Is There Light at the End of the Tunnel – Can We Resolve the Physician Distribution Challenge in Canada?

Dr. Thomas Ward
President and CEO,
The Scarborough Hospital
Scarborough, ON Canada

Abstract

The less-than-optimum distribution of physicians in Canada has been a topic of much discussion, some research and little change for the past few decades. The Canadian system is somewhat unique in that it is not a single system rather it is an aggregation of thirteen separate, independent health-care systems. Although the last four decades has seen an increase physician numbers, and a concomitant decrease in the physician per population ratio, regional disparities still exist. In the absence of a coordinated national approach to physician human resource planning, provinces and territories have attempted many programs or policies to recruit, retain and to direct the distribution of physicians within their respective jurisdiction. Success to date has been mixed. Moreover, there has been a great reliance on International Medical Graduates as a method to resolve some aspects of the physician supply problem. This particular source of physician manpower is unlikely to be as available in the future, and Canada must look to other means to resolve service issues. In the absence of a coordinated national approach, provinces and territories will continue to seek methods to attract physicians to under-served areas.

The problem of mal-distribution or less-than-optimum distribution of physicians in Canada has been a topic of much discussion, some research and little change for the past few decades[1,2,3]. Amongst the publicly funded health care systems in the world, the Canadian health-care system is somewhat unique in that it is not a single system rather it is an aggregation of thirteen separate, independent health-care systems operating within a federation. Each of the ten provinces and three territories has a responsibility for the management of its own health-care system and importantly, their education systems. These separate health systems operate under an overarching framework of federal legislation that provides some direction to the jurisdictions and guarantees some federal funds for the operation of the system.

Each jurisdiction is responsible for training, and/or recruiting and retaining its physician workforce. Two provinces, New Brunswick (N.B.) and Prince Edward Island (P.E.I.) along with the three territories – The Yukon, Nunavut and the Northwest Territories (NWT) do not have medical schools. These entities have relied on others whether national or international sources for their physicians. In the last four decades medical school enrollment has increased adding to the physician workforce[1,2]. This growth, in combination with international recruitment has seen a steady increase in the number of

physicians in Canada and a decreasing physician/population ratio. In 1961, the number of physicians per hundred thousand Canadians was 857 and in 2001 it was 478. During these four decades, there was growth in number of physicians per hundred thousand in each of the provincial and territorial jurisdictions that paralleled to a great extent the growth nationally. However, long standing region disparities did not change. As examples –

Ratio MD/100,000	1961	1971	1981	1991	2001
P.E.I	1,149	1,153	797	751	731
N.B.	1,314	1,061	866	741	642
Ont.	776	633	521	466	501
NWT	1,533	1,401	1,177	1,233	1,089
Canada	857	671	549	475	478

During this time period, two other phenomena occurred impacting on the distribution of physicians. The first was the increased use of technology and newer therapies within the field of medicine often requiring significant capitalization. The diffusion of these new diagnostic and therapeutic tools to outlying areas was slow and many physicians, particularly specialists, chose stay in larger centers. A second trend was the migration of populations from rural or under serviced areas to urban settings. In addition, immigrants to Canada usually chose to settle in metropolitan areas and today over 80% of Canadians are located in one of twelve urban/suburban settings. Currently, population densities vary from several hundred individuals per square kilometer to one individual per several hundred square kilometers.

As with other countries, rural and remote areas of the country have significantly fewer physicians per hundred thousand citizens when compared to smaller cities and large urban centers. A significant portion of the country, particularly the North, is barely populated and in these areas the few physicians tend to be aggregated in small communities of less than a few thousand individuals. These remote areas struggle with access to primary care physicians as well as access to specialists. The most notable example is that of Nunavut, a newly formed territory in northern Canada with a population of less than 29,000 individuals. Individuals may travel several hundred kilometers in order to see a physician who, in turn, may have the patient transported a few thousand kilometers in order to see a specialist. A similar but less for dramatic scenario is true for many Canadians living in rural areas. At the other at end of the spectrum, many new Canadians and individuals in the intercity have difficulty with accessing the services of physicians. For many of these individuals, their physician contact is in emergency rooms and some inner city or refugee clinics.

As noted, regional disparities have existed for decades without significant change. This is not surprising as there has not been a coordinated national approach to physician human resource planning in Canada. Any attempts as regional planning are further complicated by the absence of meaningful data about practice patterns, availability of physicians or alternates, as well as indicators of activity for the current physician population. Additionally, there is a lack of information about the burden of illness in various regions[4,5,6].

For each province and territory there are significant implications as a result of the less than optimal distribution of physicians in the areas of cost, efficiency, access and outcomes. It's well recognized that early intervention in many disease states will result in significant cost savings for healthcare system and better outcomes for the individual. The ongoing management of chronic disease states by physicians and/or care teams can lessen the demand on the health care system and improve the quality of life for affected individuals. For acute events, delayed access to diagnosis and treatment may result in higher costs for treatment and/or a shorter life expectancy for individuals. Moreover, the inability to attract and retain groups of physicians in rural and remote areas precludes the opportunity aggregate significant resources in a location that would provide some reasonable access to the population. The result often means greatly increased costs related to transport of individuals and their families to the other centers for care.

Although physician resource planning is not an exact science[7], the absence of a coherent national strategy for the training and distribution of physicians has, over the years, left the provincial and territorial jurisdictions to manage the problem. Provinces with medical schools have had the opportunity to directly increase the number of graduates, while those jurisdictions without medical schools have options limited to recruitment and retention initiatives. Even for provinces with medical schools, increased enrolment is not a guarantee of greater numbers of physicians. Current information from the Canadian Medical Association[8] shows two provinces with medical schools, Saskatchewan and Newfoundland, and Labrador having a low proportion of Canadian trained physicians, at 43.7 % and at 53.7% respectively. Conversely, two jurisdictions without medical schools are at higher levels of Canadian trained physicians, Prince Edward Island at 82.4% and New Brunswick at 76.5% although they both have high physician-population ratios. Although physician movement through out the Canada has been relatively unrestricted, all levels of government have agreed in the last few years to national program that enshrines the portability of qualifications without restrictions (labor market mobility). This program has the potential to indirectly create a further imbalance in the distribution of physicians. Those jurisdictions with robust economies have been able invest heavily in new facilities and equipment as well as recruiting significant numbers of other key health care team members. In combination with robust fee schedules and/or relocation incentives, those provinces are often viewed as providing the best opportunities for physicians.

Working in an environment of physician mobility, provinces and territories have implemented or tested many programs or policies to recruit, retain and to direct the distribution of physicians within their respective jurisdiction. Many of these programs have met only with limited success and jurisdictions continue to search for alternatives to resolve the distribution/service issue. The varied approaches generally fall into three categories – pre-training financial incentives and/or contracts, post–licensure financial incentives and post-licensure interventions.

The pre-training approach was successfully employed by the Federal government to recruit physicians for the Armed forces. Individuals enter the Armed Forces at the time of

entry into medical school. Their educational costs along with a stipend for living expenses are provided and at graduation a return of service is required. While a successful program through the 70s and 80s, interest has waned. In a somewhat similar approach, several provinces have also had in place bursary or loan programs that could be paid back by service within the jurisdiction. As an example, Ontario has a program that offers $10,000 per year of medical school, essentially free tuition, in exchange for a 3- or 4-year return of service commitment in an underserved area[9]. Saskatchewan has used a similar program for the last several decades. In general, the results of this type of program has been mixed with some success, but the current costs of medical education appears to have negated their acceptance by trainees. In addition, trainees and their representative organizations, view many of these initiatives by governments as unduly heavy-handed and coercive[9].

Post-licensure, most jurisdictions provide financial incentives for relocation to under serviced areas [5,6]. Ontario sponsors the Northern Physician Retention Initiative that provides physicians who have practiced in northern Ontario for at least four years an annual retention bonus and grants for CME. Nova Scotia has a rural stabilization program[10] that guarantees physician in rural areas a minimum annual income. In combination with some funding for relocation expenses, this province has been reasonably successful in recruiting physicians. However, the success of these initiatives remains a point of debate[11,12]. Moreover in the current environment, it is likely that these programs will continue as provinces and territories compete to recruit and retain physicians.

On the policy side, a few provinces attempted to distribute physicians through legislative or regulatory means. British Columbia introduced a restriction of billing numbers whereby billing numbers were provided only for physicians practicing in specific regions. This approach was challenged on the basis of interference with an individual physician's right to chose where they would practice. The provincial government subsequently stopped this practice when the Court supported the plaintiffs. Elsewhere, some provinces have introduced differential fee schedules directed at discouraging physicians from setting up practice in over-serviced areas by discounting their fees. Ontario and Quebec have both instituted a program along these lines. Organized medicine remains staunchly opposed to such directions. Conversely, the profession is very supportive special allowances or surcharges on fees paid to physicians in under-serviced areas.

Much of the growth in physician numbers in Canada has been achieved through the immigration of non-Canadian trained physicians. As noted earlier, some jurisdictions have relied heavily on this group in order to meet the needs of their populations. In the past, many Canadian provinces and territories altered regulatory or licensing requirements to attract these physicians. Earlier, the completion of the FLEX was often enough to obtain licensure to practice in a rural setting in a Canadian province. However, changes in the national immigration policy and new requirements for licensure, both at the family practice and specialty levels, have altered this pathway significantly. Today, most jurisdictions continue to provide opportunities for restricted licensure to International Medical Graduates (IMGs) as provinces and territories continue to rely

IMGs to meet their service needs. At the national level, the IMG question is the focus of additional study. Some progress is being made towards a more coordinated national approach, but much more need to be done. Presently, many provinces are allocating new resources for the recruitment of physicians from aboard. Within Canada, several provinces have programs directed at upgrading the skills of IMGs who are currently residing in Canada, but who are ineligible for licensure. In support of these programs, several sites offering skills assessment are currently operating in Canada. These centers have usually focused on family physicians. But now several jurisdictions are starting programs to deal with those IMGs seeking specialty assessment, upgrading and licensure.

In an alternate approach to the distribution issue, some governments are contemplating agreements with potential trainees that are similar to the Armed Forces arrangement in return for service. The rationale for such an approach is that it is presumed to be "Charter–proof" or resistant to court intervention. A second, perhaps more compelling belief, is that appropriately qualified students from rural and remote areas could educated as doctors and they would be comfortable in returning to practice in these areas. Although no formal programs exist at this time, this approach will likely be tested by at least one province in the near future.

Attempts to support physician practice in rural and remote areas by providing better access to specialty services or by easing workload are also being utilized. These interventions in the access-service arena are occurring in many areas and in many forms. To support family practice physicians and to deal with access issues, many programs of visiting specialists and/specialty clinics were established throughout Canada. Some, such as the UAP Visiting Specialist Clinic in Ontario[9], are now formal programs that are well funded. Specialists from elsewhere in the province visit underserved areas for 1 to 3 day clinics. A complimentary program provides funds directly to patients in order to assist in travel costs. Accessing specialty services through telemedicine or telehealth is becoming increasingly important support to rural health care delivery. In Atlantic Canada, consultations for psychiatric care and dermatology have shown the greatest growth over the more traditional applications related to ER consults and radiology consults.

Other programs have been established to ease the workload, particularly aspects of being on-call. The establishment and expansion of tele-triage or 24/7 call centers staffed by RNs as an alternate to either direct physician calls or ER visits is growing across Canada. The number of nurse practitioners is growing, and they are often partnered with physicians in rural and remote areas. Alterations to the scope of practice of other health care professionals are also being seen as a method to decrease the demands on physicians.

Regardless of these varied approaches to enhance the attractiveness of rural and remote medical practice, there still remains a significant problem of physician distribution in Canada. Any attempts at resolution are hindered by the absence of a clear, national strategy to deal with health human resources (HHR). An acknowledgement of the current crisis was seen in the Health Accord of January 2003 with the announcement of federal funding for a national HHR planning framework. However, almost two years have

elapsed and this framework is yet to appear. As a country, Canada is clearly not self-sufficient in the production of physicians and it continues to look aboard for a continuing supply of physicians. In order to address the distribution issue, Canada must first become self-sufficient in supplying physicians for the system. Quick fixes are unlikely to be accepted by either level of goverment[14.] Lessons learned from other countries will be of assistance, but until a table of common interest is found there will be no resolution to the distribution problem in Canada. As a result, provinces and territories will continue to compete for physicians, both their own Canadian graduates and IMGs. Some provinces will increase their physician numbers and perhaps improve access, others will not.

References

1. Supply, Distribution and Migration of Canadian Physicians, 2002: Southam Medical Database, Canadian Institute for Health Information, Toronto, Ontario.
2. Canada's Health Care Providers, Canadian institute for health information, 2001
3. Toward integrated medical resource policies for Canada. 2. Promoting Change-general themes, Barer and Stoddart, CMAJ 1992; 146(5)
4. Planning for Canada's Health Workforce: Looking Back, Looking Forward; Alvarez, Zelmer and Leeb, Healthcare Papers, V3. No.2, 2002
5. Scarcity of Health Human Resources: A Chronic National Disease, Ward, T.F. Healthcare Papers, V3. No.2, 2002
6. Beyond counting heads: some methodological issues in measuring the geographic distribution of physicians, Pong and Pitaldo, Can J Rural Med 2002; 7(1)
7. Physician Resource Planning in an Era of Uncertainty and Change, Fried, B.J., CMAJ, V.157, No.9, November 1997
8. CMA Masterfile, January 2003, Canadian Medical Association
9. A Review and Synthesis of Strategies and Policy Recommendations on the Rural Health Workforce, Pong and Russell, Centre for rural and Northern Health Research, Laurentian University, 2003
10. Personal communication, T.F. Ward, Deputy Minister of Health 1999-2004
11. Task Force on Physician Supply – Report November, 1999, CMA Publications
12. Rural incentive programs: a failing report card, Peter Hutten-Czapski, Can J Rural Med 1998; 3(4)
13. Potential urban-to-rural physician migration: the limited role of financial incentives, Jerome Yang, Can J Rural Med; 8(2)
14. "$1B Plan To End Doctor Shortage", The Toronto Star, Aug18, 2004.