Rural women family physicians

Are they unique?

Filomena Incitti, MD, CCFP James Rourke, MD, CCFP(EM), FCFP
Leslie L. Rourke, MD, FCFP MaryAnn Kennard, MLS

ABSTRACT

OBJECTIVE To compare the scope of practice and degree of personal and professional satisfaction of rural women family physicians with their rural male, urban female, and urban male counterparts.

DESIGN Cross-sectional mailed survey.

SETTING Rural and urban Ontario family practices.

PARTICIPANTS A total of 442 rural and urban family physicians.

MAIN OUTCOME MEASURES Personal and professional characteristics, scope of practice, and degree of personal and professional satisfaction.

RESULTS Rural women family physicians' scope of practice is as broad as that of rural men, and the women are more likely to attend births. They work many more hours on average than their urban counterparts. Rural women incorporate more professional activities into their practices than both male and female urban family physicians do, but they are less satisfied, both personally and professionally.

CONCLUSION Rural family practice provides a broad scope of practice for both women and men, but initiatives are needed to make rural practice more professionally and personally satisfying for both women and men.

RÉSUMÉ

OBJECTIF Comparer les champs de pratique et degrés de satisfaction personnelle et professionnelle des médecins de famille féminins pratiquant en région à ceux de leurs collègues masculins pratiquant en région et à ceux de leurs collègues féminins et masculins des milieux urbains.

TYPE D'ÉTUDE Enquête transversale par la poste.

CONTEXTE Pratique familiale en milieux ruraux et urbains de l'Ontario.

PARTICIPANTS Un total de 442 médecins de famille œuvrant en milieu rural ou urbain.

PRINCIPAUX PARAMÈTRES ÉTUDIÉS Caractéristiques personnelles et professionnelles, champs de pratique et degré de satisfaction personnelle et professionnelle.

RÉSULTATS Les femmes médecins pratiquant en région ont des champs de pratique aussi diversifiés que leur collègues masculins des milieux ruraux et elles font souvent plus d'obstétrique. En moyenne, elles travaillent beaucoup plus d'heures que leurs collègues des milieux urbains. Par rapport à leur collègues masculins et féminins des villes, elles s'engagent dans une plus grande variété d'activités professionnelles, mais en éprouvent moins de satisfaction personnelle et professionnelle.

CONCLUSION Pour les hommes comme pour les femmes, la pratique en région donne accès à un large spectre d'activités professionnelles, mais il faudra trouver des moyens d'améliorer la satisfaction personnelle et professionnelle des femmes et des hommes qui pratiquent dans ce milieu.

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Until recently, women family physicians were traditionally less likely than their male counterparts to locate in rural areas. Of the 4775 family doctors identified as rural in the January 1998 Canadian Medical Association (CMA) Datafile, 1241 (26.0%) were women.[1] In comparison, 31.7% of Canadian family doctors overall were women.[2]

The proportion of women entering medicine has been steadily rising during the past few decades. A study released by Statistics Canada in 1999 revealed an increase of 166% in the number of women physicians from 1980 to 1995, compared with a 26% increase in the number of men.[3] Primary care, in particular, has experienced a surge in women physicians. According to numbers provided by family medicine training programs in Ontario universities at the time of our survey, 54% of residents expected to graduate in 2000 were female (personal communications from Ontario family medicine training programs). In contrast to past trends, the 86 graduates of family medicine training programs who entered rural practice in Canada in 1998 were equally divided between women and men.[1]

A career as a physician can make managing roles as a professional, parent, and spouse a challenge. The strain can be especially trying for women, who are usually primary caregivers for their children and are more likely to be part of a two-career family than their male counterparts.[4]

Female family physicians reported an average work week of 44.2 hours while male family physicians reported an average of 53.2 hours in the 1997-1998 Janus Project survey conducted by the College of Family Physicians of Canada.[5] Back in 1995, male physicians in Canada reported working an average of 2426 hours yearly (about 47 hours weekly), while women reported an average of 1970 hours (about 38 hours weekly).[3] At that time, many more women than men also worked part time and spent fewer weeks at work.[3]

Dr Incitti, *who was a family medicine resident at the University of Western Ontario in London at the time this research project was carried out, practises rural family medicine in Elora, Ont.* **Dr James Rourke** *is a Professor, and* **Dr Leslie Rourke** *is an Assistant Professor, in the Department of Family Medicine at the University of Western Ontario. They practise rural family medicine in Goderich, Ont.* **Dr James Rourke** *is Director, and* **Ms Kennard** *is a Research Assistant, in the Southwestern Ontario Rural Medicine Education, Research and Development Unit in Goderich.*

Ontario studies have found that women in general or family practice were more likely to work part time and see fewer patients than their male counterparts.[6-8]

Rural family practice often means large patient loads, heavy on-call schedules, and any combination of hospital responsibilities, including inpatient care, obstetrics, emergency department shifts, anesthesia, and assisting in operating rooms. All of this can make maintaining a satisfactory lifestyle a seemingly impossible task.

Little has been written specifically about rural women physicians' practice. This study was designed to determine the scope of practice and degree of satisfaction, both personal and professional, of rural women physicians. It aims to assess whether rural women physicians are unique in these respects compared with their male counterparts and with urban physicians of both sexes.

METHOD

This study was developed as part of one author's resident project for the University of Western Ontario Rural Regional Family Medicine Training Program. After a literature review, the survey was developed based in part on the 1991 CMA study of medical care in underserviced regions.[9] The first section of the survey focused on physicians' educational background. The second section asked about personal-professional balance with questions on personal characteristics (sex and marital and family status) and workload (practice set-up, hours worked, professional activities). The second section concluded by asking physicians to rate their level of satisfaction with various professional and personal aspects of practice. The study was pilot-tested among physicians in Goderich, Ont, and subsequently modified. It underwent further modification after review and before approval by the University of Western Ontario Review Board for Health Sciences.

The survey was mailed to Ontario family physicians in November 1999. A modified Dillman method was used.[10] One follow-up mailing was sent to nonresponders. All surveys had an identification number; confidentiality of responses was maintained.

The questionnaire was sent to all 507 family physicians practising in a rural area. (Rural areas are defined by the Ontario Medical Association as communities with populations of <10 000 that are more than 80 km away from a community of 50 000 people).[11,12] The urban comparison group of 505 physicians was randomly selected from a list of Ontario

family physicians practising in communities with populations of >50 000 generated from the 1998 MD Select database of Canadian physicians.[13] These criteria were chosen in order to exclude centres with populations that less clearly distinguished them as either urban or rural.

For comparisons in this paper, the word "physician" will mean "family physician." χ^2 analysis was used to determine the statistical significance of differences in outcome between rural and urban physicians, women and men physicians, rural female and rural male physicians, and rural female and urban female physicians. Significant differences between urban female and male physicians are also reported to complete the picture. Subjects were excluded on a per-question basis if an answer was not provided or not clearly indicated. The Statistical Program for the Social Sciences (SPSS) 8.0 was used for the analyses.[14] Because many statistical tests were done, the *P* value for significance was set at a conservative <.01. *P* values between .05 and .01 are reported as "trends or tendencies."

RESULTS

Of 1012 surveys sent to physicians in active practice, 484 (47.8%) were returned; 26 surveys were excluded because physicians were no longer in active practice, and 15 were excluded because practices were located in communities with populations between 10 000 and 50 000. One other survey was excluded because the sex of the respondent was not reported. The study sample of 442 physicians was divided into four comparison groups: 75 rural women; 189 rural men; 89 urban women; and 89 urban men.

Personal characteristics

Women physicians' personal characteristics were similar regardless of where they practised, and were significantly different from those of their male counterparts (**Table 1**). Women physicians were significantly less likely to have spouses (married or common-law) or long-term partners (81.7% vs 94.9%, χ^2 20.100, *df* 1, *P* <.001) and children (70.1% vs 89.8%, χ^2 27.555, *df* 1, *P* <.001), but were more likely to be primary caregivers when they did have children (52.2% vs 13.4%, χ^2 83.205, *df* 1, *P* <.001). Male physicians also had similar personal characteristics, regardless of practice location.

Regarding time in practice, rural women physicians were unique in that more of them had been in practice less than 10 years rather than 10 to 30 years (**Table 1**).

Table 1. Personal and professional characteristics of physicians

CHARACTERISTIC	RURAL WOMEN N (%)	RURAL MEN N (%)	URBAN WOMEN N (%)	URBAN MEN N (%)
PERSONAL				
Married	59 (78.7)	177 (94.1)*	75 (84.3)	86 (96.6)*
Have children	48 (64.0)	169 (90.9)*	67 (75.3)	78 (87.6)*
Primary caregiver	20 (41.7)	25 (15.5)*	40 (58.0)	8 (10.4)*
PROFESSIONAL				
Years in practice*				*
• <10	39 (52.0)	47 (25.5)	37 (32.1)	21 (23.6)
• 10-30	32 (42.7)	115 (62.5)	47 (53.4)	60 (67.4)
• >30	4 (5.3)	22 (12.0)	4 (4.5)	8 (9.0)
Group practice	54 (72.0)	109 (58.9)	63 (74.1)	56 (66.7)
Work >40 hours/wk	63 (84.0)	172 (91.0)	47 (52.8)*	80 (89.9)

**Statistically significant difference when compared with rural women (P <.01).*

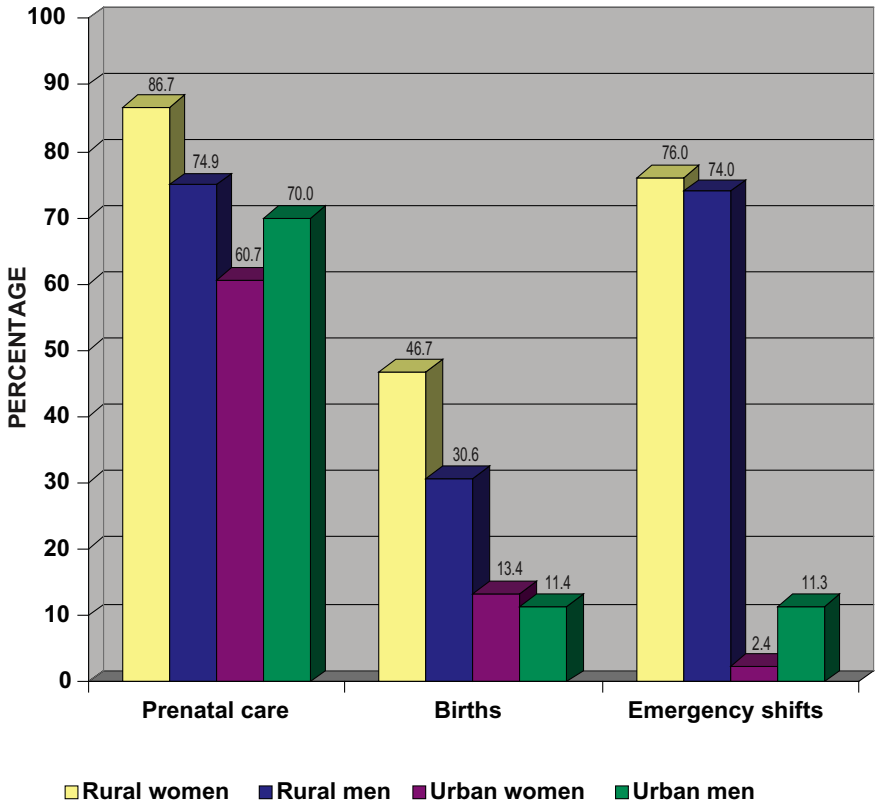
More physicians practised in groups than alone. Urban physicians and women physicians were more likely to be in group practice. The difference between women and men physicians in group practice overall was statistically significant (73.1% vs 61.3%, χ^2 20.716, *df* 4, *P* <.001) (**Table 1**). In rural practice, younger physicians (as indicated by number of years in practice) were more likely to be in group practice (χ^2 18.842, *df* 4, *P* <.001). Among urban physicians, there was no statistically significant difference in regard to practice set-up or years in practice.

Most physicians worked more than 40 hours weekly (**Table 1**). More urban women physicians tended to work part time (<40 hours weekly) than those in the other groups. Both women and men in urban family practice for <10 years were more likely to work part time than those in practice 10 to 30 years. In contrast, both women and men in rural family practice for 10 to 30 years were more likely to work part time than those in practice <10 years.

Scope of practice

Figure 1 shows the proportion of physicians in each group who participated in prenatal care, obstetric deliveries, and emergency department shifts. **Figure 2** shows the proportion of physicians who did general practice anesthesia, operating room assists, and minor surgical procedures. The proportion of rural women physicians who attended births tended to be higher than the proportion of rural men physicians, regardless of years in practice.

Figure 1. Percentage of physicians participating in obstetrics and emergency room activities: *Differences were seen between rural women and rural men for attending births (P <.05); between rural women and urban women for prenatal care, attending births, and doing emergency shifts (P <.05); and between rural and urban physicians of both sexes for doing emergency shifts (P <.01).*



Professional and personal satisfaction

Figure 3 shows the percentage of respondents in each group who indicated satisfaction with various aspects of practice (ie, they chose 1 or 2 on a 4-point scale where 1—very satisfied, 2—mostly satisfied, 3—mostly unsatisfied, and 4—very unsatisfied). They rated the following professional practice characteristics: scope of practice, continuing medical education accessibility, work hours, professional backup, and professional practice in general.

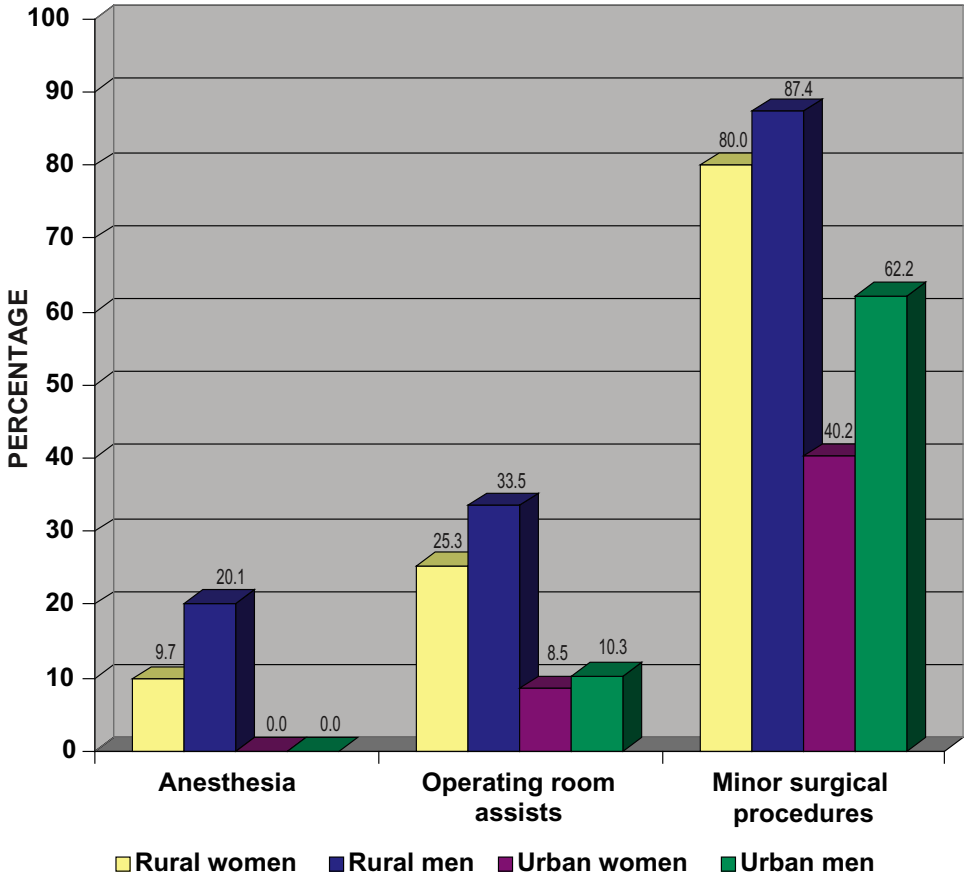
Figure 4 shows the percentage of respondents in each group who indicated satisfaction (1 or 2 on a 4-point scale) with various aspects of their personal lives, including work opportunities for their spouses.

DISCUSSION

Women physicians have traditionally been thought to have a more selective scope of practice than their male counterparts. Results of this study reveal that rural women are as likely as rural men to incorporate a variety of professional activities into their practices. They even showed a trend toward attending more births than men physicians, regardless of years in practice. The College of Family Physicians of Canada's Janus Project survey also found that slightly more female physicians than male physicians provided intrapartum care, and that the average number of deliveries yearly was much higher for women.[5]

The high number of rural physicians who attend births is particularly remarkable given that many

Figure 2. **Percentage of physicians participating in operating rooms, anesthesia, and surgery**: *Differences were seen between rural women and urban women, and between rural and urban physicians of both sexes, in doing anesthesia, operating room assists, and surgical procedures (*P <.05 *and* P <.01, *respectively).*



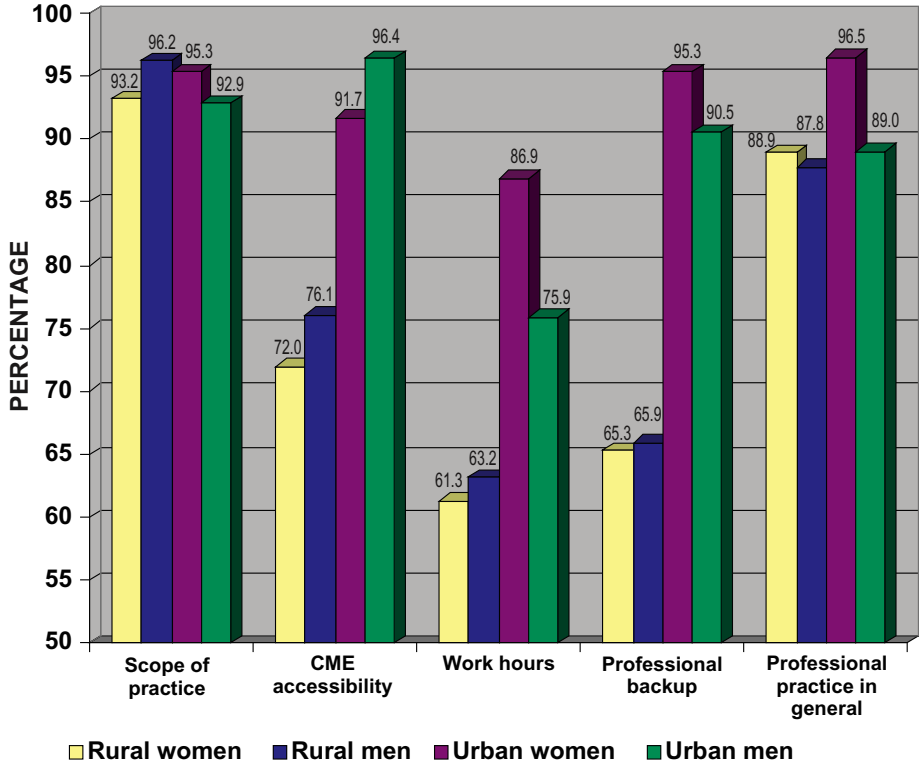
rural physicians work in communities where obstetrics cannot be practised, either because there is no hospital or the hospital has closed its obstetrical unit.[15] Attending births is probably the most unpredictable medical activity, and consequently, the most disruptive to lifestyle. Emergency department shifts and providing general practice anesthesia also involve considerable night and weekend work for many rural physicians.

Urban physicians have a significantly narrower scope of practice than their rural counterparts. This, however, does not appear to have an effect on career satisfaction: urban women and men physicians are as satisfied with their scope of practice and with their professional practice in general as their rural counterparts.

Urban women and men physicians are more satisfied with social, recreational, and cultural activities than rural women physicians are. Greater variety, easier access, and time for such activities could explain why. Most (84%) rural women family physicians work more than 40 hours weekly; only 53% of urban women physicians work those hours. Rural women physicians might not necessarily *want* to work longer hours: significantly more urban than rural women physicians were highly satisfied with their work hours. As one rural respondent commented, "…social, recreational, and cultural activities are very good in the community, but my workload prevents me from enjoying them."

Rural women physicians tended to be less satisfied with the balance of their professional and personal lives than both male and female urban physicians were. The difficulty with achieving a healthy balance was described by one rural respondent as "…something I

Figure 3. **Percentage of physicians satisfied with various aspects of practice:** *Differences were seen between rural women and urban women, and between rural and urban physicians of both sexes, in continuing medical education (CME) accessibility, work hours, and professional backup (P <.001 for both).*



had not anticipated to such a degree. In rural practice, you are either on the treadmill or off it—there's no such thing as part time."

Rural women physicians showed a trend to being less satisfied with work opportunities for their spouses and educational opportunities for their children than urban women physicians. This lends support to initiatives taken by some rural communities to focus on recruitment of families rather than individual physicians. Accommodating the needs of spouses and children as much as possible is likely an important part of recruiting both female and male physicians to rural communities.

Rural women and men physicians are less likely to be satisfied with professional backup than their urban counterparts. This might not be a consequence only of the fact that there are fewer specialists in rural areas, but also a reflection of the great challenge sometimes faced by rural physicians when attempting to refer patients for more specialized care.

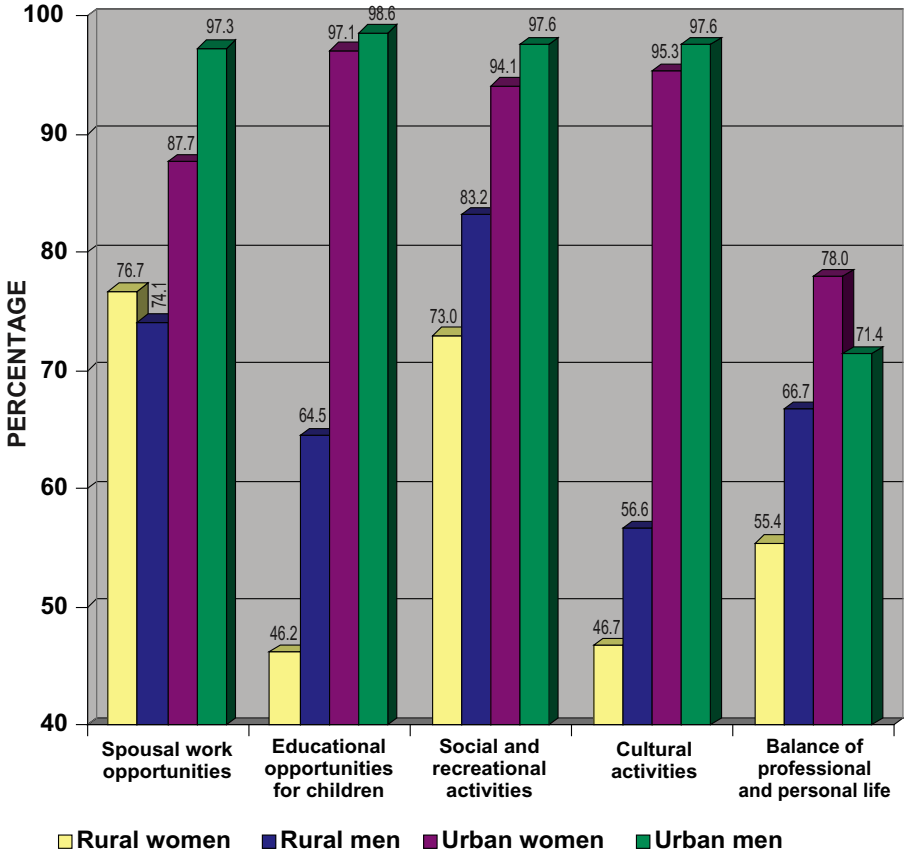
The finding of less satisfaction in rural practice is particularly disconcerting given that an earlier CMA study found professional and personal dissatisfaction weighed large in the decision to move away from rural into urban practice.[9]

Limitations

The overall response rate of 47.8% is lower than we would have liked, but is comparable with that of other large surveys (eg, the 2001 Janus Project survey response rate was 51.2%).[16] There was no statistical difference in sex and years since graduation between respondents and nonrespondents, indicating that the sample is fairly representative.

Other important variables that were not controlled for might explain some of the differences between groups. In particular, male physicians had been in practice longer, and urban women physicians were more likely to work part time. These factors could have contributed to differences in outcome measures.

Figure 4. Percentage of physicians satisfied with various aspects of their personal lives: *Differences were seen between rural women and rural men for educational opportunities for children (*P *<.05), and between rural women and urban women, and between rural and urban physicians of both sexes, for each of the activities (*P *<.05 and* P *<.001, respectively).*



Conclusion

Rural women family physicians are unique. They have as broad a scope of practice as their male counterparts and are more likely to attend births. These women incorporate more professional activities into their practices, but are less satisfied, personally and professionally, with many aspects of practice than their urban counterparts.

This study indicates that rural family practice provides women with a broad scope of activities, but they work many more hours on average than their urban counterparts. Innovative recruitment and retention strategies will be required to increase the number of rural doctors so that rural practice can be more professionally and personally satisfying for both women and men.

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Contributors

Dr Incitti *developed the concept as part of her resident project for the University of Western Ontario.* **Dr James Rourke** *developed and directed the project and was responsible for analyzing and writing up the results of the study.* **Dr Leslie Rourke** *helped develop the project and write up the results of the study.* **Ms Kennard** *participated in design and development of the study; was responsible for data collection, data entry, and statistical analysis; and helped write the paper.*

Competing interests
None declared

Correspondence to: *Dr James T.B. Rourke, Southwestern Ontario Rural Medicine Unit, 53 North St, Goderich, ON N7A 2T5; telephone (519) 524-9940; fax (519) 524 5577; e-mail* jrourke@uwo.ca

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Editor's key points

- This mailed survey helped to establish the profile of rural women family physicians in comparison with their rural male and urban counterparts.
- Rural women physicians worked many more hours weekly than urban women physicians. Their scope of practice was as diverse as that of their male colleagues, and they attended more births.
- Rural women physicians declared themselves less satisfied with their personal lives and the balance between their personal and professional lives than physicians working in urban environments.

Points de repère du rédacteur

- Cette enquête postale a permis d'établir le profil des médecins de sexe féminin travaillant en milieu rural en comparaison avec le milieu urbain.
- Les femmes en milieu rural travaillent un plus grand nombre d'heures hebdomadaires que les femmes en milieu urbain. Leur champs d'activité est aussi diversifié que celui de leurs collègues masculins travaillant en milieu rural et elles font davantage d'obstétrique.
- Ces femmes se disent moins satisfaites de leur vie personnelle et de l'équilibre entre leur vie personnelle et professionnelle que les médecins travaillant en milieu urbain.

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