# A Review and Synthesis of Strategies and Policy Recommendations on the Rural Health Workforce

*A Component of The Ontario Rural Council Project,*
*"Toward a Comprehensive Rural*
*Health Human Resource Strategy for Ontario"*

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# Chapter 1

# INTRODUCTION

## 1 Background

Health care is both high-tech and high-touch. It relies a lot on advanced medical technology, but it is also a labour-intensive industry. Health care providers play an indispensable role in the health care system. Without them, there is no health care. Also, to a large extent, the quality of health care is a function of the quality of the health workforce.

According to the Canadian Institute for Health Information, over 1.5 million Canadians worked in health care and social services in 2000. In other words, about one in ten employed Canadians worked in the human services field (Canadian Institute for Health Information 2001). In 2000, there were more than 232,000 registered nurses, more than 57,000 physicians, and hundreds of thousands of workers in other health occupations ranging from pharmacy to podiatry, from speech therapy to social work, and from dietetics to dentistry. In addition, there were numerous informal caregivers who were not gainfully employed in the health care sector, but played vital roles in supporting and caring for family members, relatives, and friends who were sick or disabled.

The health workforce faces many challenges. For example, there are frequent expressions of concern about the quality of worklife, mismatch between skills and job demands, lack of training capacity, and aging of the health workforce. But one of the most persistent and critical problems is distribution imbalances. Otherwise put, the geographic distribution of health care providers does not usually match the geographic distribution of the Canadian population. Rural, northern, and remote regions of the country often face severe shortages of much needed health care providers. We are not talking about highly specialized personnel. It is generally accepted that specialists and sub-specialists such as transplant surgeons, radiation oncologists, and paediatric cardiologists need to work in large cities where there is sufficient demand for their services and where there are tertiary or quaternary referral centres with sophisticated equipment and support staff. What we are talking about is the lack of personnel for dealing with basic, common health problems - family physicians, nurses, rehabilitation therapists, mental health workers, and so on.

It appears that distribution imbalances are an endemic problem affecting all provinces and territories east and west, big and small, rich and not so rich. Ontario - the most populous and wealthiest province in Canada - is no exception. With slightly over 15% of its population residing in rural areas (using the "rural and small-town" definition of Statistics Canada), Ontario has less than 8% of all physicians working in those areas (SRPC / PAIRO 1998). There are also shortages of other health care providers. Nor is the problem a recent phenomenon. It might not be a mere coincidence that Ontario's Underserviced Area Program (UAP)[1] was established in

[1] The Underserviced Area Program of the Ministry of Health and Long-Term Care is one of the largest and longest lasting programs of its kind in the country. Its purpose is to attract health care providers to settle and work in northern Ontario with a view to enhancing access to health services. It has been expanded to cover underserviced areas in southern Ontario in recent years.

1969, the very same year when the Ontario Health Insurance Plan (OHIP), the provincial medicare system, was introduced. OHIP was meant to guarantee universal access to needed medical and hospital care for all Ontarians regardless of economic means. But the removal of financial barriers to services is rather meaningless if practitioners, facilities, and services are not available or difficult to access. Thus, as far back as 1969 (and probably much earlier), policy-makers saw the maldistribution of health care providers and services as a major problem in Ontario.

Geographic maldistribution of health care providers (particularly physicians) and the concomitant problem of lack of ready access to health services by residents in rural, northern, and remote communities are the laments of almost all royal commissions, task forces, advisory panels, and special committees that have been tasked to examine health services delivery in this country. For example, in 1990, the Saskatchewan Commission on Directions in Health Care warned that one of the most serious medical care challenges in that province was the lack of stability and continuity in general practitioner services in centres with less than 3,000 people. It made the following observation (which also reflected the situation in many parts of rural Canada):

> "The Commission carefully examined the number of rural physicians. It found there are far fewer physicians working in rural Saskatchewan today than there were 25 years ago. Many communities which had one physician in a solo practice in 1966 have none today. Other communities which once had two or even three physicians now have only one, and worry about keeping that one or finding a replacement if he or she should leave" (p. 111).

What about today? Has the situation improved? The Standing Senate Committee on Social Affairs, Science and Technology (2002), in one of its recently released interim reports, has pointed out that

> "There was clear agreement during the Committee's hearings on one subject: the persistent geographic maldistribution of physicians across the country… The problem seems to be getting worse, as an increasing number of smaller and medium sized communities are finding it difficult to ensure a proper supply of physicians" (Vol. 2: p. 78).

Similarly, the Commission on the Future of Health Care in Canada (2002) has noted that

> "Access to physicians and specialists varies significantly across the country and some communities do not have access to even the most basic health care services because they lack the necessary health care providers. In 1993, there was less than one physician per 1,000 people in rural and small town areas, compared to two or more physicians per 1,000 people in larger urban centres…. In northern communities, the problems are stark. About 16,000 people live in the most northern part of Canada, at 65-69 degrees north latitude (northern parts of Yukon, Northwest Territories and Nunavut). About two-thirds of them live more than 100 km from a physician. And no physicians normally live above 70 degree north latitude to serve the 3,300 people living there" (p. 162).

## 2 Objectives of the Study

Not only has health workforce maldistribution been documented and discussed extensively, commissions, advisory panels, task forces, committees, and various organizations have also examined many strategies and made countless recommendations to address the issue. Much could be learned by reviewing and synthesizing this body of work. This is precisely what The Ontario Rural Council (TORC) has decided to do.

The present study is part of a much larger project titled "Toward a Comprehensive Rural Health Human Resources Management Strategy for Ontario," coordinated by TORC and funded by Human Resources Development Canada. The objective of the entire project is to gain a deeper understanding of rural health human resources issues, develop a set of strategies to strengthen the health workforce in rural Ontario, and conduct a number of consultations and pilot tests. The present study is part of an effort to strengthening the rural health workforce in Ontario. In order to not re-invent the wheel or to unnecessarily duplicate the efforts of others, TORC has adopted a different approach. It has commissioned the Centre for Rural and Northern Health Research (CRaNHR) not to conduct "original" research, but to systematically review what others have done in this area and to synthesize the strategies that have been proposed and policy recommendations that have been made. The findings of this review and synthesis will be used to inform and guide the development of a "Comprehensive Rural Health Human Resources Strategy for Ontario" by TORC.

## 3 Organization of the Report

This report has five chapters plus a number of appendices. Following the Introduction, Chapter 2 describes the scope of the study and explains the literature selection criteria and the review process. The next chapter presents some broad findings on major rural health workforce problems, as well as the perceived nature and causes of such problems, with a special focus on physicians and nurses. It sets the stage for a detailed discussion on what to do with rural health workforce problems. Chapter 4 summarized, in a systematic manner, what strategies and policy recommendations have been proposed to overcome health workforce difficulties. It is divided into three main sections: issues pertaining to rural physicians, issues pertaining to rural nurses, and generic health workforce issues. The final chapter draws together the major findings and discusses the lessons learned.

A more detailed listing of strategies or policy recommendations, as well as implementation plans where available, made by various commissions, advisory panels, task forces, special committees, and organizations can be found in Appendix A. Appendix B is a list the people and organizations consulted during the research process and Appendix C contains a list of acronyms used in the text of the report and Appendix A.

# Chapter 2

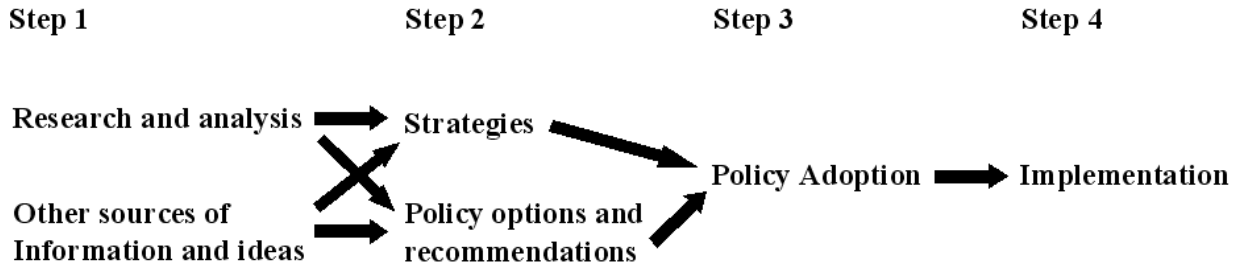
# SCOPE OF THE STUDY AND METHODOLOGY

## 1 Scope of the Study

As noted earlier, the objective of this study is to review pertinent policy and planning documents and to synthesize strategies and recommendations that have been made by various commissions, task forces, advisory panels, committees, and other organizations with a view to alleviating shortages of health care providers in rural Canada and overcoming distribution imbalances of health personnel.

It is important, at the outset, to indicate what is and what is not included in this study. The focus of this review and synthesis is *not* on research studies or empirical analyses (though a few such studies will be used, especially in Chapter 3, to set the context for subsequent discussions), but on policy and planning documents. There are two reasons for adopting this approach. Firstly, there are simply too many research studies on rural health workforce issues that it would not be possible for us to review them all, given the amount of time and resources available.

Secondly, as the following diagram shows, there are usually four steps in the policy-formulation-and-implementation process. In carrying out their work, commissions, task forces, advisory panels, committees, and organizations typically gather data and information and solicit ideas and advice from a variety of sources. Research, which can be original research or research by others, is often an important source of data, information, and ideas. For instance, a royal commission typically conducts consultations to gather public input. In addition, it has research staff to do studies or it can commission others to conduct investigations on its behalf. The results of such studies and other sources of information and ideas are then examined, digested, and transformed into a set of proposed strategies, policy options, or recommendations.




Eventually, it will be up to governments or other organizations to decide which strategies or policy options to adopt. The final step is to turn policies into action by enacting legislation, allocating resources, developing new initiatives, or modifying existing programs. By focusing on Step 2, we make the assumption that research and empirical analyses have already been

incorporated or transformed into strategies, policy options, and recommendations. This allows us to by-pass, but without disregarding, research studies and empirical analyses.

As the TORC project is Ontario-based, this study focuses on Ontario. Thus, the policy and strategy documents selected for review and synthesis are mostly from Ontario. However, as the findings and recommendations of many national commissions, task forces, etc. may also be relevant to this province, we decided to include national-level reports that were deemed to be applicable to Ontario. In order that the study remains manageable and reflects more current developments, we decided to include more recent (i.e., 1990 and after) reports and documents.

## 2 Which Health Workforce Categories to Include?

Health care is a complex enterprise, involving the efforts of many workers with diverse roles and divergent skills. Reflecting this complexity, the health workforce comprises individuals in numerous health occupations who perform different tasks, have different training requirements and competencies, and work in different agencies or institutions. Thus, a study of the rural health workforce would ideally pay attention to many, if not all, health disciplines/occupations. Unfortunately, we were severely constrained by reality.

Since this study is a review and synthesis of what commissions, advisory panels, task forces, committees, and organizations had to say about the rural health workforce and what needed to be done, we were constrained by the nature and scope of their work. The reality is that the commissions, advisory panels, etc. were mostly interested in rural medical workforce issues. For instance, very few documents on nursing with a rural focus were found, even though nursing is the largest health occupation. Hardly anything could be found on other types of health care workers. This does not mean that there are no problems with the non-physician health workforce in rural Ontario or rural Canada. It just means that the problems experienced by other health care providers have largely been eclipsed by concerns about the rural medical workforce.

Therefore, a good deal of what follows focuses on rural physicians. A separate section is devoted to rural nursing workforce issues, even though the available material is quite sparse. As will be shown later on, many proposed strategies, policy options, and recommendations are generic in nature in the sense that they are not directed at specific health disciplines/occupations. We decided to look at these "generic" strategies and recommendations separately, hoping that they were sufficiently broad to encompass the rural health workforce in general.

## 3 What is Rural?

Since this study is about the health workforce in rural Ontario, it is necessary to determine what constitutes "rural"? Most people have an intuitive notion of what rural means, but a precise and universally accepted definition of rural has thus far eluded researchers and administrators. Rural, to most people, is non-urban – a largely tautological definition. Researchers are not much further ahead in defining rural. There are as many definitions of rural as there are researchers. In their study, Pong and Pitblado (2001) have commented on the difficulties in defining rural, have identified several commonly used definitions in Canada, and have examined the strengths and limitations of each definition.

It was also necessary to take into consideration how rural was understood by the commissions, task forces, advisory panels, committees, and organizations, since our task was to examine and synthesize what they had to say about the rural health workforce. A cursory review of their reports and documents shows that, with very few exceptions, rural was not explicitly defined. The term was typically used as if readers knew what it meant. Thus, the strategy we adopted was to not define rural in a precise manner, but to accept the ways "rural" had been used by the commissions, advisory panels, etc.

To complicate matters further, it is necessary to point out that there are several other related concepts that have been used in various reports and documents. These include "remote," "isolated," "northern," and "underserviced areas." "Northern," as in northern Ontario, is not uniformly rural. But northern Ontario, notwithstanding the fact that there are a few small and mid-sized cities, is mostly sparsely populated. Similarly, although some larger urban centres in northern Ontario could be designated as "underserviced areas" by the Underserviced Area Program of the Ministry of Health and Long-Term Care, the term is mostly used to refer to smaller communities in northern Ontario and southern non-urban regions, which have severe health human resources needs. These terms are sometimes used interchangeably with rural and sometimes used to refer to regions or communities on the extreme rural end of the rural-urban continuum.

Generally speaking and for the purpose of this review and synthesis report, rural, remote, northern, isolated, and underserviced areas refer to areas, regions, or communities that are far from major urban centres and have a small or widely dispersed population. For the sake of convenience and parsimony, only "rural" is used in the rest of this report and the term is employed in a broad sense to include remote, northern, isolated, and underserviced areas.

## 4 Document Search and Selection

The first research task was to identify and select relevant strategy and policy documents on the rural health workforce. Several search methods were used.

Initially, an on-line search was conducted on the following computerized bibliographic databases, using such keywords as "health workforce," "health human resources", "health personnel," "rural":

- *NLM Gateway*: a single interface that allows users to search in multiple retrieval systems.
- *PubMed*: a service of the National Library of Medicine, providing access to over 12 million MEDLINE citations.
- *CINAHL*: Cumulative Index to Nursing and Allied Health Literature database

Since strategy and public policy documents are rarely published in academic or professional journals and because the focus of this study is not on empirical research, keyword searches on the above-mentioned databases were insufficient. The second approach was to conduct searches on the World Wide Web, using similar keywords and using several search engines.

The third approach was to rely on individuals who were knowledgeable in rural health workforce issues. CRaNHR researchers canvassed experts, research centres, health planning agencies, and ministries of health for unpublished documents. Names of individuals and organizations successfully contacted are listed in Appendix B.

The fourth method was to scrutinize the references section of reviewed journal articles, books, monographs, and reports for additional titles.

Regardless of which of the aforementioned methods was used, the typical search, selection, review, and analysis process involved the following steps:

- Identified the titles and authors of potentially relevant and useful reports and documents;
- Obtained hard copies of documents from various ministries of health, research centres, professional associations, and libraries;
- Recorded titles of all potentially useful documents in Reference Manager; duplicate titles were eliminated;
- Classified reports as either policy documents or strategy documents;[2] and
- Reviewed reports to determine their relevance and usefulness;
- Identified issues, strategies, recommendations, etc. and recorded the information in Excel (see Appendix A).

# 5 Review and Synthesis Methodology

Altogether, 153 documents had been identified as potentially useful, of which 80 were deemed relevant and useful after further review and screening. A list of the documents selected for review, as well as other studies cited, can be found in the references section of this report.

The selected documents were recorded in Reference Manager, a computer software package specifically designed for creating bibliographies and managing bibliographic databases. Each document was perused and information regarding problems identified, nature and causes of the problems, proposed strategies/policy options/recommendations, and implementation processes was summarized and recorded in tabular format in Excel (see Appendix A). This material was then used to conduct the analysis and synthesis.

The synthesis was done by using content analysis and by analyzing the material according to several themes such as the nature of rural health workforce problems, severity of the problems, causes of the problems, what needs to be done to overcome the problems, etc. Strategies or recommendations were further classified into broad categories such as incentives, education, and immigration. The analysis and synthesis was done separately for physicians, nurses, and the health workforce as a whole. As mentioned before, there was a considerable amount of

[2] Policy documents refer to reports prepared by or for government ministries or government-related agencies such as district health councils, with a view to advising government what actions to take. Strategy documents, on the other hand, refer to reports prepared by non-government organizations with a view to influencing government decisions and decisions by non-government agencies such as professional regulatory bodies and universities that have an important role to play in health workforce matters.

information on the rural medical workforce, but relatively little on other health disciplines/ occupations.

# Chapter 3

# ARE THERE RURAL HEALTH WORKFORCE PROBLEMS?

While debates continue over whether or not we have enough health care providers in general and physicians and nurses in particular to meet our present and future health care needs, there is little disagreement regarding their uneven geographic distribution. Virtually all reports reviewed recognize the acute and persistent shortages of health care providers in rural and northern Ontario, as well as in many parts of rural Canada, and the never-ending struggle to attract and keep them in rural communities. As the Standing Senate Committee on Social Affairs, Science and Technology (2002) has pointed out, "The recruitment and retention of health care personnel including physicians, specialists, nurses, technicians, social workers, physiologists [*sic*] and nutritionists, in remote and rural areas of Canada have been ongoing concerns" (Vol. 2, p. 140). Similarly, the Commission on the Future of Health Care in Canada (2002) has recognized the difficulties facing the rural health workforce and has made a series of recommendations to address these problems.

## 1 The Rural Health Workforce

Not much planning activities and policy attention have been directed to the rural health workforce other than physicians and, to some extent, nurses. Since there is very little information and policy deliberation on other types of health care providers, most of the discussion in this and the following chapter focuses on rural physicians and peripherally on rural nurses. However, this section is generic in nature in the sense that it is about the rural health workforce in general.

In preparation for the Northern Development Ministers Forum in 2002, government officials asked provincial and territorial governments and Indian and Northern Affairs Canada to provide information concerning recruitment and retention of skilled personnel in Canada's northern regions and to comment on the reasons for difficulties in attracting and retaining skilled workers. Information on the following employment sectors was collected: health, education, social sciences, technical, trades, physical sciences, regulatory/legal, and administration. Among those jurisdictions that responded, the sector with the highest number of identified shortages was health care. Shortages in the health care sector included doctors (both general practitioners and specialists), nurses, technicians in diagnostic services, and allied health care workers (Northern Development Ministers Forum 2002).

A survey conducted in parts of northeastern Ontario (Algoma, Cochrane, Manitoulin and Sudbury District Health Council 2003), which was a part of an Ontario-wide survey of the health care labour market,[3] has reported that:

> "Over 200 health care organziations in the Districts of Algoma, Cochrane, Manitoulin and Sudbury currently deliver health promotion and disease prevention initiatives,

[3] This health labour market survey included allied health professionals, ambulance workers, assisting occupations, case managers, counsellors, social workers, dental professionals, health educators, technologists and technicians, and nurses. It did not include physicians.

diagnostic services, treatment and supportive care. They employ a large number of professionals whose job it is to focus on the health and wellbeing of the residents of the area. As seen in this report, when it comes to managing human resources, these agencies are facing growing challenges in attracting and retaining qualified professionals. A vast majority of them have not been able to fill positions and these vacancies are the cause of increased waiting times and the cancellation of programs in half of the respondents" (p. ii).

According to this survey, about two out of every three health services agencies (62%) in the Districts of Algoma, Cochrane, Manitoulin, and Sudbury [4] indicated that they had either a fair amount or a great deal of difficulty recruiting new employees. These agencies pointed out that geographic isolation (66%), the rural setting (57%), lack of spousal employment opportunities (42%), and a lack of community resources for family needs (27%) were the main reasons that prospective health care workers often gave for not accepting offers of employment. Although these results are applicable only to certain areas in northeastern Ontario, it appears from the findings of the province-wide survey that other mostly rural districts in Ontario were in similar predicaments and shared similar experiences.

# 2 The Rural Medical Workforce

## 2.1 Nature of the Problem

Shortages of physicians in rural communities often result in difficulties in accessing medical care, though programs such as the Northern Health Travel Grant Program have helped ease the inconvenience and financial burden. The lack of physician specialists is hardly surprising since most rural communities are too small to allow them to maintain their clinical skills and to generate a decent livelihood, and most rural hospitals do not have the necessary equipment and resources to support specialist practice. However, the shortages of family physicians (including general practitioners) in many rural communities are a critical concern, and the problem appears to be getting worse. Family physicians are the mainstay of the rural health care system. Compared to their urban counterparts, they tend to see more patients, work longer hours, have a broader scope of practice, are on call more often, and provide more complex care. They are also more likely to do obstetrics and home visits. In rural communities, emergency and in-hospital care for patients with multiple traumas, myocardial infarction, and a wide variety of minor and major conditions is mostly provided by family physicians (SRPC / PAIRO 1998). In fact, 60.8% of family physicians in northern Ontario report providing emergency medical services compared to only 24.4% of family physicians in Toronto (CIHI 2001). Because of the intensity of practice required in rural areas, even an equitable distribution of physicians throughout the province would underestimate the true number of physicians actually required (PAIRO 1997; SRPC / PAIRO 1998).

## 2.2 How Serious Is the Problem?

[4] Although there are a few small and mid-sized cities (e.g., Timmins and Sudbury) in the Districts of Algoma, Cochrane, Manitoulin, and Sudbury, these districts are mostly rural and remote in nature.

Prior to the 1990s, growth in physician supply in Ontario outstripped population growth with 18.3% increase in family physicians over the five-year period from 1986 to 1991. The supply trend reversed itself in the early to mid-1990s, resulting in a 5% negative growth (Pitblado and Pong 1999). In terms of rural-urban differences, in 1999, the physician-to-population ratio was 5.1 physicians per 10,000 population for rural areas compared to 21.0 physicians per 10,000 population for urban areas (OMA 2002). Rural shortages are reportedly severe in general surgery, obstetrics and gynecology, pathology, anesthesiology, orthopedic surgery, psychiatry, and family medicine (McKendry 1999). Thus, there appears to be two supply-side phenomena at work: the leveling off of the overall physician supply and persistent rural-urban disparities in physician availability.

According to MOHLTC data, in 1996, 46 communities in northern Ontario and 19 communities in southern Ontario were designated as "underserviced" by the Underserviced Area Program (UAP). The corresponding numbers for northern and southern Ontario were 33 and 84, respectively, in 2002. UAP statistics also show that in 1996 there were 71 vacancies for family physicians and 81 vacancies for specialists in northern Ontario. By 2002, the numbers of vacancies jumped to 135 for family physicians and 155 for specialists. In southern Ontario, there were 26 vacancies for family physicians in 1996, but the number of vacancies increased to 453 in 2002 (there are no figures for specialist vacancies in southern Ontario as UAP incentive grants do not cover southern Ontario specialists).[5]

## 2.3 Causes of the Problem

Various diagnoses of the problem have been made by various commissions, task forces, etc. The intended and unintended consequences of a number of policy initiatives aimed at controlling physician supply growth and health care expenditures in the 1990s may have contributed to the declining physician-to-population ratio:

- 10% reduction in medical school enrolment;
- restrictions on international medical graduates;
- elimination of rotating internship;
- increase in the ratio of specialist to family medicine residency positions;
- public sector rationalization including constraints on health care spending;
- limits to inter-provincial migration for new physicians;

Demographic and other factors aggravate the already serious situation. Among these are an aging population and an aging physician workforce. Older physicians tend to have a lighter workload. It has also been suggested (though there is very little hard evidence) that younger physicians are more inclined to have a balanced lifestyle and less willing to work long hours or to be on-call constantly.

A growing proportion of female physicians in the medical workforce, while a positive trend from the perspective of gender equality, puts additional pressure on the health services delivery system since women physicians tend to work less hours per day and less days per year than their male

[5] Data obtained from the Underserviced Area Program of the Ministry of Health and Long-Term Care.

counterparts, mostly due to child-bearing and rearing responsibilities. They also tend to see fewer patients per hour. Female physicians accounted for about 29% of the physician population in 2000, and the number is predicted to reach 40% by 2015 (Chan 2002; Standing Senate Committee on Social Affairs, Science and Technology 2002, Vol. 2). Female physicians worked, on average, 48.2 hours per week, compared to their male counterparts who worked an average of 55.5 hours per week

# 3 The Rural Nursing Workforce

## 3.1 Nature of the Problem

Registered nurses account for approximately 35% of the entire workforce in the health care sector. Recruiting and retaining rural nurses may become more challenging in the future in light of projected nursing shortages, aging of the population and the nursing workforce, and reduced number of individuals entering and graduating from nursing programs (Kulig et al. 2002).

In addition, according to some studies, many nurses are under-employed, working mostly on a part-time or casual basis. (CNAC 2002). As workload increases, overtime, stress, and absenteeism due to illness and injury rise (MOHLTC 2002). "Casualization" of nursing work also means fewer stable career opportunities for nurses. All this has led to fewer high school graduates choosing nursing as a career and many nurses leaving this field of work or leaving Canada in pursuit of more favourable working conditions (CAN 1997; Standing Senate Committee on Social Affairs, Science, and Technology 2001). Although these conditions describe the nursing workforce as a whole, it appears that they are also an accurate description of the rural nursing workforce.

## 3.2 How Serious is the Problem?

Between 1991 and 2000, Canada experienced an 8% drop in the number of registered nurses (RNs) per 100,000 people and a 21% drop in the number of registered practical nurses (RPNs) (Commission on the Future of Health Care in Canada 2002). In 2000, there were 41,502 RNs, or 17.9% of the total RN population, located in rural Canada. The Canadian Nursing Association predicted a shortage of 78,000 RNs in 2011 and 113,000 RNs by 2016 (CNA 2002). In Ontario, there were 11,855 nurses, or 14.5% of Ontario's registered nurses, located in rural areas in 2000 (Pitblado et al. 2002).[6]

Currently, the problem of geographic maldistribution does not appear to be as severe in the nursing workforce as in the medical workforce. The proportion of RNs working in rural Ontario approximates the proportion of the Ontario population in rural areas. However, if the projected nursing shortage becomes reality, one could expect rural areas to find it much more difficult to compete with major urban centres for scarce human resources.

## 3.3 Causes of the Problem

[6] Counts are of registered nurses with active-practising registration, using Statistics Canada definition of rural and small town.

Nursing employment situations are closely tied to provincial funding of health care programs and institutions such as home care programs and hospitals and, as such, is susceptible to shifts in economic condition and fiscal policy. The economic downturn in the early 1990s led to major cutbacks in government spending and constraints in health care funding. Prior to 1992, the real rate of growth in health care funding was in the order of 2 to 3.5% per annum. In 1991, the beginning of a recession in Canada, the real rate of funding growth declined to 0.9% and was negative for the following four years. Only in 1997 did funding growth become positive again. From 1998 to 2001, annual real growth rates of funding accelerated from 3.5% to 5.1%.

The trend in nursing supply followed a similar trajectory. After 1991, employment of nurses stabilized at first and then declined until 2000 when the trend reversed and regular employment of nurses increased. In 2001, there were 253,000 RNs in Canada compared to 264,000 in 1993-94. At the same time, a growing and aging population continued to place upward pressure on demands for health services.[7]

In addition, declining nursing school enrolments in the 1990s have contributed to a shrinking supply of new RNs. This can be seen from the reduced numbers of nursing graduates. Whereas there were nearly 9,000 new nursing graduates in 1991, there were less than 5,000 in the year 2000 (CNA 2002). The requirement that all new RNs in Ontario must have a bachelor's degree in nursing by 2005 is also likely to have an adverse impact from the nursing-supply perspective. This new measure, in effect, lengthens the RN training requirement and possibly shrinks the pool of qualified applicants to nursing education programs.

At the workplace level, more nurses are working on a part-time or casual basis. In 1992, 13.4% of employed RNs worked on a casual basis. By 1998, close to one in five nurses, or 18.6%, were employed on a casual basis. According to the Canadian Nurses Association (2002), increasing "casualization" of the nursing workforce has had detrimental effects on many nurses. This is reflected in the number of nurses who have multiple jobs or who are leaving this field of work because of the lack of employment stability and career progression.

Moreover, the nursing workforce, just like the physician workforce, is witnessing significant demographic changes. Many nurses are nearing retirement and there are insufficient new nursing graduates in full-time positions to ensure an experienced nursing workforce (MOHLTC 1999). Finally, there is some evidence of fierce interprovincial competition for scarce human resources (MOHLTC 1999).

7 Data in this section were collected by CNA and CIHI and reported by CNA, 2002.

# Chapter 4

# WHAT NEEDS TO BE DONE?

Many strategies and policy recommendations have been put forth by various commissions, advisory panels, task forces, committees, and organizations to deal with personnel shortages and distribution imbalances of health care providers. The amount of attention paid to the rural medical workforce is particularly impressive.

The strategies and policy recommendations are classified into several major categories. As in the last chapter, the information is presented separately for physicians, nurses, and the health workforce as a whole.

## 1 Rural Physicians

### 1.1 "Coercive" Approaches

"Coercive" approaches refer to directive measures taken by governments to channel physicians to rural areas, as opposed to voluntary decisions by physicians to establish rural practice. "Coercion" can take different forms. One example is to use billing numbers to restrict where new physicians can practise. This was unsuccessfully tried in British Columbia. A similar approach is to restrict where foreign physicians can practise. Sometimes, foreign physicians are required to work in designated areas for a period of time before they are issued a full licence to practise medicine. Another form is the use of differential fees. A number of provinces, including Ontario and Quebec, have tried using differential fee schedules to discourage new physicians from establishing practice in areas where there is a perceived over-supply of physicians. New physicians who set up practice in such areas are penalized by having their fees "discounted."

Not surprisingly, organized medicine typically views such approaches as unfair, misguided, and counterproductive. It has been argued that such measures are doomed to failure because they may drive new physicians out of the province or out of the country (CAIR 2002; PAIRO 2002). As a result of opposition by organizations representing physicians and residents, "coercive" approaches have been abandoned in most provinces, with the exception of those directive measures affecting foreign physicians.

On this matter, the Commission on the Future of Health Care in Canada (2002) has made the following observation:

> "In their presentation to the Commission, the Professional Association of Internes and Residents of Ontario noted that governments '… have tried to dictate through legislative and bureaucratic fiat where new doctors can practice, regardless of the real community need for our services. We successfully resisted these discriminatory and punitive measures, by working with the communities themselves to identify real, effective, comprehensive, sustainable and non-coercive solution' (PAIRO 2002, 3). In their words,

they represent the new 'face of medicine' - a new generation of physicians that is more open to working in a diversity of locations and models of health care delivery.

"While the Commission is encouraged by such sentiment, it remains to be seen just how open the medical profession is to change. If the openness means only that 'nature should take its course' or that the scope of practice of physicians is sacrosanct, then this is clearly insufficient" (p. 99).

## 1.2 Foreign Medical Graduates

The use of foreign doctors to make up for indigenous physician shortages, particularly in rural and more remote regions, is a medical workforce strategy that has a long history in Canada. Today, some provinces such as Saskatchewan and Newfoundland still rely heavily on foreign-trained physicians. But because of the perceived over-supply of medical practitioners in the 1980s and 1990s, it became more difficult for overseas physicians to immigrate to Canada and for international medical graduates (IMGs) to obtain a licence to practise medicine.

Prior to 1975, IMGs accounted for 30% of Ontario's physician workforce, and today they account for less than 25%. More specifically, in 2001, Ontario had 21,482 physicians and 24.5% or 5,268, were IMGs (Commission on the Future of Health Care in Canada 2002). This is due in large part to the removal of preferential status for IMGs from immigration policy in 1975 (CMF 1999).

The Standing Senate Committee on Social Affairs, Science, and Technology has recommended that the federal government work with the provinces to establish national standards for evaluating IMGs, and provide ongoing funding to implement an accelerated program for the licensing of qualified IMGs and their full integration into the medical care system (Standing Senate Committee on Social Affairs, Science and Technology 2002, Vol. 2 and Vol. 6). The Commission on the Future of Health Care in Canada (2002) has also recommended streamlining the process for recognizing health care providers with foreign training and credentials.

The Ontario government is developing an "eight-point plan" to make it easier for IMGs to practise in Ontario.[8] This plan includes a Fast Track Assessment pilot program to remove barriers to rural practice and the creation of 110 new post-graduate training positions, mainly for IMGs. The plan is expected to add more than 650 new physicians, mostly IMGs, to the health care system over the next five years beginning with 150 in 2003.

## 1.3 Financial Incentives

Provincial and territorial governments across the country have introduced a broad array of financial incentives to entice physicians to set up practice or to keep them in rural communities. Financial incentives are the most widely used health personnel recruitment and retention strategy. Not surprisingly, this strategy has also been enthusiastically endorsed by organized medicine. In its presentation to the Standing Senate Committee on Social Affairs, Science and Technology, the Canadian Medical Association provided examples of positive financial

8 Government of Ontario press release, November 21, 2002

incentives such as guaranteed minimum income, signing bonuses, relocation expenses, grants for continuing medical education, and funding for temporary replacements (CMA 2001).

Ontario's Underserviced Area Program (UAP) offers a good example of the use of financial incentives to deal with shortages of physicians (both family physicians and specialists) and other health care providers (e.g., rehabilitation therapists) in northern Ontario and underserviced communities in other parts of the province. UAP is an umbrella program that has many components. Some of the financial incentives offered by UAP are:

- Incentive Grants: $40,000 over four years to family physicians and psychiatrists relocating to northern Ontario communities; $15,000 over four years to family physicians relocating to southern Ontario communities; and $20,000 over four years to specialists relocating to northern Ontario communities.
- Free Tuition Program: Up to $40,000 (or $10,000 per year) to medical students in exchange for a 3- or 4-year return-of-service commitment in underserviced communities.
- Northern Physician Retention Initiative: physicians who have practised in northern Ontario for at least four years are eligible for $7,000 retention initiative paid at the end of each eligible year and access to a $2,500 grant for continuing medical education.
- Community Sponsored Contracts: introduced in 1996 with a view to increasing the number of family physicians practising in selected small and isolated northern Ontario communities. Physicians in these 1- or 2-doctor towns could receive a salary in lieu of fee-for-service reimbursement.

In addition, there are other incentives programs that are not under the UAP umbrella. These include arrangements such as the $71 per hour sessional fee, the discount payment, and the Re-training and Return of Service Program. Under the Retraining and Return of Service Program, MOHLTC offers 20 third-year family medicine re-entry positions and 20 specialty re-entry positions designed to recruit physicians who require up to 2 years of additional training to meet RCPSC certification requirements or up to one year of training to met CFPC requirements. In return for the retraining opportunities and financial support, physicians have to make a commitment to practise in designated communities for a period of time upon completion of retraining.[9]

It should also be mentioned that in view of the competitive nature of attracting and keeping physicians, many rural communities are providing additional incentives to further "sweeten the pill." In some cases, this has turned into a bidding war between communities.

Other financial-incentive strategies have been suggested by various parties. The following are a few examples:

- Provide additional compensation to reflect isolation, level of responsibility, frequency of on-call, breadth of practice and additional skills required (CMA 2000, 2002);
- Fee-for-service payments should be augmented by 5% and an entitlement of $70 per hour for overnight and on weekend work should be made (Scott 1995);

9 Government of Ontario press release, December 2, 2002.

- MOHLTC should extend and implement alternative payments plans and group practice recruitment incentives that have proven effective in the north, (i.e. community-sponsored contracts) to Southwestern Ontario rural and urban underserviced communities (McKendry 1999; NOW Alliance 2000; PAIRO 1999a);
- Develop a rurality index and ensure compensation and benefits are tailored to different degrees of rurality (NOW Alliance 2000);
- Federal government should work with the provinces to provide tax incentives to "repatriate" Canadian health care professionals abroad, including physicians (Standing Senate Committee on Social Affairs, Science and Technology 2002, Vol. 6).

## 1.4 Rural Practice and Life-Style Issues

Although financial incentives are the most widely used strategy, it has become obvious that money is not the be all and end all for many physicians. There are work-related and life-style issues in rural medical practice that are not appealing to many physicians. Unless these issues are addressed, no amount of money will be sufficient to attract physicians to rural communities. The negative aspects of rural practice often mentioned by rural physicians include professional isolation, long hours of work, frequent on-call, burnout, lack of opportunities for professional development, and isolation felt by spouse and family.

Policy makers and administrators are becoming increasingly aware of such problems and have introduced programs to try to make rural practice more attractive. For example, in order to make it possible for rural physicians to leave town for vacation or to attend continuing medical education courses, MOHLTC has introduced locum tenens programs. The UAP locum tenens program for general practitioners/family physicians is meant to assist designated underserviced communities in northern Ontario with temporary medical service to replace physicians on holidays, education leave, or sick leave. The OMA locum tenens program (also funded by MOHLTC), on the other hand, assists communities across the province.

Various strategies have been proposed with a view to enhancing rural physicians' medical practice and quality of life. These include:

- Ensure that community clinic facilities are provided for group practice (McKendry 1999);
- Enhance specialist back up and medical informatics (PAIRO 1996);
- Provincial/territorial governments should fund locum relief for small group practices or large groups that are under-complement. In addition, licensing bodies should establish portability of licensure for locum tenens (CMA 1992, 2000);
- Introduce measures to increase locum supply by, for instance, improving the flexibility of locum contracts to accommodate short-term locums, eliminating eligibility restrictions for rural/northern communities, removing license restrictions on residents who have completed one year post-graduate training so they may function as locum physicians (PAIRO 1997);
- Increase non-financial incentives, such as specialist support, spousal support, group practice supports, and holidays with locum tenens relief (PAIRO 2002; Scott 1995); and
- Make greater use of telemedicine for health service delivery (MOHLTC 1998).

It should be recognized that some lifestyle issues are difficult to address because they are so personal or variable. For instance, some of the major determinants of practice location are personal and family-related concerns such as schooling of children, spousal employment opportunities, cultural activities, and community characteristics. Such idiosyncratic concerns can seldom be adequately addressed by government programs or through public policy. On the assumption that physicians with a rural upbringing are more attuned to the rural lifestyle, Barer and Stoddart (1999) have suggested the need to recruit more physicians with a rural background or physicians with spouses from rural areas.

## 1.5 Bringing Physicians to Patients and Patients to Physicians

Rural and remote imply distance - distance from urban centres and distance between rural communities. Take northern Ontario as an example. It covers an area about 850,000 sq. km in size and is larger than France and Great Britain combined. With a population of only 840,000, northern Ontario has about one person per sq. km. Since about a third of northern Ontario residents are in Sudbury and Thunder Bay, the rest of the population is scattered in many small cities, towns, hamlets, and First Nations reserves. Travel from one place to another is often a problem, a problem often made worse by poor roads, inclement weather, rising transportation costs, and curtailment in air, railway, and bus services. Distance and travel are part and parcel of rural life and, thus, need to be taken into consideration when planning health services delivery in rural areas.

The gist of rural medical services delivery is bringing physicians to patients and/or bringing patients to physicians. In addition to attracting physicians to set up permanent practice in rural communities, health planners and administrators also consider other ways of bringing physicians and medical services to where they are needed. One example is the UAP Visiting Specialist Clinic Program. Under this program, specialists from other parts of the province travel to northern Ontario and offer 1- to 3-day clinics in communities where the population base cannot support a full-time specialist and are more than 40 km from the nearest physician in that specialty. Similar to this is the Programme psychiatrique francophone du Nord de l'Ontario. Another example is the Ontario Medical Mobile Eye Care Unit, which is a fully equipped medical eye care clinic staffed by qualified eye-care practitioners. It travels to remote communities in northern Ontario.

The UAP Northern Health Travel Grant Program, on the other hand, brings patients to physicians. The grants help pay some of the transportation costs for northern Ontario residents who must travel at least 100 km to see medical specialists or for hospital care that is not locally available. In 1998/99, 93,000 people received grants totaling $8.6 million under the Northern Health Travel Grant Program. Following an internal review of the program in 2000 (MOHLTC 2000) and upon the recommendation made by the internal review committee, MOHLTC adjusted the reimbursement rates to reflect rising road travel costs.

## 1.6 Telemedicine/Telehealth

There is another form of "travel" that will likely become increasingly important in rural health services delivery. According to Pong and Pitblado (2001), "To date, physician and patient mobility means, with few exceptions, travel from one location to another. In the not-too-distant

future, mobility will mean both travelling by car, plane and train and 'travel' on the electronic highway" (p. 108). They were referring to electronic "travelling" in the form of telemedicine or telehealth.

Telemedicine/telehealth utilizes information and communications technologies to overcome geographic distances in the delivery of health care.[10] One example of telemedicine is North Network. It provides specialist consultations, continuing medical education, and patient education to rural communities in northern Ontario and some smaller communities in southern Ontario. This is accomplished by means of two-way videoconferencing technology. Federal funding, in the amount of $8.5 million, has been allocated for the expansion of North Network in Ontario. The new funding will support an increase of 33 sites (from 14 to 47), including referral centres in Sudbury and Thunder Bay. This project provides rural access to services in over 30 specialties and distance education activities (Office of Rural Health 2001). In addition, the federal government has provided $7.5 million to expand telehealth in southwestern and eastern Ontario (Office of Rural Health 2001).

There are also suggestions that telemedicine can reduce professional isolation by connecting rural physicians with their colleagues in urban centres and help maintain skills and enhance knowledge without the need to travel to big cities for continuing medical education. Presumably, telemdicine would be a big boost to rural physician recruitment and retention. But convincing empirical evidence is still lacking.

A lot of hope and faith has been placed on telehealth by a lot of people. Both the Ministerial Advisory Council on Rural Health (2002) and the Standing Senate Committee on Social Affairs, Science and Technology (2002, Vol. 2) call for increased investment in telehealth applications to enhance access and improve the quality of health services in rural, remote, northern and Aboriginal communities. Likewise, the Commission on the Future of Health Care in Canada (2002) recommends that part of the proposed Rural and Remote Access Fund be used to support the expansion of telehealth. Other task forces and advisory panels have made similar recommendations.

## 1.7 Rural Medical Education

As important as short-term recruitment strategies such as incentive programs are in addressing shortages of physicians in rural and remote areas, they are mostly stopgap measures. As Barer and Stoddart (1999) have observed, "While they [i.e., financial incentives] should not be dismissed (and have worked well for some communities some of the time), financial incentives as a general strategy have clearly not solved the problem, despite the fact that they have come in numerous forms and amounts" (p. 13). Using UAP as a case study, Anderson and Rosenberg (1990) showed that despite the use of incentives for many years, the physician maldistribution situation in Ontario had not changed very much. About a decade later, Chan (1999) found that

[10] It should be noted that such technologies can be used to support and enhance not just medical care but also health services delivery in general in rural areas. For instance, teletriage, a form of telehealth, is a health information, advice, and triage service provided by registered nurses over the telephone 24 hours a day, seven days a week. Direct Health (a pilot project in northern Ontario) and Telehealth Ontario (a province-wide service) are examples of teletriage services.

physicians in Ontario continued to concentrate in urban centres while underserviced areas continued to lose doctors.

Thus, policy makers and health care planners have been forced to look for other strategies to deal with the problem. Increasingly, more attention has been paid to the nature and location of medical training. There is an increasing evidence from Canada, the United States, and Australia – three countries with a large geographic territory and a sizeable rural population - that medical training programs located in rural areas and with a special focus on rural medicine are more likely to produce medical practitioners who are interested in and willing to practise in rural areas. It appears that physicians who have extensive rural exposure, have acquired rural-relevant skills, and have established rural social and professional connections are much more comfortable working in rural areas.

Rural medical education is more than simply requiring medical trainees to acquire some rural experience during their 3-4 years of undergraduate and 2-6 years of post-graduate training. There are a host of other factors that could strengthen or weaken the intention to eventually establish a rural practice. In their seminal study titled *Toward Integrated Medical Resource Policies for Canada*, Barer and Stoddart (1991) have introduced the concept of "medical career life-cycle," by which they refer to the fact that physician human resources are the result of the "aggregation of many micro-level decisions made by individuals faced with personal and professional incentives at numerous 'choice-points' in their career" (p. 2). One could likewise argue that the rural medical workforce is the cumulative outcome of many decisions made by pre-medical school students, medical trainees, and practicing physicians at various "choice-points" in their educational and professional careers. Thus, the following review and synthesis will be guided by the "rural medical career life-cycle" conceptual framework. This framework helps us organize and present a huge amount of material on the roles played by rural medical education in strengthening the rural medical workforce.

### 1.7.1 Pre-Medical School

There is an increasing recognition of the importance of encouraging rural high school students to pursue a career in rural medicine. This is because there is evidence to show that physicians from a rural background are more likely to set up practice in rural areas. The Ministerial Advisory Council on Rural Health (2002) urges Health Canada to work with provincial and territorial partners to develop a coordinated action plan to promote health care careers starting with students at the primary and secondary school in rural, remote, northern, and Aboriginal communities. Although this recommendation applies to most health care careers, it certainly has implications for rural medicine.

The following activities have been suggested (SRPC ON / PAIRO 1998):

- high school visits by community physicians, residents, or medical students who are themselves undergoing training in rural areas;
- university-based health science fair for rural high school students;

- high school career counselors and medical school recruitment programs could identify potential candidates from rural areas and assist them in applying to and preparing for medical school; and
- work-study and/or summer student placements in rural hospitals with rural physicians.

### 1.7.2 Undergraduate Medical Education

A central issue in undergraduate medical education is the need for additional medical school spaces. Three major reports have made recommendations in this regard. First, the McKendry report, in 1999, recommended a 10% increase in undergraduate enrolment for Ontario medical schools that give priority to training rural physicians. The second, prepared by the Expert Panel on Health Human Resources in 2001, led to a MOHLTC commitment to increase undergraduate medical school enrolment from 572 to 692 by 2002. Taking into account the additional 40 positions created in 2000, this represents an overall expansion in undergraduate medical school enrolment of 30%, or 160 places, since 1999 (Expert Panel on Health Professional Human Resources 2001).

The Standing Senate Committee on Social Affairs, Science and Technology (2002, Vol. 6), recommends the Federal government contribute $160 million annually to Canadian medical schools to create a total of 2,500 first-year spaces by 2005.[11] The report of the Commission on the Future of Health Care in Canada (2002), on the other hand, recommends drawing from the proposed Rural and Remote Access Fund to support innovative ways of expanding rural experiences for physicians, nurses, and other health care providers as part of their training.

Medical student selection has received considerable attention. This is based on the belief that rural origin or background is a good predictor of decisions to eventually establish rural practice (SRPC 2001). Many recommendations have been made by various parties to encourage more rural high-school students to pursue a medical education and to encourage medical schools to admit a greater number of qualified rural applicants (CMA 2002; KPMG 1992; Standing Senate Committee on Social Affairs, Science and Technology 2002, Vol. 2).

There have been repeated calls for medical schools to educate more doctors with appropriate skills for rural practice. The Canadian Medical Association has urged better alignment of training with regional needs and the development of rural-oriented medical education programs in family medicine streams (CMA 1992). The College of Family Physicians of Canada has similarly advocated increasing student exposure to rural medical practice as part of their undergraduate training program (CFPC 1999; 2001).

The mission and characteristics of a medical school also appear to influence where its graduates eventually practise. A number of reports have pointed out that traditional medical schools, set up in academic health science centres, tend not to produce a significant number of graduates interested in rural medicine (CMA 1992; McKendry 1999; SRPC ON / PAIRO 1998). These observations, together with recommendations made by the Expert Panel on Health Human Resource (2001), have led to one of the most important initiatives in rural medical education in

[11] The Association of Canadian Medical Colleges estimates that 640 more students would be required to maintain the current physician-to-population ratio and that the cost of educating each medical student would be $260,000 over a four-year period.

recent years, namely, the establishment of a medical school in northern Ontario – the first medical school to be built in Canada in over three decades. On May 17, 2001, the Minister of Health of Ontario announced the creation of the Northern Ontario Medical School (NOMS), a collaborative endeavour between Laurentian University and Lakehead University. With main campuses in Sudbury and Thunder Bay and multiple teaching sites distributed across northern Ontario, NOMS hopes that by training doctors in the north, many of them will work in the north. NOMS is expected to begin admitting 55 undergraduates per year in the fall of 2005.

A key issue for medical students is the cost of education. From 1996-2000, first-year medical school tuition increased by 223% (CMA 2002). Two potentially detrimental effects of high tuition on rural physician supply have been noted. First, instead of selecting family medicine for post-graduate training, medical students may choose specialty areas that promise higher earning potential in order to pay off student loans or debts. Family physicians are much more likely to practise in rural communities than specialists. Second, new graduates' choice of practice locations may be unduly influenced by their need to pay off accumulated debts. They may be drawn to urban centres that may provide larger patient pools for billing purposes (Fooks et al. 2002).

Ontario's UAP Free Tuition Program offers grants of up to $40,000 to medical students in exchange for a 3- to 4-year return-of-service commitment in an underserviced or undersupplied community. The Ministerial Advisory Council on Rural Health (2002) proposes strengthening existing subsidy programs for medical students and suggests investment programs like Registered Education Savings Plans to encourage more rural students to train as health care providers. Similarly, the Standing Senate Committee on Social Affairs, Science and Technology (2002, Vol. 6) recommends a review of student loan programs to ensure access to medical education for students of lower socio-economic circumstances.

### 1.7.3 Postgraduate Training in Rural Medicine

SRPC ON / PAIRO (1998) made eight recommendations for rural medical training programs (detailed in Appendix A) including calls for significant rural medicine content, a separate rural stream, and specialty-based training programs.

There is a critical need to expand northern/rural residency programs in such specialty areas as obstetrics, paediatrics, psychiatry, internal medicine, anaesthesia, and general surgery. Access to these services is limited for mid-sized and larger cities in northern Ontario and mid-sized communities in southern Ontario (COFM 1999).

A number of factors are believed to deter new physicians from entering certain specialties:

- lack of exposure to the specialty in undergraduate education;
- lack of opportunities for re-entry training;
- rigid postgraduate training system that forces early career choice determination;
- desire among physicians to work more reasonable hours; and
- lack of remuneration for certain services (CFPC 1999; McKendry 1999).

In addition, CFPC (1999) recommends specific postgraduate training programs be created to qualify urban family practitioners for rural practice and sub-specialty surgeons in general surgery.

Successful post-graduate training in rural medicine requires dedicated and competent rural preceptors. This, together with the fact that family medicine training has become increasingly decentralized, has made the support of rural faculty an urgent and important issue. The College of Family Physicians of Canada (1999) recommends universities recruit, support, and develop rural physician faculty and ensure that both family medicine and specialty preceptors involved in supervising and teaching rural residents receive university faculty appointments and funding.

### 1.7.4 Continuing Medical Education for Rural Practitioners

Rural-oriented continuing medical education helps keep the knowledge of rural physicians current and enhance their skills, and thus contributes to recruitment and retention of rural medical practitioners (PCCAR 1995). The Canadian Medical Association (2000) recommends that continuing medical education for rural physicians be developed in collaboration with rural physicians and be accessible, needs-based, and reflective of rural physicians' scope of practice.

Rural health care providers, including physicians, face many barriers to accessing continuing education. The most frequently cited are difficulties in getting locum tenens relief, long distances to travel, and high travel costs. Recommendations to improve rural access to continuing medical education include:

- compensation for practice disruption (SRPC 1997);
- travel subsidies (SRPC 1997);
- increase in northern continuing medical education programs (KPMG 1992); and
- extend the use of telelearning as a continuing education vehicle (Commission on the Future of Health Care in Canada 2002).

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## 2 Rural Nurses

As there are very few documents that discuss rural nursing workforce issues, we have decided to report some "generic" nursing workforce-related strategies and recommendations. Although they do not explicitly address rural nursing concerns and some do not specifically address Ontario problems, we believe they have important implications for rural nurses in Ontario.

### 2.1 Nursing Education

After a decade of declining nursing school enrolment, there are predictions that there will not be sufficient new nurses in the coming years to replenish the nursing workforce that is likely to be depleted by attrition and retirement. Nursing schools are reportedly unable to meet the demand for nursing education and have to turn away applicants. The Canadian Nurses Association recommends that nursing programs be expanded to produce more graduates (CNA 2002). The Standing Senate Committee on Social Affairs, Science and Technology (2002, Vol. 6)

recommends that the federal government commit $90 million annually to enable Canadian nursing schools to graduate 12,000 nurses per year by 2008.

Because of the requirement in Ontario that all new RNs must have a baccalaureate degree in nursing by the year 2005, there have been concerns that existing nursing education programs may not be able train sufficient numbers of baccalaureate-level nurses. The Ontario government has allocated more than $34 million to support the transition to baccalaureate nursing education in order to increase the number of RN graduates to at least 2,800 annually by 2003/04.[12]

In the latest Ontario Throne Speech delivered by the Lieutenant Governor of Ontario on April 30, 2003, the provincial government has pledged to increase the number of nurses practicing in Ontario by launching "an aggressive nurse recruitment and retention program."[13] In addition, nursing students will get "free tuition" if they agree to begin their career in underserviced areas. This appears to be the first time the government has hinted that there is, or there will soon be, a nursing shortage situation in rural Ontario. But details of this initiative have not been spelled out in the Throne Speech.

## 2.2 Quality of Nursing Worklife

As has been noted earlier, nursing quality of worklife has implications for the nursing workforce as a whole. Realizing this, the Canadian Nursing Advisory Committee (CNAC) has identified a number of measures to improve nursing workplace environments including an increase in the number of nurses employed, improvements to nursing education, scope of practice, and working conditions. It has also recommended that the provincial and federal governments provide the resources needed to measure and report on nursing workloads (CNAC 2002).

As one of the major complaints by nurses is the lack of permanent, full-time jobs, the Nursing Task Force has recently recommended permanent annual investments of $375 million to create 10,000 new front-line, permanent nursing positions in Ontario (MOHLTC 1999).

## 2.3 Expanded Nursing Roles

Another policy lever to deal with shortages of health care providers, particularly physicians, in rural areas is personnel substitution, provided that the health and safety of patients and the public is not compromised. Barer and Stoddart (1999), among others, recommend the use of nurse practitioners (NPs) working in consultation with regionally based physicians. They also encourage collaboration between medical schools and nursing schools to train nurse practitioners alongside family physicians with a focus on rural practice.

Federal support in the amount of $1.5 million was awarded to the Council of Ontario University Program in Nursing to strengthen a network of nurse practitioners in rural Ontario (Office of Rural Health 2001). As well, Ontario has pledged $3 million for placement of nurse practitioners in rural communities and further funding for the creation of more than 300 new primary care

[12] Ministry of Health and Long-Term Care (2002). *Ontario's Investment in Nursing.* Backgrounder released November 5, 2002. Retrieved November 19, 2002, from http://www.gov.on.ca/MOH/english/news/media/nursing/nursing.html.

[13] Speech from the Throne, "The Promise of Ontario." Address of the Honourable James K. Bartleman, Lieutenant Governor of Ontario, April 30, 2003.

nurse practitioner placements over the next three years.[14] NPs could play an important role in improving access to basic health services and it has been reported that their work in rural communities has been well received (JPNC 2001).

However, the integration of NPs into the health care system in rural communities could be hampered by lack of cooperation or policy rigidities. In his review and synthesis of Health Transition Fund (HTF) rural demonstration projects, Pong (2002) has examined the roles played by NPs in some rural communities. In some cases, the local physicians were not fully supportive of the use of NPs, making their work more difficult and less effective. In the case of an Alberta HTF project, the planned use of NPs was less than successful partly due to a regional-versus-provincial funding conundrum. While the salaries of NPs were paid by the health regions, medical care provided by physicians was covered by the province under a fee-for-service reimbursement scheme. This two-tier financial arrangement made NPs less attractive to the health regions because they were seen as an add-on cost to the health regions, whereas fee-for-service physicians were not. It appears that the use of NPs in particular, and a more flexible use of health human resources in general, will not be successful unless such difficulties can be ironed out.

# 3 "Generic" Rural Health Workforce Issues

A number of rural health workforce issues are addressed in this section. The issues are "generic" in the sense that they are not specific to any particular health discipline or occupation. Included in this discussion are issues concerning Aboriginal health care providers, interdisciplinary collaboration, and health workforce planning.

## 3.1 Allied Health Care Providers

Most of the policy and planning documents dealing with rural health workforce issues focus on physicians. However, there are also reported shortages in other health disciplines or occupations. According to the Standing Senate Committee on Social Affairs, Science and Technology (2002), more than 20 allied health occupations, ranging from physical and occupational therapists to medical radiation and laboratory technologists, experienced shortages.

The Standing Senate Committee on Social Affairs, Science and Technology (2002, Vol. 6) recommends the federal government commit $40 million in new revenue, annually, to assist provinces in raising the number of graduates in allied health disciplines. Likewise, the Commission on the Future of Health Care in Canada (2002) recommends using a portion of the proposed Rural and Remote Access Fund and the Diagnostic Services Fund to support an increase in the supply of technicians and specialists to improve access to diagnostic services for rural residents.

## 3.2 Aboriginal Health Care Providers

14 Government of Ontario press release, October 28, 2002.

As a significant proportion of the Aboriginal population live in rural and remote areas parts of Ontario (and Canada) and because they often have unique health needs, it is important to consider Aboriginal health care providers as part of an overall rural health workforce strategy. There is a severe shortage of Aboriginal health care providers. In fact, no more than 50 physicians, or less than one tenth of one percent of the total physician population in Canada, are from Aboriginal backgrounds (Standing Senate Committee on Social Affairs, Science and Technology 2002, Vol. 5)

The Standing Senate Committee on Social Affairs, Science and Technology (2002, Vol. 4) recommends the federal, provincial, and territorial governments, along with academic institutions and health occupational groups, implement a program to train 10,000 Aboriginal health care workers. Particular areas of need include home care workers, early childhood educators, diabetes prevention workers, telehealth workers, and system development technicians. As well, the federal government should work with the provinces and medical and nursing faculties to fund designated places for students from aboriginal backgrounds (Vol. 5).

## 3.3 Informal Caregivers

One group of health care providers very rarely get mentioned is informal caregivers who are family members, relatives, and friends who provide care and support for those in need on a voluntary basis. They are the unsung heroes of the health care system, but are often not even considered as part of the health workforce. Fortunately, the important roles played by informal caregivers are beginning to get official recognition.[15] The Commission on the Future of Health Care in Canada (2002) has correctly pointed out that home care could not exist in Canada without the support of social networks and informal caregivers and has urged that support be given to informal caregivers to allow them to spend time away from work to provide necessary home care assistance. However, the Commission does not discuss informal caregivers from the rural health workforce perspective.

But, as Pong (2002) has pointed out, informal caregivers play a particularly important role in rural settings because of shortages of formal caregivers and unavailability of many formal services. Very often, those who are sick, disabled, or feeble can only rely on their family members, relatives, neighbours, friends, and other volunteers to look after them.

## 3.4 Interdisciplinary and Other Forms of Collaboration

Despite all efforts and the commitment of resources, shortages and distribution imbalances of health care providers in rural areas are not going to disappear any time soon. Thus, in addition to recruiting and retaining as many health care practitioners as possible, rural communities need to find innovative ways to make the best use of existing human resources. Interdisciplinary collaboration has been touted as a means to maximize the potential of health care providers. By

[15] As the World Health Organization ("Human resources and national health systems: Shaping the agenda for action." Geneva, 2-4 December 2002) has pointed out, "Human resources for health can be defined as the stock of all individuals engaged in the promotion, protection, or improvement of health of populations. This includes the formal health care sector…. It also includes the informal health care sector, including traditional healers, and volunteer and community carers." It further states that "The contribution of informal carers is likely to become more important, and they will have to be considered as a member of the health care team."

complementing one another's skills and by rationalizing the use of available human resources, more could be achieved. One often cited example is the collaborative model involving physicians and nurse practitioners. Generally speaking, the benefits of collaborative practice include shared knowledge, mutual support, and an expanded scope of health care services (Commission on the Future of Health Care in Canada 2002; Ministerial Advisory Council On Rural Health 2002).

However, genuine collaboration often requires considerable trust and acceptance between health care providers and flexibility in the workplace. Traditional occupational hierarchy, turf protection, and rigidly defined scopes of practice will undermine attempts to achieve collaboration. The Commission on the Future of Health Care in Canada (2002) has used nursing to illustrate this dilemma.

> "The nursing situation is a case in point. Across Canada, there has been an increasing emphasis on the role of nurse practitioners who can take on roles that traditionally have been performed only by physicians. This could even include providing nurse practitioners with admitting privileges to hospitals so that they could refer patients and begin initial treatment in hospitals. But, while nurses have eagerly embraced an expanded role at one end of the spectrum of their responsibilities, they have been less inclined to give up some responsibilities to licensed practical nurses, for example, and others with a similar mix of skills to provide direct care for patients" (p. 106).

There are other forms of collaboration, like collaboration between programs, service agencies, or communities. Based on the experience of some Health Transition Fund demonstration projects, Pong (2002) has noted the success of some forms of service integration. Since many rural communities have limited resources and do not have a comprehensive range of services, collaboration among service providers or alignment of existing programs on a local or regional basis is a prerequisite to solving some of the rural health services delivery problems. The purpose is to share knowledge, pool resources, and work together.

Another aspect of service and resource integration is to forge stronger links with health care institutions in large cities where expertise and resources are more abundant. For example, Ontario's Rural and Northern Health Care Framework provides rural and northern health care providers with 24-hour access to more specialized services (MOHLTC 1998). Small rural hospitals are formally linked, via communications technology, to at least one designated larger hospital with a fully staffed, 24-hour emergency department. The framework also requires rural and northern hospitals in close proximity to each other to form regional networks to share resources.

## 3.5 Health Human Resources Planning

As the provision of health services, education, and professional regulation are under provincial jurisdiction, it is not surprising that much of health workforce planning and development is conducted at the provincial level, though there used to be a Federal/Provincial/Territorial Advisory Committee on Health Human Resources Planning whose mandate was to coordinate health workforce planning activities at the national level. But health care providers are a national resource as they can and often move from one province/territory to another. In fact, they are an

international resource as some of them (particularly physicians and nurses) move to other countries to work, while health care practitioners from other countries immigrate to Canada.

Health workforce planning, at both the provincial/territorial and national levels, is further complicated by the large number of people, groups, and organizations that have a stake in the matter: ministries of health, ministries of education, universities and colleges, health-sector employers, professional associations, regulatory bodies, labour unions, health services planning agencies, consumers, etc. Furthermore, there are scores of health occupations and health workforce planning has tended to be occupation/discipline-specific, resulting in duplication of effort, competition, lack of coordination, repetition (revisiting the same issue over and over again), and, occasionally, complete confusion.

The need for a coordinated and integrated approach in health workforce planning has been recognized by many. As the Canadian Policy Research Network (cited in Commission on the Future of Health Care in Canada 2002) has observed, "… there is currently no viable mechanism for health human resources planning in Canada and therefore, human resource issues go round in circles, never really getting to the heart of the matter" (p. 110).

The Fact Finder on Physician Resources (1999) has recommended a permanent, independent "Office of Health Workforce Policy and Planning" for Ontario and the Expert Panel on Health Professional Human Resources (2001) has proposed a "Health Human Resources Advisory Panel." At the national level, the Standing Senate Committee on Social Affairs, Science and Technology (2002) recommends a permanent "National Coordinating Committee for Health Human Resources" and the Commission on The Future of Health Care in Canada (2002) proposes the creation of a Health Council of Canada whose role, among others, is to "develop a comprehensive plan for addressing issues related to the supply, distribution, education and training, remuneration, skills and patterns of practice for Canada's health workforce" (p. 108).

## 3.6 Rural Health Research

Although this review and synthesis study has chosen to not include research studies and empirical analyses for reasons noted in Chapter 2, Section 1, research has played and will continue to play an important role in objectively documenting the characteristics of the rural health workforce, in achieving a better understanding of the issues, in identifying causes, and in dispelling myths and finding solutions. For instance, the relatively recent recognition that rural medical education is an important factor in enhancing the rural medical workforce is mostly based on the results of years of research on rural medical education in Canada, Australia, and the United States. The accumulated evidence from different jurisdictions shows that physicians trained in rural areas are more likely to practise in rural areas.

The importance of rural health research, including research on rural health workforce issues, has been recognized by those with an interest in rural health issues (Pong, Atkinson, Irvine et al. 1999; Watanabe and Casebeer 2000). Others are beginning to share this view.

Having noted that "Policies and strategies for improving health and health care in smaller communities have not been based on solid evidence or research" (p. 164), the Commission on the Future of Health Care in Canada (2002) has recommended that "Steps should be taken to

bridge current knowledge gaps in applied policy areas, including rural health, health human resources, health promotion, and pharmaceutical policy" (p. 86). More specifically, it has recommended that a fund of $20 million be set aside by the Canadian Institutes of Health Research to establish four "Centres for Health Innovation for applied policy research." One of the proposed centres will focus on "rural and remote health issues" and another on "inter-professional collaboration and learning" (p. 87).

# Chapter 5

# SUMMARY AND DISCUSSION

## 1 Summary of Major Findings

An extensive search was conducted to find strategy and policy documents on rural health workforce issues produced by commissions, task forces, advisory panels, committees, and organizations. These documents were perused and relevant information was extracted for further analysis and synthesis. The focus of this exercise was on Ontario, though national-level documents were included in the review if their findings and recommendations were deemed relevant to Ontario.

Many strategies, policy options, and recommendations have been proposed with a view to addressing shortages of rural health care providers and distribution imbalances in health human resources in Ontario, though most of those are related to rural physicians. Other types of rural health care providers, with the possible exception of nurses, have received very little attention.

In order to deal with the inadequate supply of physicians in rural areas, many approaches have been suggested. They range from relying on overseas physicians to offering financial incentives. "Coercive" approaches have been strongly opposed by organized medicine and have been discontinued in most provinces. Instead, more attention is being paid to retention through enhancement of rural medical practice and improvement of quality of life. Similarly, medical education has become a salient issue. The emphasis on medical education is largely predicated on the belief that physicians trained in or have extensive exposure to rural areas are much more likely to practise in rural areas. In addition, the use of telemedicine to bridge gaps created by distance and resource disparities has become a favourite topic in more recent documents.

Although the geographic maldistribution problem appears to be less severe for nurses than for physicians, judging from personnel-to-populations ratios, there is a growing concern over the looming "crisis" in the nursing workforce due to projected supply shortfall, high attrition rates, poor quality of worklife, etc. Nursing workforce issues have mostly been addressed in the national or provincial context. To date, not much policy attention has been paid to nurses in rural areas with a couple of exceptions. One is a brief reference made in the latest Ontario Throne Speech in relation to providing nursing students with "free tuition" if they are willing to work in underserviced areas. The other is in relation to nurse practitioners, the use of which is seen by many as a viable strategy for rural areas, especially in areas where there are physician shortages.

There are some discussions on a range of "generic" issues such as aboriginal health care workers, health workforce planning, and interdisciplinary collaboration. Although such discussions are mostly superficial and the strategies or recommendations made tend to be "motherhood" in nature, they form a basis for further deliberation or debate.

## 2 What Lessons Have Been Learned?

From this review and synthesis of strategy and policy documents on rural health workforce issues, we have learned a number of things:

a) It is encouraging to note that shortages and distribution imbalanaces of health care providers in rural areas have received considerable attention from policy-makers, health care planners, administrators, researchers, etc. across the nation, not just in Ontario. Most recent major commissions and task forces on health care have commented on the problems and their effects on the health of rural Canadians. In addition, many special committees had been struck to address these issues, especially issues concerning rural physicians.

b) Shortages and maldistribution are not recent problems. They have been around for a long time. However, these problems have persisted despite repeated attempts to overcome them. Has insufficient effort been made? Have ineffective strategies been adopted? Or has the nature of the problems evolved or "mutated" overtime, resulting in the need for new approaches or solutions every few years?

c) Although shortages and maldistribution are endemic problems in the entire rural health workforce, much of the attention and deliberation has been directed at physicians. Other health care providers have received scant consideration. Even in nursing, the largest health occupation, where there are considerable concerns about a looming national shortage, very little material on problems facing rural nurses can be found. As one study has observed, "… nearly all work force planning activity in Canada during the last decade has been limited to estimating future physician requirements, apparently assuming that other categories of health care professionals would 'fit in' around the physician stock" (Turner, Ostbye, and Pederson 1993: p. 35). It appears that the situation has not changed very much since this observation was made in the early 1990s. As a result, there are still many things we do not know about the rural health workforce or what to do with the problems since each health discipline/occupation may have a different set of rural issues and may require different solutions. What works for rural physicians may not work for pharmacists, physiotherapists, or psychologists.

d) Financial and related incentives are the strategies most often recommended and used in dealing with rural health workforce problems, particularly in relation to physicians. Commenting on the usefulness of financial incentives, Barer and Stoddart (1999) have cautioned that "While they should not be dismissed (and have worked well for some communities some of the time), financial incentives as a general strategy have clearly not solved the problem, despite the fact that they have come in numerous forms and amount" (p.13).

e) There appears to be a growing awareness that rural health workforce problems are complex and must be dealt with using a multi-dimensional approach. There is no magic bullet that can solve all problems for all rural communities once and for all. This is reflected in the emergence of a multi-pronged strategy. In the case of rural physicians,

although financial incentives are still very popular and important, we have seen the emergence of other strategies such as enhancement of rural practice, improvement to quality of life, medical education initiatives, etc.

f) Generally speaking, concerns over the rural health workforce have not gone beyond personnel supply issues. While an adequate supply of health care providers is crucial, there are other issues that are just as important, such as interdisciplinary collaboration, maintenance of competence, quality of worklife, labour market flexibility, optimal use of skills, multi-skilling, linkages between rural and urban practitioners, and Aboriginal health workforce development.

g) Collaboration has been mentioned repeatedly as a way to deal with health workforce problems and to improve service delivery. There are different forms of collaboration, ranging from interdisciplinary practice to inter-agency collaboration to rural-urban linkages. This is certainly worth pursuing and it would be helpful to document "best practices" in collaboration in rural settings.

h) Health workforce planning in general, and rural health workforce planning in particular, has rarely been done in a prospective, systematic, and integrative manner. Instead, it is more like fire fighting. The fire engine is dispatched when the barn or the sawmill catches fire. As many have pointed out, this crisis-management approach has not served us well and is not conducive to finding long-term solutions. The lack of a national perspective or approach is also worrisome as recruitment and retention efforts have sometimes degenerated into inter-provincial poaching of health care providers, rivalry among communities, and costly bidding wars that are mostly futile in the long run.

i) Most of the proposed strategies and policy recommendations made by commissions, task forces, committees, etc. were directed at federal and provincial governments. This is not surprising since many of these advisory bodies were constituted by governments and governments are often seen as the ones ultimately responsible for allocating health care resources, including health human resources.

However, the neglect of the roles that local communities, voluntary organizations, and citizen groups could play is unfortunate as they also have a lot to contribute to enhancing recruitment and retention efforts. For example, they could help improve the quality of worklife for health care practitioners and make them feel welcome in the community. Studies of factors that influence physicians' practice-location decisions have shown that community-related factors, such as lifestyle of the community and cultural and recreational opportunities, are just as important as practice-related or family-related factors. Local authorities and residents can play a big role in making their communities more "liveable" from a recruitment and retention perspective.

The almost total silence on informal caregivers is not surprising given the almost exclusive focus on "professionals." However, it should be realized that informal caregivers, though not gainfully employed as health care workers, help sustain the health

care system, particularly in rural areas where formal caregivers are often in short supply.

j) The potential of telehealth is increasingly being recognized. Telehealth is seen as having the ability to minimize difficulties in rural health services delivery as a result of large geographic distances. In particular, telehealth can make available health human resources and attendant expertise to rural areas by means of information and communications technologies. But there are still many unknowns in relation to the impact of telehealth on rural health services delivery in general, and the rural health workforce in particular.

k) There is some recognition of the need to foster rural health research, including research on rural health workforce issues. Although major research granting bodies such as the Canadian Institutes of Health Research and the Canadian Health Services Research Foundation have taken a few tentative steps towards supporting rural health research activities (Lyons and Gardner 2001), long-term commitment is still uncertain. As evidence-based practice has become the norm in health care, unless rural health workforce planning and strategies are backed up by empirical evidence derived from rigorous research, they may be viewed with scepticism by decision-makers and policy-makers.

l) Although, as noted in Chapter 2, Section 1, we have made the assumption that when proposing strategies or making policy recommendations, commissions, committees, organizations, etc. typically have taken public input and findings of empirical research into consideration. This, however, does not necessarily imply that all proposed strategies or policy recommendations are impartial and evidence-based. It is known that policy formulation is sometimes coloured by political ideologies, electoral imperatives, vested interests, and pressure-group influence. Therefore, rather than accepting strategies and policy recommendations at their face value, it is necessary to critically examine how a problem is framed or characterized, who proposes what to do in relation to a problem, who benefits and who pays, etc.

m) It is not enough to simply look at what strategies and policy recommendations have been proposed. Equally important is to find out what have been accepted or ignored by governments and why (although this is beyond the scope of the present study). For instance, recommendations to increase medical school intake in Ontario were accepted by the Ontario government and quickly implemented. Conversely, to date, the federal government has yet to respond to the rural health-related recommendations made by the Commission on the Future of Health Care in Canada and the recommendations made by the Ministerial Advisory Committee on Rural Health. Knowing what factors influence policy adoption and what factors shapes policy implementation will help us avoid wasting time or making the same mistakes in the future.

# 3 Conclusion

Two quotations serve as a fitting conclusion to this review and synthesis of strategies and policy recommendations in relation to the rural health workforce. The first is from the final report of the Commission on the Future of Health Care in Canada (2002):

> "Unique rural health problems require urgent attention and unique rural conditions need to be taken into account in addressing those problems. The situation for health care providers is a case in point. Trends point to increasing specialization in skills and training. This might meet the needs of 'high-tech' and research-intensive medicine in large hospitals in major urban centres, but the needs are almost the opposite for rural communities. They need a different kind of 'specialist' – namely, well-trained and experienced generalist practitioners who 'specialize' in delivering high quality primary health care in rural communities" (p. 164).

The second is from *Sharing the Learning: The Health Transition Fund Synthesis Series - Rural Health / Telehealth*, a synthesis of findings and experiences from over 30 Health Transition Fund demonstration projects in rural Canada, that includes an extensive discussion of rural health workforce issues:

> "Health workforce maldistribution has been, and will continue to be, a problem plaguing many rural communities and perplexing many rural policy-makers. Although conventional recruitment and retention programs are still useful in certain circumstances, they alone will not overcome the shortages of rural health care workers. If Twillingate, Vermilion, and Wawa had problems in recruiting and retaining practitioners in the 1980s and 1990s, when there was a perceived 'oversupply,' how are these small rural communities going to compete with Toronto, Victoria, and Winnipeg in the face of major shortages of physicians, registered nurses, medical laboratory technologists, rehabilitation therapists, and so on? They are unlikely to win the bidding war, even with the financial incentives typically offered by ministries of health when supply problems reach crisis proportions.
>
> "A comprehensive and multi-pronged strategy is needed, and several HTF [Health Transition Fund] studies have explored various aspects of this strategy. An effective and long-term rural health workforce strategy may include many elements, including:
>
> - the strengthening of local capacity by expanding the knowledge base of local practitioners;
> - seeing health human resources as a continuum that encompasses not only formal caregivers, but also informal caregivers and self-care providers;
> - adopting the most effective and efficient personnel configuration, such as interdisciplinary collaboration;
> - using personnel substitution, where appropriate;

- eliminate health workforce policies and practices that are designed to protect turf rather than the public, such as restrictive occupational regulatory measures and 'creeping credentialism'; and
- encouraging collaboration and the pooling of health human resources between institutions, programs, and communities" (Pong 2002: pp. 16-17).

# REFERENCES


Algoma, Cochrane, Manitoulin and Sudbury District Health Council (2003). *Health Human Resources Forums: Backgrounder Report*. Sudbury, Ontario: Algoma, Cochrane, Manitoulin and Sudbury District Health Council.

Anderson, M. and M.W. Rosenberg (1990). Ontario's Underserviced Area Program revisited: An indirect analysis. *Social Science and Medicine* 30: 35-44.

Barer, M. L. and G.L. Stoddart (1991). *Toward Integrated Medical Resource Policies for Canada* (Prepared for the Federal/Provincial/Territorial Conference of Deputy Ministers of Health). Manitoba: Manitoba Health.

Barer, M. L. and G.L. Stoddart (1999). *Improving Access to Needed Medical Services in Rural and Remote Canadian Communities: Recruitment and Retention Revisited* (Discussion paper prepared for Federal/Provincial/Territorial Advisory Committee on Health Human Resources). Vancouver, British.Columbia**:** Centre for Health Services and Policy Research, University of British Columbia**.**

Borges, S. and G. Clarke (2001). *Final Report. Nursing in Grey Bruce Huron Perth: Issues and Actions*. Ontario: Grey Bruce Huron Perth District Health Council.

Canadian Association of Emergency Physicians (1997). *Recommendations for the Management of Rural, Remote and Isolated Emergency Health Care Facilities in Canada*. Ottawa, Ontario: Canadian Association of Emergency Physicians.

Canadian Association of Internes and Residents (1992). *Recruitment and Retention of Physicians to Non-Urban Practice Areas.* Ottawa, Ontario: Canadian Association of Internes and Residents.

Canadian Association of Internes and Residents (2001). *The New Face of Medicine: Sustaining and Enhancing* Medicare (Submission to the Commission on the Future of Health Care in Canada, October 2001). Ottawa, Ontario: Canadian Association of Internes and Residents.

Canadian Association of Internes and Residents (2002). *Presentation to the Commission on the Future of Health Care*. Charlottetown, Prince Edward Island (April 18, 2002).

Canadian Health Services Research Foundation (2001). *Listening for Direction: A National Consultation on Health Services and Policy Issues.* Ottawa, Ontario: Canadian Health Services Research Foundation.

Canadian Institute for Health Information (2001). *Canada's Health Care Providers*. Ottawa, Ontario: Canadian Institute for Health Information.

Canadian Medical Association (1992). *Report of the Advisory Panel on the Provision of Medical Services in Underserviced Regions.* Ottawa, Ontario: Canadian Medical Association.

Canadian Medical Association (1999). *Rural Community Development Tools from the Medical Perspective: A National Framework of Rurality and Projections of Physician Workforce Supply in Rural and Remote Areas of Canada.* Ottawa, Ontario: Canadian Medical Association.

Canadian Medical Association (2000). *Rural and Remote Practice Issues* (Policy approved at CMAs August 2000 Annual Meeting). *Canadian Medical Association Journal* 163: 1047-1050.

Canadian Medical Association (2001). *Rural and Remote Health in Canada* (Presentation to the Standing Senate Committee on Social Affairs, Science and Technology, May 31, 2001). Ottawa, Ontario: Canadian Medical Association.

Canadian Medical Association (2002). *A Prescription for Sustainability* (Submission to the Commission on the Future of Health Care). Ottawa, Ontario: Canadian Medical Association.

Canadian Medical Association, Society of Rural Physicians of Canada, and Canadian Nurses Association (2002). *Health Human Resources Planning: Report on Feedback to the 2001 International Environmental Scan (*Report of the Steering Committee on the Development of a Multistakeholder Framework of Rurality). Ottawa, Ontario: Canadian Medical Association, Society of Rural Physicians of Canada, and Canadian Nurses Association.

Canadian Medical Forum (1999). *Task Force on Physician Supply*. Ottawa, Ontario: Canadian Medical Association.

Canadian Nurses Association (1997). *The Future Supply of Registered Nurses in Canada: A Discussion Paper*. Ottawa, Ontario: Canadian Nurses Association.

Canadian Nurses Association (2001). *Optimizing The Health of the Health System.* Brief to the Commission on the Future of Health Care in Canada. Ottawa, Ontario: Canadian Nurses Association.

Canadian Nurses Association (2002a). *Planning for the Future: Nursing Human Resource Projections.* Ottawa, Ontario: Canadian Nurses Association.

Canadian Nurses Association (2002b). *The Health System Nurses Want: A Pre-Budget Submission to the House of Commons Standing Committee on Finance on Behalf of Canada's Nurses*. Ottawa, Ontario: Canadian Nurses Association.

Canadian Nursing Advisory Committee (2002). *Our Health, Our Future: Creating Quality Workplaces for Canadian Nurses*. Ottawa, Ontario: Health Canada.

Chan, B. (1999). *Atlas Reports: Use of Health Services. Report #1: Supply of Physician Services in Ontario*. Toronto, Ontario: Institute for Clinical Evaluative Sciences.

Chan, B. (2002). *From Perceived Surplus to Perceived Shortage: What Happened to Canada's Physician Workforce in the 1990s?* Ottawa, Ontario: Canadian Institute for Health Information.

College of Family Physicians of Canada (1999). *Postgraduate Education for Rural Family Practice: Vision and Recommendations for the New Millennium* (A Report of the Working Group on Postgraduate Education for Rural Family Practice). Mississauga, Ontario: College of Family Physicians of Canada.

College of Family Physicians of Canada (2001). *Shaping the Future of Health Care* (Submission to the Commission on the Future of Health Care in Canada). Mississauga, Ontario: College of Family Physicians of Canada.

Commission on the Future of Health Care in Canada (2002). *Building on Values. The Future of Health Care in Canada*. Ottawa, Ontario: Government of Canada.

Commission on The Future of Health Care in Canada. (2002). *Shape The Future of Health Care.* Interim Report, February 2002. Ottawa, Ontario: Government of Canada.

Council of Ontario Faculties of Medicine (1999). *Educating Physicians for Rural and Northern Communities: A Provincial Plan for the New Millennium* (Report prepared by the COFM Task Force on Education of Physicians for Rural and Northern Communities). Toronto, Ontario: Council of Ontario Faculties of Medicine.

Council of Ontario Faculties of Medicine (2000). *COFM Business Plan For Rural Medical Education* (Submitted to the Ministry of Health and Long-Term Care). Toronto, Ontario: Council of Ontario Faculties of Medicine.

Expert Panel on Health Professional Human Resources (2001). *Shaping Ontario's Physician Workforce, Building Ontario's Capacity to Plan, Educate, Recruit and Retain Physicians to Meet Health Needs.* Toronto, Ontario: Ontario Ministry of Health and Long-term Care.

Fact Finder on Physician Resources (1999). *Physicians for Ontario: Too Many? Too Few? For 2000 and Beyond.* Toronto, Ontario: Ontario Ministry of Health and Long-Term Care.

Federal/Provincial/Territorial Advisory Committee on Health Human Resources (2000). *The Nursing Strategy for Canada*. Ottawa, Ontario: Health Canada.

Federal/Provincial/Territorial Advisory Committee on Health Human Resources (2001). *The Nature of the Extended/Expanded Nursing Role in Canada.* Ottawa, Ontario: Health Canada.

Federal/Provincial/Territorial Senior Officials Working Group (2002). *Recruitment and Retention Best Practices Inventory* (Follow-up from the Northern Development Ministers Forum, September 2002). Peace River, Alberta: F/P/T Senior Officials' Working Group.

Fooks, C., K. Duvalko, P. Baranek, L. Lamothe, and K. Rondeau (2002). *Health Human Resource Planning in Canada: Physician and Nursing Work Force Issues* (Summary report prepared for the Commission on the Future of Health Care in Canada). Ottawa, Ontario: Canadian Policy Research Networks Inc.

Kazanjian, A., R.J. Reid, N. Pagliccia, L. Apland, and L. Wood (2000). *Issues in Physician Resources Planning in B.C.: Key Determinants of Supply and Distribution, 1991-96 (*A Report to the Post Graduate Medical Education Advisory Committee). Vancouver, British Columbia: Centre for Health Services and Policy Research. University of British Columbia.

Kulig, J.C., E. Thomlinson, F. Curran, M. Macleod, N. Steward, and J.R. Pitblado (2002). *The Nature of Nursing Practice in Rural and Remote Canada. Recognizing and Addressing the Challenges: The Impact of Policy on Rural and Remote Nursing* Practice. Prince George, British Columbia: University of Northern British Columbia.

Lyons, R.F. and P. Gardner (2001). *Strategic Initiative in Rural and Northern Health Research: Canadian Institutes of Health Research*. Ottawa, Ontario: Canadian Institutes of Health Research.

Ministerial Advisory Council on Rural Health (2002). *Rural Health in Rural Hands: Strategic Directions for Rural, Remote, Northern and Aboriginal Communities*. Ottawa, Ontario: Health Canada.

Ministry of Health and Long-Term Care (1998). *Access to Quality Care in Rural and Northern Ontario - The Rural and Northern Health Care Framework.* Toronto, Ontario: Ministry of Health and Long-Term Care.

Ministry of Health and Long-Term Care (1999). *Good Nursing, Good Health: An Investment for the 21st Century* (Report of the Nursing Task Force). Ottawa: Ministry of Health and Long-Term Care.

Ministry of Health and Long-Term Care (2000). *Patient Travel Assistance Programs in Ontario: Findings of a Review of the Northern Health Travel Grant Program and Cancer Care Ontario Radiation Re-Referral Policy*. Sudbury, Ontario: Health Care Program North Region, Ministry of Health and Long-Term Care.

Ministry of Health and Long-Term Care (2001). *Good Nursing, Good Health: A Good Investment* (Progress Report on the Nursing Task Force Strategy in Ontario). Toronto, Ontario: Ministry of Health and Long-Term Care.

Murphy, G. T. and L. O'Brien-Pallas (2002). *How Do Health Human Resources Policies and Practices Inhibit Change? A Plan for the Future* (Discussion Paper No. 30 of the Commission on the Future of Health Care in Canada). Ottawa, Ontario: Commission on the Future of Health Care in Canada.

Northern Development Ministers Forum (2002). "Recruitment and Retention Best Practices Inventory" [report prepared for the Northern Development Ministers Forum 2002 – September 18-20, 2002; Peace River, Alberta]. Northern Development Ministers Forum.

Office of Rural Health (2001). *Canada's Rural Health Strategy: A One-Year Review.* Ottawa, Ontario: Health Canada.

Ontario College of Family Physicians (2000). *Family Medicine in the 21st Century - Implementation Strategies*. Toronto, Ontario: Ontario College of Family Physicians.

Ontario Medical Association Human Resources Committee (2002). *Position Paper on Physician Workforce Policy and Planning.* Toronto, Ontario: Ontario Medical Association.

Peat Marwick Stevenson and Kellogg (1992). *Recruitment and Retention of Health and Social Service Professionals in Northern Ontario, Summary Report.* Toronto, Ontario: Peat Marwick Stevenson and Kellogg.

Pitblado, J.R. and R.W. Pong (1999). *Geographic Distribution of Physicians In Canada*. Sudbury, Ontario: Centre for Rural and Northern Health Research, Laurentian University.

Pitblado, J.R., J. Medves, M. MacLeod, N. Stewart, and J. Kulig (2002). *Supply and Distribution of Registered Nurses in Rural and Small Town Canada.* Ottawa, Ontario: Canadian Institute for Health Information.

Pong, R.W., A.M. Atkinson, A. Irvine et al. (1999). *Rural Health Research in the Canadian Institutes of Health Research: A Position Paper Prepared for the Canadian Health Services Research Foundation and Social Sciences and Humanities Research Council*. Sudbury, Ontario: Centre for Rural and Northern Health Research, Laurentian University.

Pong, R.W. and J.R. Pitblado (2001). Don't take "geography" for granted! Some methodological issues in measuring geographic distribution of physicians. *Canadian Journal of Rural Medicine* 6(2): 103-112.

Pong, R.W. (2002). *Sharing the Learning, The Health Transition Fund. Synthesis Series. Rural Health/Telehealth.* Ottawa, Ontario: Health Canada.

Professional Association of Internes and Residents of Ontario (1996). *Answering the Call, Towards an Effective Recruitment and Retention Program for Communities and Physicians in Ontario's Underserviced Areas.* Toronto, Ontario: Professional Association of Internes and Residents of Ontario.

Professional Association of Internes and Residents of Ontario (1997). *Forum '97, Progress and Direction, Physician Recruitment and Retention in Rural and Northern Ontario*. Toronto, Ontario: Professional Association of Internes and Residents of Ontario.

Professional Association of Internes and Residents of Ontario (1998a). *Toward Solutions, Recruiting and Retaining Physicians in Southwestern Ontario, A Dialogue '97 Initiative*. Toronto, Ontario: Professional Association of Internes and Residents of Ontario.

Professional Association of Internes and Residents of Ontario (1998b). *Towards a New Vision for Globally Funded Group Practice Agreements. Dialogue '97Report.* Toronto, Ontario: Professional Association of Internes and Residents of Ontario.

Professional Association of Internes and Residents of Ontario (1999a). *A Summary of Proceedings: Searching for Solutions to Physician Recruitment and Retention in Southwestern Ontario.* Toronto, Ontario: Professional Association of Internes and Residents of Ontario.

Professional Association of Internes and Residents of Ontario (1999b). *Residents as Learners* (Presentation to University of Toronto Committee on Tuition and Related Matters). Toronto, Ontario: Professional Association of Internes and Residents of Ontario.

Professional Association of Internes and Residents of Ontario (2000). *Return of Service Discussion Paper.* Toronto, Ontario: Professional Association of Internes and Residents of Ontario.

Professional Association of Internes and Residents of Ontario (2002a). *2002-2003 PAIRO Members' Manual including the 2002-2002 PAIRO-OCOTH Agreement.* Toronto, Ontario: Professional Association of Internes and Residents of Ontario.

Professional Association of Internes and Residents of Ontario (2002b). *Presentation to the Commission on the Future of Health Care*. Toronto, Ontario: Professional Association of Internes and Residents of Ontario.

Provincial Coordinating Committee on Community and Academic Health Science Centre Relations (1995). *Equitable Health Human Resources Distribution: Fulfilling Underserviced Area Needs.* Toronto, Ontario: Provincial Coordinating Committee on Community and Academic Health Science Centre Relations.

Registered Nurses Association of Ontario and Registered Practical Nurses Association of Ontario (2000). *Ensuring The Care Will Be There. Report on Nursing Recruitment and Retention in Ontario* (Summary Report of Submission to the Ontario Ministry of Health and Long-Term Care). Toronto, Ontario: Registered Nurses Association of Ontario and Registered Practical Nurses Association of Ontario.

Saskatchewan Commission on Directions in Health Care (1990). *Future Directions for Health Care in Saskatchewan*. Regina, Saskatchewan: Public Affairs Branch, Saskatchewan Department of Health.

Scott, G. W. (1995). *Small/Rural Hospital Emergency Department Physician Service.* Toronto, Ontario: Ontario Ministry of Health

Society of Rural Physicians of Canada (1997). Recruitment and Retention: Consensus of the Conference Participants, Banff 1996. *Canadian Journal of Rural Medicine* 2, 28-31.

Society of Rural Physicians of Canada (1998). *Nurse Practitioners and Rural Medicine: Voices From the Field* (Proceedings from the 1998 SRPC Annual Policy Conference, May 5, 1998). http://www.srpc.ca/librarydocs/NPpolycon.pdf.

Society of Rural Physicians of Canada (2001). *The Future of Rural Health Care* (Submission to the Commission on the Future of Health Care in Canada). http://www.srpc.ca/librarydocs/*Romanow_SRPC.htm.*

Society of Rural Physicians of Canada (Ontario Region) and Professional Association of Internes and Residents of Ontario (1998). *From Education to Sustainability, A Blueprint for Addressing Physician Recruitment and Retention in Rural and Remote Ontario*. Toronto, Ontario: Society of Rural Physicians of Canada and Professional Association of Internes and Residents of Ontario.

Society of Rural Physicians of Canada (Ontario Region) and Ontario Medical Association (1999). *A Fair Share for Rural Health at the Millennium.* http://www.srpc.ca/librarydocs/proposal.htm.

Standing Senate Committee on Social Affairs, Science and Technology (2001). *The Health of Canadians - The Federal Role. Interim Report, Volume Four: Issues and Options.* Ottawa, Ontario: Government of Canada.

Standing Senate Committee on Social Affairs, Science and Technology (2002). *The Health of Canadians - The Federal Role*. *Interim Report, Volume Two: Current Trends and Future Challenges.* Ottawa, Ontario: Government of Canada.

Standing Senate Committee on Social Affairs, Science and Technology (2002). *The Health of Canadians - The Federal Role. Volume Five: Principles and Recommendations for Reform - Part 1.* Ottawa, Ontario: Government of Canada.

Standing Senate Committee on Social Affairs, Science and Technology (2002). *Final Report on the state of the health care system in Canada. The Health of Canadians - The Federal Role. Volume Six: Recommendations for Reform.* Ottawa, Ontario: Government of Canada.

Turner, L.A., T. Ostbye, and L.L. Pederson (1993). Work force planning in the 90s, Part I: Efficiency, economy and political will – the need for a new approach. *Healthcare Management Forum* 6(1): 34-40.

Watanabe, M. and A. Casebeer (2000). *Rural, Remote, and Northern Health Research: The Quest for Equitable Health Status for all Canadians*. Prince George, British Columbia: University of Northern British Columbia.

## Appendix A

# SUMMARY OF SELECTED HEALTH HUMAN RESOURCES POLICY/STRATEGIC PLANNING DOCUMENTS

| Author<br>Year<br>Location<br>Document Type | Workforce Category | HHR Issues Identified | Nature/Causes of the Problems | Policy Recommendations/Strategic Directions | Locus of Responsibility, Implementation Process |
|---|---|---|---|---|---|
| ACMS DHC<br>2003<br>Northern Ontario<br>Strategy | health workforce | • shortages of all health care providers particularly family practitioners, psychologists and registered nurses<br>• recruitment and retention | • many health provider agencies have unfilled positions, average vacancy period is 1.3 months<br>• some prospective health care workers are not accepting employment due to professional isolation, difficulty delivering care in rural settings, lack of employment opportunities for spouses and lack of community resources for families<br>• recruitment and retention problems related to poor remuneration and unstable working conditions compared to other sectors<br>• shortages have led to increased waiting times, changes in the role of health care personnel | • nine local stakeholder forums to be scheduled throughout the province to develop strategies for coping with shortages within ACMS DHC planning area | • ACMS DHC with local community stakeholders to use recently collected data in future health planning<br>• over the next few months, needs based priorities will be set, for both local and provincial levels<br>• MOHLTC will study and consider future policy development based on the ideas collected from ACMS DHC forums |
| Advisory Committee on Health Human Resources<br>2001<br>Canada<br>Policy | RN (EC) | • scope of practice<br>• education<br>• barriers to effective utilization of RNs (EC) | • extended/expanded nursing role evolved without a consistent policy direction<br>• limited support for RN (ECs) in remote regions<br>• restrictions on scope of practice (e.g. in writing prescriptions, making referrals and ordering diagnostic services) | • recommend legislation be introduced in all remaining jurisdictions to legitimize the extended/expanded role of RNs and to facilitate access to necessary resources<br>• recommend standards for core competencies and practice; continuing education to maintain competency levels and collaborative practice arrangements to make effective use of all health care providers<br>• recommend alternative funding mechanisms<br>• improvements to capacity/mix, information, funding, reimbursement, examination, licensure, regulation, curricula | |
| Barer & Stoddart<br>1991<br>Canada<br>Strategy | HHR | • supply<br>• maldistribution of health care providers<br>• medical career life-cycle<br>• medical education | • numbers and mix of residency training positions and specialists out of balance with population needs<br>• geographic variation in physician supply<br>• ineffective/inefficient medical services utilization<br>• conflict betweens FFS and clinical, education and public policy objectives | • decrease in medical school numbers<br>• broadly-based and integrated policy package including:<br>. expand non-physician personnel as front-line contacts within regional service networks involving regional physician consultants;<br>. establish new training programs for non-physician personnel;<br>. reserve undergraduate medical school places for qualified applicants willing to commit to rural area practice;<br>. revise admissions criteria for medical school to favour qualified rural applicants<br>. enhance rural area exposure in both undergraduate and post-MD training;<br>. develop new residency training programs designed explicitly to prepare specialists to serve as rural regional consultants;<br>. introduce or increase financial incentives to encourage choices of specialties in short supply or to encourage the location of practices in non-urban settings;<br>. provide clinical decision-making support networks and regular sources of relief for rural community physicians through academic medical centres;<br>. provide travel funding for continuing education, benefits for families<br>. encourage alternative remuneration methods | • 1992, Conference of Deputies adopted directions with expectations of saving $80m.:<br>. medical school enrolment cut by 10%, early 1990s<br>. establish national clinical guidelines<br>. make medical care expenditures more predictable<br>. replace fee-for-service with other methods of payment<br>. increase use of alternative service delivery models<br>. improve access to clinical services in rural areas<br>. restructure academic medical centres<br>. ensure continuing competency of physicians<br>. promote flexibility between professional groups |
| Barer & Stoddart<br>1999<br>Canada<br>Strategy | physicians | • supply/access<br>• recruitment<br>• retention<br>• medical education | • prior to 1990s, growth in supply of physicians greater than population growth, yet problem of rural access increasing<br>• participants often buy their way out of Provincially-based return-of-service programs<br>• family/spousal initiatives least amenable to policy<br>• only about 10% of all medical school graduates choose rural practice<br>• mismatch between needs of rural communities and choices of those who become physicians<br>• shortage due to abolition of rotating internship and imbalance in FP and specialty training mix<br>• as long as there are opportunities in urban areas, there is less reason to expect physicians to choose rural locations | • increased inter-provincial/territorial cooperation<br>• appropriate management mechanism to direct physician resources to areas of need<br>• population-based funding for medical services<br>• more extensive use of non-physician personnel, i.e. nurse practitioners in consultation with physicians<br>• use education-related strategies affecting physicians throughout medical career life-cycle to improve recruitment and retention<br>. science education and career counseling in rural high schools<br>. recruit from rural and aboriginal groups<br>. promotion of rural practice within medical schools<br>. expose undergraduates and residents to rural practice<br>. opportunities for CME, skills upgrading and re-entry training<br>• collaboration between medical and nursing schools to train nurse practitioners alongside FPs with focus on rural practice | • joint federal provincial approach to implementation |

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|---|---|---|---|---|---|
| Borges, S. et al<br>2001<br>Ontario<br>Strategy | nurses<br>NPs | • working environment<br>• education<br>• rural nursing<br>• nursing shortage | • nursing shortage expected to intensify as nurses retire over the next 5 - 7 years<br>• difficulties reported in accessing funds for training & education through RNAO/RPNAO Nursing initiative in northern and rural areas (individual reimbursement of up to $1500/year) | • GBHP DHC work with provincial nursing organizations and MOHLTC to create collaborative nursing recruitment and retention in Grey Bruce Huron Perth (GBHP)<br>• enhance workplace settings and role of nurses: GBHP DHC track progress in regulatory changes to NPs scope of practice<br>• improve access to educational programs<br>• DHCs and health care organizations assess nursing need | • Federal Government allocated $1.5m to CME for rural Ontario Nurse Practitioners Program, Feb.2001 |
| CAEP<br>1997<br>Canada<br>Strategy | emergency physicians | • physician training<br>• credentialing and certification<br>• clinical practice | • physicians may have to coordinate multiple services<br>• limited access to specialist/diagnostic facilities<br>• FPs provide many procedures including intubations, chest tube insertion, minor surgery<br>• must travel for training or participate via remote electronic communication<br>• unable to take advantage of skill linking, where individual physician might have a unique skill that complements other physicians in the group<br>• national recommendations for rural ER care (1980s) were too vague for rural physicians | • 19 recommendations for rural emergency facilities including:<br>. appropriate rural emergency health care (REHC) triage system<br>. competency required in wide range of procedures<br>. appropriate equipment, medications, laboratory and radiology<br>. rural specific emergency care protocols, clinical practice guidelines developed in rural context<br>. nurse and physician staffing for five levels of REHC facilities<br>. Emergency medicine should be taught at undergraduate, postgraduate FP and CME levels<br>. credentialing should be based on emergency medicine training, evidence of ongoing competency and CME<br>. access to specialists/physicians for non-physician providers<br>. funding for physician support, patient care, on-call, and CME | • successful implementation requires integration with nurses, ambulance staff, laboratory staff, administrators and urban physicians outside emergency medicine specialty |
| CAIR<br>2001<br>Ontario<br>Strategy | residents | • education & training<br>• physician maldistribution | • rural and urban shortage<br>• coercive approaches directed at new physicians undermine recruitment and retention<br>• changing demographics have lead to changing practice patterns and concern over shortages due to retirements for the next decade | • flexible training and licensure opportunities<br>• match training to societal needs<br>• fund and preserve academic health science centres<br>• alternative payment methods and group practice models<br>• specialist support, information technology, locum support, spousal and family support<br>• new physicians to participate in Medicare on the same terms as established physicians | |
| CAIR<br>2002<br>Canada<br>Strategy | physicians residents | • limited specialty choice<br>• excessive tuition increases<br>• supply crisis | • high tuition affects access to medical school, and career choices which are often made on ability to pay debt<br>• changes to medical education and residency over past decade have restricted flexibility in training and career choice<br>• shortages due to changed demographics, and cutbacks in medical school/residency positions in 1980's and 1990's<br>• global shortage reduces IMG supply<br>• relying on IMG's raises moral issues of poaching<br>• coercive measures aimed at new graduates | • increase residency training and reentry positions<br>• regulate tuition fee increases and provide financial support to students<br>• increased medical school positions, capacity and funding<br>• recommendations to improve distribution and delivery:<br>. Continue expansion and funding for rural and northern training programs<br>. Develop viable alternative payment mechanisms<br>. Flexible primary care group practice models<br>. Facilitate collaborative practice<br>. Improve locum and specialist support<br>. Fund information technology infrastructure<br>• enhance principles of Canada Health Act | |
| CMA<br>1992<br>Canada<br>Strategy | physician | • N.B. and Saskatchewan identified as underserviced<br>• expect 2/3 of retirements next 20 years to be specialists<br>• morale and overwork problems<br>• recruitment/retention<br>• professional isolation | • 25% of population rural, 1986<br>• 20% of FP/GPs and 5% of specialists rural<br>• by 1998 approximately 15% of FP/GPs rural<br>• surveys show that doctors work long hours and have insufficient personal and professional opportunities<br>• retention is an issue with generalists and recruitment an issue with specialists<br>• isolation contributes to burnout and decreasing clinical competency | • group physicians in districts for delivery of health services<br>• critical mass needed to reduce professional isolation<br>• remuneration be based on scope of responsibility and a geographic isolation gradient<br>• CME/Locum service for small group practices<br>• medical schools should develop social conscience for the geographic region they service; training should be aligned with what the region requires; admit more rural applicants, exposure to rural training at all levels | |
| CMA<br>1999<br>Canada<br>Strategy | physician | • physician workforce supply in rural and remote areas of Canada | • framework useful for development of physician recruitment/retention initiatives and for physician resource planning<br>• projected decrease in physician-to-population ratio in all rural and remote areas to 2021<br>• supply reduction due to ageing workforce | • proposed National Framework of Rurality should be tested/ evaluated at the regional or provincial level before it is implemented as a physician resource planning tool<br>• Health Canada develop recommendations on application of national framework of rurality, recruitment/retention strategies and research into best practices for service delivery | |

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|---|---|---|---|---|---|
| CMA<br>2000<br>Canada<br>Strategy | physician | • training<br>• compensation<br>• work/lifestyle support | • medical trainees raised in rural areas have greater tendency to return<br>• rural physicians faced with additional financial burden when attending CME, (i.e. housing, practice and locum tenens replacement costs)<br>• health care budget cuts and reorganization had greater impact on rural doctors<br>• physician stress intensified by excessive work hours, limited access to specialists, inadequate diagnostic and treatment resources and limited vacation or personal leave<br>• physicians and their families experience isolation<br>• health care infrastructure and support in rural areas insufficient to provide appropriate care and contribute to recruitment and retention problems | • encourage and fund research into the reasons students select and succeed in rural practice<br>• medical schools develop training programs that encourage selection of rural practice and provide early rural exposure<br>• fund advanced skills training<br>• ensure CME is developed in consultation with rural physicians, is accessible, needs-based and reflective of rural practice<br>• re-entry opportunities free of any return-in-service obligations<br>• promote mutual understanding between teaching faculty and rural physicians, and support development of rural faculty<br>• additional compensation to reflect isolation, responsibility, frequency of on-call, breadth of practice and skills<br>• flexible payment modalities<br>• financial incentives focus on retention<br>• licensing bodies establish portability of licensure for locum tenens and ensure fees do not serve as barriers to mobility<br>• locum tenens be funded by provincial/territorial governments and include adequate compensation for travel<br>• student costs for accommodation and travel be covered<br>• training programs remunerate preceptors in rural areas<br>• minimum of 2 physicians regardless of community size<br>• weekend on-call not to exceed 1 in 5<br>• governments ensure future access to urban practice exists<br>• universities work with professional associations, government , and rural communities to reduce barriers that prevent rural students from the profession<br>• define basic medical services for rural/remote areas | |
| CMA<br>2001<br>Canada<br>Strategy | physician | • rural workforce issues | • 25% of Canadians & 15% Ontarians live rural areas<br>• 10% Canadian physicians practise outside CMAs or CAs, 5,700 rural physicians, 87% are FPs<br>• rural practice different from urban in that rural physicians are more likely to be in group practice, on-call for more hours and spending more hours providing services, and are on salary or some blended payment<br>• health care infrastructure and level of professional support in rural and remote areas insufficient | • identified 5 major leadership opportunities for the Federal Government:<br>. identify lessons learned from rural health care delivery<br>. expand role of Office of Rural Health to include ongoing evaluation of rural health workforce<br>. develop immigration policy through Bill C-11<br>. federal government to expand, provide support and funding to Office of Rural Health workforce needs assessment<br>. federal government work with ACMC, CMA and other relevant medical education organizations to expand capacity for medical education | |
| CMA<br>2002<br>Canada<br>Strategy | physician | • shortages<br>• medical education<br>• rural practice issues | • male and female physicians have different practice patterns (30% of practicing physicians female)<br>• rural physicians have little time to spend on research, teaching and CME<br>• enrolment still far from 1999 Canadian Medical Forum's recommendation for 2,000 by year 2000<br>• shortages exacerbated by demographics of population and of health care providers<br>• information technology contributed to demand side pressures<br>• insufficient numbers entering certain fields<br>• medical school tuition increased 223% from 1996-2001in Ontario<br>• health care budget cuts and reorganization had greater impact on rural doctors | • federal government contribute $2.5b over 5 years for HHR planning, capital infrastructure, IT and accessibility fund.<br>• governments and RHAs ensure physician participation at all levels of decision-making<br>• federal/provincial governments with NGOs, universities and Aboriginal communities develop a strategy to improve Aboriginal health<br>• federal government establish $1b, 5-yrear Education & Training Fund to: increase undergraduate and postgraduate enrolment; expand infrastructure to accommodate increased enrolment; enhance CME programs<br>. increase funding to alleviate tuition pressure<br>. incorporate recruitment incentives into medical education programs to ensure students choose medical fields in need<br>• non-coercive measures to retain Canadian physicians<br>• government acknowledge the value of the health workforce and provide good working conditions, competitive compensation and opportunities for professional development<br>• national multistakeholder body to develop integrated HHR strategies, provide planning tools, and monitor supply, mix and distribution on ongoing basis<br>• governments, associations and other stakeholders develop primary care models that: suit a full range of geographical contexts, incorporate cost-effectiveness, quality of care and patient and provider satisfaction | |

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| CMA, SRPC, CNA<br>2002<br>Canada<br>Strategy | physician<br>residents<br>nurses | • distribution<br>• recruitment/retention<br>• personal/family and professional issues | • persistent maldistribution of physicians<br>• recruitment incentives include spousal employment opportunities, reasonable work hours, professional support, distance education, funded locum tenens and relocation expenses<br>• give consideration to differences in practice patterns between male and female physicians, as well as, factors that influence career decisions<br>• students from rural backgrounds more likely to go into rural practice and stay | Recommendations from Ontario rural doctors:<br>• replace UAP with a rural and remote areas program to oversee all existing programs as well as develop new rural support programs<br>• need for rurality index for program application<br>• need for more research into existing HHR approaches | |
| Canadian Medical Forum<br>1999<br>Canada<br>Strategy | physician | • impending shortage<br>• medical education | • decrease in physician supply and increase in population<br>• shortages in urban, rural & remote areas<br>• specialty shortages in anesthesia, psychiatry, radiology, obstetrics, radiation and oncology<br>• physician morale low, long waiting lists, increased retirement, more female physicians, changing lifestyles, increased workloads<br>• preferential status for IMGs removed by 1975<br>• 10% reduction in medical school enrolment, '90s | • increase medical school enrolment from 1,577 to 2,000 by the year 2000<br>• efforts to retain and repatriate physicians who have emigrated<br>• increase provincially-funded residency positions from 100 to 120 positions for 100 graduates<br>• develop a formal and continuing process to monitor and make recommendations on the number of entry positions and postgraduate training programs on a regular (2-3 year) basis<br>• address issues of distribution and new models of delivery through co-operation of governments, health authorities, and educators | • Canadian Medical Forum, other health care providers, federal and provincial governments to monitor and make recommendations on the number of entry positions for Canada's medical schools and postgraduate training programs on a regular basis<br>• Federal and provincial governments have made it easier for physicians to enter the country without prearranged employment<br>• fall of 1999, RCPSC rescinded decision that had restricted specialty certification of foreign physicians |
| Canadian Nurses Association<br>1997<br>Canada<br>Strategy | nurses | • supply problems<br>• recruitment/retention<br>• education<br>• HHR Planning | • between 1993 and 2001, requirement for RNs expected to increase 46%, double the population increase<br>• changing age composition of population will lead to increased demand for nursing services<br>• improvements in technology and changes in health care delivery have created the need for nurses to acquire higher levels of competency<br>• casualization of workforce, new RNs disadvantaged<br>• low nursing enrolment in 1997 (1,058) | • call on all stakeholders to avert impending shortage of RNs<br>• RNs must be prepared to function independently upon graduation and thus require more depth and diversity in their university education | • health care stakeholders share responsibility for equal access:<br>governments: provide leadership, direction and, funding<br>. regulatory bodies: govern practice<br>. professional associations: participate in HHR planning<br>. educational institutions: provide appropriate, flexible and<br>. accessible educational programs<br>. health care facilities: establish monitoring processes<br>. administrators: provide adequate staffing/resources<br>. practitioners: maintain professional standards<br>. public: communicate needs |
| Canadian Nurses Association<br>2002<br>Canada<br>Strategy | nurses | • shortages<br>• recruitment/retention<br>• nursing education<br>• nursing practice | • financial constraints in early 1990s caused the elimination of RN positions and conversion of full-time to part-time and casual positions<br>• poor employment prospects made nursing less attractive as a career choice<br>• aging of nursing workforce | • increase the number of new graduates becoming RNs and working in the Canadian nursing workforce from 85% to 95%<br>• increase enrolment opportunities for nursing education programs to accommodate up to 12,000 graduates/year<br>• tie education funding to medium or long-term needs of nurses<br>• further research into the barriers to nursing careers | |
| Canadian Nursing Advisory Committee<br>Canada<br>2002<br>Policy | nurses | • supply problems<br>• working conditions | • nurses are working harder, caring for more individuals, and spending less time with each patient<br>• almost half the nursing workforce is under-employed, working on a part-time or casual basis<br>• knowledge demands continuous learning because it its constantly changing | • resolve operational workforce management issues and maximize the use of available resources.<br>• create professional practice environments that will attract and retain a healthy, committed workforce for the 21st century.<br>• monitor activities, support a responsive, educated and committed nursing workforce | |

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| Chan, B<br>2002<br>Canada<br>Strategy | physician | • relative shortage in 2000 compared to '93 | • physician supply in Canada peaked 1993 and declined 5% since then<br>• female physicians, recent graduates, practicing physicians 65+, and those practicing in a city with a medical school were more likely to operate "office only" practice & less likely to be rural<br>• 25% of decline attributed to longer postgraduate and specialty training, 22% due to fewer IMGs, 17% due to increased physician retirement, and 11% due to decreased enrolment<br>• Other policies include: elimination of rotating internship, increase in specialist over FP residency spaces, general economic and social policies, restrictions on practice location for new graduates | • further research is need to examine the relationship between policies and physicians' practice decisions<br>• if absolute shortage exists, policies that prolong postgraduate training should be avoided<br>• national level research to document impact of recent policies aimed at physician maldistribution<br>• research to assist policy-makers in determining existence of absolute shortage by:<br>. looking at improved health status by adding more physicians<br>. uncover opportunities to reduce inappropriate care and increase access where access is limited<br>. examine opportunities to increase efficient use of existing HHR, i.e. nurse practitioners, midwives, physician assistants, anaesthesia technicians as well as information technologies | • develop operational plan from Task Force document |
| CFPC<br>1999<br>Canada<br>Strategy | physicians | • rural and northern postgraduate medical education<br>• access to CME | • rural physicians must be skilled at both office-based and hospital-based medical care; be competent in a core set of skills to deal with more complex medical problems; and some acquire advanced skill sets (e.g. GP anaesthesia, OB)<br>• fewer IMGs<br>• limited access to CME and advanced skills training<br>• funding and training are not portable<br>• training is not standardized, programs are not accredited and competence certified occasionally<br>• when GP surgeon/Obstetrician/Anesthetist leaves or retires a crisis occurs<br>• Return of Service Agreements introduced supply rigidities, re-entry barriers and discrimination | • core undergraduate rural educational experiences<br>• core postgraduate rural/regional community based rotations along with rural elective opportunities for all residents.<br>• develop rural family medicine training streams that are community-based, integrated, with full academic support.<br>• learner-teacher dyad based on preceptorship model for both FP and specialty-based education/experience/rotations.<br>• competency in knowledge, skills and attitudes for rural FP should be the goal for rural residency training<br>• hospital experience or rotations for residents<br>• universities support and develop rural physician faculty<br>• special and advanced rural family medicine skills<br>• the College, with national and provincial funding authorities, pursue financial support for the applicants, their preceptors and the university departments | |
| CFPC<br>2001<br>Canada<br>Policy | physicians<br>nurses | • shortages of nurses & physicians<br>• licensing<br>• education, training, CME<br>• practice models | • to address shortages, must take into account changing demographics of population and health care providers, increasing complexity of health care, explosions in health and medical science and information technology and changing public expectations. | • reduce obstacles impeding the inclusion of IMGs who choose to relocate in Canada.<br>• medical schools ensure that there will be appropriate numbers of FPs and specialists to meet short and long term needs of patients.<br>• increased support for FPs to participate in life long learning. | |
| Commission on the Future of Health Care in Canada<br>2002<br>Canada<br>Policy | health<br><br>care providers | • rural access<br><br>• low morale | • fear that growing shortages of health<br><br>providers will affect rural recruitment<br>• morale problems due to longer working hours, stressful conditions and sense of of isolation<br>• growing turf battles among health professions and poaching of scarce health professional across regions/jurisdictions | • To address rural/urban disparities<br><br>. establish networks of care designed for vast distances<br>. greater use of telemedicine and information technology<br>. improve balance between centralized and local control over service delivery and administration<br>• To address HHR issues:<br>. health care teams with larger more independent role given to other healthcare providers (nurses etc.)<br>. more consistent funding<br>. national/intergovernmental HHR planning<br>. incentives for providers to work longer periods in rural areas<br>. include providers in design and implementation of reforms<br>. move towards integrated educational curriculum that would facilitate cooperation and mutual respect<br>. increase supply or change attitudes and behaviors of health professionals as long-term proposition | • Commission initiated research project to examine<br><br>examine solutions to HHR problems and also asked experts to provide discussion papers (CPRN contract for HHR report) |

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|---|---|---|---|---|---|
| Commission on the Future of Health Care in Canada<br>2002<br>Canada<br>Policy | physicians<br>nurses | • rural access<br>• rural/urban disparities<br>• recruitment/retention<br>• supply and distribution<br>• changing skills and roles<br>• patterns of practice and professional autonomy<br>• quality of working life<br>• shortage of some health care providers, especially nurses<br>• research and data collection | • 15.3% of Ontario population or 1.4 m live in rural/remote areas<br>• diverse nature of rural communities implies no "one size fits all" solution can be applied<br>• declining federal health transfers and and provincial restraints in early 1990s led to a reduction in HHR<br>• underutilization of health professionals<br>• inadequate medical school enrolment<br>• 8% drop in number of RNs per 100,000 and 21% drop in number of licensed practical nurses between 1991 and 2000<br>• short-term solutions do not necessarily translate into improvements in supply (e.g. financial incentives, restrictions on practice location)<br>• competition among provinces and territories for HHR counterproductive<br>• on a deeper level, shortages relate more to changing role and scope of practice<br>• predominance of urban approaches to rural problems (e.g. rural health care providers require increasing specialization in skills and training)<br>• policies and strategies for improving health and health care in smaller communities has not been based on solid evidence or research<br>• little connection between decision makers and researchers | • Rural and Remote Access Fund should be used to attract and retain health care providers<br>• a portion of Rural and Remote Access Fund should be used to support innovative ways of expanding rural experiences for physicians, nurses and other health care providers as part of their education and training<br>• Rural and Remote Access Fund should be used to support the expansion of telehealth approaches and to support innovative ways of delivering health services to smaller communities<br>• a portion of Remote Access Fund, Diagnostic Services Fund, Primary Health Care Transfer and Home Care Transfer to be used to improve supply, distribution, scopes and patterns of practice and ensure best use of skill mix of different health care providers | • Royal Commission on the Future of Health Care in Canada present recommendations to parliament early 2003<br>Timeline for Recommendations:<br>Early 2003:<br>• $1.5b to set up Rural and Remote Access Fund for 2003/04:<br>• streamline process for recognition of international medical graduates; new personnel and new incentives to meet distribution problems under Rural and Remote Access Fund and Diagnostic Services Fund<br>For 2003/06:<br>• Federal funding for new initiatives on improving rural and remote access including supply, distribution and mix of health professionals and the expansion of telehealth.<br>For 2004/05:<br>• Health Council of Canada develop long-term plan for HHR<br>For 2005/06:<br>• Health Council makes recommendations on reforms to training of health professionals and to the reform of scopes of practice<br>For 2010/20:<br>• Health Council of Canada regularly report on the health of Canadians in rural and remote areas and make make recommendations for improvements to be undertaken by governments |
| COFM<br>1999<br>Ontario<br>Strategy | physicians | • rural medical education | • rural oriented medical education is important for appropriate practice of medicine in rural and northern communities | • rural exposure during undergraduate and post-graduate training<br>• educate more FPs skilled in ER, surgery, mental health and aboriginal health; more general specialist and selected sub specialists<br>• develop and support CME<br>• maintain and develop Rural Academic Health Science Network | |
| Expert Panel on Health Prof HR<br>2001<br>Ontario<br>Policy | physicians | • supply, mix and distribution<br>• planning<br>• recruitment<br>• retention<br>• medical education | • problems with supply, mix and distribution of physician services are occurring at a time when the province has made significant commitments to increase certain priority health services to meet the needs of an aging population -- commitments that will increase the need for health professionals including physicians | • comprehensive, strategic, system-wide approach to physician workforce planning<br>• permanent advisory body<br>• additional infrastructure for Ontario's medical schools<br>• increased medical school enrolment and post-graduate training positions<br>• Expert Panel supports McKendry's longer-term recommendation to create a new medical school in rural medicine and further recommends the creation of three university-based clinical education campuses affiliated with academic health science centres in southern Ontario.<br>• expedited screening and assessment of IMG<br>• increased use of NPs and midwives<br>• public education campaign<br>• increased incentives for rural practice<br>• strategies to improve distribution should be designed to encourage practice in underserviced areas | • preliminary cost estimates for recommendations made to MOHLTC are $45m in first year and approximately $190m annually once all programs are up and running<br>• combined with McKendry recommendations, Expert Panel's recommendations will lead to increase in supply of 862 physicians by 2010 and 1700 by 2015 |

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| Fact Finder on Physician Resources<br>1999<br>Ontario<br>Policy | physicians<br>nurses | • supply, mix and distribution<br>• regulation<br>• education | • by 2009, the number of physicians retiring could exceed number of new graduates<br>• October 1999, 99 Ontario communities designated as underserviced and looking for 534 physicians<br>• shortage in general surgery, obstetrics/gynecology, pathology, anesthesiology, orthopedic surgery, psychiatry, and family medicine<br>• fewer than 1000 physicians, or an increase of 5%, are needed for whole province<br>• existing medical schools are not producing graduates interested in rural medicine<br>• given population growth, increased physician workload, changing attitude of physicians, increasing number of women practising medicine, the current effective physician supply is not sufficient to meet health care needs of Ontario<br>• aging of current physician workforce, decrease in number of new graduates, and continued level of out-migration with no increase in new physicians all threaten to worsen the current relative undersupply<br>• factors that deter new physicians from entering certain specialties include lack of exposure to the specialty during undergraduate education, lack of opportunities for re-entry training, rigidity of postgraduate training system, desire among new physicians to work more sociable hours and lack of remuneration for certain services | • recommend access modeling pilots for core services in medical fields where patients have access problems<br>• projections of future needs should include estimates of demographics, economics, new diseases, new diagnostic and therapeutic interventions, health promotion programs and privatization of health care<br>• short-term solutions: incentives and support programs to attract and retain already trained physicians to rural areas<br>• develop models that incorporate other health professionals (nurse practitioners)<br>• make more effective use of emerging technology<br>• in the longer term, attract students who are likely to choose rural practice and provide appropriate rural education<br>• increase undergraduate enrolment by 10%, allocate positions to schools that give priority training to rural physicians<br>• create new medical school in rural medicine<br>Strategies for new or expanded recruitment initiatives:<br>• expansion of successful initiatives to more northern communities<br>• provide more access and local training programs<br>• increased participation by Aboriginal groups<br>• more job fairs and career symposiums in the North<br>• increased use of communication and information technology<br>• early career planning with more communication at secondary education level<br>• continuation/implementation of partnerships between government, industry, educators and Aboriginal organizations and communities<br>• collaborate with governments and non government organizations on existing recruitment and retention efforts and to develop a coordinated and effective Northern recruitment and retention action plan | • MOHLTC should establish an independent Office of Health Workforce Policy and Planning<br>• MOHLTC, OPHRDC, CIHI and OMA develop uniform physician database<br>• Office of Health Workforce Planning and Policy with MOHLTC develop a model for projecting and monitoring effective supply<br>• MOHLTC recruit/repatriate Canadian graduates who have taken their postgraduate training in the U.S. and fund up to two years postgraduate training in Ontario for CFPC or RCPSC certification<br>• MOHLTC support increase of existing IMGs program from 24-36 positions, beginning 2000<br>• MOHLTC develop pilot recruiting campaign that targets expatriate Canadians trained physicians practising in other countries<br>• CPSO consider time-limited special licenses for IMGs<br>• MOHLTC fund postgraduate training positions for community-sponsored IMGs<br>• MOHLTC make greater use of group practice recruitment incentives<br>• MOHLTC develop retention program to include financial incentives, long service leave, paid maternity leave, information technology grants<br>• Adjust mix of physician services available: OMA, MOHLTC and academic health science centres develop CME Skills Acquisition Program,<br>• MOHLTC provide resources to increase residency positions by 25% & PGY3 positions from 4 - 10 in Sudbury & Thunder Bay<br>• MOHLTC expand & revise re-entry training/return-of-service program<br>• MOHLTC provide incentives that will increase effective supply of specialty services in rural areas & develop discipline-specific strategies to improve mix of physician services<br>• MOHLTC strengthen UAP<br>• UAP, group practice models/alternative funding plans, rural medicine initiatives be sponsored by existing medical schools |
| F/P/T Advisory Committee on Health Human Resources<br>2000<br>Canada<br>Policy | nurses | • education of nurses<br>• quality of work place<br>• deployment and retention<br>• shortage of nurses | • an aging workforce that will retire in large numbers during the next decade<br>• an aging population predicted to require increased nursing and other health care<br>• inadequate number of new graduates | • establish a nursing advisory committee in each province and territory to support the development of human resource planning and management<br>• a communications strategy be developed with the goal of increasing the public's awareness of nursing as a positive career choice and increasing the number of qualified applicants to nursing schools<br>• increase the number of nursing education seats by 10% over 1998/99 levels over the next two years, and increases in following years based upon improved demand projects and provincial/territorial need and capacity<br>• develop a comprehensive strategy to determine what types of nursing human resources are required and for which practice settings<br>• develop a five-year provincial/territorial nursing education plan<br>• identify and support the implementation of retention strategies that focus on improving the quality of the work lives of nurses<br>• examine opportunities to encourage nurses to re-enter the workforce | • federal, provincial and territorial governments establish a multi-stakeholder Canadian Nursing Advisory Committee<br>• the Advisory Committee on Health Human Resources work with major research funders to identify gaps in current research, to profile workforce planning issues for new research funding, and recommend improved mechanisms for the dissemination of these results to policy makers and managers<br>• the federal government provide leadership to ensure the development of improved projections for nursing supply/ demand requirements to the year 2015 |
| F/P/T Senior Officials Working Group<br>2002<br>Canada<br>Strategy | health workforce | • shortages; i.e. physicians, nurses, pharmacists for Northern Ontario | • aging population<br>• difficulties training and attracting health professionals<br>• more remote communities experience greater shortages | | |

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| Fooks et al.<br>2002<br>Policy<br>Canada | physicians<br>nurses | • implementation efforts marginally successful in the area of HHR planning<br>• need for different HHR planning approach in Canada | • provincial retention and location incentives are often in direct competition with each other<br>• barriers to achieving co-coordinated policy implementation: too many players, fragmented planning, lack of control over location of practice, education and training programs misaligned with population health needs, lack of data | Short term: reduce regulatory barriers to make better use of IMGs; expand scope of practice to allow non-physician personnel to play a greater role; consolidation of high risk procedures in teaching centres; and investment in telehealth<br>Long term: create national planning focus to break implementation logjam; HHR planning be integrated into system design, from the perspective of population health needs, on the basis of teams of providers | • National coordinating agency could be part of a larger health care commission, council or auditor's office if Commissioner Romanow recommends |
| Ministerial Advisory Council on Rural Health<br>2002<br>Ontario<br>Strategy | HHR | • recruitment and retention<br>• shortages of health care providers<br>• education and training<br>• HHR planning<br>•<br>•<br>•<br>• | • strategies thus far have not been pursued in a systematic, coordinated manner<br>• only 10.8 percent of medical students come from rural communities<br>• Aboriginal people make up 3% of the Canadian population, yet Aboriginal nurses and physicians account for less than 1% of all RNs and physicians | • Minister of Health work with provincial and territorial colleagues to develop a nationwide health human resources strategy, with emphasis on recruitment and retention for rural, remote, northern and Aboriginal communities.<br>• Health Canada support a survey of post-secondary education institutions to identify academic and field training opportunities and barriers for rural health and Aboriginal health training<br>• Health Canada work with provincial and territorial partners to develop a coordinated action plan to promote health careers to primary and secondary students in rural, remote, northern and Aboriginal communities<br>• Health Canada, with other federal departments work with provincial and territorial governments to improve post-secondary health education opportunities for rural students,<br>• Health Canada work with partners to increase the number of Aboriginal students in post-secondary health programs by augmenting bursary envelope of the Health<br>• Health Canada ensure curricula on rural health and Aboriginal health are available in colleges, universities and training centres across the country<br>• Health Canada work with provincial and territorial governments and national professional organizations to encourage the creation of opportunities for rural community-based learning for students in the health professions<br>• Health Canada, with other federal departments and provinces and territories, address the urgency of the HHR shortage in rural, remote, northern and Aboriginal communities by providing appropriate incentives, facilities and supports for rural health care providers<br>• Health Canada, with federal departments and provincial and territorial partners, develop strategies to maximize distance education and continuing professional development opportunities<br>• Health Canada work with provincial and territorial partners to provide opportunities for skills development for health care providers and local citizens | |
| MOHLTC<br>1998<br>Ontario<br>Policy | physicians | • rural and northern access to health care providers | • rural health care facilities are fewer and farther apart than urban<br>• winter travel makes access difficult<br>• recruitment/retention is more difficult as physicians are expected to meet wide range of medical and ER needs, have heavy workloads, are isolated, and have reduced access to clinical and educational supports<br>• rural and northern hospitals find it difficult to acquire sophisticated equipment or achieve clinical or administrative efficiencies | • Rural and Northern Health Care Framework should provide coordinated emergency care with 24-hour access to basic emergency care<br>• rural and northern hospitals are to form regional networks<br>• networks will not be confined to DHC boundaries<br>• Ministry will consider rural hospital progress in achieving objectives when making future funding decisions | • rural and northern communities with local DHCs, hospitals and health care providers are to implement the Rural and Northern Health Care Framework |
| MOHLTC<br>1999<br>Ontario<br>Policy | nurses | • recruitment/retention<br>• education<br>• remuneration<br>• funding | • underutilization of nurses in roles that maximize the use of their knowledge and skills due to lack of an appropriate funding mechanism, lack of incentives for employers to include NPs and lack of flexible policies and regulations to permit full integration into the system. | • recommend strategies for immediate recruitment and retention<br>• increased management profile for nurses<br>• create a permanent nursing resource database<br>• establish pilot projects to test alternative models of nursing care<br>• improve funding methodology for nursing services<br>• better IT support improved education and CME<br>• improved education and CME with BScN as the minimum entry requirement by 2005 | • MOHLTC accepted all 8 recommendations with $484m in new funding, and full implementation of all recommendations to be completed by 2004/2005. Areas experiencing difficulty in resolution are: opportunities for full time employment in home nursing services, under-utilization of nurses, increased rates of overtime and absenteeism due to illness and injury, wage disparity, lack of decision making roles for nurses, as well as data problems.<br>• JPNC to monitor implementation |
| MOHLTC<br>2001<br>Ontario<br>Strategy | nurses | • underutilization of nurses<br>• overworked | • reduced opportunities for full time employment in nursing homes<br>• increased rates of overtime and absenteeism due to illness and injury<br>• wage disparity across sectors and across employers<br>• lack of decision making roles in health sector | | • All 8 recommendations from the report of the Nursing Task Force (1999) were accepted by MOHLTC with a commitment of $484m and full implementation of recommendations by 2004/05 |

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| OMA Human Resources Committee<br>2002<br>Ontario<br>Strategy | physicians | • problems of nursing and physician shortage<br>• provincial practices | • patient discontent regarding access to GP/FPs, specialists and technology, overcrowded ER, long waiting lists leading to travel to U. S. for care<br>• current physician shortage of 1,585, expected to rise to 2,400 - 3,400 by 2010<br>• over 100 underserviced communities in Ontario<br>• Ontario cost-containment measure made Ontario less attractive as a practice location<br>• Ontario net loss of 110 physicians from 1999-2000<br>• supply of physicians relative to population growth has declined each year since 1995 | • recommend establishment of independent Office of Physician Workforce Policy & Panning<br>• develop access modeling pilots for core services as proposed in McKendry report<br>• retention incentives: bonuses, long service leave, practice overhead support, pension plans, CME, locum assistance and spousal support<br>• employ Rurality Index for Ontario (RIO)<br>• temporarily increase number of IMGs<br>• eliminate OHIP fee discounts, billing thresholds, forced retirement<br>• develop repatriation program<br>• improve flexibility in choice of field practice for students | |
| PCCCAR<br>1995<br>Ontario<br>Strategy | physicians | • recruitment/retention | | • reduce personal and social isolation for all providers<br>• enhance CME including re-entry programs<br>• decrease excessive physician workload<br>• providers be encouraged and supported, not compelled, to choose to practice in underserviced areas | |
| Peat Marwick Stevenson and Kellogg (KPMG)<br>1992<br>Strategy | health care providers | • recruitment/retention<br>• attitudes of providers<br>• effectiveness of existing programs<br>• lack of provincial HHR policy framework<br>• current planning reactive not proactive | • Northern Ontario challenges are a result of geography and demography<br>• HHR policy framework should incorporate unique characteristics of the north, e.g. distance, access…<br>• limited CME in Northern Ontario<br>• systemic factors limit effective and efficient use of HR, i.e. regulatory requirements, reimbursement mechanisms and professional governance<br>• climate and lifestyle factors contribute to recruitment/retention problems | • need comprehensive, up-to-date HR database<br>• solutions to involve Northerners and foster self-sufficiency<br>• education and training in the north influences retention<br>• provincial government should: encourage educational institutions to incorporate curricula appropriate for northern practice; advocate for preferential admission policies; increase northern CME programs; support the use of different delivery, funding and organizational models in the north; encourage the development of community-based recruitment and retention strategies; improve efficiency and funding levels of bursary program; review UAP Incentive Grant Program and Medical/ Dental Centres Program. | • MNDM and Ministries of Health and Community and Social Services, Premier's Council on Health, Well-being and Social Justice, and associated groups should develop HR policy framework.<br>• MNDM and Municipal Affairs should encourage northern communities to develop an economic plan which includes recruitment/retention initiatives<br>• MNDM, Health, Community and Social Services, and Ministry of Colleges and Universities support expansion of clinical opportunities in the north |
| Pong, R. W.<br>2002<br>Strategy | physicians | • acute, persistent shortage of health care practitioners, health care facilities, technologies, and services in rural areas<br>• telehealth problems | • shortages aggravated by rapid staff turnover, inadequate training for rural practice<br>• technical and organizational and human relations problems with some telehealth projects stem from overextended staff in remote communities, staff turnover, human relations problems between telehealth sites, a failure to integrate telehealth with rural health services delivery system, and a lack of policies on such matters as physician reimbursement | • expand knowledge base of rural practitioner<br>• use interdisciplinary teams, personnel substitution and informal caregivers<br>• newly established Ministerial Advisory Committee on Rural Health develop HHR strategy that goes beyond incentive-based recruitment/retention programs<br>• telehealth technologies must be fully integrated, owned by rural communities and rural practitioners | |
| PAIRO<br>1996<br>Ontario<br>Strategy | physicians | • recruitment and retention<br>• rural physician shortage | • need to focus on retention<br>• sporadic and piecemeal measures ineffective<br>• UAP does not address full range of barriers<br>• existing definition of underserviced does not provide accurate measure of need | • flexible recruitment/retention program<br>• province-wide Central Physician Needs Registry (CPNR)<br>• CDOs and APPs for underserviced areas<br>• expanded rural medical training,<br>• improved locum tenens program<br>• specialist back-up,<br>• medical informatics and redefine underservied on regional basis | • funding can be found through redirection of current FFS expenditures, restructure UAP, reinvestment of savings from MOH restructuring, or reallocation of funds within existing envelope<br>• implementation by MOH/PAIRO & communities |
| PAIRO<br>1997<br>Ontario<br>Strategy | physicians | • recruitment and retention | • problems of excessive workload and physician 'burn out'<br>• problems with Globally Funded Group Practice Agreement (GFGPA) | • definition of underserviced should consider community needs<br>• enhance funding base for CSC and GFGPAs<br>• measures to increase locum supply, i.e. flexible contracts, remove licensure restrictions on residents with one year post-graduate training so they may function as locum physicians<br>• comprehensive, locally based recruitment/retention measures<br>• medical education reforms to address rural shortages should target applicants before medical school, as well as during undergraduate and post-graduate training<br>• establish, facilitate and encourage use of medical informatics<br>• integrate health planning & physician recruitment | • establish regional bodies (elected representatives from local communities and health professionals) to coordinate recruitment/retention efforts |

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| PAIRO<br>1998<br>Ontario<br>Strategy | physicians | • recruitment and retention in Southwestern Ontario<br>• locum support | • solutions must consider the realities and views of communities themselves<br>• comprehensive recruitment and retention program requires implementation of promised innovations, and new ways of recruiting and retaining physicians that take into account established physicians<br>• top-down, 'one size fits all' does not work<br>• demographic shifts have increased need<br>• UAP complement does not adequately measure true need and in several communities physician numbers are less than those deemed necessary by MOH<br>• inaccurate MOH data | • communities called for complement designation for catchment area, practice needs, and regional patterns of care that reflect true numbers of physicians<br>• the required complement should be based on critical mass required to deliver quality care while sustaining reasonable working conditions and lifestyles<br>• APPs are important for achieving critical mass and coverage<br>• need more specialist support in surgery and mental health<br>• recommend elimination of roadblocks to telemedicine<br>• recruitment and retention initiatives: increased resources and infrastructure, reduced barriers for new recruits, reduce uncertainty around future coercive measures, i.e. fee discounts<br>• changes to UAP<br>• call for greater flexibility in obtaining access to CSCs or non fee-for-service group funding models, improve locum tenens | • effective solutions require participation of communities, the medical profession and government<br>• PAIRO and Society of Rural Physicians intend to develop sustainable, comprehensive and coordinated solutions (blueprint) for all rural Ontario<br>• physicians from Northwestern Ontario working on GFGPA template, Toward a New Vision for Globally Funded Group Practice Agreements |
| PAIRO<br>1999<br>Ontario<br>Strategy | physicians | distribution<br>recruitment<br>retention<br>Southwestern Ont.<br>lifelong education | • neither government nor medical profession have addressed access by implementing effective, comprehensive recruitment and retention program.<br>• growing supply crisis in Southwestern Ontario's rural and urban communities | • increase supply beginning with the number of medical school entry positions and IMG training spots<br>• extend and implement APPs to southern rural and urban underserviced communities<br>• implement funded group clinic facilities<br>• locum support<br>• spousal and family program<br>• restructure UAP under Rural and Remote Areas Program<br>• increase medical school recruitment from rural areas and increased exposure to rural practice for medical students | |
| PAIRO<br>2000<br>Ontario<br>Strategy | internes<br>physician | • rural access to physicians | • PAIRO does not support the Ontario Government's suggested Return of Service program with 5 years return of service<br>• lack of flexibility in ROSA<br>• coercive recruitment practices | • flexible ROSAs aimed at medical students and residents including loan/scholarship, loan repayment<br>• flexible placement opportunities, relevant education exposure during training, flexibility of choice after training and options for serving ROSA<br>• ROSAs must be nested in a series of solutions that span the medical career life-cycle continuum | |
| PAIRO<br>2002<br>Ontario<br>Strategy | internes | • physician maldistribution, recruitment, and retention<br>medical education<br>• physician shortage | • unequal access<br>• coercive measures dictating practice location<br>• rising medical school tuition | • expansion/improvement in APPs and group practice models<br>• expansion and improvement in non-financial incentives i.e. locum support, specialist support, infrastructure funding<br>• enhanced exposure to underserviced areas during training<br>• expansion of northern/ rural residency program.<br>• expand reentry positions, and advanced skills training<br>• training, support & funding for rural preceptors/faculty<br>• expand medical school & residency positions | |
| RNAO, RPNAO<br>2000<br>Ontario<br>Strategy | nurses | • recruitment/retention | • currently 150 unemployed and 50 under-employed RN (ECs) who wish to practice in rural and northern communities | • funding for 85 RN (ECs) in underserviced areas<br>• free tuition for basic & advanced nursing programs with return-of-service obligations<br>• establish distance education certificate program in the north for RN (EC)<br>• establish a Master's Program in Nursing in the north<br>• establish telehealth capacity to support RN (ECs) | • $13m required for 85 RN (ECs), MOHLTC with lead responsibility and timeline 2001/02<br>• CAATS/COUPN to designate $5,000 for certificate program curriculum development<br>• COUPN to supply $25,000 for masters program curriculum development<br>• telehealth responsibility of PCNO, MOHLTC, and Ministry of Technology |

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| Scott, G. W.<br>1995<br>Ontario<br>Policy | physicians | • rural practice<br>• medical education<br>• physician income<br>• shortage | • areas traditionally underserviced are getting more so, basic services are at risk<br>• critical shortage in rural surgery, anaesthesia, ER, OB and psychiatry<br>• FFS not appropriate for low volume rural practice<br>• more than 1 in 5 (24h ER) call not sustainable<br>• rural practice different from urban<br>• recent graduates not prepared for rural practice<br>• rural medicine not appreciated or encouraged in medical school<br>• AHSCs not orientated to physician needs in rural medicine<br>• accessing CME is difficult due to lack of locum relief and long distances to travel | • direct contract programs (DCPs) should be offered as an alternative to fee-for-service for physicians in small communities<br>• augment existing fee-for-service payments by 5% for physicians not on DCPs<br>• GFGP is the most desirable model<br>• FFS rural physicians should be entitled to claim $70/h overnight and on weekends<br>• 30% of FP residency to be dedicated to rural medicine, special designation for rural FPs<br>• more training of general surgeons<br>• programs to qualify urban FPs in rural practice and subspecialty surgeons in general surgery<br>• increased affiliation between AHSCs and rural areas<br>• rural physicians receive adequate compensation, | |
| SRPC<br>1997<br>Canada<br>Strategy | physicians | • medical education<br>• rural practice<br>• recruitment/retention | • shortage of rural surgeons, GP/FPs trained in anesthesia, ER, OB and psychiatry<br>• onerous on-call<br>• sense of abandonment felt by rural doctors<br>• rural doctors leaving rural practice<br>• FFS inadequate, especially for low-volume ER<br>• graduates not prepared for rural practice and rural practice not encouraged in medical school<br>• physician burnout from overwork<br>• difficulty obtaining CME due to: lack of locum coverage, long distances to travel and AHSCs not in tune with rural educational needs | • need financial recognition, reasonable call schedules, quality education aimed at rural needs, and professional and lifestyle support<br>• recommendations for medical schools include:<br>. office of rural medicine be established in every medical school that trains rural physicians<br>. comply with WONCA standards for rural training<br>. outreach programs aimed at high schools<br>. early exposure to rural medicine and option for rural training<br>. rural background a consideration in student selection<br>. students committed to rural practice have access to bursaries<br>. recruit rural doctors as faculty<br>. evidence-based evaluation of rural needs<br>. raise the profile of rural doctors who train residents<br>• recommendations for postgraduate training include:<br>. mandatory 2 months rural training for FP residents<br>. more rural streams; more special skills positions<br>. more re-entry positions with salary supplement<br>. needs identified through physician and community consultation<br>. pay to recognize years worked, on-call and scope of practice<br>. compensation for professional or personal practice disruption<br>. flexible CME access<br>. develop access to specialists<br>. minimum 5 physicians share ER call and minimum 3 physicians in other areas<br>. minimum 6 weeks holidays with travel subsidies | |
| SRPC<br>1998<br>Canada<br>Strategy | NPs | • NP role<br>• salaried NPs working with FFS physicians<br>• accountability<br>• training and CME | • NP programs differ across provinces<br>• confusion over functions, standards and educational requirements for NPs<br>• NP practice in reality is not necessarily collaborative | • call for national guidelines for NP scope of practice<br>• require funding models to enhance cooperative and collaborative care<br>• innovative education to provide core competency and enhanced skill set | • pay schedules being negotiated with Newfoundland and Labrador Nurses' Union and Treasury Board |

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| SRPC/PAIRO<br>1998<br>Ontario<br>Strategy | physicians | • recruitment and retention<br>• rural practice<br>• rural infrastructure<br>• medical education | • physician maldistribution<br>• shortage of FPs with advanced anaesthesia, surgery and obstetrical skills<br>• approximately 23% of Ontario's population are living in towns less than 10,000 being serviced by 7.9% of CFPC certificants.<br>• existing medical education programs do not support rural practice which involves more complex patient care and more hospital responsibilities than their urban practice | Medical Education:<br>• rural recruitment program with visits to rural high schools<br>• admissions based on national health workforce target and possibly separate rural admission stream<br>• each medical school should have "office of rural medicine"<br>• work study/summer placements in rural hospitals<br>• minimum of 30% FP training positions be dedicated to rural<br>• rural stream for general surgery, OB, pediatrics, internal medicine and psychiatry<br>• fund advanced skills competency program<br>• salaried reentry training for advanced skills and specialty residencies<br>• university based health science week/day, career counselors to encourage student interest in rural medicine and identify students with with aptitude for medicine<br>• medical school recruitment program, (i.e. Med Quest Program in NFLD)<br>Advanced Skills Training for Residents and Practicing Rural Physicians:<br>• postgraduate training should be flexible and include opportunities for advanced skills, even within the two year FP envelope<br>• advanced skills training in FP anaesthesia, FP surgery and advanced FP obstetrics with caesarian section skills and psychiatry in sufficient numbers to supply projected needs<br>• length of advanced skills training should be flexible with opportunities for skill maintenance readily available<br>• needs to be competency based and duration and scope should be flexible<br>• Regional Directors of rural training should have some responsibility to the development and maintenance of these programs<br>• sabbaticals for longer special skills training, paid by government<br>• alternate pathway for skills should be made available within a regional centre or local community, providing for a horizontal training program<br>• advanced skills development should be accredited, evaluated and recognized by national and provincial organizations and maintenance of competency programs should be a requirement of advanced skills training<br>Rural Practice:<br>• telemedicine should not replace training and support<br>• coordinate telephone triage through local hospital<br>• FFS remain as an option with rural fee codes and modifiers; salary and capitation models should be available based on doctor population ratio 1:862 and subject to adjustment for community/physician needs; APP must reward clinical work; block remuneration for rural specialists; retirement options; fund rural medical family support network and fund locum positions<br>Rural Infrastructure:<br>• establish six CDOs<br>• UAP be replaced with Rural and Remote Areas Program<br>• rurality index or series of indexes be established | • medical schools and provincial government |
| SRPC ON & OMA<br>1999<br>Ontario<br>Strategy | physicians | • Reimbursement<br>• Recruitment<br>• shortages in anaesthesia, inpatient care, and obstetrics<br>• overworked physicians<br>• rural hospital closures | • rural spending per capita less than urban for primary and specialist care in Ontario, 19% versus 30%<br>• physician population ratio 1:470 for urban versus 1:1370 for rural<br>• almost half rural hospitals unable to maintain an operating room<br>• difficulty staffing ER despite Scott sessional fees<br>• overworked physicians and under funded hospitals,<br>• FFS scale insufficient for low volume service areas<br>• incentive programs do not consider rural and remote as a continuum<br>• ER AFP draws physicians away from other services | • SRPC proposed covering the entire rural hospital sector with funding based on rurality index (replaces UAP)<br>• funded physicians be local, maintain an office and be in consort with other program supports<br>• replace ER AFP with rural support package<br>• program based funding for call groups in low volume settings<br>• programs should include OB, anaesthesia, general surgery, ER, inpatient, long service leave, maternity leave, informatics<br>• retention efforts for existing rural physicians<br>• Obstetrics funding requires on call group to be sustainable<br>• rural input in rural development & funding negotiations | |
| SRPC<br>2001<br>Canada<br>Policy | physicians | • rural primary health care reform<br>• medical education<br>• technology is not a substitute for HHR<br>• barriers to change | • rural areas are isolated and have low population density<br>• health facilities need to be located near the people<br>• too dependent on IMGs to cover rural health services<br>• national, provincial medical bodies recognize rural only by annexing a rural policy to a larger national policy | • recommend a specific focus on "rural" at each level of our health system<br>• nation wide reform to medical education system | • Federal and provincial governments should develop a National Rural Health Strategy<br>• Federal government should fund the Rural Medical Form to produce training and licensing policies for rural Canada |

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| Standing Senate Committee on Social Affairs, Science and Technology (Vol. 4)<br>2001<br>Canada<br>Policy | HHR<br>nurses<br>physicians | • shortage in HHR | • growing rural/urban access gap<br>• young, female doctors unwilling to work long hours<br>• fewer IMGs being "poached"<br>• CNA forecast shortage of 59,000 nurses by 2011<br>• many nurses left the profession because of poor working conditions and lack of career opportunities<br>• fiscal constraints may have reduced attractiveness of nursing as a career | • recommend FPT long-term, made-in-Canada HHR strategy coordinated by federal government and in a manner that is acceptable to provinces and territories.<br>• move towards multidisciplinary teams & alternative payment schemes to support team work.<br>• primary care reform to make more efficient use of existing HHR. | |
| Standing Senate Committee on Social Affairs, Science and Technology (Vol. 2)<br>2002<br>Canada<br>Policy | physicians<br>nurses | • physician supply and maldistribution<br>• recruitment/retention<br>• medical education<br>• postgraduate training<br>• physician migration<br>• nursing shortage<br>• underutilization of nurses<br>• retention Issues | • number of physicians serving rural population is 1/2 that of urban.<br>• aging of H.C. Providers<br>• increasing share of physician workforce is female<br>• in 1999, ninety-nine Ontario communities designated as underserviced<br>• 30% Canadians live in rural or remote areas but only 10% of physicians practice outside CMAs or CAs<br>• reduction in medical school enrolment<br>• insufficient provincially-funded postgraduate training positions to validate international medical graduates<br>• failure to develop any pan-Canadian initiatives had lead to competition rather than cooperation<br>• CIHI reports decline 7.2% RNs and 17% LPNs from 1989-98<br>• RNs unable to secure permanent positions<br>• 3 in 10 nurses leave the profession in first 5 years after graduation | • telehealth can constitute part of the solutions<br>• recommend FPT cooperation in developing national strategies to deal with rural health issues<br>• expand mandate of Health Canada's Office of Rural Health<br>• tuition deregulation<br>• revise admission criteria to favor qualified rural applicants<br>• enhance rural exposure in undergraduate and post-MD training<br>• develop new residency training program to prepare specialists to serve as rural consultants and increase financial incentives to encourage choices of specialties in short supply<br>• need comprehensive HR plan<br>• need additional Federal and Provincial funds to address nursing shortage | |
| Standing Senate Committee on Social Affairs, Science and Technology (Vol.5)<br>2002<br>Canada<br>Policy | physicians<br>nurses<br>other | • HHR shortages<br>• medical education<br>• recruitment/retention<br>• expatriates, IMGs | • average age of Canadians in health occupations rose almost two years from 39.1 to 40.8 years and this trend is consistent for almost all health care providers<br>• decreased medical school enrolments<br>• reduction in the number of IMGs coming to Canada<br>• reduction in the number of nursing graduates, from 10,000 in 1990s to closer to 4,000 today in Canada | • a national strategy must be developed to achieve both an adequate supply and optimal use of health care providers<br>• federal/provincial governments to provide funding for increased enrolment in medical and nursing schools.<br>• review student loan programs to ensure access to medical education for students of lower socio-economic circumstances<br>• provide tuition support for nursing students, even waiving tuition fees for a period of time<br>• federal/provincial governments along with medical and nursing faculties should finance additional places for aboriginal students<br>• encourage expatriate health professionals to return to Canada<br>• create permanent national coordinating body for HHR<br>• recommend strategies for increasing supply of health care professionals from under-represented groups and in under-serviced regions | |

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| Standing Senate Committee on Social Affairs, Science and Technology (Vol. 6)<br>2002<br>Canada<br>Policy | physicians<br>nurses<br>other | shortage<br>productivity<br>national strategy | • further net loss of 110 physicians from Ontario between 1999-2000<br>• aging health workforce<br>• even doubling the number of graduates will not relieve shortage of nurses<br>• insufficient pool of trained nurses available to meet anticipated demand<br>• not enough is known about the productivity of health professionals | • create permanent National Coordinating Committee for HHR composed of key stakeholders and government with a mandate to: disseminate up-to-date data on HR needs<br>• design strategies to retain skilled HC professionals and repatriate Canadian HC professional abroad<br>• increase supply from under-represented groups in rural areas<br>• improve coordination of licensing and immigration between levels of government.<br>• work with provinces to establish national standards for IMGs and provide ongoing funding to implement accelerated program for licensing IMGs<br>• Long-term Supply Measures for Federal Government:<br>. work with provincial governments to ensure funding to support expanded enrolment in medical and nursing schools and training and education of allied professionals<br>. establish direct federal funding mechanisms to support expanded enrolment and ensure funding stability for training<br>. review and modify student loan programs to ensure equitable access<br>. work with provincial governments to ensure wages reflect real level of education and training required<br>. work with provinces, medical and nursing faculties to finance places for Aboriginal students<br>• review scope of practice rules to ensure full utilization | Federal Government Responsibilities:<br>• starting immediately, Federal Government should contribute $160m annually to support enrolment of 2,500 medical students by 2005<br>• proposed National Coordinating Committee for HHR to monitor the levels of enrolment<br>• phase in funding over next 5 years so that by 2008 there are 12,000 graduates from nursing and, continue to provide full additional funding to the provinces for all nursing school places over 10,000 until the shortage is eliminated<br>• commit $90m annually, new revenue, to enable 12,000 nursing graduates by 2008<br>• commit $40m annually, new revenue, to assist provinces in raising the number of allied health professional graduates each year<br>• proposed National Coordinating Committee for Health Human Resources to determine allocation of funds<br>• $75m annually, new revenue, to assist Academic Health Science Centres in their expansion of training places |

## Appendix B

# CONTACTS

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## APPENDIX C

# ACRONYMS

| | |
|---|---|
| ACMS DHC | Algoma, Cochrane, Manitoulin and Sudbury District Health Council |
| AHSC | Academic health sciences centre |
| ACMC | Association of Canadian Medical Colleges |
| AFP | Alternative funding plan |
| AMO | Association of Municipalities of Ontario |
| APP | Alternative payment plan |
| APSSP | Appropriate Physician Services Supply Program |
| BScN | Bachelor of Science in Nursing |
| CAATS | Colleges of applied arts and technology |
| CCHSA | Canadian Council on Health Services Accreditation |
| CDO | Community Development Officer |
| CFPC | College of Family Physicians of Canada |
| CHSRF | Canadian Health Services Research Foundation |
| CIHI | Canadian Institute for Health Information |
| CIHR | Canadian Institutes of Health Research |
| CME | Continuing medical education |
| CMF | Canadian Medical Forum |
| CMPA | Canadian Medical Protective Association |
| CNA | Canadian Nurses Association |
| COFM | Council of Ontario Faculties of Medicine |
| COUPN | Council of Ontario University Programs in Nursing |
| CFPC | College of Family Physicians of Canada |
| CPSO | College of Physicians and Surgeons of Ontario |
| CSC | Community sponsored contract |
| DCP | Direct contract program |
| DHC | District Health Council |
| ER | Emergency room |
| FFS | Fee for service |
| FONOM | Federation of Northern Ontario Municipalities |
| FP | Family physician |
| F/P/T | Federal/Provincial/Territorial |
| F/P/TACHHR | Federal/Provincial/Territorial Advisory Committee on Health Human Resources |
| FTE | Full-time equivalent |
| GBHP | Grey Bruce Huron Perth |
| GFGPA | Globally funded group practice agreement |
| GP/FP | General practitioner/family physician |
| HHR | Health human resources |
| HPRAC | Health Professions Regulatory Advisory Council |
| HRDC | Human Resources Development Canada |
| HSRC | Health Services Restructuring Commission |

| | |
|---|---|
| HTF | Health Transition Fund |
| IMG | International medical graduates |
| JPNC | Joint Provincial Nursing Committee |
| MNDM | Ministry of Northern Development and Mines |
| MOHLTC | Ministry of Health and Long-Term Care |
| MRC | Medical Research Council |
| NAHSN | Northern Academic Health Science Network |
| NEI | Nursing education initiative |
| NLMA | Newfoundland and Labrador Medical Association |
| NOACC | Northwestern Ontario Associated Chambers of Commerce |
| NOFM | Northeastern Ontario Family Medicine Program |
| NOMEC | Northeastern Ontario Medical Education Corporation |
| NOMP | Northwestern Ontario Medical Program |
| NOMS | Northern Ontario Medical School |
| NORFAM | Northern Family Medicine Program |
| NOW Alliance | Negotiating Ontario's Well-being Alliance |
| NP | Nurse practitioner |
| NPRI | Northern Physician Retention Initiative |
| NTF | Northern Transition Fund |
| OFHN | Ontario Family Health Network |
| OMA | Ontario Medical Association |
| OMAPS | Ontario Medical Association Placement Service |
| PAIRO | Professional Association of Internes and Residents of Ontario |
| PCCCAR | Provincial Coordinating Committee on Community and Academic Health Science Centre Relations |
| PCNO | Provincial Chief Nursing Officer |
| RCPSC | Royal College of Physicians and Surgeons of Canada |
| REHC | Rural emergency health care facilities |
| RHA | Regional health authority |
| RHPA | Regulated Health Professions Act |
| ROSA | Return of service agreement |
| RNAO | Registered Nurses Association of Ontario |
| RN(EC) | Registered Nurse (Extended Class) |
| RPN | Registered practical nurse |
| RPNAO | Registered Practical Nurses Association of Ontario |
| SRPC | Society of Rural Physicians of Canada |
| SRPC ON | Society of Rural Physicians of Canada, Ontario Region |
| SWORM | Southwestern Ontario Rural Medicine Unit |
| TORC | The Ontario Rural Council |
| UAP | Underserviced Area Program |
| WONCA | World Organization of Family Doctors |