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Cover: "Mementos of Superior"

Joan Kelly. Soft pastels. 25" × 39"

Lake Superior shore just south of the Montreal River

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Romanow Commission: an opportunity to communicate

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CJRM 2002;7(2):73

On Mar. 4, 2002, the Commission on the Future of Health Care in Canada (known as the Romanow Commission) began its public hearings in Regina, Sask., birthplace of medicare, its mandate to "[make recommendations] to ensure over the long term the sustainability of a universally accessible, publicly funded health system."¹ This phase of consultation and dialogue is intended to last until June.

On Feb. 6, 2002, its Interim Report² was released. In an accompanying statement Commissioner Roy J. Romanow stated as a basic premise that "All Canadians should have reasonable access to quality care regardless of income or where they reside." The stage is therefore set for the detail, which must eventually sustain these lofty pronouncements. And the devil, as they say, is in the details.

What does all this mean for rural Canada? What is "reasonable access," and who should define it? What will be the input of the one-third of Canadians who live outside the major metropolitan areas, and for whom the problems of access have been a lived reality for decades?

The Society of Rural Physicians of Canada (SRPC) has been, and continues to be, the major voice articulating the rural medical services issues. Increasingly, this voice represents the views of physicians from all 13 provincial and territories. The SRPC has already presented a brief to the Commission, and this brief is available on the Society's Web site.³ Its conclusions must be reinforced at every opportunity as a consensus on the future of Canadian health care emerges from the process.

For evidence that a consensus is emerging one need only look to the multitude of commissions that provincial governments have mandated to look into local issues, and to the similarities of their conclusions. All acknowledge access to services in rural areas to be a significant issue.

Absent, however, from these reflections is a clear direction for the reorganization of rural services. Many jurisdictions (often with the impetus of federal funding) seem to be experimenting with new structures (e.g., Blue Rio in Ontario, GMF [groupe de médecine familiale] in Québec). However, a coherent picture that defines the services rural populations can expect — and which therefore defines the training, funding and support to be provided — seems to be lacking.

It is time for rural physicians, as advocates for their communities, to make themselves heard whenever the Romanow Commission comes to their towns. At the moment, the Interim Report is somewhat slim when it comes to facing rural issues head on. It will be up to those who know the issues best to fill in the gaps for the Commissioner.

It will be up to you!

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une occasion de communiquer

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Le 4 mars 2002, la Commission sur l'avenir des soins de santé au Canada (Commission Romanow) a lancé ses audiences publiques à Regina (Sask.), le berceau de l'assurance-maladie. La Commission a pour mandat de «[formuler des recommandations pour] assurer à long terme la viabilité d'un système de soins de santé universellement accessible et financé sur les deniers publics¹». Ce volet de consultation et de dialogue devrait durer jusqu'en juin.

Le 6 février 2002, la commission a publié son rapport d'étape². Dans une déclaration connexe, le commissaire Roy J. Romano a déclaré comme prémisse fondamentale : «Tous les Canadiens doivent avoir un accès raisonnable à des soins de qualité, peu importe leur revenu et leur lieu de résidence». La table est donc mise pour les détails qui doivent finir par concrétiser ces hautes aspirations. Comme on le dit si bien, les difficultés surgissent des menus détails.

Qu'est-ce que tout cela signifie pour les régions rurales du Canada? Qu'entend-on par «accès raisonnable» et qui doit le définir? Qu'est-ce que le tiers de Canadiens vivant en dehors des grandes régions métropolitaines et qui, depuis des décennies, sont aussi aux prises avec la réalité que constituent les problèmes d'accès auront à dire à ce sujet?

En ce qui concerne les services médicaux en milieu rural, la Société de la médecine rurale du Canada (SMRC) est et demeure le principal intervenant. Elle représente de plus en plus les médecins des 13 provinces et territoires. La SMRC a déjà présenté à la commission un mémoire qui est disponible sur le site web de la Société³. Il faut saisir toutes les occasions d'en répéter les conclusions à la commission à mesure que le processus dégage un consensus sur l'avenir des soins de santé au Canada.

Comme preuve d'un consensus qui commence à prendre forme, il suffit de jeter un coup d'œil sur la multitude de commissions que les gouvernements provinciaux ont chargées d'étudier des

enjeux locaux et sur les similitudes de leurs conclusions. Toutes ces commissions reconnaissent que l'accès aux services en région rurale constitue un enjeu important. Ces réflexions ne présentent toutefois pas d'orientation claire sur la réorganisation des services ruraux. Bien des régions (souvent poussées par le financement fédéral) semblent faire l'essai de structures nouvelles (p. ex., IRO bleu en Ontario, GMF [groupe de médecine familiale] au Québec). Il ne semble toutefois pas y avoir de tableau cohérent définissant les services auxquels les populations rurales peuvent s'attendre — et définissant, par conséquent, la formation, le financement et l'appui à fournir.

Le moment est venu pour les médecins ruraux de se faire entendre, comme défenseurs de leur communauté, chaque fois que la Commission Romanow se présente dans leur localité. Pour le moment, le rapport d'étape est un peu mince face aux enjeux ruraux. Il reviendra à ceux qui connaissent le mieux ces enjeux de combler les lacunes pour le président de la Commission.

À vous de jouer!

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President's message: Rural doctors are crazy

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Thirty-one degrees on a Cuban beach with a cool offshore breeze and you would think that attendance at this year's Rural Critical Care Course would be suffering. You would, that is, if you were dealing with ordinary people at an ordinary meeting. However, if you walked into Con O'Maonaigh's workshop, as I did on the last day of the Rural Critical Care Course, you would notice that the lights were dimmed and there was standing room only, as doctors looked at slides of hand injuries. The other workshops were just as well attended. And suddenly, unbidden to my mind, came the politically incorrect question..... "What is wrong with you people?"

I held my tongue, but the suspicion that the -20 degree weather these rural doctors had left behind in Canada had left them a bit stunned was confirmed by the plethora of 5/5 evaluations of each workshop. Pity the poor organizers who try to improve a course with that type of feedback. In reality, Rural Critical Care isn't as great as everyone says.

Don't get me wrong. The content of the course is distinctive and interesting, and the presenters are very good — but the point I want to make is that, taken separately, none of this is exceptional. Small-group, problem and case-based learning, with the workshop leader facilitating as much as presenting, is certainly the current buzz and would be more prevalent if it were not so expensive and hard to organize. It's been done. What makes Rural Critical Care shine is something else.

The added value, which I believe is reflected in the evaluations, is the synergy that comes from ensuring that the presenters are rural GPs and specialists like you and me, talking about cases and teaching techniques that they and their colleagues have encountered in their practices. You cannot match the refreshing tone of humble practicality when the presenter shares his experience of giving thrombolytics in an isolated hospital to a patient with endocarditis. You know that you would have given thrombolytics as well, given the clinical presentation and the first cardiogram

(oh, and both patient and doctor survived).

Helping rural doctors care for their patients with the cards that they have been dealt is what rurally relevant CME is all about. I am convinced that this "real medicine by real people" approach is what has made the SRPC's Rural Critical Care a sellout success each year it has been offered. By press time the SRPC will have geared up to having this type of CME coming (with locum coverage) to 2 rural communities a month.

If you think that you can benefit from this type of CME experience visit the CME locum Web site at srpc.ca/cmelocum or phone the CME locum office at 800 319-9089 x7140.

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Message du président : Ils sont fous, ces médecins ruraux!

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Il fait 31 degrés sur une plage cubaine, une brise rafraîchissante vient de la mer et l'on penserait que les présences au cours sur les soins critiques en milieu rural de cette année en souffriraient. Ce serait le cas si l'on parlait de gens ordinaires participant à une réunion ordinaire. Si vous vous étiez présenté à l'atelier de Con O'Maonaigh comme je l'ai fait le dernier jour du cours sur les soins critiques en milieu rural, vous auriez constaté que les lumières étaient tamisées et qu'on affichait complet : les médecins présents étudiaient des diapositives de blessures aux mains. Les autres ateliers ont attiré autant de monde. Cette question politiquement incorrecte a alors surgi à mon esprit : «Non mais, ça va pas?»

Je me suis mordu la langue, mais j'ai soupçonné que la température de 20 degrés sous zéro que ces médecins ruraux avaient laissée derrière eux au Canada les avait sonnés un peu, ce qu'a confirmé la pléthore d'évaluations 5/5 accordée à chaque atelier. Pauvres organisateurs, qui essaient d'améliorer un cours en se fondant sur une telle rétroaction! En réalité, le cours sur les soins critiques en milieu rural n'est pas aussi extraordinaire que tout le monde l'affirme.

Il faut bien me comprendre. Le contenu du cours est distinctif et intéressant et les présentateurs sont très bons — mais ce que je veux dire, c'est que séparément, aucun de ces éléments n'est exceptionnel. L'apprentissage fondé sur les cas et la solution de problèmes en petits groupes où l'animateur facilite autant qu'il présente est certainement à la mode du jour, et cette méthode serait plus répandue si les séances n'étaient pas aussi coûteuses et difficiles à organiser. On l'a fait. Ce qui fait briller le cours sur les soins critiques en milieu rural, c'est autre chose.

La valeur ajoutée, qui se reflète à mon avis dans les évaluations, c'est la synergie qui émane du fait qu'on assure que les présentateurs sont des OP et des spécialistes ruraux comme vous et moi qui parlent de cas et enseignent des techniques dont leurs collègues et eux ont fait l'expérience dans leur pratique. Le ton rafraîchissant d'humilité pratique que l'on entend lorsque l'animateur

présente l'expérience qu'il a vécue en administrant une thrombolyse à un patient atteint d'endocardite dans un hôpital isolé est incomparable. Vous savez que vous auriez administré vous aussi des thrombolytiques compte tenu des symptômes cliniques et des résultats du premier cardiogramme (en passant, le patient et le médecin ont tous deux survécu).

Aider les médecins ruraux à traiter leurs patients avec les moyens dont ils disposent : voilà ce qu'on appelle l'EMC pertinente pour le milieu rural. Je suis convaincu que c'est en raison de cette démarche fondée sur «la vraie médecine du vrai monde» que le cours de soins critiques en milieu rural offert par la SMRC affiche complet chaque année. Au moment d'aller sous presse, la SMRC se sera préparée à offrir ce type d'EMC dans deux communautés rurales par mois (avec suppléants). Si vous pensez pouvoir profiter d'une telle expérience d'EMC, visitez le site web des suppléants EMC, à l'adresse srpc.ca/cmelocum, ou téléphonez au bureau des suppléants EMC, au 800 319-9089, poste 7140.

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Innovative new program: Enhanced Skills for Family Practice

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The College of Family Physicians of Canada (CFPC) gave final approval to a new residency program — Enhanced Skills for Family Practice — at its Fall 2001 Board of Directors meeting. This unique and innovative program will prepare new and practising family practitioners (FPs) to meet patients' needs in a variety of settings, including rural and remote communities. The program meets a longstanding need for an organized approach to enhanced skills training.

Family medicine is a broad-based discipline governed by common principles of clinical method and patient communication and draws on a varied set of skills. Residents in the 2-year programs receive a comprehensive clinical and academic education that prepares them to practise in most urban or rural communities in Canada. However, many FPs require enhanced skills to serve communities or practice settings that lack some medical services and resources or have special needs. These communities — rural, urban or remote — vary widely in terms of the skills they require of their physicians.

While some of the training challenges related to enhanced skills can be met by already accredited programs in areas such as emergency medicine, palliative care and care of the elderly, a wide range of skills are not addressed (e.g., advanced maternity care, anesthesia, selected general surgery skills). The CFPC's new R3 Enhanced Skills for Family Practice program will provide family medicine departments with an academic base for planning and overseeing a range of learning opportunities for family medicine graduates and for practising physicians who wish to upgrade their skills or acquire new ones to meet the needs of the populations they serve.

The need to address this concern for enhanced skills training was also identified in the CFPC report *Postgraduate Education for Rural Family Practice*,¹ developed in collaboration with the Society of Rural Physicians of Canada. It noted that historically there have been limited ad hoc opportunities for FPs to obtain enhanced skills training. The report's observation was not

intended as a criticism of the universities and academic departments; many of the training opportunities that do exist have been developed and defined by the medical schools, despite very limited resources at their disposal. However, there are no accredited programs and no national curriculum standards for many enhanced skills. This results in considerable variation in training experience and quality, and also results in poor portability, which can make it difficult for communities to recruit a physician with specific skills.

The new R3 Enhanced Skills program defines a range of training opportunities for family medicine residents and family physicians returning to upgrade or acquire new skills. It will be divided into 2 categories: Category I will include programs with nationally accepted standards such as Care of the Elderly and, in the near future, Family Medicine Anesthesia; Category II will consist of elective opportunities or personally designed programs. It is intended that the curriculum will often be customized for each trainee according to her or his needs and the resources available within the program. There will be flexibility of content for areas of special interest. Regardless of which type of program is pursued, it is expected that each trainee will have a defined educational contract listing objectives and signed by the trainee and the program director.

The program must meet the College's standards of accreditation in relation to learning environment, resident evaluation and faculty development. Such a structure will ensure good, well supervised training.

Length of training will depend on the objectives to which the program coordinators and the physician have agreed. In Category I programs these objectives may be specifically defined; for Category II it will be open for negotiation. It will have to be demonstrated that the programs have rigorous in-training and program evaluation protocols in place that meet the national standards of the College.

Graduates may be granted a diploma or other attestation of completion by the university. This diploma should specify the skills learned, and it will state that the program was accredited by the CFPC.

If the universities adopt this new program it will address 2 major concerns: 1) the program should provide a focal point for training opportunities available in a less ad hoc fashion; and 2) graduates will have a document attesting that they have completed accredited training that meets national standards. We hope this will enhance the portability of the skills of these physicians for the benefit of patients in communities across Canada.

More information on the guidelines for this program can be found in [Standards for Accreditation of Residency Programs in Enhanced Skills for Family Practice](#). As well, further perspectives on enhanced skills training were the focus of "Vital Signs," published in the March 2002 issue of Canadian Family Physician.

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Nombre de naissances nécessaire pour le maintien de la compétence

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La croyance que le fait d'avoir assisté à un certain nombre de naissances peut constituer un seuil de compétence pour tous les fournisseurs de soins ne tient pas compte de plusieurs variables importantes, notamment : le stade que le fournisseur de soins a atteint dans sa carrière (début, milieu, s'approchant de la retraite) et donc, la valeur de l'expérience acquise; l'expérience partagée par les membres d'un groupement de médecins; les rapports collégiaux de qualité établis entre les médecins de famille, les spécialistes et les sous-spécialistes; le cadre et l'organisme où se déroule la pratique; et le recours à des programmes de gestion du risque et d'assurance de la qualité. Bien que la littérature médicale appuie clairement le principe des seuils quantitatifs pour les interventions chirurgicales complexes et certaines situations médicales rares,^{1,2} rien ne prouve que l'extrapolation de ce concept quantitatif s'applique aux accouchements et aux soins des nouveau-nés habituels.² La recherche en la matière démontre plutôt que des issues favorables sont obtenues dans des contextes où le nombre de cas est réduit, où la possibilité de consultation de spécialistes est bonne et où les transferts peuvent se faire rapidement et sont bien utilisés.³⁻⁹

À la lumière de ces résultats, la Société de la médecine rurale du Canada, la Société des obstétriciens et gynécologues du Canada, et le Collège des médecins de famille du Canada affirment que la compétence en soins obstétricaux ne dépend pas du nombre de naissances auxquelles un médecin assiste chaque année.

Chaque praticien est professionnellement responsable de s'assurer de maintenir sa compétence sur tous les aspects de la pratique. Ce maintien de la compétence dépend de programmes adéquats, continus et autogérés de perfectionnement professionnel permanent, devant être structurés pour répondre aux besoins et aux responsabilités des individus et des groupements de praticiens. Entre autres choses, un tel programme peut comprendre des consultations avec les collègues, la participation à des rencontres, à des cours et à des ateliers spéciaux, notamment les cours «Gestion du travail et de l'accouchement» (GESTA) et «Cours avancé de réanimation obstétricale» (ALSO).

Le droit de continuer à offrir des soins intrapartum dans un contexte hospitalier doit correspondre

à des programmes d'assurance de la qualité définis localement et à la participation individuelle à des programmes autogérés de maintien de la compétence. La présence à un nombre minimum de naissances ne devrait pas être une exigence des programmes d'accréditation.

La Société de la médecine rurale du Canada et la Société des obstétriciens et gynécologues du Canada et le Collège des médecins de famille du Canada.

Collaborateurs : Cette déclaration de principes a été préparée et approuvée par la Société de la médecine rurale du Canada, la Société des obstétriciens et gynécologues du Canada et le Collège des médecins de famille du Canada.

Avertissement : Les directives cliniques font état des percées récentes et des progrès cliniques et scientifiques à la date de publication de celles-ci et peuvent faire l'objet de modifications. Il ne faut pas interpréter l'information qui y figure comme l'imposition d'une procédure ou d'un mode de traitement exclusifs à suivre. Un établissement hospitalier est libre de dicter des modifications à apporter à ces opinions. En l'occurrence, il faut qu'il y ait documentation à l'appui de cet établissement.

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Number of births to maintain competence

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The belief that attending a specific number of births can imply a competence threshold for all providers fails to take into account several important variables. These include: the stage of a provider's career (early, middle, or approaching retirement), and hence the value of accumulated experience; the shared experience of the members of a practice group; well-developed collegial relationships among family physicians, specialists, and sub-specialists; the practice setting and organization; and the use of risk management and/or quality assurance programs. Although the literature clearly supports volume thresholds for complex surgical and some rare medical conditions,^{1,2} there is no evidence to support the extrapolation of these volume concepts to normal pregnancy and newborn care.² Rather, findings demonstrate good outcomes in low-volume settings when access to specialist consultation and timely transfer is available and used appropriately.³⁻⁹

In light of this evidence, the Society of Rural Physicians of Canada, the Society of Obstetricians and Gynaecologists of Canada and the College of Family Physicians of Canada affirm that competence in obstetric care is not dependent on the number of births attended annually.

Maintaining competence in all elements of practice is the professional responsibility of every practitioner. Maintaining competence depends on an appropriate, ongoing, and self-directed program of continuing professional development, which should be structured to the needs and responsibilities of the individual and practice group. This program may include, but is not limited to, consultation with colleagues, attendance at meetings and courses, and participation in special workshops, such as Advances in Labour and Risk Management (ALARM) and Advanced Life Support in Obstetrics (ALSO) provider courses.

Maintaining hospital privileges to provide intrapartum care should be based on locally determined quality assurance programs and on individual participation in self-directed maintenance of competence programs. Requiring attendance at a minimum number of births should not be an element of any credentialing program.

Society of Rural Physicians of Canada, Society of Obstetricians and Gynaecologists of Canada, and College of Family Physicians of Canada

Contributors: This Joint Policy Statement was prepared and approved by the Society of Rural Physicians of Canada, the Society of Obstetricians and Gynaecologists of Canada and the College of Family Physicians of Canada.

Disclaimer: These guidelines reflect emerging clinical and scientific advances as of the date issued and are subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Local institutions can dictate amendments to these opinions. They should be well documented if modified at the local level.

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Rural–urban differences in health status of elderly Manitobans Philip D. St. John, MD, MPH, FRCP

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Introduction: There are few comparisons of the health status of elderly rural populations to elderly urban populations. Data from the Manitoba Study of Health and Aging offers an opportunity to study the health of rural Manitoba seniors.

Methods: A random sample of seniors (defined as over the age of 65) was drawn from residents of Manitoba and stratified on age and region. Demographic characteristics, self-rated health, satisfaction with health, and functional status were determined in rural and urban elderly.

Results: Rural respondents had similar self-rated health compared to their urban counterparts. Compared to urban elderly, rural elderly had slightly higher levels of impairment in some basic activities of daily living but had similar levels of impairment in instrumental activities of daily living. However, rural elderly were more likely to be satisfied with their health than urban elderly.

Conclusion: The greater satisfaction with health in rural populations should be considered in planning and delivering health services for rural elderly populations.

Introduction : Les comparaisons entre l'état de santé des personnes âgées des régions rurales et des régions urbaines sont rares. Les données tirées de l'étude sur la santé et le vieillissement au Manitoba présentent une occasion d'étudier la santé des personnes âgées des régions rurales du Manitoba.

Méthodes : On a prélevé un échantillon aléatoire de personnes âgées (plus de 65 ans) dans la population du Manitoba, qu'on a stratifié selon l'âge et la région. Les caractéristiques

démographiques, l'état de santé auto-évalué, la satisfaction à l'égard de l'état de santé et la capacité fonctionnelle ont été déterminés chez des personnes âgées des régions rurales et urbaines.

Résultats : Les répondants des régions rurales affichaient un état de santé auto-évalué semblable à celui de leurs homologues des milieux urbains. Comparativement aux personnes âgées en milieu urbain, les personnes âgées en milieu rural présentaient des niveaux d'incapacité un peu plus élevés dans certaines activités fondamentales de la vie quotidienne, mais des niveaux d'incapacité semblables dans les activités secondaires de la vie quotidienne. Les personnes âgées des régions rurales étaient toutefois plus susceptibles d'être satisfaites de leur état de santé que leurs homologues des régions urbaines.

Conclusion : Il faudrait tenir compte de la plus grande satisfaction des populations rurales face à la santé dans la planification et la prestation des services de santé aux personnes âgées des régions rurales.

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Introduction

Manitoba's rural seniors are a large and important group. In 1991 the province's population was 1 091 940. Of these people, 13.4% were over the age of 65.¹ Twenty-four percent live in rural areas, and a further 13% live in small towns (population 1000 to 13 000).^{2,3} It is important to understand the health status of rural seniors in order to plan services and clinical care for older people.

There are limited data regarding the health status of rural seniors versus their urban counterparts. Few studies have been published, and with conflicting results. Data from other countries are not easily extrapolated to the Canadian setting. Many countries have few truly rural areas, often designating semi-urban and suburban regions as being rural. Manitoba offers an opportunity to study differences in rural and urban health because the distinctions between rural and urban centres are fairly clear. The objective of this study was to describe the health status and functional status of seniors in rural Manitoba. A secondary objective was to compare the health and functional status of rural seniors to urban seniors, in terms of functional status, self-rated health, and satisfaction with health.

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Methods

We conducted a secondary analysis of data from the Manitoba Study of Health and Aging. This is a cross-sectional study that was conducted in the province of Manitoba in 1991 and 1992 in conjunction with the Canadian Study of Health and Aging.⁴ A random sample of people over 65 was obtained from a registry provided by Manitoba Health, the provincial health ministry. This list included all residents of Manitoba except the following groups: people living in a correctional institute, mental health hospital or other institute, people living in very remote regions, people residing in a nursing home, and members of the military or the Royal Canadian Mounted Police. There were 443 subjects who refused to participate, 480 subjects who were ineligible, 162 who could not be contacted and 42 who could not be screened. This resulted in a community sample of 1763 participants during the interview period of February 1991 to November 1992.⁵

All participants underwent a screening interview, including the collection of demographic variables, the Modified Mini-Mental State (3MS) Examination,⁶ and measures of health status. Urban areas were defined as Winnipeg and Brandon.^{2,3} Rural areas were defined as other small towns and farms. Education was measured as years of school completed. Age and gender were self-reported and reported by Manitoba Health. Self-rated health was recorded using the question "How would you say your health is these days?" and rated as Very good, Good, Not too good, Poor, or Very poor. For our analysis, those people who rated their health as Good or Very good were considered to have good self-rated health. Those people who rated their health as Not too good, Poor or Very poor were considered to have poor self-rated health.

Satisfaction with health was measured using the Terrible–Delightful Scale.^{7–9} Participants were asked to rate their satisfaction with life as it was at that moment, using descriptive words or phrases on a 7-point scale (Terrible; Very dissatisfying; Dissatisfying; Mixed; Satisfying; Very satisfying; Delightful). For the purposes of our analysis, elderly people who claimed that their health was Satisfying, Very satisfying or Delightful were considered to be satisfied with their health. Those who rated their health as Mixed, Dissatisfying, Very dissatisfying or Terrible were considered to be dissatisfied with their health. Activities of daily living (ADL) were measured using the Older American Resource Study.¹⁰ This measures basic ADL functions, as well as instrumental activities of daily living. For our analysis, those who required help from only a device, or were able to perform the task, were classified as not being disabled. Those needing assistance from a person, or a person and a device, and those unable to do the task were classified as being disabled for that task.

Statistical analysis

Associations between variables were sought using chi-squared tests. For analyses of functional status, Fisher's exact test was used, because there were less than 5 observations in some cells. Continuous variables were compared with the Student's t-test for independent samples with unequal variance. Multivariate analyses were conducted using logistic regression modelling. One

model was constructed for the outcome variable of self-rated health, and one model for the outcome variable of satisfaction with health. Age, education and 3MS exam scores were entered into both of these models as continuous variables. Rural residence and gender were entered as dummy variables and coded as 0 or 1. All analyses were conducted in SPSS for personal computers, version 7.5.

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Results

The baseline demographics are shown in [Table 1](#). Differences in self-rated health are shown in [Table 2](#). The difference in self-rated health between rural and urban areas was not large and not statistically significant. This lack of association did not change after adjustment for age, gender, education and 3MS exam score. However, the rural elderly were more likely to be satisfied with their health. While relatively small, this difference in health satisfaction is likely important. Even after controlling for age, gender, education and 3MS exam score, this relationship was maintained. Advancing age, female sex and lower 3MS exam scores were also associated with lower satisfaction with health in both bivariate and multivariate analyses ([Table 3](#)).

In general, the rates of disability were low in both rural and urban regions. The rural elderly respondents had slightly higher rates of disability than the urban respondents for most ADLs. Rural elderly participants were less likely to be able to transfer out of bed, or to do stairs than urban seniors. However, while statistically significant, these differences were very small. Trends were seen toward poorer functional status in the rural elderly in the other basic ADLs, but these were not statistically significant. There were no differences between rural and urban elderly in terms of instrumental ADLs, except with regard to managing their finances and doing heavy housework ([Table 4](#)).

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Discussion

Strengths and limitations

There are several limitations to this study. First, the results may not be able to be generalized to other areas. Manitoba's rural elderly may differ from other rural populations in terms of

education, income, access to health care and other important determinants of health. They may also differ in terms of health expectations. Second, this was a cross-sectional study. Thus, temporal relationships are not known: seniors with poor health status may relocate. However, Verhaj and colleagues¹¹ have reported that only extremely high levels of selective migration would make differences in health status between rural and urban populations noticeable at an aggregate level.

Third, the study did not survey extremely remote regions. However, the elderly population in these regions is very small,⁵ and the results would not likely be greatly influenced by not including these groups. Furthermore, in other studies the health status of these populations is worse than the rest of Manitoba.^{12,13} Thus, their inclusion would likely serve to increase the differences that we have noted.

The study has several strengths. First, it was a large study that surveyed a high proportion of rural seniors. Second, the analysis was stratified on region, ensuring adequate rural representation. Third, data were collected by trained interviewers using standardized, validated, reliable measures. A final strength of the study is the relatively clear distinction between rural and urban regions in Manitoba. In many other countries, areas defined as rural include suburban and semi-rural settings, making comparison between rural and urban difficult.

Interpretation

In Manitoba, rural elderly had very slightly higher rates of disability than urban elderly. This is consistent with the PAQUID study in the Gironde region of France.¹⁴ This study found that rural populations had very slightly higher rates of disability than urban populations. In multivariate analysis, however, it was found that these differences were not significant. In the Manitoba Study of Health and Aging, multivariate analysis of the functional status variables is not appropriate due to the very small numbers of disabled people. Therefore, it is difficult to say if these differences in functional status are due to differences in age, gender or education.

Self-rated health was similar in urban and rural elderly respondents, in both bivariate and multivariate analysis. However, the rural participants' satisfaction with their health was considerably better than their urban counterparts. This relationship was maintained even after adjustment for potential confounders such as age and gender. This relationship may be due to several factors. First, rural seniors may be in better health and this difference was simply not adequately measured by self-rated health or by functional status measures. There was a trend toward better self-rated health in rural seniors. However, this difference was not large and not statistically significant. Also, other studies have not shown that the rural elderly are in better health than urban seniors. Indeed, Mainous and coworkers¹⁵ found that rural seniors had significantly poorer health status than urban elders. In addition, rural elders had significantly poorer functioning, as measured by the SF20 subscales. A second plausible explanation is that the rural elderly population is simply more satisfied in general. This, however, appears not to be the case. Rural seniors were not more likely to be satisfied with housing, income, or

transportation in this study (data unpublished). Third, rural seniors may have lower expectations of health than their urban counterparts. Having tended to work at heavier physical tasks all their lives they may have expected to experience "poorer" health in old age (or throughout life) than their more "privileged" urban peers.

Our finding that rural residents have similar self-reported health to urban residents is different from the findings of Eggbeen and Lichter.¹⁶ They found that rural residents in the US had slightly worse self-rated health than their urban counterparts although they had fewer health conditions. The reason for this difference is not clear. In our analysis, and in Eggbeen and Lichter's analysis, differences in education, age and gender were accounted for. Thus, the differences are not due to any of these confounders. There may be important differences in the health, or in the perception of health between rural Manitobans and rural Americans, which account for these different findings.

The findings that there are differences in health satisfaction and in functional status are important for planning health and social programs. First, there is a slightly higher prevalence of basic ADL impairment in rural regions. Services must be delivered to these seniors in order to help maintain them in the community. This is often difficult in rural regions. Many rural communities are relatively isolated, and delivering rehabilitative services is more difficult and potentially more costly than in urban regions. Despite these difficulties, there is little difference in access to health care in rural regions in Manitoba. Indeed, the rate of hospitalization has been reported as higher in rural Manitoba than in Winnipeg, with little difference in overall health care use.^{17–19}

The finding that rural seniors are more satisfied with their health is also important in evaluating health care. Patient satisfaction questionnaires and health status questionnaires may yield different results in rural and urban populations, making interpretation difficult.

Further research is needed to determine reasons for rural–urban differences in health status and functional status. Notably, further investigation of differences in health attitudes and beliefs, social networks and depressive symptoms is required. Finally, longitudinal studies are needed to determine if these differences persist over time, and to measure the long-term consequences of these differences.

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Table 1. Comparison of rural and urban respondents in the Manitoba study of health and aging		
	Rural	Urban
Age (years)	76.5	76.1
Gender (% male)	45.5	38.9*
Mean years of education	8.3	10.0*
Self-rated health (% rating health as Good or Very good)	75.5	75.1
Satisfaction with health (% Satisfied, Very satisfied, Delighted)	91.7	85.1*
3MS score (mean)	84.1	86.1*
* $p < 0.05$		

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Table 2. Self-rated health: odds ratio (OR) of self-rated health being good		
	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Urban (rural)	1.02 (0.81, 1.27)	1.19 (0.95, 1.52)
Gender (male)	1.21 (0.97, 1.52)	1.36 (1.08, 1.73)
Age (years)	0.98 (0.97, 1.00)	1.01 (0.99, 1.03)
3MS score	1.04 (1.03, 1.05)	1.04 (1.02, 1.05)
Education (years)	1.13 (1.10, 1.17)	1.08 (1.04, 1.12)

CI = confidence interval. The bivariate analysis shows no difference in self-rated health between rural and urban populations. The OR derived from the logistic regression model also shows no difference in self-rated health.

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Table 3. Satisfaction with health: odds of being satisfied with health		
	Unadjusted OR (95% CI)	Adjusted OR (95% CI)
Urban (rural)	1.93 (1.40, 2.67)	2.13 (1.53, 2.98)
Gender (male)	1.47 (1.09, 2.00)	1.59 (1.15, 2.17)
Age (years)	1.00 (0.98, 1.02)	1.02 (1.00, 1.04)
3MS score	1.02 (1.01, 1.04)	1.03 (1.01, 1.04)
Education (years)	1.05 (1.01, 1.10)	1.04 (0.99, 1.10)

CI = confidence interval. Rural respondents were more likely to be satisfied with their health than urban elderly participants even after adjustment of age, gender, 3MS score and education.

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Who makes Canada's rural doctors?

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Objective: To investigate the relationship between the location of medical training (graduate and undergraduate) and the proportion of graduates practising in a rural location 2 years after graduation.

Design: Post-MD Educational Registry databases matched against the Canadian Medical Association databases.

Results: 3088 of 3662 physicians graduating from Canadian family practice training programs and 4380 physicians graduating from specialty programs between 1994 and 1998 were matched against practice location 2 years later. Overall, 20.9% of family practice trained physicians and 4.4% of specialty trained physicians practised in rural areas (population < 10 000). Significant associations with rural practice included the Memorial University of Newfoundland family practice residency program (46%) and the Université Laval family practice program (41.7%). The Laval program produced 18% of Canadian-trained rural family physicians in the study period. Significant negative associations with rural practice included the University of Toronto family practice program (4.6%) and family medicine emergency medicine (EM) programs (6.5%). Among family physicians, gender was not significantly associated with any practice locale.

Conclusions: The effect that the Canadian medical educational system has on eventual practice location is unlikely to be neutral. The proportion of rural practice location of Canadian graduates 2 years after completing training varies 10-fold between institutions and programs.

Objectif : Étudier le lien entre le lieu de la formation médicale (supérieure et prédoctorale) et le pourcentage des diplômés exerçant en milieu rural deux ans après avoir obtenu leur diplôme.

Conception : Analyse rétrospective de cohortes tirées des bases de données du Système informatisé sur les stagiaires post-MD en formation clinique et de celles de l'Association médicale canadienne.

Résultats : Pour 3088 des 3662 médecins ayant obtenu leur diplôme de programmes canadiens de formation en médecine familiale et 4380 médecins ayant obtenu leur diplôme de programmes de spécialisation entre 1994 et 1998, on a relevé le lieu d'exercice deux ans plus tard. Dans l'ensemble, 20,9 % des médecins ayant reçu une formation en médecine familiale et 4,4 % des médecins diplômés des programmes de spécialisation exerçaient en milieu rural (population < 10 000). Parmi les éléments associés à la pratique en milieu rural, on a noté un lien positif marqué avec le programme de résidence en médecine familiale de l'Université Memorial de Terre-Neuve (46 %) et avec le programme de médecine familiale de l'Université Laval (41,7 %). Au cours de la période d'étude, le programme de Laval a produit 18 % des médecins de famille ruraux formés au Canada. Les liens négatifs importants avec la pratique en milieu rural comprenaient le programme de médecine familiale de l'Université de Toronto (4,6 %) et les programmes de médecine d'urgence de la formation en médecine familiale (6,5 %). Chez les médecins de famille, on n'a constaté aucun lien significatif entre le sexe et le lieu de pratique.

Conclusions : Il est peu probable que l'effet du système canadien de formation en médecine sur le lieu éventuel de pratique soit neutre. Entre les divers établissements et programmes, le pourcentage de diplômés canadiens exerçant en milieu rural deux ans après avoir terminé leur formation varie d'un facteur 10.

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Introduction

Unlike countries such as Australia, Canada has not made nationwide physician human resources planning an ongoing priority. It is only now, in the face of increasing shortages, that serious consideration is being given to educational expansion and reform. It is sobering that the fruits of such reform are not expected for a decade.

The Canadian Medical Association (CMA) has reported that, even at the existing, although arguably inadequate, urban family doctor-to-population ratio, rural Canada is short 1652 family physicians.¹ With annual attrition of family doctors in rural areas in BC² and Quebec³ standing at between 10% and 20% this rural deficit is growing quickly. Urban attrition is slower,² but there too the number of doctors retiring will soon begin to exceed the number of new graduates.⁴

At present there are many competing options to increase care capacity in this country. Some call for another rural medical school, such as the proposed Northern Ontario Rural Medical School,⁵

but simultaneously acknowledge that most of its graduates would likely choose to practise in an urban area. Others call for the expansion and reform of existing schools as a more efficient way to affect the overall proportion of physicians who choose a rural practice over an urban practice.⁶ Some advocate for continuing Canada's reliance on foreign medical schools and (re)opening the doors to international medical graduates (IMGs), because the other options take too long. Finally, others argue for using alternative health providers, such as nurse practitioners, to make up the deficit.

It is often argued that universities should be responsive to societal needs. University officials counter that they cannot fully discharge this mandate with inadequate resources. However, the governments that fund the system are understandably cautious about simply increasing the funds given to medical schools. They require assurances that specific goals will be met. To date these have been difficult to guarantee.

To make sensible decisions on how to restructure the system to meet the ongoing and future needs of the population we need a better understanding of the existing training system. With the greatest challenge being how to service the most underserved we must be able to answer the fundamental question: Who makes Canada's rural doctors?

There are no Canada-wide data available. US data show that the propensity of medical schools to produce rural physicians varies dramatically among training institutions, with 12 medical schools accounting for over one-quarter of US physicians entering rural practice.⁷

Canadian data have been program specific and varied in definition. In a small rural program at the University of British Columbia, 51% of its graduates practise in rural areas.⁸ Queen's University, Kingston, Ont., surveyed its family practice program graduates from the years 1977 to 1981 and found that 28.3% had a first practice in a rural community.⁹ Pong and colleagues showed that the 14.3% of graduates of the Northeastern Ontario Family Medicine (NOFM) program in Sudbury, Ont., subsequently practised in rural environments.¹⁰ We hypothesize that the location of training in undergraduate and graduate medicine is a predictor of the location where graduates may choose to practise.

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Methods

The Canadian Post-MD Education Registry (CAPER) tracks all residents in Canada in a database. In turn, the CMA tracks all Canadian physicians. Our study linked people who left postgraduate family practice training programs and specialty programs from 1994 to 1998 to their practice

location 2 years later. The 2-year wait was to allow the majority of these graduates to settle into a family practice setting, but was before a significant amount of rural attrition had taken place.

The study's definition of "rural" is the aggregate of the populations of contiguous municipalities of < 10 000 as identified by Statistics Canada, and physicians were assigned to a rural or nonrural setting based on the practice address in the CMA database. Although many Canadian researchers agree that this safely captures most rural communities, as well as the communities that are the most rural, there is no agreement on a definition that captures all rural physicians.^{4,11–13} Urban is defined simply as non-rural.

The variables controlled for included sex, age on July 1st of the year of graduation in family medicine from the family practice training program, which medical school granted the MD degree, and the family practice training program by school and program type. Analysis was done by exit cohorts and then combined. The data were analysed using univariate Pearson χ^2 and cross-tabulation procedures in the "SPSS 10" statistical software package.

Upon agreement with the database providers, analysis was done in-house by CAPER, names were stripped from the data tables, and no attempt was made to identify or contact individual physicians. All percentages are expressed as a percentage of valid cases (that is, trainees who were tracked in both the CAPER and CMA databases).

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Results

Overall, 20.9% of family practice trained physicians and 4.4% of specialty trained physicians were practising in rural areas 2 years after graduation. These cohorts are further analysed below.

Family medicine

Data completeness

A total of 3662 family practice trainees were identified by CAPER for the 1994 to 1998 exit cohorts. There were 574 physicians who could not be matched with the CMA for an address. Thus, data analysis was done on the remaining 3088 physicians for the 2 years post-training mark.

Gender/age

Twenty-two percent of male physicians located to rural areas, compared with 19.6% of females. The difference was not statistically significant ($p = 0.1$). Thirty percent of physicians over the age of 40 years graduated as rural physicians, but they consisted of only 6% of the exit cohorts. The

lowest percentage of those graduating as rural physicians was found in the 26- to 30-year age group (18.7%). The differences were significant ($p = 0.016$).

School of MD training

The faculty of medicine at which the MD degree was granted was significant ($p < 0.001$) and variable, ranging from 9.2% rural for physicians who entered a family medicine program after graduating at the University of Toronto to a high of 39.4% for graduates from the Memorial University of Newfoundland ([Table 1](#)).

Family practice residency training program

The choice of residency program was significant in terms of where graduates ended up ($p < 0.001$), ranging from 4.6% for a University of Toronto graduate who "went rural" to a high of 46% for graduates from Memorial University ([Table 2](#)). Université Laval, with 113 graduates, accounted for 18% of the total (Table 2).

Type of family practice training

Ninety percent of the graduating physicians were enrolled in a straight 2-year family practice program, and 21.5% of them became rural doctors. Only 6.5% of those with advanced family practice training in emergency medicine became rural practitioners. Forty percent of physicians who enrolled in both general upgrading and other family medicine training became rural practitioners. The differences were significant ($p < 0.001$).

International medical graduates

Twenty-four percent of IMGs with Canadian postgraduate training in family medicine and 4.8% of IMGs with Canadian specialty training were rural practitioners. The difference was not statistically significant ($p = 0.1$).

Regional programs

This study found that Family Medicine North (FMN) in Thunder Bay, Ont., graduates many more rural practitioners (51%) than its parent, McMaster University in Hamilton, Ont. (11%). In fact, it is the only studied program that produces more rural practitioners than urban ones. Combined rural performance at McMaster was at the Canadian average (21%). On the other hand, the NOFM program in Sudbury (12%) has less rural output than its urban parent, the University of Ottawa (18%).

How many FP/GPs are currently in rural practice?

During the study period analysis of the CMA database shows that 16.5% of existing Canadian FP/GPs practise in rural areas.

Specialty programs

Data completeness

A total of 5748 Royal College of Physicians and Surgeons of Canada trainees were identified by CAPER for the 1994 to 1998 exit cohorts (excluding IMG trainees). There were 1368 physicians (24%) who could not be matched with the CMA for an address. Thus, data analysis was done on the remaining 4380 physicians for the 2 years post-training mark.

Rural practice location

A total of only 192 (4.4%) of Canadian specialty trained physicians graduating between 1994 and 1998 chose to practise in rural settings. Because of the very small numbers involved only a limited analysis was done.

Faculty granting the MD degree

The faculty of medicine at which the MD degree was granted was a significant factor ($p < 0.01$). It ranged from 1.3% rural for physicians who took specialty training after graduating at the University of Toronto to 8.4% for Université Laval (Table 1).

International medical specialty graduates

Almost 5% (4.8%) of IMGs with Canadian specialty training were in rural practice. The difference, compared with Canadian MD graduates, was not statistically significant ($p = 0.1$).

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Discussion

A significant limitation of this study relates to missing data. Sixteen percent of family practice residents and 24% of specialty training residents could not be matched in the CMA database. A review of the unmatched cases by the CMA revealed that some of these cases matched with a later practice address. This information was revealed because attainment of the CCFP or Royal College certification and transmission of this information to the CMA is required for the physician to be characterized as "active."

Although factors such as age, sex and foreign medical school have been controlled for, a descriptive study such as this one can never be free of confounders. There are many reasons why someone will choose family practice or another specialty and more reasons yet influencing where they end up on the spectrum of rural and urban practice. The role that a medical school plays in this can be described as a form of nature and nurture. The selection process in education is equivalent to the genetic code in human development. Studies of applicants to medical school show that there are 2 major variables at admission that are predictive of eventual rural practice: 1) an applicant who is of rural origin, and 2) one who has an interest in primary care.¹⁴ The role of these variables is not absolute but relative, with applicants of rural origin being 2 to 3 times as

likely to become rural practitioners as their urban counterparts.⁹

The nurturing role of medical school relates to how well the school presents and prepares students for family practice and especially for rural family medicine as a career.

Combined, these factors and others perhaps unknown have led to the 10-fold variation among programs, as found in this study. A perhaps unexpected finding of this study is that the Université Laval family practice program by itself produces 18% of new Canadian-trained rural family physicians. This is partly attributable to the University's rural focus throughout undergraduate and postgraduate training and its drawing and active recruitment of undergraduates from rural areas.

From a policy point of view it is reassuring that in spite of the lack of an organized approach, some institutions have succeeded in developing programs with a significant rural thrust. This makes it more likely that applying those lessons to other institutions has the potential of making a significant difference. Restricting reform to one location — even by building a 55-seat medical school in Northern Ontario and assuming that it will become as successful as Laval in placing graduates in rural locations — will only increase the number of rural doctors by 18 a year. This pales in the face of the 1600-doctor shortage identified by the CMA⁴ that continues to increase. Clearly only an intensive multifaceted solution, possibly involving some aspects of all the proposals before the policy-makers, will be up to the challenge of just starting to address this inequity.

Other findings

This study also undercuts some stereotypes. Although most rural physicians are male it is heartening to learn that new Canadian graduates are seeking rural placements regardless of gender, as in the Queen's study⁹ but unlike the US.⁷ Although a large number of rural family physicians also do emergency medicine, a third year in emergency medicine training rarely results in rural outcome. Another surprise is that IMGs do not preferentially choose rural settings.

Finally, the data suggest that a rural focus is not guaranteed by a regional training setting. Two split programs, those of the University of Ottawa and McMaster, were analyzed; the FMN in Thunder Bay has a much more rural output than its parent McMaster. In fact, it is the only studied program that produces more rural practitioners than urban ones.

On the other hand, the NOFM in Sudbury has less rural output than its urban parent, the University of Ottawa. This confirms earlier work by Pong and colleagues¹⁰ on a smaller sample of NOFM graduates that found that 14% of the Sudbury program's graduates were rural. Further work is needed to explain the discrepancy between the NOFM and the FMN in Thunder Bay.

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Conclusion

Graduates of all programs would have been expected, by chance alone, to have had roughly similar numbers entering rural or urban practice. The effect that the Canadian medical educational system has on eventual practice location appears not to be neutral. The proportion of Canadian graduates in rural practice locations 2 years after graduating from training varies 10-fold among institutions and programs, and this variation is significant ($p < 0.001$).

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Table 1. Proportion of Canadian post-residency family practice trainees who practise in rural settings at 2 years post-residency by school of MD training and postgraduate training program type

Faculty	Family practitioner		Specialist		All MDs	
	Urban / Rural	% rural	Urban / Rural	% rural	Urban / Rural	% rural
University of British Columbia	185 / 47	20.3	215 / 7	3.2	400 / 54	11.9
University of Calgary	98 / 22	18.3	146 / 5	3.3	244 / 27	10.0
University of Alberta	169 / 39	18.8	255 / 4	1.5	424 / 43	9.2
University of Saskatchewan	60 / 22	26.8	138 / 8	5.5	198 / 30	13.2
University of Manitoba	103 / 38	27.0	195 / 12	5.8	298 / 50	14.4
University of Western Ontario	156 / 24	13.3	205 / 12	5.5	361 / 36	9.1
McMaster University	144 / 29	16.8	181 / 11	5.7	325 / 40	11.0
University of Toronto	334 / 34	9.2	447 / 6	1.3	781 / 40	4.9
Queen's University	99 / 13	11.6	144 / 3	2.0	243 / 16	6.2
University of Ottawa	106 / 31	22.6	148 / 5	3.3	254 / 36	12.4
McGill University	100 / 22	18.0	319 / 7	2.1	419 / 29	6.5
Université de Montréal	296 / 66	18.2	341 / 18	5.0	637 / 64	11.7
Université de Sherbrooke	137 / 50	26.7	207 / 15	6.8	344 / 65	15.9
Université de Laval	182 / 104	36.4	274 / 25	8.4	456 / 129	22.1
Dalhousie University	101 / 30	22.9	169 / 13	7.1	270 / 43	13.7
Memorial University of Newfoundland	43 / 28	39.4	126 / 7	5.3	189 / 35	17.2

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Table 2. Proportion of Canadian post-residency family practice trainees who practise in rural settings at 2 years post-residency by family practice training program (n = 3088)

Faculty	Urban / Rural	% rural
University of British Columbia	177 / 29	14.1
University of Calgary	111 / 31	21.8
University of Alberta	158 / 34	17.7
University of Saskatchewan	60 / 24	28.6
University of Manitoba	97 / 38	28.1
University of Western Ontario	141 / 17	10.8
Family Medicine North (McMaster University)	24 / 25	51.0
McMaster University	132 / 17	11.4
University of Toronto	371 / 18	4.6
Queen's University	95 / 31	24.6
Northeastern Ontario Family Medicine (University of Ottawa)	44 / 6	12.0
University of Ottawa	117 / 26	18.2
McGill University	168 / 37	18.0
Université de Montréal	311 / 66	17.5
Université de Sherbrooke	136 / 66	32.7
Université de Laval	158 / 113	41.7
Dalhousie University	89 / 21	19.1
Memorial University of Newfoundland	54 / 46	46.0

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Rural surgical programs in Western Canada

Stuart Iglesias, MD

Linda C. Jones, CCHRA(C)

CJRM 2002;7(2):103-7

*Note: In this paper a specialist general surgeon is a Canadian-certified FRCS physician. All other physicians mentioned, including physicians with international fellowships not recognized in Canada, are referred to as "GP surgeons."

Surgical services in rural Western Canada are provided by a mixture of Canadian-certified specialist surgeons and family physicians with advanced training in surgical procedures. A questionnaire was sent to all rural hospitals in Western Canada that provided either cesarean section or appendectomy services. We identified 76 rural surgical programs staffed by 22 Canadian-certified general surgeons, 128 GP surgeons, and 174 family practice anesthesiologists. The mean catchment population of rural communities with specialist general surgeons (23 090) was significantly higher than that of communities staffed by GP surgeons (13 798). Of the 22 rural programs with specialist general surgeons, all but 5 included some support by GP surgeons.

Dans les régions rurales de l'Ouest du Canada, les services de chirurgie sont dispensés par un groupe mixte de chirurgiens spécialistes avec certificat canadien et de médecins de famille avec formation poussée en techniques chirurgicales. On a envoyé un questionnaire à tous les hôpitaux ruraux de l'Ouest du Canada qui offrent des services de césarienne ou d'appendicectomie. Nous avons repéré 76 programmes ruraux de chirurgie dotés par 22 chirurgiens généraux avec certificat canadien, 128 omnipraticiens chirurgiens et 174 médecins de famille anesthésiologistes. La taille moyenne du bassin de population des communautés rurales desservies par des chirurgiens généraux spécialistes (23 090) était significativement plus grande que celle des communautés desservies par des chirurgiens omnipraticiens (13 798). Tous sauf 5 des 22 programmes ruraux dotés de chirurgiens généraux spécialistes pouvaient aussi compter sur le soutien d'omnipraticiens chirurgiens.

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"One of the greatest challenges is the provision of surgical services to rural and remote areas of Canada." — William Pollet, 1999 President, Canadian Association of General Surgeons¹

Surgical services in rural Western Canada are provided by a mixture of "specialist" general surgeons* and family physicians (FPs) with advanced training in surgical procedures.^{2,3}

These FPs with advanced surgical skills include doctors with a wide scope of training backgrounds. Among them are the international medical graduates (IMGs) with a surgical fellowship obtained internationally but not recognized in Canada. Also included are the rural physicians, trained either outside Canada or Canadian-trained, with 12 months or less of formal postgraduate surgical training. This training might have been provided through a third year of a family medicine residency program, an incomplete surgical residency, or a mentorship.

Faced with a shortage of Canadian-certified specialist general surgeons,⁴ the public policies appropriate to meet rural surgical needs have been the subject of some controversy. The 1999 Report of the Working Group on Postgraduate Medical Education for Rural Family Practice, College of Family Physicians of Canada, recommended that rural FPs continue to be trained in advanced skills, including general surgery.⁵ However, the Canadian Association of General Surgeons remains deeply sceptical of major surgical procedures, such as appendectomy and laparoscopy, which they believe should remain the province of full time certified surgeons.¹

The issues in this debate are several and complex, and it is clear that resolution of these issues requires detailed documentation of existing delivery systems for rural surgical services. This study is designed to provide a part of that documentation.

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Methods

We identified 76 rural hospitals in Western Canada (i.e., Manitoba, Saskatchewan, Alberta and British Columbia) that provided surgical services that included cesarean section (C-section) or

appendectomy. As in earlier papers in which one or both of us were coauthors,^{3,6} we designated a hospital to be rural if most or all of the medical services were provided by general practitioners (GPs). This eliminated from the study group all of the regional centres that, while sometimes considered rural by urban centres, enjoy a complement of first-line specialists, including surgeons, internists and pediatricians. At the other end of the spectrum, by restricting the definition of surgical programs to the capability to perform C-sections or appendectomies, we excluded some smaller centres that might perform procedures such as dilation and curettage and closed fracture reductions.

Those 76 hospitals were identified from our earlier study, which selected rural FPs providing appendectomy or C-section using the National Physician Database at the Canadian Institute for Health Information.³ Telephone communication and emails to these hospitals confirmed their surgical services. These same communications helped us identify any rural surgical sites that might not have been included in our database.

Between May and September 2000, we used email and/or telephone to contact either an administrator or a member of the surgical staff in each of the 76 hospitals. We explained the content and context of our study and we obtained a commitment to complete a questionnaire. The questionnaires asked for catchment population, distance from a regional centre, geography and transport issues, the specialist and non-specialist anesthetic and surgical staff, and the type of surgical services provided. We also inquired about the length and nationality of surgical training and about whether there existed any opportunities for the establishment of local specialist surgical services were they to become available. Finally, we asked whether the responders expected that local surgical programs would be continued in the future.

If questionnaires were not returned, follow-up telephone calls encouraged their completion and return. By November 2000, all 76 questionnaires had been returned.

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Results

In the 4 western provinces we identified 76 rural surgical programs. Of these 76 programs, all offered a local C-section capability and all but 5 offered a local appendectomy capability. These 76 hospitals relied on 22 Canadian-certified specialist surgeons, 128 GP surgeons, and 174 family practice anesthesiologists. There were no specialty anesthesiologists in any of these 76 hospitals ([Table 1](#)). Of the 128 GP surgeons, all offered C-section services and 95 offered both C-section and appendectomy services.

We divided the rural surgical programs into 2 models (I and II). Model I represented surgical programs that relied exclusively on FPs with advanced skills and without local certified specialist surgical services. Model II represented surgical programs where there was local certified specialist surgical skills, either exclusively, or in some combination with FPs with advanced skills. Of the 76 programs, 54 relied exclusively on FPs and 22 had some local specialist participation ([Table 2](#)). Of the 22 with specialist services, only 5 relied exclusively on specialist services and 17 included some support from FPs with advanced skills. In all 5 exclusively specialist programs, these represented a single specialist surgeon in solo practice.

Of the 76 programs, only 13 were within 80 km of a regional centre. Of these 13, 8 relied exclusively on FPs and 5 enjoyed some specialist services ([Table 2](#)).

In [Table 3](#) we analyzed the training background of the 95 FPs who provide a local appendectomy service. More than half (48) were IMGs with extensive surgical training. Approximately one-third (32) were Canadian-trained, and most (21) had 12 months or less of formal surgical training. Interestingly, of the 32 Canadian-trained FPs providing appendectomy services, most practised in Alberta (21).

For all the rural surgical programs without specialist services it was determined whether they could support a specialist service, either alone or in cooperation with other rural hospitals in reasonable proximity. Of the 54 programs, 23 responded positively (Manitoba, 5; Saskatchewan, 3; Alberta, 13; BC, 2).

The respondents for all 76 programs were asked to explain their difficulties with geography, climate and patient transport. In addition, they were asked to estimate the proportion of time when urgent transport might not be available. In BC, 7 of the 20 rural hospitals, representing communities isolated by mountain passes, reported serious transport problems (5%–10% of the time). In Manitoba, 2 Rural Isolated (i.e., more than 400 km from a regional centre) hospitals reported transport difficulties (5%–10% of the time). In the rest of Manitoba and BC, and in all of Alberta and Saskatchewan, patient transport was not considered to be a problem.

When asked to describe the issues related to the future of their surgical services, the respondents described a chronic struggle with manpower (nursing, anesthesia, surgery) and budget. So it was somewhat surprising that most felt confident that their programs would survive. Respondents from only 15 of the 76 programs thought that surgical services would probably not survive in their hospital. In many responses there was a serious commitment to ensure that these programs did survive. With a few exceptions, this commitment to local surgical services does not seem to be related to issues of geography, climate or transport. Rather, there seems to be a widely held perception that care and outcomes are better if they can be provided locally.

The catchment populations for surgical sites staffed by FPs (54) ranged between 5000 and 30 000

with a mean of 13 796 and a median of 12 750. Thirty-one (57%) of catchment populations were between 9000 and 15 000 in size. The catchment populations for surgical sites staffed by specialist general surgeons (22) ranged between 4000 and 100 000 with a mean of 23 090 and a median of 17 500. Twenty-six (81%) were between 12 000 and 25 000. The mean catchment population for the specialist general surgeon sites was statistically significantly higher than that of the FP sites (Student's t-test = 2.125; p = 0.019). However, 10 (19%) FP site catchment populations were larger than the median specialist general surgeon catchment areas.

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Discussion

The 76 programs in our study represent the communities in 4 western provinces with much at stake in the current debate about the appropriateness of training rural FPs in general surgery. Each of these programs delivers a level of surgical services that would support an operative obstetrical service as well as a significant general surgical program. Yet only a few of these communities have been able to attract a specialist general surgeon.

The survey data documents a considerable need and opportunity for the expansion of rural specialist general surgeons. It was felt that 23 of the 54 rural surgical programs without specialist support could support, either within their own community or in cooperation with other rural communities, a specialist surgical service. This represents a large challenge to the general surgical training programs. It represents an equally large challenge to government planning and funding programs. A specialty surgical program, even in rural Canada, includes bowel, breast, and head and neck surgery. This would mean a significant step up in terms of equipment, staff and dollars from a surgical program staffed by FPs.

However, it is also clear that even if we were able to staff every reasonable rural surgical site with a certified specialist surgeon there would continue to be a significant, continuing need for GP surgeons. Of the 22 rural programs with specialist service, all but 5 included some support by GP surgeons. The role of the GP surgeon, in the presence of a specialist service, takes 2 forms. First, the specialist surgeon is relieved of the obligation, either real or perceived, to be available 24/7/365. Second, in many of these Model II communities, the GP surgeons provide most or all of the operative delivery services in obstetrics. This provides significant after-hours relief for the specialist surgeon.

There are still 31 rural communities in Western Canada which, in the opinion of the local medical staff, are unsuitable for a specialist surgical service. All are an hour or more from a regional

referral centre (Rural Remote or Rural Isolated; see Table 2 for definitions). These include the 7 BC communities that face significant transport issues.

There appear to be 2 distinct training backgrounds for the GP surgeons in our survey. Approximately one-half (48 of 95) represent IMGs with extensive surgical training. Some of these have a "specialist" practice pattern, concentrating exclusively on a referral surgical service. Others have a family practice service integrated with their surgery. Of the remainder, the largest group (21) represents Canadian FPs with 12 months or less of formal surgical training. Most of these practise in Alberta and BC. This is not surprising when we appreciate that there are only 2 formal Canadian training programs for advanced skills in general surgery: the University of Alberta and the University of British Columbia. Undoubtedly, these 2 programs have played an important role in the staffing of these rural surgical sites.

For the majority of the rural surgical programs there is a long and successful history and a deeply held commitment to their survival. Although the research envelope on these programs is thin, recently some evidence has emerged that these programs do achieve outcomes comparable with care in regional centres (Dhillon D, Johnston S, Spooner D, unpublished observations, 2000; Iglesias S, unpublished observations, 2002).^{6,7}

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Comparison with other studies

In 1995, Chiasson and Roy reported the results of a questionnaire sent to administrators in 56 rural hospitals in BC, Alberta, the Yukon and the Northwest Territories.² They identified rural hospitals by excluding communities with catchment areas over 15 000 (mean = 8280). Of these 56 hospitals, only 29 provided a level of service that included appendectomy. Clearly, this study included many small hospitals that did not provide general surgery and it excluded other hospitals that, although their catchment areas were greater than 15 000, provided general surgical services either exclusively or almost exclusively by non-specialist surgeons. Chiasson and Roy included itinerant surgical and anesthetic personnel in their study; our study excluded all surgical staff that were not residents in the community.

While appreciating the smaller surgical programs included in the Chiasson and Roy study, there are considerable similarities with our own results. Of their 63 physicians with surgical training, 46% (29) were trained in Canada and the remainder were IMGs. The mean length of postgraduate surgical training (and range) was 17 months (2–48). The mean distance to a regional centre was 216 km (Rural Remote).

An earlier study, of which we were coauthors, used the National Physician Database (NPD) at the Canadian Institute for Health Information to identify all non-specialist surgeons performing appendectomy in rural Canada.³ The NPD is the national repository for services and billings provided by Canada's fee-for-service physicians. The methodology to identify "rural" was identical to this paper's methodology. The results, for 95/96, identified 109 non-specialist surgeons providing appendectomy in the 4 western provinces and Ontario. Of these, 38.5% (42) were Canadian-trained. These results are very similar to those provided by this survey.

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Limitations of our study

An accurate and reproducible methodology to identify rural hospitals is problematic. There is some consensus⁸ that an operational definition of these hospitals requires that most or all of its specialist services provided locally be provided by non-specialist medical staff. Other researchers, such as Chiasson and Roy,² have restricted the inclusion criteria to size of hospital (50 beds) and catchment area (15 000). Our own methodology, developed in an earlier paper,³ used a network of FPs to identify each community in Canada in which, in most circumstances, there were 2 or fewer specialist physicians on the active medical staff and residing in the community. Our results are specific to these communities, and we may not be able to generalize to larger rural surgical programs which, with a larger incumbent specialist staff, are difficult to distinguish from regional centres.

Any questionnaire study is exposed to the choice of respondent and the care with which it was completed. Our questionnaire was sent to a mixture of administrative and medical personnel. It is possible that this would weaken our results if we have reason to believe that the background of the respondent might influence his or her report of the demographics and content of local surgical programs. Our questionnaires were sometimes accompanied by telephone and email conversations, either before or after receipt and completion of the questionnaires. Although this facilitated their understanding of our purpose and their completion of the questionnaire, it is possible that those communications biased the reports.

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Conclusion

Rural surgical services are provided in Western Canada both by certified specialist surgeons and GP surgeons. These GP surgeons are a mix of IMGs with extensive surgical training and Canadian FPs with advanced training in general surgical skills. While there is considerable opportunity for the expansion of specialist services in these communities, current delivery models would require that GP surgeons who are trained in appendectomy and C-section support these rural specialists. There remains a large number of rural surgical sites where the only appropriate delivery system for local surgical services is the GP surgeon.

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Table 1. Rural surgical programs in Western Canada (*n* = 76) that provide cesarean section or appendectomy services

Province	No. of programs	No. of physicians, type of specialty		
		Specialist general surgeons*	GP surgeons	GP anesthetists
Manitoba	7	2	17	22
Saskatchewan	8	1	11	19
Alberta	41	10	70	85
British Columbia	20	9	30	48
Total	76	22	128	174

* Defined in this paper as a Canadian-certified FRCS physician.

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Table 2. Rural surgical programs* in Western Canada (n = 76), categorized by location (Rurality) and Model† of each program

Rurality	Model I	Model II	Total
Rural Close‡	8	5	13
Rural Remote§	41	17	58
Rural Isolated¶]	5	–	5
Total	54	22	76

* Rural surgical programs that provide cesarean section or appendectomy services

† Model I = Surgical services by family physicians only;
Model II = Surgical services by specialist surgeons with or without family practitioners

‡ Within 80 km of a regional centre

§ Between 80 and 400 km from a regional centre

¶] More than 400 km from a regional centre

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Province	Canadian-trained			IMGs			Total
	≤ 12 mo	> 12 mo	Total	≤ 12 mo	> 12 mo	Total	
Manitoba	1	–	1	–	10	10	11
Saskatchewan	3	1	4	2	5	7	11
Alberta	13	8	21	8	25	33	54
British Columbia	4	2	6	5	8	13	19
Total	21	11	32	15	48	63	95

* For this table we defined a "GP surgeon" as someone providing a local appendectomy service.
 IMG = international medical graduate

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Country cardiograms case 21

Charles Helm, MD
Tumbler Ridge, BC

CJRM 2002;7(2):111

Case presentation

As part of a preoperative medical evaluation in a rural British Columbia hospital the following electrocardiogram ([Fig. 1](#)) was recorded on a 72-year-old male patient. The computer analysis read "bigeminy pattern."

What is your interpretation?

For the Answer see [page 125](#).

Correspondence to: Dr. Charles Helm, Box 1690, Tumbler Ridge BC V0C 2W0;
drhelm@pris.bc.ca

"Country cardiograms" is a regular feature of CJRM. We present an electrocardiogram and discuss the case in a rural context. Please submit cases to Suzanne Kingsmill, CJRM, Box 1086, Shawville QC JOX 2Y0.

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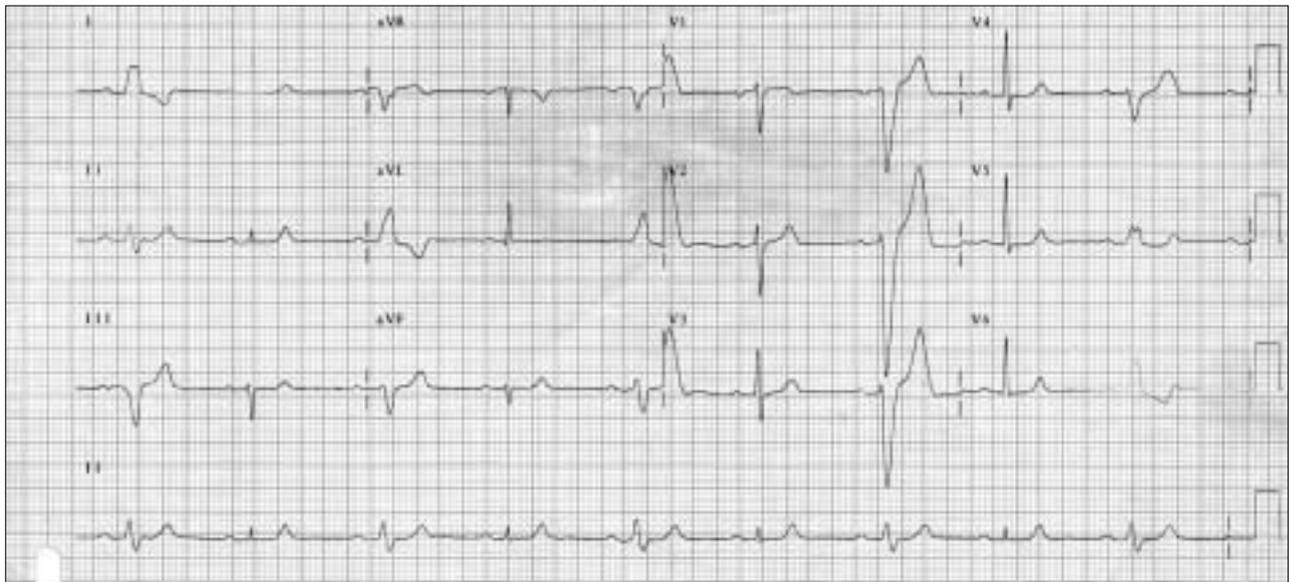


Fig. 1. Electrocardiogram from 72-year-old patient.

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Country cardiograms case 21: Answer

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Discussion of ECG Illustrated in Question Section

Although at first glance a bigeminal rhythm may appear to be present (see Fig. 1 in the Question section, [page 111](#)), this is clearly not the case. Regular P waves occur throughout the tracing (rate 56 per minute) with a constant P–R interval of 0.22 seconds (mild first degree A–V block). Ventricular and atrial bigeminy, which by definition involve premature complexes, are thus excluded, so this is a sinus bradycardia (if one accepts 60 as being the cutoff between normal sinus rhythm and sinus bradycardia).

A diagnosis of electrical alternans could be entertained briefly, if only the rhythm strip were examined, but even in this lead it becomes clear that it is not just the amplitude but, more importantly, the duration of the QRS complexes that is changing. Examination of all 12 leads reveals that normal narrow complexes (0.07 seconds) alternate with wide complexes (0.15 seconds). The latter have a typical left bundle branch morphology, complete with secondary ST–T changes.

The remainder of the ECG is normal, with an axis of -15 degrees that is within normal limits for a patient of this age.

We are left with a diagnosis of intermittent left bundle branch block. This is not an infrequent ECG finding, and is important to recognize. There is a spectrum between a normally functioning bundle branch system and a completely non-functioning bundle branch. We can envisage the cells within the bundle branch as being injured but not functionally dead.

This may express itself as an abnormally long refractory period. In this tracing, every second impulse finds the left bundle branch still in the refractory period. Obviously, other ratios are possible. Because of the relatively slow rate, the diagnosis is obvious in this tracing, but faster rates can be more confusing, especially if the normal P wave becomes hidden in the abnormal T wave that follows the widened QRS complex.

Another form of intermittent bundle branch block is directly related to rate. As rate increases and the R–R interval shortens, the effects of an abnormally long refractory period in one bundle branch will manifest themselves in a rate-dependent bundle branch block, which will resolve when the rate slows down again. The clinical significance of this is that in the acute care situation, caution should be exercised in ascribing the advent or disappearance of bundle branch block to changes in the patient’s condition; they may simply reflect minor changes in rate.

In the case of this 72-year-old patient, who is otherwise healthy, we can surmise that his intermittent left bundle branch block is probably simply a transitional phenomenon and that in time he will develop permanent left bundle branch block.

Discussion of ECG (Fig. 1)

[Figure 1](#) illustrates the same phenomenon. It was taken from a patient with a leaking abdominal aortic aneurysm who presented in shock. In this case, first degree A–V block and left bundle branch block are present when the rhythm is regular. PVCs are present, and each PVC is followed by a narrow QRS complex. Here the compensatory pause following each PVC allows the left bundle branch to recover, so that the next impulse coming down from the A–V node finds the left bundle no longer in its refractory period.

For case 21 Question, see [page 111](#).

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Fig. 1. Electrocardiogram from another patient, illustrating the same phenomenon (see Discussion of this ECG, following page).

[\[Return to text\]](#)

The occasional slit lamp examination

John Wootton, MD, CCFP, FCFP

CJRM 2002;7(2):112-4

In a corner of your emergency department, more often than not covered in a white shroud, sits that most intimidating of medical instruments — the slit lamp. When you really need it, your fondest hope may be that the last person to use it knew what he or she was doing, and that the various swinging bits were left in their proper positions. Wishful thinking would guarantee that the light source is set to the right colour, shape and intensity, and the beam adjusted so that when you turn it on it will illuminate the object of your interest, and not some distant spot in the middle of your patient's forehead.

This then is a generic primer on the use of a slit lamp. The one illustrated here is the one the author has on hand, but the techniques are sufficiently basic that they should apply to a variety of instruments. The goal is to review the steps that get you to an appropriate illumination of your patient's eye with a minimum of fuss. It does not inspire confidence in your patient (with whom, after all, you are eyeball to eyeball) to see you fumble with the switches as you prepare to approach the foreign body in her eye with a very sharp needle.

Indications

Common indications for slit lamp use include (but are not limited to) evaluation of corneal abrasions, removal of foreign bodies and rust rings, and evaluation of the anterior compartment for inflammation.

Step 1

Light intensity (5v, 6v or 7.5v) can be chosen when you turn the lamp on (Fig. 1). For most purposes the lowest setting is adequate.



Fig. 1. Choose the setting

Step 2

The patient should be seated comfortably, with her chin in the chin rest and forehead firmly pushing against the headrest. The entire structure (as well as seat height) can be adjusted to accommodate any patient. From this moment on the patient should be asked not to move. Using the chin rest adjustment knob, align her eyes with a mark on the headrest support. In this case it's a black mark on the pillar at the patient's left (Fig. 2; see arrow).

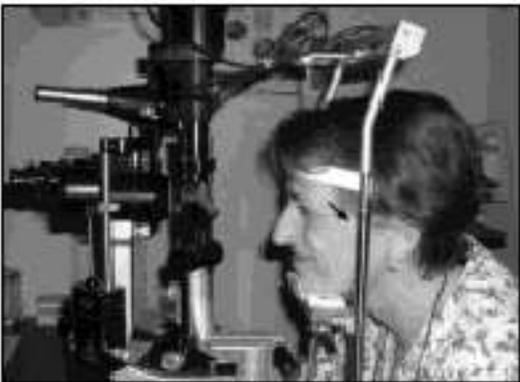


Fig. 2. Position the patient

Step 3

Adjust the light by using the joystick to bring the structure of interest into focus: the joystick twists (to move the light source up and down) and moves backward and forward and from side to side. The light source can be easily moved through a vertical distance of 2 to 3 cms to fully explore the eye.

Fig. 3a: The knob visible at the right rear of Fig. 3a locks and unlocks the base. It is generally left unlocked throughout the procedure, but is locked for security when the slit lamp needs to be moved to another location.



Fig. 3a. Adjust height of the light

Fig. 3b: Set both the lenses to "0" and leave them that way. If you wear glasses, wear them during the examination. This will ensure that the optics are set to your prescription. Adjust the distance between the lenses to suit your eyes.



Fig. 3b. Focus the lens

Fig. 3c: By moving the J-shaped bar the light source can be swung through almost 180°. For most purposes position the bar so that the light shines from the temporal side of the eye being examined, at approximately a 45° angle. Once set, it does not usually need to be moved until the opposite eye is examined. The 2 knobs at the base of the bar govern the width of the slit. Use the one easiest to reach.

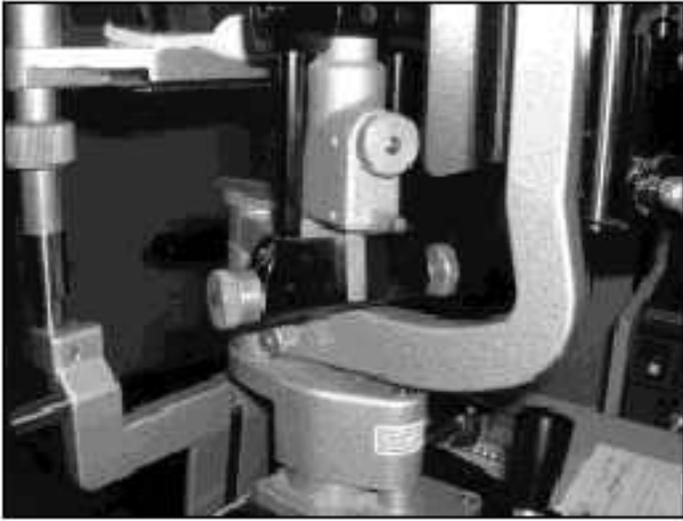


Fig. 3c. Angle the light

Fig. 3d: There are 3 adjustments illustrated here. The small white horizontal lever (top left) selects the colour of the light. For most purposes it can be left at the plain white-light setting. The central white knob controls the height of the slit, and on this machine can also be twisted to select a cobalt-blue filter. This whole structure can also be swivelled (there is a click when it is in its central position), and this causes the slit to become angled. This is rarely required.

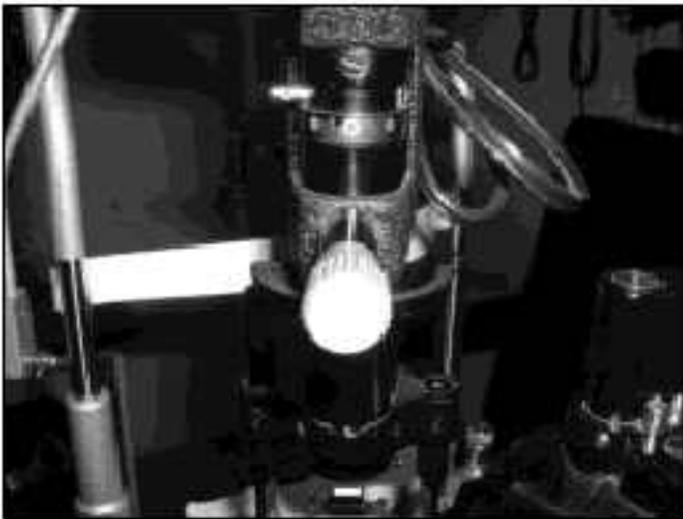


Fig. 3d. Choose colour and slit height

Step 4

The patient should remain still, focusing (in this case) on the examiner's right ear (Fig. 4). The eyelid can be held up with the left thumb, and the instrument brought into the field of vision with the right hand braced, if necessary, on the patient's nose. The eye should be well frozen.

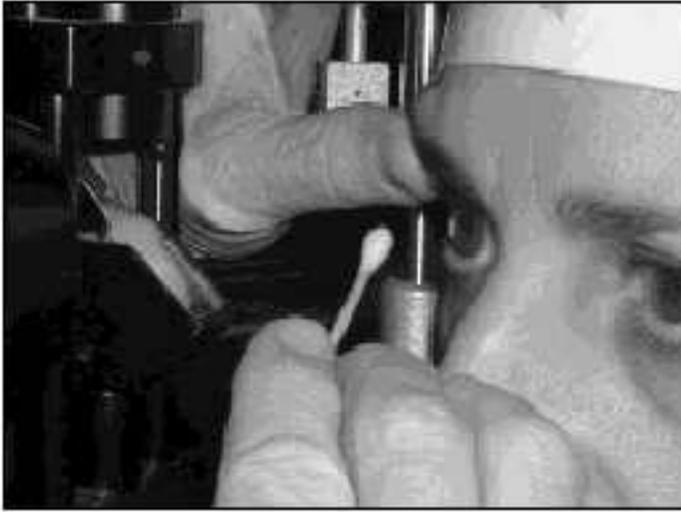


Fig. 4. Foreign body removal

Summary

Familiarity with this instrument will breed, not contempt, but confidence, and your patients will benefit by more thorough and complete examinations. In addition, the specialists to whom you refer will also benefit from a better description of the pathologies on which they have been asked to consult.

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A primer on rural medical politics: 4. Association of Canadian Medical Colleges

Keith MacLellan, MD

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Rural health care is sustained by broadly-skilled general practitioners, many with advanced skills. Yet our medical system is designed for either specialists or generalist physicians with scopes of practice restricted to rigid primary models of care. In this, the fourth in a series of articles, Dr. MacLellan has used the Joint Position Papers on Rural Maternity Care and on Advanced Maternity Skills and Cesarean Section as examples of how rural generalists could provide specialized services to rural women — if these policies could be implemented against the prevailing trends of our medical and governmental systems.

Canada's 16 faculties of medicine form the Association of Canadian Medical Colleges (ACMC). If there is an ivory tower, this is it. The ACMC (somewhat incestuously it might appear) accredits Canadian undergraduate medical training and has several other organizations affiliated with it or under its wing, such as the Canadian Association for Medical Education, the Association of Canadian Academic Healthcare Organizations (formerly the Association of Canadian Teaching Hospitals) and the Canadian Post-MD Education Registry. Several organizations have their annual meetings with the ACMC, such as the Canadian Federation of Medical Students; the Academy of Canadian Executive Nurses; the Council of Ontario Faculties of Medicine (COFM); and the Friends of Canadian Institutes of Health Research.

More importantly for our discussion, the ACMC has several influential committees that coordinate on the national level. One is the Continuing Medical Education (CME) Committee, made up of the associate deans of CME and their offices. These intrepid souls travel the world discussing the best ways for simple generalists and sophisticated specialists to keep learning. The fruits of their labours arrive at the highest levels of the pharmaceutical industry so that "benign" patronage can sponsor this education. The evidence for this education actually being effective is hard to find, but most feel, in an intuitive, non-evidence based sort of way, that it is worthwhile.

It is in this rarified and uncertain atmosphere that the College of Family Physicians of Canada (CFPC) formulates MAINPRO® (and the Royal College of Physicians and Surgeons of Canada

MOCOMP®) CME credits that are compulsory for continued membership in these respective colleges. Because national portability and other licensure issues (not to mention academic advancement within the universities) are now increasingly being tied to membership in one college or the other, there is often confusion in some minds between the education and the membership mandates of these "voluntary" accrediting organizations. Lifelong commitment to improving one's knowledge is an admirable and reasonable goal, but some wonder that it all seems tied to a CME "industry" that has a felicitous relation to the travel industry, expenses for both being tax deductible if learning has at least an appearance of taking place. If the Canadian taxpayer must subsidize this apparatus, then a proper academic wardrobe needs to be arranged — and this the ACMC admirably provides. It is hard to see what other choices the accrediting colleges and licensing authorities have, given their view that human nature procrastinates on learning unless forced. But the austere philosophy this academic wardrobe covers must be unsettling, particularly when it begins to affect career choice, mobility, and even the reputation of individual physicians.

In most universities the CME department is tightly controlled and well endowed. Rural CME is the target of several "distance learning" technologies and currently has some cachet with the CME committee of the ACMC, mostly because government funding is available. However, because it is difficult to deliver a baby by video conferencing and the whole topic is not a promising source for long-term funding provided by pharmaceutical companies, one could predict a dim future in our national academic CME world for the Joint Position Papers on Rural Maternity Care and on Advanced Maternity Skills and Cesarean Section.^{1,2}

The ACMC also houses the Council of Deans of Medicine. Deans of medicine have their own special problems. Despite the disbelieving hoots from deans of arts or engineering, our medical faculties are abysmally underfunded for the job they have to do. Consider only the huge number of teaching hours needed to train a pediatric surgeon in comparison to, say, a PhD in history. Add to this the quarrelling among departments, the undignified pleading for research funding, the uncomfortable relation with academic health science centres, the constantly changing political landscape, ministers of health with insurance sales (or worse) backgrounds, and the interminable cocktail parties. Recently, government pressure about rural health care has added to the Deans' woes — COFM was formed in direct response to such pressures. The last thing on a dean's mind is the plight of rural childbearing women.

The powerful associate deans of postgraduate training are the magi of the medical training system. These very practical and harried individuals must, among other administrative and clinical duties, deal out the postgraduate residency spots and funding allowed to the universities by provincial governments, ride herd on the department heads about meeting accreditation norms, balance the competing training idiosyncrasies of each department, and compete with other postgraduate deans for residents and funding. While enjoining departments not to just promote trainees with failing performances onto the next stage, they also must represent the university in all emotional court cases where residents with learning difficulties feel they have been unfairly treated by the system and are suing the university.

If one brought the Joint Position Papers on Rural Maternity Care and on Advanced Maternity Skills and Cesarean Section to a postgraduate dean and asked for help in implementation, the first reaction might be, "I can see what you are saying, but why should I upset this already underfunded and tenuous circus I am trying to keep together?" Postgraduate deans are above all (and quite rightly) fiercely loyal to their universities and protective of their deans of medicine. While some have been extremely helpful and understanding of rural health needs, none will accept these two Joint Position Papers if this means harming the universities' departments. The worse possible situation to be in as a postgraduate dean would be to be required by governments or "field" doctors to order the faculty of medicine to train physicians in specific skills against the better judgement of its departments and without much extra money. Lastly, with all their regional and provincial responsibilities, no postgraduate dean has a national mandate, far less a national rural mandate — and we have seen that a "pan-Canadian" approach is essential.

Access to specialty care is becoming alarmingly difficult for rural populations. As we are seeing in this series of articles,^{3–5} the reasons for this are complex, but the university training system has not been able to produce enough specialists or generalists with specialized skills to meet rural needs. While leaning on the postgraduate dean might appear to be a convenient lever to rectify the problem, this path is doomed to be rocky and cause hard feelings about "rural" within the universities and the ACMC, unless accompanied by many other national adjustments . . . and large amounts of funding, of course.

The ACMC as a whole could help coordinate the national implementation of a curriculum and maintenance of competence program for rural generalists practising advanced obstetrical skills, as well as advocate for the needed federal and provincial long-term funding to do so. Unfortunately, the ACMC has had little rural orientation to date — its annual meetings usually mention "rural" only as a target for some of the more experimental CME projects that might carry funding. Recently there has been minor ACMC movement on the Aboriginal health education front. But there is no structure within the ACMC responsible for initiating strategies to provide better service to Canada's rural populations, and no specific structure to receive advice from those outside the ACMC. The ACMC also has no particular interest in reversing the specialization trends so evident in Canadian medical training, although perhaps this will change because several deans of medicine now come from family medicine backgrounds. Still, the ACMC relies on the accrediting body for family medicine postgraduate training — the CFPC — for advice and policy on generalists' training. However, the tensions between the CFPC and the ACMC committees (such as the committee of postgrad deans) can sometimes ride high as the postgrad deans try to balance the multiple demands of their faculties' specialty departments, mean-fisted governments and litigious residents with what the CFPC sees as needed for generalist training.

There is no doubt our universities need more money. If the Joint Position Papers on Rural Maternity Care and on Advanced Maternity Skills and Cesarean Section are to be advanced within the ACMC, it is for the CFPC to do so. Most in the ACMC will be suspicious unless the project

comes with substantial recurrent funding. Even then, the CFPC must reassure the academic specialists, perhaps showing more jugular than is healthy for the family practice movement, even in today's enlightened academic world.

Of course, the CFPC must be solidly behind the idea. That's our next bit of puzzle.

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Loss of maternity care: the cascade of unforeseen dangers

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Under budgetary strains, regional health authorities are looking to cut costs by restructuring and consolidating services. At first blush, centralizing services may make sense, as it is claimed that larger units function more efficiently. But when centralization occurs without a full appreciation for the consequences to the life of rural and small urban communities, serious unintended effects can result. Cost savings may prove elusive because the decision to close hospitals in smaller communities carries with it health and economic risks.

The case of rural maternity care offers a telling example.

Although many health services are at risk, maternity care is particularly vulnerable to the negative effects of centralization. Most physicians who practise in rural areas do so because they are drawn to the variety and scope of practice and have a commitment to community as a core value. Working with local colleagues, they can turn for back-up to those with surgical and anesthetic skills when confronted with problem births. There is a synergy between general and specialist physicians, nursing and regulated midwifery. Each profession is key to an adequate and safe maternity service.¹⁻⁷

Most importantly, the false economy of centralization is revealed when women have to leave their communities to travel large distances to seek services. It is much more than an inconvenience for them and their families.⁸ We maintain that the loss of maternity services releases a cascade of adverse consequences for mothers and babies.

- Physicians and nurses stop doing maternity care or provide only a limited service.
- Women from less central communities must travel, often at great expense in financial and personal terms, ultimately to be cared for in a distant centre by persons unknown.

- The community becomes what is known as a "high outflow community"⁸ in which the frequency of small premature infants goes up, as does maternal and newborn complications — even though the women (most but not all) have travelled to a good place to be delivered by good people.^{8–10} This is seen as due to a lack of support from family and friends, delays in transfer and other complex issues.
- These complications dramatically escalate health care costs.
- Midwifery practice in such communities is made impossible because midwives need physician and institutional back-up to practise.
- Physicians and nurses become even less satisfied with their work and less committed to their communities.^{11,12}
- Other aspects of women's health care, such as prevention, counselling and office gynecology, begin to atrophy.
- Many of the remaining physicians, suffering under impossible on-call schedules and isolation, retire or relocate.^{13–15}
- The community finds it even harder to attract and replace physicians and skilled maternity nurses.^{13,16}
- Physicians, nurses and the community suffer the loss of an entire skill set related to reproductive and women's health.
- Student physicians and nurses, seeing discouraged teachers, choose not to enter this field of practice, selecting settings with less on-call and less stress. This further restricts women's access to high quality maternity care.
- It is not just about maternity care. Ultimately emergency, surgery and anesthetic services in some rural communities collapse because the number of physicians required to sustain on-call coverage no longer exists.
- Businesses find it difficult to recruit employees to communities where medical services are limited.^{17,18}
- Many residents of the community (especially those in their reproductive years) begin to wonder why they are living in the community and try to move. (Many can't.)
- The community itself becomes dysfunctional and unstable. Too late, it is realized that maternity and newborn care are lynchpins for sustainable communities, medically, socially and economically.

This negative cascade of events is an example of a process that occurs in other fields as well. We could equally talk of general surgery, rehabilitation, mental health services, general pediatric bed loss in small community hospitals and other interdependent services, but the loss of maternity/newborn services offers one of the clearest examples of the consequences of poorly planned centralization.

All levels of government must consider seriously the unintended "costs" of centralization and resist the urge to consolidate services solely for apparent short-term economic reasons. We must be alert to the interdependence of a series of skills to the life of a community, and we must support maternity care providers in rural and urban settings so that they can continue to care for a

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Keyboard skills

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"I got my education, out behind the barn, I ain't a-fooling, no sir-ee. Passed each examination, out behind the barn, but it almost made a wreck out of me." — Little Jimmy Dickens, c. 1950

Time spent learning better keyboard skills is a good investment! Computer novices can learn the keyboard layout and how to type without watching their hands. Advanced users can always improve their speed and accuracy.

What about speech recognition?

Speech recognition software doesn't replace the need to learn keyboard skills. The software continues to improve, but is mainly useful for "techies" who are prepared to invest the time and effort to master the programs.

What is touch-typing?

You start with a "home position," to which your fingers always return after typing any key. Put your left index finger on the F key, and the right one on the J key. On some keyboards these keys have a tiny bump to remind you. The other fingers will fall naturally onto other second-row keys (A-S-D-F and J-K-L-semicolon). Next, you learn the position of each key so that you can press it and return to the home position without looking at your hands. The following Web sites and programs provide exercises and games to help you.

Online tutorials

These tutorials require Internet Explorer (version 5.0 or higher). They are not complete learning programs but will help you get started. Try all of them and compare!

Web site rating system:

*** Excellent: worth regular visits

** Good: worth occasional visits

* Fair: worth at least one visit

Typing Pal * * *

www.typingpal.com

Beginners should start here! The program slowly walks you through the basics. It teaches the keys just 2 at a time. A downloadable version of the software is also available.

EasyType * * *

www.easytype.com

Another good beginner site. It provides well planned lessons that go beyond what is available on Typing Pal. It remembers the lessons that you have already completed.

MrKent * *

www.mrkent.com

This free site lets typists of all levels practise their typing speed.

Demonstration programs

Many Web sites allow you to download demonstration versions of software for a free trial period. Remember to check any downloaded file for viruses! In some cases, you will need to "unzip" a compressed file.

Tucows * * *

www.tucows.com

Tucows is a reliable site for finding downloadable software. To find typing programs, enter "typing tutor" into the search window.

KP Typing Tutor * *

www.arlido.com/zijianhuan/kpe.html

This free beginner-level program is also available from Tucows. It downloads a file (kpsetup.exe) to the computer. When file is run, it installs the program and places a quick-access icon on the desktop.

Commercial programs

If you really want to learn to touch-type, buy a well-organized tutorial program. Each of these

programs was available in Calgary at the time of writing, at a computer store, office supply store, or directly from the manufacturer.

Mavis Beacon Teaches Typing

www.broderbund.com

This program is the best-selling typing tutorial. It is designed to help both beginners and advanced typists who wish to improve their skills. Some users like the repeated reminders. Others consider them to be "nagging." Price: \$30.

All the Right Type

www.ingenuityworks.com

Some keyboard skills teachers prefer this Canadian program, and describe it as being "more to the point" and "less intrusive" than Mavis Beacon. It is available directly from the manufacturer. Price: \$35

Typing Pal

www.typingpal.com

Typing Pal was also available in one local store. I have not yet heard any expert comment about it, so try their online and downloadable version first. Price: \$35.

Hands-on classes

A hands-on class with a live instructor is another good way to get started. Check with adult education providers or computer shops to discover where keyboard courses are available in your community.

Typing drill

Open your word processor program and type the sentence "The quick brown fox jumps over the lazy dog." It contains every letter in the alphabet and is a great way to become familiar with the keyboard. How many times can you type it correctly in one minute? Can you type it without looking at your hands? Try typing it with a capital letter at the start of each word or using all capital letters but without using the "Caps Lock" key.

Point to ponder

Comedians always make fun of physician's handwriting. What are they going to do after we are all using keyboards to write our prescriptions?



RuralMed

RuralMed is an Internet email discussion group dedicated to rural medicine. It was established by the [Society of Rural Physicians of Canada](#) in April 1995, with the cooperation of the McGill University Computing Centre. Although its focus is Canadian, its membership is international.

To participate in RuralMed you must be able to send and receive email. Subscription is by request to the listowner. Simply send a message to admin@srpc.ca.

Include your full name and email address. If you include a short biography it will be posted to the list as your introduction. You can also access both the RuralMed archives and a RuralMed subscription form through the [SRPC home page](#).

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