Rural Reality: Analyzing Medical Life
Outside Canada’s Cities

Prepared by:
Lynda Buske
Canadian Collaborative Centre for Physician Resources
Canadian Medical Association

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Introduction

The 2006 Census indicates that more than 80% of Canadians live in urban centres of 10,000 people or more. This means about one out of every five people live in rural or remote areas. In 2007, CMA identified almost 6,000 physicians working in rural areas of less than 10,000 people. This means less than 10% of physicians live in rural areas compared to 20% of the population. The figure is higher for family physicians (16%) but very low for specialists (3%).

Some rural areas have traditionally depended on the recruitment of International Medical Graduates (IMGs) to meet their population needs. Overall, the differences are not that great because many IMGs either begin in urban centres or move from rural settings after achieving full certification status. In total, 9% of Canadian graduates work in rural areas compared to 11% of IMGs. However, in a province such as Saskatchewan, almost three times as many IMGs practice in rural areas (21%) compared to 8% of Canadians graduates.

Physician Symposium

A 2007 Symposium on Physician Resources held in Montreal brought together high level leaders and decision makers of the government, the profession, regulatory bodies and the medical education communities to discuss physician resources among three main themes: collaborative care models; retention and recruitment of physicians; and training and development.

Recruitment and retention issues included a discussion of drivers of interprovincial migration. The groups identified factors such as quality of life (e.g., schools for children opportunities for spouse, community infrastructure), income, job satisfaction (including availability and access to resources and tools), professional opportunities, work-life/home-life balance, team environment, and workload. Many of these factors were thought to apply to not just interprovincial migration but movement within a province between rural and urban areas.


One of the strategic directions of Task Force Two was the need for a pan-Canadian approach for attracting physician that must incorporate a coherent and comprehensive recruitment and retention strategy. Core strategies to achieve this were: 1) body or mechanism to coordinate a pan-Canadian needs-based approach to HHR planning; 2) develop special recruitment and retention measures to address health inequalities of people in rural, isolated, northern and Aboriginal communities; and 3) focus on professional, personal and intangible variables in addition to financial factors that impact on practice choices and locations, and support models of service delivery that recognize the full range of professional activities.

A framework for health human resources developed by the CMA and the Canadian Nurses association and adopted by the over 30 health care professions represented by the Health Action Lobby (HEAL), states that recruitment approaches need to address
both professional and personal factors. This is particularly relevant for physicians considering practice in a non-urban setting.

CMA Surveys
A good measure of many of these issues can be had from various surveys that the CMA has sent to rural physicians only or those sent to all practising physicians with an ability to analyze results by the type of population served by the physician.

CMA conducted sample surveys of rural physicians in 1991, 1999 and 2001 (the latter of which included rural nurses and pharmacists). For some questions the wording was identical across all three surveys which provided the opportunity to track trends. In addition to surveying rural physicians, in 1991, CMA also sent questionnaires to physicians who had moved from a rural to an urban area to see what factors caused them move and what programs might have influenced them to remain in rural practice.

In 1999 the CMA tracked some questions from the 1991 survey with respect to satisfaction with rural practice but was primarily attempting to find what defined a community as rural from a medical perspective to begin work on an index of rurality by which to compare rural communities. The index consisted of 10 factors with associated weights.

In 2001, the CMA partnered with SRPC, the Canadian Nurses Association, the Canadian Pharmacist Association to conduct a similar survey to seek input on the factors that best define a community from a healthcare perspective. This feedback was used to develop the Multistakeholder framework/index of rurality. Weighting for the factors was developed based on the responses by doctors, nurses and pharmacists and a method to score each factor was developed. The framework/index was tested in a number of rural and remote communities resulting in positive responses with respect to completing the framework and assigning factor scores for their community.

In 2004 and 2007, the CMA participated in a collaborative project with CFPC and RCPSC to survey all licensed physicians in Canada. Both years resulted in about 20,000 responses.

Defining the rural community
There are many definitions that have been used to describe rural areas. One common measure that the CMA has used when counting the totality of rural physicians in Canada designates those communities that are less than 10,000 population and outside census metropolitan areas and census agglomerations to be rural. It is from this group of physicians that rural physicians are identified for research purposes.

When analyzing survey results that were sent to all physicians, CMA sometimes uses the second digit of the postal code equaling zero as a quick, easy method to compare rural/urban responses without necessitating the mapping of individual postal codes. Although it is considered inadequate for counting, it is sufficient to indicated any
significant respondent differences between rural and urban physicians at the national level.

The 1999 surveys and the 2001 surveys asked physicians to rank the factors that most defined a community as rural/remote from a healthcare perspective (medical perspective in 1999). The top factors in both surveys were: high level of on-call responsibilities, long distance to both secondary and tertiary care centres, lack of specialist services and insufficient health care providers. A factor not asked in 1999 but rated very highly in 2001 was barriers to timely access to healthcare services (geography/weather/roads).

In the 2004 and 2007 National Physician Surveys, physicians were asked to describe the population they primarily served in the main patient care setting. For the purposes of analyzing the results of the 2004 National Physician Survey, rural physicians are defined as those reporting they treat primarily rural or remote populations. Urban includes those physicians saying they mostly serve inner city, urban/suburban or small town populations.

**Location to rural area**

The 1991 survey showed that over half of the rural physicians indicated that the desire for a rural practice was a very important factor in the decision to locate in a rural area. Only 11% indicated that financial incentives were very important factors.

In the 2004 National Physician Survey, one third of rural physicians reported that the match between their career interests and the community needs was the driving force in choosing a location compared to 19% of their more metro colleagues. 15% of rural physicians indicated that a financial incentive was the main reason they selected their current practice location compared with 4% of urban physicians.

The NPS supports the findings of other researchers that those physicians who grew up in a rural area are more likely to practice in that environment than an urban raised person. Based on NPS 2004 results, 26% of physicians serving a rural population grew up predominantly in that type of environment compared to 7% of urban based physicians.

**Migration from rural area**

In 1991, physicians located in a rural area were asked if they were planning to move. Of the 20% that were planning to do so in the next year or two, about half (45%) indicated they were planning to move to a larger urban community. Of all those planning to move, almost half (54%) would consider staying if there were additional colleagues, alternative compensation or locum tenens available. Over a third said they would reconsider if there was greater availability of specialist services (39%), improved facilities (36%) and additional continuing medical education (34%).
More recently, in the 2004 NPS, equal proportions of family physicians (about 2%) indicated they had either moved from an urban/suburban setting to a rural/remote area or the opposite, within the last two years. When asked about future plans a greater proportion (3%) indicated they were planning to move from a rural setting compared to 1% that were planning on relocating to a rural setting within the next two years.

In 2004, 7% of rural physicians planned to move to another province/territory within the next two years, but when asked in 2007 if they had made such a move within the previous two years, less than half (3%) indicated they had.¹ The 2007 NPS results show that again 7% of rural physicians plan to move to another province/territory within the next two years.

**Access**

While it is sometimes assumed that access issues are worse in rural areas, it is interesting to note where physicians have rated many types of patient services more favourably than those practising in cities. For example, in 2007, patient accessibility to emergency room services was rated as good to excellent by 4 out of 5 physicians (80%) compared to only 56% of urban doctors and a similar disparity was seen with respect to hospital in-patient urgent care (68% vs. 50%). Community nursing services and homemaking services were all rated substantially better by rural physicians.

This is not to say that rural physicians were completely satisfied with access in their communities. Almost two thirds (63%) rated access to long-term care beds as fair or poor and advanced diagnostic services received the same rating by over half of the rural respondents.

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¹ This is not a pure cohort study and different physicians may have answered the questionnaire in 2004 and 2007.
Table 1: Access Ratings

<table>
<thead>
<tr>
<th>Selected access issues</th>
<th>Percent rating access good/very good/ excellent</th>
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<tbody>
<tr>
<td></td>
<td>Urban MD n=5632 N= 45191</td>
</tr>
<tr>
<td></td>
<td>Rural MD n=671 N=4851</td>
</tr>
<tr>
<td>Family physicians*</td>
<td>31.7%</td>
</tr>
<tr>
<td>Psychiatrists**</td>
<td>29.3%</td>
</tr>
<tr>
<td>Orthopedic surgeons**</td>
<td>37.4%</td>
</tr>
<tr>
<td>Obst/gyn**</td>
<td>63.7%</td>
</tr>
<tr>
<td>Cancer care services</td>
<td>62.9%</td>
</tr>
<tr>
<td>Cardiac services</td>
<td>65.9%</td>
</tr>
<tr>
<td>Palliative services</td>
<td>58.7%</td>
</tr>
<tr>
<td>Emergency room/dept</td>
<td>56.2%</td>
</tr>
<tr>
<td>Hosp in-patient (urgent)</td>
<td>50.2%</td>
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<tr>
<td>Hosp for elective</td>
<td>30.6%</td>
</tr>
<tr>
<td>Long term care beds</td>
<td>10.4%</td>
</tr>
<tr>
<td>Routine diag services</td>
<td>75.4%</td>
</tr>
<tr>
<td>Advanced diag services</td>
<td>41.8%</td>
</tr>
<tr>
<td>In-home nursing</td>
<td>27.2%</td>
</tr>
<tr>
<td>Home care</td>
<td>30.6%</td>
</tr>
</tbody>
</table>

- asked only of non-primary care specialists:
  - unweighted n=2605 urban, n=101 rural
  - weighted N= 21731 urban, N=791 rural

- asked only of FPs:
  - unweighted n=3027 urban, n=570 rural
  - weighted N=23459 urban, N=4061 rural


Rural family physicians were also almost twice as likely as urban physicians (33% vs. 18%) to report that their practice was open to all new patients, but over half (52%) have closed or partially closed practices.

Satisfaction

There is a long time series at the CMA with respect to satisfaction among rural physicians. Tracking questions between 1991 and 2001 shows a deterioration in satisfaction with both personal and professional aspects of rural practice, although the trend is more linear with respect to the personal factors.

In 1991 a significant proportion of rural physicians reported being very satisfied with their earning potential (42%) and hospital services (40%). Less than a third gave the same rating for work hours, professional backup and specialty services and less than a quarter were very satisfied with CME opportunities. In the 1999 and 2001 surveys, the
proportion that was very satisfied with earning potential had fallen to less than one quarter. See graph 1. There were also decreases in levels of satisfaction with hours worked and the availability of hospital services and continuous professional development. Although worded differently in 2001, the percentage very satisfied with support from physician colleagues did not change from 1991.

Graph 2 shows the percent of physician respondents who were very satisfied with various aspects of their personal life. As with many of the professional factors, we see a drop in satisfaction over the decade following 1991, with important issues such as education for children dropping from 22% in 1991 to 12% in 2001 and career opportunities for spouse dropping from 23% in 1991 to 13% in 2001.
According to the 2007 NPS, rural and urban physicians were equally satisfied with their current professional life (75% satisfied) and showed only a small difference in levels of satisfaction with the balance between personal and professional life (56% satisfied for urban vs. 52% for rural).

In 2004 more than 4 out of 5 physicians (84%) serving primarily rural populations were satisfied with their relationships with non-physician health care workers compared to 75% of their urban based colleagues. The 2007 survey asked specifically about pharmacists and 86% of rural physicians were satisfied with their relationship compared to 72% of urban doctors.

Perhaps not surprisingly, the 2007 survey showed that rural physician were less pleased with the availability of CME/CPD opportunities with twice the proportion dissatisfied (17%) relative to their urban counterparts at 8%. In addition, 38% of rural physicians were dissatisfied with their ability to find locum tenens coverage for CME/CPD, holidays, and personal time.

Family physicians in the less populated areas appear to be fairly content with their income relative to other family physicians and relative to other specialties. Almost three-quarters (73%) were either neutral or satisfied with their net revenue per hour relative to other family physicians and over half (53%) felt the same way with respect to other specialist earning potential. Both figures are higher than those reported by urban family physicians.
Workload

In 2007, rural physicians reported working, on average, one hour more per week (excluding call) than did urban physicians (53 hours versus 52 hours). This difference is consistent with the 2004 findings. Rural physicians spent more time each week on direct patient care than did their urban colleagues (37 hours versus 35 hours) but less in teaching, research, and administration.

A greater proportion of rural physicians report having call responsibilities (80% compared with 70% of urban doctors), they spent more time on call than urban physicians (about 45 hrs/month more), provide more hours of direct patient care while on call, and see almost double the number of patients while on call.

The female respondents reported fewer hours than the males but their workload was closely tied to the presence of young children. When the physicians reported having no children, there was virtually no difference between the sexes. Although the number of rural physicians without children was small (n=114), the pattern was mirrored with their more metro colleagues where the respondent group was much larger.

Graph 3 Comparison of rural and urban hours worked by physicians

Source: 2007 National Physician Survey; Unweighted n= 15,098 urban, 1581 rural; weighted N= 45454 urban, 4755 rural
In terms of workload trends among rural physicians, indications are that physicians will be reducing their workloads in significant numbers in the near future. In 2004, a quarter of rural physicians said they would reduce their weekly work hours (excluding on call) in the next two years and over 20% were planning to reduce call responsibilities. In 2007, 26% of rural physicians had reduced their work week within the previous two years and 12% had reduced their on-call hours. Over a third (34%) plan to reduce their work week within two years and less than 10% are planning to increase their load. These figures closely match the changes made and planned among urban physicians.

With respect to the type of work they will be doing, 15% of rural physicians indicated they plan to reduce their scope of practice and 5% will stop providing intra-partum care. An equal proportion of rural and urban physician (around 6%) plan to retire within the next two years.

**Information Technology**

There were very few differences in the use of information technology between country and city physicians with the exception of telemedicine, which was used by 28% of rural physicians compared to 17% of those in urban centres. Although the rural physician response group that indicated using telemedicine was small (n=183), it would appear that those under the age of 55 were more likely to use telemedicine.
Payment Methods
The 2007 data show that greater proportions of rural doctors are paid by means other than the traditional fee-for-service method. Although the number has decreased over the years, over half of urban physicians (52%) continue to report that 90% or more of their professional income comes from fee-for-service billings compared to 36% of rural physicians. Almost half of rural based physicians (49%) were paid either predominantly by salary or by a blended method of more than one type of remuneration mode. In contrast, these two payment categories accounted for a just over a third (36%) of urban physicians.

Physicians were also asked their preferred method of payment and over half of all physicians, regardless of geographic setting, would like a blended type of payment where they may receive remuneration from multiple payment types (e.g., fee-for-service, sessional, capitation, salary, contract, etc.).

Future Research
Additional research could be carried out through more in depth analysis of past surveys conducted by the CMA and partners as well as through future surveys.

The CMA, in collaboration with the Society of Rural Physicians of Canada, plans to carry out two surveys in 2008 related to rural practice: the first to be sent to physicians currently practicing in rural or remote communities; and the second to be sent to physicians who have migrated from a rural practice to an urban one between 2002 and 2006. In addition to utilizing questions from previous surveys in order to track opinions and behaviours over time, the surveys will also focus on identifying possible solutions to concerns identified in previous research. Possible topics include: medical education experiences in rural areas; retention issues such as signing bonuses; training bursaries; community support; and spousal careers.

Summary
Though roughly 20% of Canada’s population lives in rural areas, less than 10% of physicians also live in these locations. This highlights the need for improvements in the areas of training and development, collaborative care models, and retention and recruitment initiatives to address the health human resource needs of rural Canada.

Over the course of the past two decades, the CMA, often in partnership with other medical organizations, has conducted several surveys that have allowed it to examine the various aspects of rural medical practice. Specifically, surveys conducted in 1991 were directed both to physicians who were currently practicing in a rural setting and those who had once practiced rurally but moved, while in 1999 and 2001 surveys were directed to rural physicians only. The 2004 and 2007 National Physician Surveys (NPS) were sent to all Canadian physicians yielding sufficient responses to allow the CMA and its partners to analyze a rural subset of the data as well as to compare the responses of rural and urban practitioners.
While these surveys showed that rural physicians were more likely than their urban colleagues to choose their practice location because of financial incentives (15% v. 4%, 2004 NPS), finances were not the main reason influencing physicians to set up rural practice. A match between their career interests and the community needs was stated by a third of the 2004 NPS respondents as one of the main reasons for choosing their locations. Additionally, these surveys support the notion that physicians who grew up in rural communities are more likely to practice in non-urban locations.

Keeping physicians in the rural areas is another issue meriting further study. The 1991 survey showed a significant number of rural physicians were considering relocating to a more urban location; however, 54% of these suggested that if additional colleagues, alternative compensation or locum tenens were available they might reconsider. Despite these findings, by 2001 the percentage very satisfied with support from physician colleagues did not change from 1991, and satisfaction with various key factors, such as earning potential and hospital services, has actually decreased over time.

In spite of this, in 2007 access to a number of services was better rated by rural physicians than their urban colleagues; for example, 80% of rural physicians rated access to emergency room services as good to excellent compared to only 56% of urban doctors. However, ratings on various other services, such as long-term care beds and advanced diagnostic services did not fare as well (63% rated fair or poor).

In terms of workload, rural physicians currently maintain a slightly longer work week than do urban physicians (53 hours versus 52 hours); however, on-call responsibilities are a greater burden on the time of rural physicians as more of them do call (80% rural, 70% of urban doctors) and they spent roughly 45hrs/month more on call than their urban colleagues, seeing almost double the number of patients.

The CMA plans to conduct further surveys in collaboration with the Society of Rural Physicians of Canada to track many of these factors and to assess any changes that may be occurring with respect to attitudes and the working environment of rural physicians. In addition to the continued collection of longitudinal data on issues such as satisfaction and workload, it is hoped that future surveys will pin point possible solutions to the concerns already raised by Canada’s rural physicians.

References

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