

May 29, 2008

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Dear Ms. Sullivan,

Thank you for the opportunity to respond to the Guide on issues related to interprofessional collaboration among Health Colleges and Professionals. From a cancer system perspective, we know that the current models of care delivery will be inadequate to meet the projected increased incidence of new cancer cases in Ontario. The inadequacy of the current system is that professionals are too discipline-centric, focused on activities that too often are restrictive, with little ability to be flexible to meet the needs of the patient population. Often the inflexibility is deemed to relate to scope of practice, or in the case of Nurse Practitioners, lists of what they can and cannot do. Thus the Minister's request of HPRAC to examine the process is timely and critical to instil change in the system, while protecting the public in every domain of care.

The sustainability of the health care system depends on the willingness and ability of all health professionals to refocus their practice toward interprofessional models of service delivery in order to effectively engage in promoting health and well-being of people, irrespective of whether they are well or ill. This is the essence of professional practice, and the regulatory bodies and professional disciplines need to collaborate so to move beyond talking to actually making change happen. It is time for us to lead the next generation of change to effect new roles, practice environments, care models and policy decisions that contribute to a healthy population.

We believe that interprofessional care teams are essential in the health care system. Cancer Care Ontario has been working with the regional cancer programs to enable this change in care delivery. As an example, the palliative care program received funding to develop mentorship education and support of inter-disciplinary teams in primary care to expand the responsiveness of the professionals to manage palliative cancer patients. We are committed to quality care and to engaging our partners in ways to develop interprofessional team approaches; without this change, we anticipate significant challenges in meeting the growing demands for quality cancer care. CCO has worked effectively in the past with the regulatory colleges and will continue this level of dialogue and review.

The cancer system spans all elements of care, from prevention in primary care, to screening, early diagnosis, treatment, palliative care and long term recovery. We need system responsiveness to include effective screening and a speedier diagnostic process from the time of suspicion through to referral for treatment. Herein are the problems that illustrate the challenge in the current context of the regulatory system. Critical to accurate diagnosis is the need for pathology examination of tissue specimens to identify the disease type and stage of cancer, in order to determine the most effective treatment protocols. To enhance the work of pathologists, and extend their ability to efficiently and effectively determine the type and stage of cancer, some organizations have put into place a new role of pathology assistants. However, there is no current structure or process to educate this group beyond their undergraduate degree in science, or certify their expertise as pathology assistants, or regulate their practice.

We have studied the work in other countries where new or expanded roles have been implemented effectively to meet the growing demand for care, yet Ontario is far behind in enabling changes in practice. The second example is related to screening capacity, specifically the implementation of registered nurses with expanded knowledge, and clinical skill development to perform endoscopic procedures. In the United Kingdom and the United States, roles of nurse endoscopists have been studied and implemented with positive system and patient outcomes; in Ontario we have taken a measured approach, working with the College of Nurses, the College of Physicians and Surgeons and key medical and nursing associations to pilot the use of RNs performing flexible sigmoidoscopy. The process and pace of change has been very slow, in part related to professional reluctance to transfer the knowledge and skill to another discipline based on interpretation of the regulatory framework, the authority gradients in the system, and socio-cultural barriers.

With respect to barriers and enablers, there appear to be more barriers than enablers in the current structures which affect the degree to which the system can respond to change. As new technologies are developed and implemented, we need a system that enables a faster pace of change in scope of practice and roles. Where the system has identified challenges in health human resources, there needs to be processes in place to modify scopes to keep pace with the system demands. As another illustration, surgeries are limited not only by bed capacity but also by the availability of anaesthesiologists. Other countries have responded very effectively with nurse practitioners in anaesthesia care, and demonstrated positive outcomes and safe patient care. Yet in Ontario the pace of change for this role continues to be delayed, in spite of evidence that supports the role expansion. The result is system impact on delays in surgeries and patient burden as they wait for long periods of time for treatment.

In relation to the Regulated Health Professions Act, the structures and mechanisms set up to create standards of practice, monitor the utilization of standards and measure the impact of practice on the public have been effective. However, there are many different interpretations of the Act and Standards by all disciplines creating barriers to system change. There is lack of professional respect for other disciplines resulting in limitations imposed on scope of practice. We recognize that legislation alone will not change attitudes and past practices; this requires education, the engagement of the academic organizations, the Colleges and the professional associations.

As we have experienced in the RN-performed flexible sigmoidoscopy pilot, liability issues can be a barrier. RHPA requires that each regulate member be accountable for decisions and actions in accordance with scope of practice and competencies, therefore each member is accountable and liable. However, this is not broadly understood and authorizers are seen to have 'ultimate accountability' perpetuating the model of gate-keepers with the ability to override collaboration and change in practice. The authority gradient by one discipline over another is counter-intuitive to interprofessional team implementation. The remedy might be that the Colleges jointly clarify accountability issues and work with the insurers and other stakeholders to level the 'playing field'.

There appears to be a proliferation of more regulatory bodies as new disciplines come into the health system, or as more unregulated professionals are treating patients with health needs. While we recognize the value of and need for regulatory bodies to protect the public, this might be an opportune time to review how many regulatory bodies are actually needed, to determine if is there another way to set interprofessional standards of practice, to ensure processes to regulate and monitor public care, and to select a new governance and structure. The Federation of Health Regulatory Colleges of Ontario is a voluntary association which has been very effective in the development of strategies to promote interprofessional practice. Is it possible to consider greater authority for the Federation, using the Federation to promote interprofessional practice and facilitating the evolution to be responsive to system change? Might there be consideration given to having only the Federation as the oversight body at a future point in time, for all disciplines, thus eliminating the large number of Colleges and consolidating the functions under one body? This may seem a radical approach at this point, but with respect, we would encourage careful consideration to change the structure and process to eliminate what has become a bureaucratic, inefficient process blocking responsive change. A model that allows practice to be more responsive to rapidly evolving environments and emerging needs is essential for Ontario.

We recently published an article in Healthcare Quarterly that outlines our vision to address the chronic disease population and innovative approaches to real system change. I have attached the article as a resource.

Thank you for this opportunity to respond.

Sincerely,



Terrence Sullivan, PhD.,  
President and Chief Executive Officer

# Chronic Disease Prevention and Management: Implications for Health Human Resources in 2020

Margo Orchard, Esther Green, Terrence Sullivan, Anna Greenberg and Verna Mai

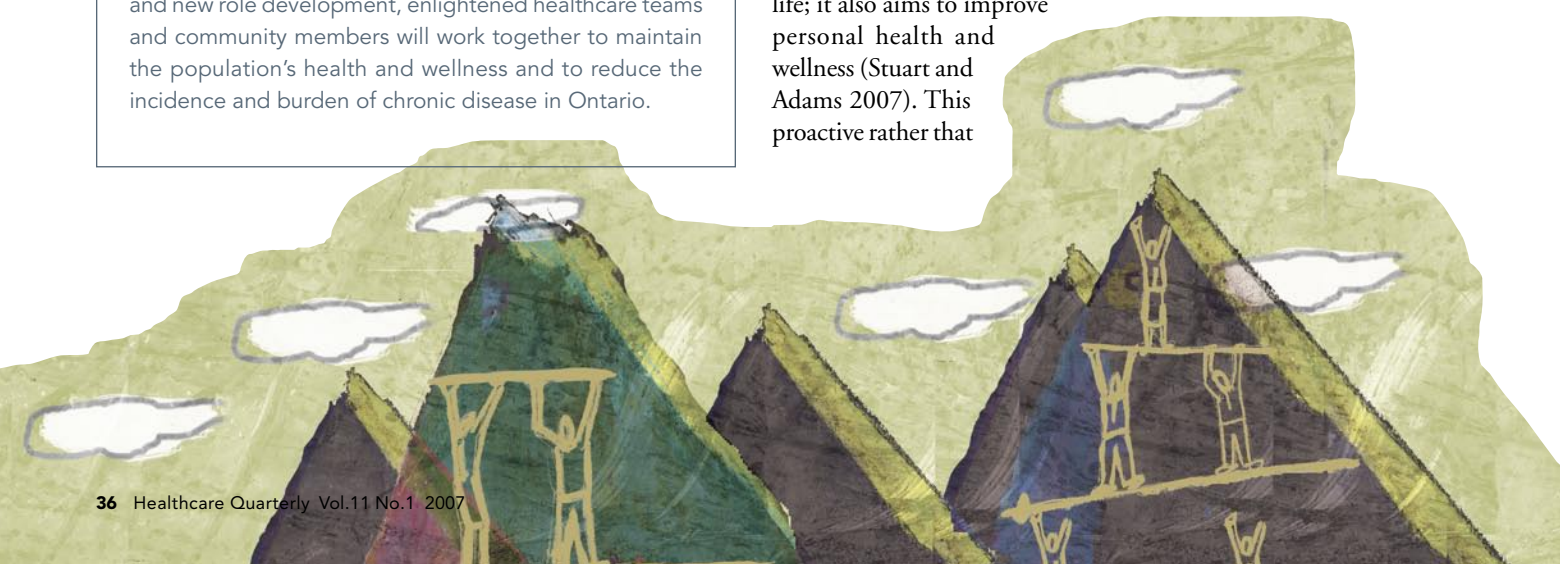
## Abstract

Through improved screening, detection, better and more targeted therapies and the uptake of evidenced-based treatment guidelines, cancers are becoming chronic diseases. However, this good-news story has implications for human resource planning and resource allocation. Population-based chronic disease management is a necessary approach to deal with the growing burden of chronic disease in Canada. In this model, an interdisciplinary team works with and educates the patient to monitor symptoms, modify behaviours and self-manage the disease between acute episodes. In addition, the community as a whole is more attuned to disease prevention and risk factor management. Trusted, high-quality evidence-based protocols and healthy public policies that have an impact on the entire population are needed to minimize the harmful effects of chronic disease. Assuming we can overcome the challenges in recruitment, training and new role development, enlightened healthcare teams and community members will work together to maintain the population's health and wellness and to reduce the incidence and burden of chronic disease in Ontario.

## New Perspectives: Chronic Disease Management

Chronic disease accounts for 89% of all deaths in Canada, and chronic disease deaths are projected to increase by 15% over the next 10 years (World Health Organization 2005). In most provinces, there is an emphasis on the costs of treating chronic diseases; in Ontario, this cost is estimated to consume approximately two thirds of healthcare spending (Ontario Health Quality Council 2007). While chronic disease is a growing concern, the health system has not adjusted for increasing incidence and the epidemiological transition (the decline in infectious disease mortality and the resultant increase in mortality that is related to man-made, degenerative disease) (Omran 2005). Some progress has been made in Ontario, but in essence our healthcare workforce is largely focused on acute treatment and providing individualistic care. Focusing on population-based prevention and care is a more promising and sustainable alternative.

As described by Jim Adams's hierarchy of healthcare needs, healthcare no longer serves solely a binary function of sustaining life; it also aims to improve personal health and wellness (Stuart and Adams 2007). This proactive rather than



reactive approach to healthcare will create a healthier population and more sustainable system. Population-based chronic disease management is a necessary approach to deal with the growing burden of chronic disease in Canada. In this model, an interdisciplinary team works with and educates patients to monitor symptoms, modify behaviours and self-manage disease. In addition, the community as a whole is educated in disease prevention and risk factor management. Trusted, high-quality evidence-based protocols and healthy public policies are applied to an entire population to minimize the harmful effects of chronic disease. As a result, hospitals can focus care on highly acute patients, while the rest of the population is being managed by a primary care team in the community at all points across the care continuum.

To increase the health status of the whole population and, in particular, reduce variation in the care provided, an increasing focus on evidence-based care and use of prevention, early detection and management protocols is essential. By focusing on population-based chronic disease management across the population, the outlook for 2020 looks more optimistic. The following presents a picture of cancer in 2020 according to a disease management approach and outlines the resultant human resource adaptations required to complement this process.

### Cancer in 2020

Although the incidence of cancer is projected to increase by two thirds by 2020 (Schwartz et al. 2004), 10-year prevalence rates in Ontario have doubled: between 1984 and 2004 the number of individuals living with cancer from 10 years previous increased from 124,000 to 260,000 (Cancer Care Ontario 2007). In Canada and other countries, the care landscape has changed. Many women with breast cancer and men with prostate cancer are living with cancer – not dying from it. Through improved screening and detection, new targeted treatments and uptake of evidence-based guidelines, some major cancers have become chronic diseases. However, this good-news story has implications for human resource planning and cost allocation.

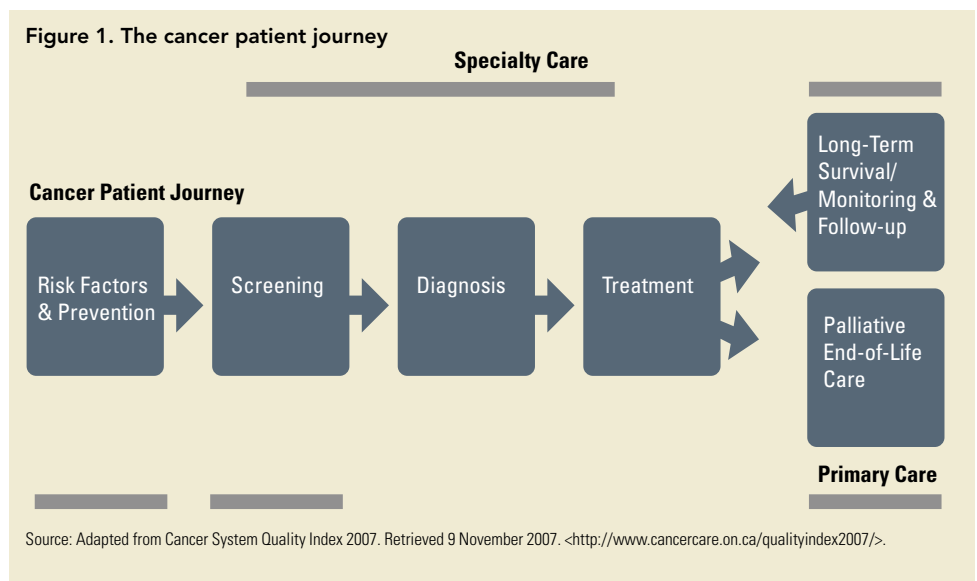
A population-based disease management approach that covers the continuum of care is necessary to control this growing burden of cancer. Figure 1 illustrates the continuum of cancer and the journey that patients

encounter. Through innovations and proactive planning, many aspects of the cancer journey will be changed by 2020 to match a population-based disease management approach. These changes will be a reflection of changed care processes, innovations and health human resource adaptations. The following presents a picture of cancer in 2020 according to a disease management approach, broken down by the steps in the patient journey. It also outlines the resultant human resource adaptations that will complement this process.

**Rather than having a focus on acute, in-hospital care, healthcare providers will be prevalent in greater numbers in the community to provide home care, disease management workshops and behaviour modification.**

### Risk Factors and Prevention

Population-based primary prevention will be an important part of every healthcare provider's role, and risk assessment will be a routine part of the care continuum. By 2020, the tobacco interventions recommended by Cancer 2020 (jointly developed by Cancer Care Ontario and the Canadian Cancer Society – Ontario) could prevent more than 6,000 cancer cases in Ontario (Cancer 2020 Steering Committee 2003). A population-based chronic disease management model will bring a focus on prevention and a shift in the role of healthcare providers. Rather than having a focus on acute, in-hospital care, healthcare providers will be prevalent in greater numbers in the community to provide home care, disease management workshops and behaviour modification. For example, there is a strong



partnership in development focusing on integrating cancer care in family practice. Population-wide behavioural modification practices will result in improved diet, increased physical activity and reduced alcohol and tobacco consumption, all of which could reduce the incidence of cancer by up to 40% (Cancer 2020 Steering Committee 2003). Risk for cervical cancer will also be modified through the implementation of the human papillomavirus vaccine. Although the current vaccine does not prevent all cervical cancers, it could prevent up to 70% of these cancers (Health Canada 2002) and 90% of genital warts (Greer et al. 1995). Canada and some provinces are likely to provide access to this vaccine, which is already on the market, on a population-wide level.

### Screening

Next along the continuum of care, population-based chronic disease management will ensure that all individuals of screen-eligible age are screened for cancers. By 2020, individuals will be monitored for family history, age, exposure, lifestyle and proven biological markers to indicate a need for more frequent or early cancer screening. In the near future, protocol-driven information systems will be essential elements of primary care as electronic patient health records with computerized reminders and prompts will be set up in primary care centres, supporting more accurate tracking and monitoring of all cancer screening procedures.

System-wide approaches to disease management are already being applied in Ontario, where a province-wide screening program is being implemented for colorectal cancer. The program targets all Ontarians between 50 and 74 years for colorectal cancer with the fecal occult blood test (FOBT) (for people with an average risk) and colonoscopy (for those with abnormal screens or first-order relatives with a history of colorectal cancer). This endeavour will require teamwork between specialists, primary care physicians and nurse practitioners as primary care will be offered by an interdisciplinary team of healthcare providers. Specialized roles and innovations are being developed, and policy levers are being used to encourage the implementation of these roles. For example, registered nurses are currently being educated to perform flexible sigmoidoscopy in six sites across Ontario. This provides an alternative method of screening for colorectal cancer and provides registered nurses with enhanced skills that maximize their scope of practice.

Partnerships will also focus on advancing an integrated approach to screening for colorectal, breast and cervical cancers and will be based on adherence to established, evidence-based screening guidelines. The lessons learned from ramping up existing cancer screening programs will be invaluable as new evidence-based screening tools and technologies become available for population-wide use.

### Diagnosis and Treatment

Improvements in imaging could produce technology that allows for minimally invasive imaging of the entire body for accurate detection of cancer precursors, and it is possible to imagine that by 2020 this technology could be provided and analyzed remotely. Greater use of off-site systems for imaging and diagnostic operations (such as picture archiving and communication systems) will be standard care. Diagnostics will also be improved through interactive multidisciplinary case conferences (MCCs), formally set up as tumour boards. Cancer Care Ontario recently set standards for this model, which involves disciplines of medicine, surgery, radiation, nursing, psychosocial and pharmacy and whose purpose is to prospectively review individual cancer patients and make recommendations on best management. MCCs also serve as a forum for continuing education, quality improvement, standardized patient management protocols, increasing clinical trial participation and linkages between hospitals and regions. MCCs have the potential to improve patient outcomes and satisfaction, clinician satisfaction and quality care.

The way cancer is treated will also change over the next 15 years. In 2020, a larger fraction of cancer cases will be able to be either prevented or detected and treated early. New roles for healthcare providers will develop as a result. Physicians will be able to characterize, localize and treat the cancer in a more targeted, precise and effective manner. Already, radiation treatment is becoming increasingly precise. Intensity modulated radiation therapy uses imaging techniques during planning and treatment in order to provide three-dimensional targeted therapy that minimizes harm to non-tumour cells (Cash 2006). Image-guided surgery, already in development, will also contribute to the changing roles of healthcare professionals. Similar new targeted “sharp shooter” biological drugs will improve survival and reduce adverse events. Patients will have fewer side effects, and nurses will adjust their functions in relation to symptom management and patient teaching, follow-up and surveillance. Currently, personal health coaches (recruited from the community) are being trained and employed to help cancer patients meet unmet needs such as emotional support, interaction with the healthcare team and factors related to family and friends (Hohenadel et al. 2007)

The introduction of clinical specialist radiation therapists (CSRT) (through the Ontario Ministry of Health and Long-Term Care's HealthForce Ontario) will also change the way cancer treatment is provided. CSRTs are specially trained radiation therapists who provide care alongside the radiation treatment team. The new role is being pilot tested in five sites in Ontario and will expand the human resource capacity in delivery of radiation treatment. This is especially important in light of the predicted future shortage of radiation oncologists and radiation therapists in Canada (Canadian Strategy for

Cancer Control 2002). As treatment becomes more specialized, so will the roles of healthcare providers.

In addition to these adapted roles, a full spectrum of healthcare providers will need to collaborate and facilitate discussions on the application of evidence-based information into practice. Processes such as these have already been undertaken at Cancer Care Ontario through the development of disease site groups. These groups consist of leading clinical experts in cancer who systematically review the evidence to produce guidelines and treatment protocols. By bringing a full spectrum of healthcare providers together, policy issues can be discussed, common treatment protocols can be implemented and institutional standards can be developed. By 2020, information technology, information management and knowledge brokers will be required to facilitate the remote transfer of increasingly complex and contentious information and to help transfer it across disciplines, teams and regions in a clear, concise manner. These knowledge brokers will facilitate inter-professional education programs and help develop common curricula for healthcare providers. They will also funnel, filter and translate the latest available evidence on procedures, treatments and care management so that these protocols can be put into practice and relayed to patients. By simply applying the knowledge we know across the continuum of health services, great strides in chronic disease management can be achieved, particularly when applied systematically in primary care.

### **A full spectrum of healthcare providers will need to collaborate and facilitate discussions on the application of evidence-based information into practice.**

Although dependent on healthcare providers, patients' roles and responsibilities throughout their cancer journeys will increase according to the population-based care model. Patients will be taught to self-manage symptoms and to use patient-centred portals with high-quality information on symptom management. Enablers such as prevention programs and the increased promotion of healthy lifestyles in the school and work settings will be important for supporting patients' responsibility in their own health and wellness. Information technology and information management support will also be required to improve the Internet as a vehicle for patient education. Patients will be provided with the tools necessary to navigate the cancer system and play a proactive role in their disease management.

### **Long-Term Survival, Monitoring and Follow-Up**

Surveillance and follow-up also will have improved by 2020 and

will be implemented across all patients diagnosed with cancer. However, rather than acute care hospitals providing follow-up visits, family physicians and nurse practitioners will provide follow-up with specialized knowledge gained regarding the management of symptoms of cancer survivors. Based on trends over the past 20 years, it is expected that the number of people living with cancer will have increased substantially by 2020. Currently, these survivors may be followed up in cancer centres for symptoms and late effects, but with the help of evidence-based guidelines, they will be more appropriately managed by family health teams in the community. Thus, following disease management principles, these patients will take a greater role in their care and will be educated in how to manage and deal with symptoms, both physical and emotional. This will be facilitated by comprehensive care "passports," which will be provided to patients following cancer treatment and which include information on late and long-term effects and details of required ongoing testing and follow-up (Institute of Medicine 2005). Family physicians and nurse practitioners will play an important role in survivorship and will be able to refer patients to specialist care when necessary. In addition, older adults require a different team structure that links the specialties of gerontology and oncology. Services for these older adults will pay special attention to issues such as symptom management, preference for information, healthcare decision-making and relationships with providers and community resources.

### **End-of-Life Care**

The final aspect of the continuum of cancer care that will be addressed by a population-based chronic disease model is end-of-life care. Unfortunately, some forms of cancer will continue to cause premature death, and for those patients end-of-life care will be an important part of the disease process. By 2020, strategies will be implemented to integrate palliative care services and evidence-based pain and symptom management guidelines. This process is already under way in Ontario through the Provincial Palliative Care Integration Project (PPCIP). Symptom management and assessment tools are in place to routinely monitor patients of palliative care both in acute care and at home. Communication technology is being developed to allow for remote access to palliative symptom management and for integration of teams of palliative caregivers. The communication technology or web-based system allows patients to report their pain and functionality levels and sends alerts to care providers. This population-needs approach will improve the quality of life for all patients of palliative care. Furthermore, an important element of population-based disease management is the transfer of long-term care from acute care hospitals to the community. The PPCIP will enable this transfer by allowing patients of palliative care to stay at home while pain and symptoms are assessed and monitored.

All of these changes in the way cancer is managed will require concurrent adaptations in health human resources. Not only will new roles emerge (including new roles for the patient), a new form of teamwork across professions will be necessary.

### Health Human Resource Adaptations

In order for a population-based chronic disease management model to be successful, health human resource planning will need to change. Currently, progress in health human resource management includes an increased focus on primary care, while recruitment has been targeted mainly at acute care physicians and nurses (Health Council of Canada 2005). In planning for health human resource needs, corrections seem to be directed at past problems (e.g., reductions in medical school enrolment) rather than anticipating future needs. Furthermore, health human resources have not yet adjusted for the epidemiological transition, as the focus remains on training physicians and nurses to treat and cure disease. Naturally, this is important, but there has been little evidence of change to a focus on chronic disease management functions. As the population continues to age, there will be a resultant decrease in healthcare providers in the workforce and an increase in the number of older patients with multiple and chronic co-morbidities. Although a population-based care model will prevent and reduce the burden of some chronic disease, it will not be successful unless health human resources are planned appropriately in accordance with these changes.

In order to prepare for these changes, education for healthcare providers will also need to be adapted. Nurses will graduate with highly specialized roles and additional knowledge and skill sets compared with those graduating currently. There will be a strong focus on inter-professional, which addresses the current gap between inter-professional education and inter-professional practice (D'Amour and Oandasan 2005). This means that different types of professionals between and within organizations will work together more cohesively and efficiently. Knowledge translation between professions will be of utmost importance, as will collaborative patient-centred practice. Already, the advanced practice nurse (APN) model is becoming established in Ontario. Research suggests that APNs are becoming well integrated into the cancer system, indicated by varied sources of patient referrals and high degrees of collaboration with other healthcare professionals (Bryant-Lukosius et al. 2007). However, there is still a need for higher levels of advanced specialty-based education, and there are gaps in role implementation in areas such as prevention, care coordination, patient and family education, survivorship and health promotion (Bryant-Lukosius et al. 2007).

One of the most important requirements for a population-based health human resource model is the creation of inter-professional education programs and common curricula

for healthcare providers. With common curricula, healthcare providers will be able to better understand the scope and expertise of their colleagues and will be able to work in better-functioning and more effective teams. Dietitians, pharmacists, social workers, psychologists, nurses and physicians will need to be trained to proactively anticipate illness by interacting with each other, monitoring symptoms and communicating in multidisciplinary case conferences. These health professionals will also need greater knowledge and stronger application of research to manage sub-populations such as older adults and patients of palliative care. This will permit increased effectiveness in communication and care provision, allowing service providers to work within their full scope of practice.

### Although a population-based care model will prevent and reduce the burden of some chronic disease, it will not be successful unless health human resources are planned appropriately.

By 2020, acute care providers will be required to perform more intensive and specialized services in an in-patient setting. Within acute care settings, there will be incentives to align evidence-based decision-making and human resource planning. For example, if increased volumes of colorectal cancer screening are required, an institution will have incentives to provide these services or find alternative ways for care to be provided (such as hiring nurses to perform flexible sigmoidoscopy). This alignment in compensation methods between the institution and the needs of the community will provide more flexibility for health human resources. As a result, new and adapted roles for healthcare providers will arise.

As effective chronic disease management results in fewer complications and hospitalizations, the burden and need for healthcare providers within acute care organizations will be shifted to highly intensive in-patient procedures. The healthcare system will require more primary care professionals as well as professionals with a biopsychosocial specialty who will manage interdisciplinary boundaries and foster healthy populations. The result will be a shift from an individual-based perspective to one that focuses on population-based care managed and supported by technology, speed of care, efficiency, quality and evidence.

### Challenges

Although the outlook for the future appears promising under a population-based, technology-rich model, various challenges must be met before attaining this level of care. A population-based model will not necessarily show immediate results because a full generation may pass before long-term benefits are evident. Often, in a performance-driven society, this delay can be detrimental to a program's sustainability.

An additional challenge that must be met is the “guild” culture of individualized medicine. This model has long-standing values and views of the profession of medicine that could impede the development of inter-professional education and alternative caregiving. The traditional view of medicine as an elite health profession in comparison with other professions must be changed in order to allow for teamwork and international collaboration between healthcare professions. Similarly, collaboration and national standards are necessary between health and education systems to bring various health professions into alliance and to ensure that they are working for a common goal.

Finally, a policy shift is required to bring an alignment between compensation and health delivery systems, driven by population need. Many payment arrangements are currently not well aligned. Institutions as well as community organizations can be provided with flexibility via new funding models to solve current problems and create innovative approaches for the future. Institutions should have the authority to select the most appropriate type of practitioners who can provide the best and most timely care for their patients. Only when payment incentives are aligned with the optimal approaches to care for the needs of the community will we be able to reach the optimistic outlook we have outlined for 2020.

Assuming we can move beyond these challenges, new health human resource professionals will be required to adapt to a system of population-based chronic disease management. Enlightened healthcare teams and community members will need to work together to maintain the population’s health and wellness and to reduce the incidence and burden of chronic disease in Ontario. **HQ**

### Acknowledgement

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