cities was not financially motivated.

When asked to explain why they chose to practise in cities, many subjects offered more than one reason and some mentioned the pros and cons of practising in urban versus rural areas. The responses were examined to identify similar reasons. The reasons were further grouped into 4 main categories: family concerns, personal preferences, returning to roots and professional or political considerations. Table 3 lists the reasons for choosing urban practice and the number of times each reason was mentioned.

Table 2. Respondents' (n = 14) practice locations

Location	No. of respondents
Geographic region	
City in southern Ontario (e.g., Windsor)	7
City in northern Ontario (e.g., Sudbury)	6
City in another province (e.g., Edmonton)	1
Community size	
Large city (250 000 to 1 million people; e.g., Ottawa)	7
Mid-sized city (100 000 to 200 000 people; e.g., Thunder Bay)	7

Family concerns

Family and personal reasons were mentioned most frequently. In particular, the spouse appeared to play an important role in shaping practice location decisions. "Spouse's employment or career" was mentioned 9 times. The following is a typical response:

> The key factor for us was the spouse's occupation. . . I really enjoyed living up in [a mostly rural region in eastern Ontario]. It was a beautiful area and I loved the outdoor[s]. . . But for me the move down [to a mid-sized city in southern Ontario] was really more for [my] spouse's occupation. (respondent 14)

It is worth noting that male physicians were just as likely as female physicians to say that their decisions to work in cities were at least partly due to their spouse's employment or career. It appears that the traditional mobility pattern of the wife following the husband no longer holds true. Other family-related reasons were mostly related to children or the extended family and included lack of good schools for children in rural areas and being too far away from relatives.

Reasons related to "preference for city living by respondent or spouse" were mentioned 6 times. Several interviewees talked about the pluses and minuses of living in a small community. Some of the negative aspects mentioned were social isolation, lack of privacy, lack of stimulation and lack of available services (e.g., good restaurants). One physician remarked, "I think the satisfaction as a family physician is probably greater in rural area[s] in general, except I think that lifestyle in a smaller city or rural area is more difficult" (respondent 03).

Conversely, each of the 7 professional reasons was mentioned only once (Table 3). Two physicians decided to pursue urban practice in northern Ontario for "political" reasons. At the time, the Ontario provincial government was considering new policies (e.g., linking billing numbers of new physicians to their practice locations) to channel newly licensed doctors to smaller or more remote communities. Fearing that they might be "trapped" in a remote location and unable extricate to themselves later on, these physicians decided to make a strategic move by setting up practices in urban communities instead.

The 2 physicians who were originally from northern Ontario and who were still practising there cited "returning home" as their main reason for deciding to work in one of the 2 northern Ontario cities. One of them confided that he wanted to practise in this northern Ontario city "because of the family roots that I have here. My wife is from here too. So that was important" (respondent 12).

Future plans and attachment to rural practice

What about the future? How likely is it that physicians will give up "big cities and bright lights"? The interviewees were asked to ponder their future, particularly in relation to a possible return to rural practice. The results are reported in Table 4.

Most respondents indicated that they had no plans to give up urban practice. One specifically said that after working in a city for several years, the skills needed for rural practice were no longer there. A few of them did not rule out the possibility of eventually returning to rural practice, but said it was not in the foreseeable future. Only 1 physician had made plans to return to rural practice.

This does not, however, necessarily mean that rural medical practice no longer has any appeal to them. On the contrary, it appears that most of the participants had lingering links to rural medical

Table 4. Respondents' future plans for medical practice

Future plan	No. of respondents
No plan to give up urban practice	8
No plan to leave city but desire to practice in nearby small communities	2
No plan to give up urban practice but desire to do rural locums	1
Plan to leave city in a few years but not necessarily for a rural area	1
May return to rural practice when children grown	1
Has made plans to return to rural practice	1

Table 3. Reasons for practising in cities

Reason	No. of respondents
Family concerns	
Spouse's employment or career	9
Cities are better for children (e.g., better schools)	3
Closer to extended family	3
Health problems experienced by family members in northern Ontario	1
Personal preferences	
Subject or spouse preferred city living	6
No ethnic or cultural ties in rural areas	1
Returning to roots	
Originally from Sudbury or Thunder Bay and wanted to return home to practise	2
Professional or political considerations	
Easier to be part-time or have flexible medical practice in cities	1
Professional isolation in rural areas	1
Difficult to specialize in a special field (e.g., palliative care) in rural areas	1
Wanted to do obstetrics in a large centre with full back-up	1
Easier to establish medical practice in northern Ontario city where contacts and networks were established	1
Opportunity to teach in a medical program	1
Concern about proposed heath care policies	2

practice. Almost all regarded rural practice to be more challenging and stimulating than working in an urban environment. Some maintained a broad-scope practice or worked in multiple clinical settings, possibly in an attempt to mimic a rural practice profile, as other studies have shown that rural family physicians tend to have a much broader scope of practice than their urban counterparts.[1,17] Interestingly, several physicians who worked in the 2 northern Ontario cities considered their practices "not rural and not urban." One physician described his practice as a "northern urban" practice, which was deemed to be different from an urban practice in southern Ontario. Another physician explained:

> Thunder Bay, I find, is unique, because they call it a city but you still practise, I feel, like a rural family doctor because we are remote. . . from the rest of Ontario, the bigger centres. So. . . even though there are specialists, there is a big shortage of specialists. So, you still [have] to do so much. . . in terms of your own management. (respondent 11)

Thus they claimed not to have completely given up on rural medicine. Also, as shown in Table 4, a few physicians, though living and working in cities, would like to do some rural locums or see patients in nearby small towns.

Discussion

This study has shown that family and personal factors are the main reasons for choosing to work in cities. There is very little that medical schools or governments can do to alter personal preferences, family relationships or spouses' career aspirations. As one physician put it, "spouse's occupation was a big thing. I don't really know if you can do anything about that" (respondent 08). The importance of spousal influence, especially in relation to spouses' career goals or plans, has also been reported in other studies.[10,11,14,18]

In light of the importance of spousal influence, when recruiting physicians, rural communities should pay special attention to the needs and expectations of the physicians' spouses. A successful recruitment may be short lived if the physician's spouse is not content. The role of a rural physician recruitment committee may need to be expanded to include finding suitable employment for the physician's spouse. This may require involving or getting the cooperation of local businesses and employers. At the very least, rural communities should try to make physicians and their families feel welcome and to integrate them into the community as a way of reducing feelings of social isolation.[19] This is particularly important in light of the expected rise in the number of international medical graduates, many of whom will receive additional medical training in rural areas or may be required by provincial ministries of health to spend some time in underserved communities.

NFM and NOFM

The focus of this study is on those FMN and NOFM graduates who have "abandoned" rural practice, but this does not imply that the 2 residency programs have not fulfilled their mandate. The success of these 2 programs in training physicians to work in northern Ontario and rural areas has been well recognized. A companion study by Heng and colleagues[20] found that just over two-thirds (67.5%) of the person-years of medical practice by FMN and NOFM graduates took place in northern Ontario (including cities) and rural areas.

The success of the 2 programs can also be gauged by how their graduates viewed their training. Many participants said that FMN and NOFM were 2 of the best family medicine residency programs. The one-on-one preceptor model of learning and the opportunity to see many patients and do a lot of hands-on procedures were deemed especially appealing, as exemplified by this comment: "The other thing is that because the model is preceptor-based, I actually received a tremendous amount of direct supervision by very highly qualified individuals" (respondent 02).

It is possible that not all physicians who did their residency at FMN and NOFM had intended to pursue rural practice, at least not for the long haul. When asked if the desire to practise rural medicine was the reason for doing a residency in northern Ontario, one physician admitted, "Well, I mean, not so much. The rural environment wasn't as important to me. The level of training there was" (respondent 08). It is ironic that as the programs become more recognized for their approach and performance, the more likely they are to attract applicants who are more interested in the quality of the programs than they are in becoming rural physicians. It is, therefore, important for rural medicine programs to select trainees who have a genuine interest and desire to engage in rural practice upon graduation. Admittedly, this is easier said than done.

One also needs to be realistic about the outcome of any rural or northern medical education pro-

gram. A certain degree of "attrition" (i.e., graduates not becoming rural or northern physicians) is inevitable, though efforts should be made to lower the attrition rate as much as possible.

Limitations

This study has a few limitations. As it is based on a non-representative sample of graduates from 2 residency programs that are located in one region of the country, the findings are not necessarily generalizable to all former rural physicians or all physicians who have undertaken rural medical training. Like many other studies using a qualitative research approach, this one is exploratory in nature. Its intent is to explore a hitherto understudied topic and to shed new light on how practice location decisions are made. It is, therefore, suggested that future studies involve family physicians from a wider range of medical training programs with a rural or northern orientation. This will help avoid obtaining findings from or drawing conclusions based on just a handful of programs.

Many of the subjects in this study were new physicians — a few had practised for 3 years or less. As a result, we might not have seen the full impact of the need to make important career choice decisions, including decisions to stay or not to stay in rural practice. If a similar study is to be conducted in the next few years, we may see more intricate and interesting career path patterns or we may see more switching back and forth between rural and urban settings. Thus this calls for the continuing monitoring of practice locations as well as examination of decision-making processes.

Conclusion

Decisions regarding where to practise tend to be complex. This is evident in the fact that few participants in this study offered a single reason for working in urban centres. Similarly, there were different pathways leading to urban practice. In some cases, the transition to urban practice was straight forward, like establishing an urban practice immediately after completion of residency training; others were more complicated. Family and personal factors were the main reasons for choosing the urban option. Preference for urban lifestyle and the needs of the spouse or children were especially important. The most often cited reason was the spouse's employment or career. Although most of the participants had no plans to give up on "big cities and bright lights," there appeared to be a lingering attachment to rural practice.

Many new initiatives in rural medical education have been introduced in recent years.[15,21] Most Canadian medical schools now offer some rural medical training opportunities at the undergraduate level, at the post-graduate level or both. There is a desire to know the extent to which these initiatives have been successful in training physicians to work in rural, northern or remote areas. The findings of this study provide some useful insights that could help medical educators and decision-makers know what to expect and understand how practice location decisions are made by doctors.

Acknowledgements: This study is based on a research project funded by the Canadian Institutes of Health Research. The authors also wish to thank Dr. Kate Tilleczek of the Centre for Rural and Northern Health Research for conducting some of the interviews.

Competing interests: None declared.

References

1. Pong RW, Pitblado JR. *Geographic distribution of physicians in Canada: beyond how many and where.* Ottawa (ON): Canadian Institute for Health Information; 2005.

2. Barer ML, Stoddart GL. *Improving access to beeded medical services in rural and remote Canadian communities: recruitment and retention revisited.* Vancouver (BC): Centre for Health Services and Policy Research, University of British Columbia; 1999.

3. Chan B, Barer M. Access to physicians in underserved communities in Canada: something old, something new. *Fifth International Medical Workforce Conference, November 2000: Papers.* Sydney (AU): Australian Medical Workforce Advisory Committee and Commonwealth Department of Health and Aged Care; 2001.

4. Pong RW, Russell N. *A review and synthesis of strategies and policy recommendations on the rural health workforce.* Sudbury (ON): Centre for Rural and Northern Health Research, Laurentian University; 2003.

5. Chan BTB, Degani N, Crichton T, et al. Factors influencing family physicians to enter rural practice.*Can Fam Physician* 2005;51:1246-7.

6. Easterbrook M, Godwin M, Wilson R, et al. Rural background and clinical rural rotations during medical training: effect on practice location. *CMAJ* 1999;160:1159-63.

7. Rourke JTB, Filomena I, Rourke LL, et al. Relationship between practice location of Ontario family physicians and their rural background or amount of rural medical education experience. *Can J Rural Med* 2005;10:231-9.

8. Whiteside C, Mathias R. Training for rural practice: Are graduates of a UBC program well prepared? *Can Fam Physician* 1996;42:1113-21.

9. Cadena A. OMA survey of rural physicians: workload demands, economic constraints chief concerns among respondents. *Ont Med Rev* 1996;63:29-32.

10. Kazanjian A, Pagliccia N. Key factors in physicians' choice of practice location: findings from a survey of practitioners and their spouses. *Health Place* 1996;2:27-34.

11. Pong RW. Setting up medical shops: a study of practice locations of family medicine graduates. In Minore B and Hartviksen C, editors. *Redressing the imbalance: health human resources in rural and northern communities*. Thunder Bay (ON): Lakehead University; 1995.

12. Forti EM, Martin KE, Jones RL, et al. M. Factors influencing retention of rural Pennsylvania family physicians. *J Am Board Fam Pract* 1995;8:469-74.

13. Hays RB, Veitch PC, Cheers B, et al. Why doctors leave rural practice. *Aust J Rural Health* 1997;5:198-203.

14. Canadian Medical Association. *Report of the Advisory Panel on the Provision of Medical Services in Underserviced Regions*. Ottawa (ON): The Association; 1992.

15. Krupa LK, Chan BTB. Canadian rural family medicine training programs: growth and variation in recruitment. *Can Fam Physician* 2005;51:852-3.

16. Pitblado JR. So what do we mean by "rural", "remote" and "northern"? *Can J Nurs Res* 2005;37:163-8.

17. Hutten-Czapski P, Pitblado JR, Slade S. Short report: scope of family practice in rural and urban settings. *Can Fam Physician* 2004;50: 1548-50.

18. Mayo E, Mathews M. Spousal perspectives on factors influencing recruitment and retention of rural family physicians. *Can J Rural Med* 2006;11:271-6.

19. Veitch C, Crossland LJ. Medical family support needs and experiences in rural Queensland. *International Electronic Journal of Rural and Remote Health Research, Education, Practice and Policy* 2005; 5:467. Available: http://rrh.deakin.edu.au

20. Heng D, Pong RW, Chan BTB, et al. Graduates of northern Ontario family medicine residency programs practice where they train. *Can J Rural Med* 2007;12(3):146-52.

21. Tesson G, Strasser R, Pong RW, et al. Advances in rural medical education in three countries: Canada, the United States, and Australia. *Education for Health* 2005;18:405-15.

Service Information

Society of Rural Physicians of Canada (SRPC) members: Subscription price included in membership fee.

Nonmembers (2007 rates): *Individuals:* Canada, $72 (single copy, $30); USA and elsewhere, US$85. *Institutions:* Canada, $116 (single copy, $30); USA and elsewhere, US$126 (single copy, US$30). *Students* $35 Canadian/US$. Please contact the CMA Member Service Centre (see next paragraph) for other information. These rates include surface postage. Canadian subscribers please add 6% GST/14% HST (NS, NB, NL) as applicable.

All subscriptions are payable in advance. Payment should be made to the Canadian Medical Association (CMA) in the funds specified. MasterCard, VISA and American Express are accepted. Orders or requests for information should be addressed to: *CJRM*, CMA Member Service Centre, 1867 Alta Vista Dr., Ottawa ON K1G 3Y6; 888 855-2555 x2307 (Canada/US) or 613 731-8610 x2307; fax 613 236-8864; cmamsc@cma.ca

Missing issues: Claims for missing issues must be made within 3 months of publication date (subject to availability).

Change of address: Send one month before effective date to the CMA Member Service Centre (see above) for Canadian addresses, or to International Media Services of New York, 100 Walnut St., #3, PO Box 1518, Champlain NY 12919-1518 (US and elsewhere).

Reprints: Bulk reprints of *CJRM* articles are available in minimum quantities of 50. For information please contact the reprint coordinator, Janis Murrey, 800 663-7336 or 613 731-8610 x2110; fax 613 565-7704; permissions@cma.ca.

Copyright and Permissions: Copyright for all material is held by the SRPC or its licensors, unless otherwise indicated. You may reproduce or otherwise use material from this journal only in accordance with Canadian copyright law and provided that credit is given to the original source. In the case of photocopying or other reprographic copying, please contact the Canadian Copyright Licensing Agency (Access Copyright): 800 893-5777; www.accesscopyright.ca. For any other use, including republishing, redistribution, storage in a retrieval system or transmission in any form or by any means, please contact Permissions Coordinator, CMA Publications, 1867 Alta Vista Dr., Ottawa ON K1G 3Y6; fax 613 565-7704; permissions@cma.ca

Indexing and Abstracting: *CJRM* is available through the following services: MEDLINE/*Index Medicus*, Ovid Technologies, EbscoHost EJS, ProQuest Information and Learning Company, CAB Abstracts, Global Health and *Ulrich's International Periodicals Directory*. All articles published in *CJRM* are available free at the time of publication at www.cma.ca/cjrm.

RuralMed: Information on RuralMed (the SRPC Listserv) is available online at www.srpc.ca.

Advertising: ***Classified ads:*** Contact Bev Kirkpatrick or Deborah Rodd, *CJRM*, 1867 Alta Vista Dr., Ottawa ON K1G 3Y6; 800 663-7336 or 613 733-8610 x2127/2314, fax 613 565-7488, advertising@cma.ca. See Classified Advertising section of *CJRM* for information on rates. ***Display ads:*** Contact Deborah Woodman (see preceding information); x2159.