Externally-Informed Annual Health Systems Trends Report – Third Edition
Trend Backgrounder

Trend 4 – HEALTH HUMAN RESOURCES MANAGEMENT

INTRODUCTION

Health human resources (HHR) has emerged as a critical factor in health policy planning across Canada and the world. Current and emerging HHR trends in Canada and the world have a significant impact on the health system of Ontario. The Pan-Canadian Health Human Resource Strategy stated that: "appropriate planning and management of HHR are key to developing a health care workforce that has the right number and mix of health professionals to serve Canadians in all regions of the country."[1]

SUMMARY OF KEY FINDINGS

Current and emerging health human resource (HHR) challenges in Canada and the world will have a significant impact on the health system of Ontario. The local and worldwide demand of trained health professionals is not matched by an adequate supply. An aging workforce, geography, and reliance on internationally trained workers are some of the challenges faced by many developed countries including Canada. However, many jurisdictions, including Ontario, have developed innovative strategies and programs to increase the supply of health practitioners and ensure that the right number and mix of health professionals are available to provide care.

Growing Challenges

- The worldwide supply of HHR is not enough to meet current demand.
- Despite ethical concerns with recruiting physicians from poorer countries, this remains a common response to HHR shortages in Canada.
- There is an unequal distribution of HHR between rural and urban areas.

Emerging Responses

- Expanded scope of practice for health professionals.
- Integrated health care teams.
- Increasing the capacity to train health professionals

GROWING CHALLENGES

Supply of HHR

Canada

Canada has an aging health care workforce and shortage of key health professionals:

- In 2008, the average age of the physician workforce was 49.8 years; the average family medicine physician was 49.0 and the average specialist was 50.6.[2] In 2008, more than 54% of Registered Nurses (RNs) and Registered Practical Nurses (RPNs) working in Ontario were over 45 years of age.[3]
- An increase in the number of female medical students (57.8% in 2007) and current trends in female physician work hours suggest that an overall decrease in doctor productivity is to be expected in Canada which may further compound Canada's HHR shortages.[4]
- There was a shortage of nearly 11,000 full-time equivalent (FTE) registered nurses (RNs) in Canada in 2007 and this is projected to increase to almost 60,000 FTEs by 2022 if no action is taken.[5]
- Canada appears to be losing many highly educated nurses (baccalaureate prepared) to the USA which is depleting Canada's stock of nursing human capital.[6] Full-time work opportunities and the potential for ongoing education are key factors that contribute to the migration of Canadian nurses to the USA.

Ontario

Global

- There is a global shortage of approximately 4.3 million health workers, with the greatest shortages in the poorest countries.[7] The causes of crisis are many, from a global rise in chronic disease and an aging population, to poor local working conditions and international migration.[8]
- Increased demand from wealthier countries resulting from aging populations and medical advances has pulled large numbers of health workers from some of the worlds' poorest countries – many of whom are left with acute shortages of health workers of their own.
- Indian government figures indicate that 60,000 doctors trained in India are now working outside the country, including nearly 9,000 in Canada. The Indian government has trained 2% of the Canadian physician workforce and 5% of that of the US and the United Kingdom.[9]
- Today, there are 532 Ghanaian doctors practicing in the United States. Although they represent a tiny fraction of the 800,000 U.S. physicians, their number is equivalent to 20% of Ghana's medical capacity. In other countries, the situation is even worse: 60% of Liberia's physicians are in practice in the United States or Britain.[10]

Recruitment Practices

Despite ethical concerns with recruiting physicians from poorer countries, this remains a common response to HHR shortages.

- In 2007, 22.4% of Canada's physicians were graduates of foreign medical schools, compared to a high of 33.1% three decades earlier. The top countries that contribute the largest number of International Medical Graduates to the Canadian physician workforce are South Africa and India. Thirty years ago, Britain and Ireland were the top contributing countries to Canada's physician workforce.[11]
- In 2007/08, there were more South African-trained physicians working in Saskatchewan (277) than home-grown physicians (245). The province actively recruits in South Africa, and a recent ad in the South African Medical Journal boasts remuneration of $230,000 to $328,000 depending on qualifications and location of employment, "plus additional personal and professional benefits too numerous to mention."[12]
- The number of full time equivalent International Medical Graduates (IMGs) in Ontario increased from 67.43 in 2000 to 719.76 in 2009; proportionally, this corresponds to an increase from 2.02% of all postgraduate medical trainees to 13.32%.[13]

Distribution of HHR

Aside from the issues of training and recruiting physicians, there is the problem of efficient distribution. Geographical differences create numerous challenges for health care providers and planners.

- Rural areas in Canada,[14] the United States,[15] Norway,[16] and New Zealand[17] are experiencing difficulties recruiting and retaining adequate medical professionals. The lack of rural opportunities for full-time positions, specialized nursing practice, and RPN expanded practice are attracting younger nurses to urban centres. Furthermore, government policies focussing on the retention of clinical expertise, the recruitment of new graduates, and expanding role of RPNs have been more difficult to implement in rural settings.[18]
- In 2006, approximately 20% of the Canadian population was located in rural areas, while less than 10% of physicians were located in these areas. [19] Similarly, only 12.2% of RNs resided in rural and remote areas in 2007[20]

EMERGING RESPONSES

Increasingly Efficient Use of HHR

There are a number of initiatives underway in Canada and other jurisdiction to make the most of scarce health professionals.

- In Canada, a new staffing model at blood donor clinics is expected to alleviate pressure from HHR shortages as well as allow clinics to run more efficiently.[21] Canadian Blood Services is testing a model for fall 2009 in which trained clinic workers will perform standard blood screening at blood donor clinics instead of registered nurses. They estimate 400 registered nurses

will no longer be needed at blood clinics across Canada if the pilot is successful.

- Health care teams are also being used by various jurisdictions in an attempt to make care more efficient.
    - Multidisciplinary teams, such as Ontario's Family Health Teams, maximize the efficiency of HHR, providing improved access and better health outcomes.[22] Pharmacists[23] and physiotherapists[24] are examples of allied health professionals that are being studied to determine their roles in primary health care teams in Ontario.
    - The use of physician assistants, acute care nurse specialists and primary health care nurse practitioners in emergency department teams is being piloted by Ontario to address the lack of physician resources.[25]
- In the United Kingdom, 81% of physicians routinely work in interdisciplinary teams and with non-physicians.[26]
- The role of "physiotherapist practitioners" in the emergency department and primary care is evolving in such countries as the UK and Australia.[27]

Expanded Scope of Practice

Expanded scope of practice of health care professionals gives patients more options for care and enables professionals to provide more services.

- Internationally, the UK has taken a leading role in exploring and supporting the expansion of health care professionals' scope of practice by reviewing health professionals' roles and amending legislation.[28]
- In Canada, several jurisdictions have passed legislation to expand health care professionals' scope of practice, such as pharmacists in British Columbia and Alberta.[29] British Columbia has also announced legislation to expand the scope of practices for midwives, naturopathic doctors, and registered nurses to deliver a broader range of services. For example midwives with additional training will be able to initiate induction and augmentation of labour, naturopathic doctors will be able to prescribe certain medications, and registered nurses will be able to perform basic prescribing and ordering of tests when a primary care provider is absent.[30]
- In 2009, Ontario passed legislation to allow nurse practitioners, pharmacists, physiotherapists, dieticians, midwives and medical radiation technologists to deliver more services. The legislation also changed the rules for administering, prescribing, dispensing, compounding, selling and using drugs in practice for chiropodists and podiatrists, dental hygienists, dentists, midwives, nurse practitioners, pharmacists, physiotherapists and respiratory therapists.[31]

Increasing Current and Future Capacity

Canada

Strategies and programs are currently underway in Canada to address the HHR workforce and meet increased demands.

- Through the HealthForceOntario strategy, more than $20 million has been disbursed to two programs that emphasize interprofessional care and health workforce education: the Interprofessional Care/Education Fund and the Optimizing Health Providers Competencies' Fund.[32]
- Ontario has also introduced two programs to address nursing shortages. The Late Career Initiative provides opportunities for senior nurses to participate in projects away from the bedside and remain in the workforce. The New Graduate Guarantee increases the opportunity for full-time employment of 4000 new nursing graduates.[33]
- In Canada, the entering class of medical students in 2008/09 was 68.3% larger than the class of 1998/99. For nursing, the increase from 1997 to 2007 was 51.4%.[34] In Ontario, 280 more first year medical doctor positions were offered in 2008/09 than in 2000/01, an increase of almost 50%.[35]
- The Ottawa Hospital has developed a program logic model to more accurately predict the number of nurses the hospital will have to hire over the next three, and also five years. This workforce planning initiative moved the organization from a reactive to a

proactive mode, supported innovative recruitment strategies, and helped to justify budget requests, thus aligning hiring with the business plan of the hospital.[36]

Responses to HHR Management by Other Jurisdictions:

To meet HHR demands and maldistribution of professionals, a number of strategies and initiatives have been developed by other jurisdictions.

- In 2006, the World Health Assembly called on all member states to contribute to a rapid scale-up in the production of health workers.[37]
- Title V of the US Patient Protection and Affordable Care Act, signed into law in 2010 concerns that nation's health care workforce. The purpose of the title is to improve access to and the delivery of health care services for all individuals, particularly underserved populations by 1) gathering and assessing comprehensive data in order for the health care workforce to meet the health care needs of individuals, 2) increasing the supply of a qualified health care workforce, 3) enhancing health care workforce education and training, and 4) providing support to the existing health care workforce. Specific initiatives designed to help meet these goals include state healthcare workforce development grants, public health workforce recruitment and retention programs, and increased teaching capacity.[38]
- A systematic review of American medical school rural physician programs found that all identified programs have produced a multi-fold increase in the rural physician supply, and widespread replication of these models could have a major impact on access to health care in thousands of rural communities.[39]
- In 2008, New York State enacted an initiative, "Doctors Across New York", which gives grants and enhanced pay rates to physicians and clinics in under-served communities. In addition, a new student-loan repayment program will be tied to service in under-served areas.[40]
- Norway has had success in retaining doctors in rural areas by developing a training model which allows for postgraduate medical training to occur in remote areas, rather than in large centres. Of the 53 physicians who completed their training in rural Finnmark from 1995 to 2003, 34 (65%) were still working in the county 5 years later.[41]
- In India the government's responses to rural doctor shortages have included: 1) a mobile health program that travels to rural areas with a few basic medical tools and over-the-counter medications; 2) private sector medical colleges and nursing schools; 3) a move towards community health insurance schemes; 4) and compulsory rural placements for medical students.[42]
- In Australia, there is a suggestion that physician assistants (PAs) could help to address medical workforce shortages in rural and remote settings.[43], [44] Once PAs gain sufficient experience and professional development, it is expected they would be able to practice with remote supervision, allowing them to operate satellite clinics, make house calls, and undertake remote community outreach.[45] There has been further suggestion that the introduction of PAs into the rural medical workforce could serve to delay the retirement of existing rural doctors, and help to recruit and retain new, younger doctors.[46]
- In Ghana, nurses face a fine if they want to work abroad before serving in a Ghanaian hospital for five years. In an effort to take into account the cost of training, if a nurse defaults for the whole five years he or she will have to pay around 12,000 Ghanaian cedis (i.e., $11,000 or £5,500).[47]

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