



Elements of an Effective Innovation Strategy for Long Term Care in Ontario

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Executive Summary

Elements of an Effective Innovation Strategy for Long-Term Care in Ontario

The long-term care (LTC) sector in Ontario has been providing healthcare and accommodation services to Ontario's elderly for generations. These services help individuals who have health and personal care needs to enjoy the highest quality of life possible. However, systemic changes within the health care system, coupled with changing socio-demographic conditions, are fundamentally altering the context of LTC in Ontario. It is increasingly clear that Ontario's capacity to provide affordable, accessible, and high quality care in settings preferred by Ontarians, will not meet future needs without significant innovation and transformation.

This report examines the impact of demographic and resource trends on the capacity of Ontario's LTC sector to fulfill its role; identifies ideas and strategies for harnessing the innovation potential of the sector; and provides a conceptual framework to guide innovation in the sector and the broader health system.

Trends and Challenges in Ontario Long-Term Care

Multiple forces are converging on the continuing care sector and the residential LTC sector in particular. The number and proportion of the elderly in the population is growing, chronic diseases are increasingly prevalent, and the "rising tide"¹ of dementia is impairing the ability of many Ontarians to live independently.

- By 2035—when boomers are 71 to 89 years old—there will be nearly 238,000 Ontarians in need of long-term care (versus about 98,000 today).²
- Unless changes are made, the gap between the number of LTC beds required and the number supplied will grow to between 57,000 and 127,000 by 2035.
- There has already been a marked increase in the number of LTC residents with multiple diagnoses or co-morbidities, and chronic diseases will be more prevalent in future years.³
- Baby boomers are likely to exhibit stronger preferences for independent living arrangements, greater autonomy, and choice in services than previous generations.
- The ethnic and linguistic profile of the emerging cohort of the aged is also changing: 22.8 per cent of Ontario's population identify themselves as a member of a visible minority (up from 15.8 per cent in 1996), and 26.6 per cent report a mother tongue other than English or French.⁴

¹ Alzheimer Society of Canada, *Rising Tide: The Impact of Dementia in Canada*.

² StatsCan, *Residential Care Facilities 2006/2007*; Government of Ontario, *Ontario Population Projections Update 2009-2036*.

³ Canadian Institute for Health Information, *Continuing Care Reporting System, 2007-2008*.

⁴ Ministry of Finance, "2006 Census Highlights: Ethnic Origin and Visible Minorities"; Ministry of Finance, "2001 Census Highlights: Ethnic Origin and Visible Minorities."

Research Objectives and Methodology

To understand the trends and challenges faced by the Ontario LTC sector, to assess its potential for innovation, and to understand the barriers to and supports required for LTC innovation, the following methods were employed:

- a review and analysis of relevant literature;
- interviews with 30 key individuals, including government officials, experts, members of the Ontario Long Term Care Association, and stakeholders in LTC in Ontario and other jurisdictions;
- an environmental scan to identify issues, challenges, and innovations in other jurisdictions, both provincially and internationally; and
- identification and analysis of best practices and model initiatives in LTC and other sectors, both in Ontario and elsewhere.

Capacity of the LTC Sector to Meet the Challenges

Meeting these challenges, and improving the inter-working of acute, long-term and home care, requires a well-prepared, well-supported LTC sector. However, the sector continues to face significant challenges related to:

- *Human resources.* The ratio of persons aged 20-64 (i.e., the working age population) to the number of people aged 85 or older (i.e., those most likely to need LTC) is diminishing—in 2009 the ratio was 19 to 1; in 2035 the ratio will be 10 to 1. This will make it difficult to identify and recruit future LTC staff.
- *Technology.* Regulatory and financial barriers limit the rate at which the sector adopts technologies that can help provide high quality, efficiently-delivered, and cost-effective care.
- *Funding.* LTC providers lack sufficient resources in light of *current* and *future* demand, acuity levels, and resident preferences.
- *Regulation.* The LTC sector is highly regulated making it difficult for LTC providers to innovate to deliver high-quality, cost-effective care.

Toward an Innovation Strategy for LTC in Ontario

Conventional approaches to delivering care and other services in the LTC sector have been adequate to date, but their utility is declining in the face of increasing numbers of residents and their higher care needs and service expectations than previous residents. If the sector and its homes are to sustain and improve operations—especially in an era of fiscal restraint in which additional resources will be difficult to obtain—they will need to develop and implement an innovation strategy.

A comprehensive LTC Innovation Strategy could include innovation at three levels:

- *Internal Innovation*—innovation focused on improving performance inside the firm or institution;
- *Sector-Wide Innovation*—innovation to exploit inter-firm strengths and to enhance collaboration and cooperation across the LTC sector; and
- *Innovation for Integration and Health System Transformation*—innovation to better integrate LTC into the overall health system and identify new services and products for a changing environment.

Supporting the Development of an Effective Innovation Strategy for Ontario Long-Term Care

Summary of Recommendations

For the Long-Term Care Sector

1. Develop an ***LTC Sector Innovation Strategy*** that contributes to the sector's ability to address Ontario's key health care priorities, including:
 - Assuring best practices to improve the quality of life and physical well-being of aging Ontarians;
 - Providing necessary, effective, and efficient health services to a rapidly increasing number of aging Ontarians with increasingly diverse service requirements; and
 - Caring for a higher share of residents with complex health challenges, including multiple diagnoses or co-morbidities, and chronic diseases so as to help implement the *Alternate Level of Care* and *Aging at Home* strategies.
2. Strengthen communications with LTC members, residents, families, other health care providers (including those in acute, continuing, and home care organizations), and government to encourage innovation and the adoption of best practices across the sector.
3. Enhance the skills and morale of staff by improving working conditions, work-loads, and providing ongoing training opportunities.
4. Partner with researchers, experts, and other health care providers to identify opportunities for innovation and best practice in care, administration, and services.
5. Continue to make efforts to improve perceptions of the LTC sector.

For Government

1. Actively encourage, and contribute funding to, the development and implementation of an ***LTC Sector Innovation Strategy*** that addresses critical Ontario priorities, including:
 - Assuring best practices to improve the quality of life and physical well-being of aging Ontarians; and
 - Assuring that the LTC sector is equipped to meet the needs of residents with more complex health challenges, so as to support implementation of the *Alternate Level of Care* and *Aging at Home* strategies.
2. Formally review the LTC regulatory regime, based on best practices in Canada and around the world, and shift the emphasis towards public accountability for outcomes in order to promote an innovation mind-set, in place of the current compliance mind-set.
3. Plan for and fund health human resource development to meet current and future LTC HR needs—and especially to support innovation in LTC.
 - Fund one or more *Teaching Long Term Care Home* pilot programs.
4. Provide incentives and resources to LTC providers to improve technology implementation and training.

Source: The Conference Board of Canada.

Innovation could generate productivity improvements in LTC that would lead to better care and cost savings for the increasingly resource-pressured health system. Australia found that if LTC facilities in that country operated on a “notional best practice frontier” and “improved economies of scale” efficiency gains of around \$1.6 billion [AUD] could be achieved.⁵ Ontario’s LTC sector has taken some initial steps towards developing and implementing an innovation strategy but faces significant barriers related to regulation, time, resources, and expertise.

Pursuing and Supporting an Ontario LTC Sector Innovation Strategy

While the context for innovation in LTC is challenging, there are steps that can be taken to ensure that the sector can meet the challenges of major demographic and policy changes. Ontario needs the LTC sector to ensure the success of its aging and healthcare strategies, and that will require action and resources to develop and realize the sector’s potential. An innovating, more productive LTC sector would improve care delivery and yield cost savings for the increasingly resource-pressured provincial healthcare system. But to get there, action by the LTC sector and government is required.

⁵ Productivity Commission, *Trends in Aged Care Services: Some Implications* (Canberra: Productivity Commission, 2008), p. 173.

Chapter 1

Introduction

The long-term care (LTC) sector in Ontario has been providing healthcare and accommodation services to Ontario's elderly for generations. These services help individuals who have health and personal care needs to enjoy the highest quality of life possible. However, systemic changes within the health care system, coupled with changing socio-demographic conditions, are fundamentally altering the context of LTC in Ontario. It is increasingly clear that Ontario's capacity to provide affordable, accessible, and high quality care in settings preferred by Ontarians, will not meet future needs without significant innovation and transformation, especially in an era of fiscal restraint in which additional public resources will be difficult to obtain.

Multiple forces are converging on the continuing care sector and the residential LTC sector in particular. The number and proportion of the elderly in the population is growing, chronic diseases are increasingly prevalent, and the "rising tide"⁶ of dementia is impairing the ability of many Ontarians to live independently. Those who enter LTC facilities in the future are expected to have higher health care needs than previous residents, adding stress to staff and facilities. And the higher expectations of baby boomers for enhanced accommodation and recreation services may require different service models from LTC providers. The sector's ability to respond to these demands is hampered by a lack of staff, financial resources and infrastructure.

The sector can best meet its current and future challenges through innovation. Innovation can enable it to find new and improved ways to deliver care and other services, and develop new products and services that respond to the changing aged care environment. Much of the impulse for change must come from within the sector. For the LTC sector to survive and thrive in the emerging environment, it must undergo significant self-transformation and pursue improved relationships and integration with other parts of the continuum of care to ensure the most effective and efficient delivery of services to Ontarians. The province has a major stake in supporting LTC sector innovation since it will materially assist Ontario to meet the needs of its aging population.

Many LTC operators in Ontario are exploring new and improved ways of doing things, including:

- implementing new technologies to streamline administrative functions and redirecting potential savings to care and other services for residents;
- introducing new recreational and therapeutic activities to enhance the health and quality of life of residents, as well as the attractiveness of their business;
- exploring new ways to recruit, retain, and enhance the morale of staff who provide front-line care; and
- leveraging the existing strengths and expertise of LTC facilities to reduce the strain on acute care services and enhance the awareness and skills of homecare providers.

⁶ Alzheimer Society of Canada, *Rising Tide: The Impact of Dementia in Canada*.

Textbox 1

Long-Term Care and the Continuum of Care

Continuing care systems are designed to provide health care, personal supports and residential services to those in need. Residential services can be provided in retirement homes and long-term care facilities. “Long-term care (LTC) homes...provide care for people who are not able to live independently in their own homes and who require 24-hour nursing or personal care, support and/or supervision.”⁷

The Canadian Healthcare Association identifies three features of facility-based long-term care:

1. Accommodation—“lodging and hotel services or room and board on a permanent basis,” which includes such things as the provision of meals, laundry, housekeeping, facility maintenance, and administration;
2. Hospitality services—“general recreational or activation programs and social programming”; and
3. Health services—including:
 - *on-site professional nursing services* available 24 hours, 7 days a week;
 - *on-site personal care* which “involves assistance with activities of daily living (ADLs), including help with eating, personal hygiene, dressing, ambulating, toileting, and the provision of basic safety”;
 - *facility-based case management*, including “assessment, care planning, reporting, communication with families, scheduling, care conferences and charting”;
 - *intermittent health professionals’ services*, including “therapies,...social work and pharmacy”; and
 - *physician services*.⁸

This report is focused on residential services provided in long-term care homes including those services and features described above.

Sources: The Conference Board of Canada; Institute for Clinical Evaluative Sciences; Canadian Healthcare Association.

The Innovation Needs and Potential of LTC in Ontario

The LTC sector has innovation potential and much to offer a changing healthcare system. But the sector’s capacity to realize its potential is challenged by several pressures including limited human and financial resources, a complex regulatory environment, and persistent negative perceptions of service quality that often overshadow positive experiences. The sector requires an independent assessment of its innovation capacity, a clear identification of the nature of the barriers it faces, ideas and strategies to overcome the barriers, and an account of the supports—e.g., policies, resources, and partnerships—it needs to realize its innovation potential.

This report provides an independent account and constitutes a first step towards developing a *LTC Sector Innovation Strategy* that would articulate innovation goals and objectives, as well as specific initiatives to help achieve them. While the design and implementation of the strategy are ultimately in the hands of the LTC sector itself, this report is intended to help to orient the sector

⁷ Institute for Clinical Evaluative Sciences, *Aging in Ontario: An ICES Chartbook of Health Service Use by Older Adults*, 37.

⁸ Canadian Healthcare Association, *New Directions for Facility-Based Long Term Care*, 36-7.

and government to the challenges ahead, the potential of the sector to meet the challenges, and what preconditions are required for an innovation strategy to take root in Ontario's LTC sector.

Research Objectives and Methodology

This report presents the findings of a multi-faceted research methodology designed to answer a number of questions related to the challenges faced by Ontario's LTC sector and the potential for, preconditions of, and barriers to LTC innovation. The report is focused on residential services provided in long-term care homes. (See Textbox 1). In particular, the research aimed to:

- investigate the impact of demographic and resource trends on the capacity of Ontario's LTC sector to fulfill its role;
- identify ideas and strategies for harnessing the innovation potential of the sector to sustain and improve its own activities as a key part of the overall continuum of care; and
- provide options for LTC to play a leadership role in broader health system transformation.

Methodology

To achieve these aims, the following methods were employed:

- a review and analysis of relevant literature;
- in-depth interviews with about 30 key individuals, including government officials, academics and other experts, members of the Ontario Long Term Care Association (OLTCA), and stakeholders in LTC in Ontario and other jurisdictions;
- an environmental scan to identify issues, challenges, and innovations in other jurisdictions, both provincially and internationally; and
- identification and descriptions of best practices and model initiatives in LTC and other sectors, both in Ontario and elsewhere.

Chapter 2

Trends and Challenges in Ontario Long-Term Care: Demographic, Health, and Policy Changes

Like other provinces and countries, Ontario is facing significant changes in the character of its population that present challenges to the health care system—and will continue to do so for decades to come. The LTC sector, in particular, faces increasing numbers of individuals moving into the older age range where people tend to require more LTC services, as well as an aggregate increase in intensity of the healthcare needs of those who reside in LTC facilities. Additionally, the “new old”—i.e., the baby boomers who are retiring and who will soon make up Ontario’s elderly population—tend to have different attitudes, higher expectations, and exhibit greater ethnic and linguistic diversity than did previous generations, which adds to the complications for LTC.

Keeping up with the *quantitative* increases in demand for LTC facilities and services, as well as the *qualitative* changes in the profile and expectations of new and potential residents has been, and will continue to be, difficult for the sector. The situation is compounded by the fact that LTC facilities face persistent labour and skills shortages, as well as ongoing challenges related to funding, facility design, technology adoption, and regulation and reporting.

This chapter sets out the challenges for the Ontario LTC sector that arise from trends and changes in demography, the health status of residents and potential residents, and recent policy changes. Chapter 3 assesses the current capacity of the sector to meet these challenges. Together, the descriptions and analyses lead to the conclusion that the Ontario LTC sector requires an innovation strategy to meet its challenges. The sector will need to ensure that it works collaboratively with other key stakeholders in home and acute care and the government in order to achieve the most efficient and cost effective results from the innovations resulting from this strategy.

Rising Demand: The Current Context

As of April 2010, the Ontario LTC sector has 625 facilities and is composed primarily of for-profit homes, with not-for-profit, charitable, and municipal-run homes also providing services.⁹ Although the facilities house a total of 76,904 beds, the system is unable to keep up with demand. With almost 99 per cent of the beds in use, there are still over 24,000 people waiting for a bed.¹⁰

Individuals wait on average between 80 and 165 days to be placed in their third or first choice of facility, respectively.¹¹ The average wait time to enter a for-profit facility is 77 days, in comparison to 160 for non-for-profit and charitable facilities, and 165 for municipal facilities.¹²

⁹ Ministry of Health and Long-Term Care, Long Term Care Homes System Report, p. 2.

¹⁰ *Ibid.*, p. 4.

¹¹ Ministry of Health and Long-Term Care, *Long-Term Care Home System Report*, 9.

¹² *Ibid.*

Table 1**Long Term Care in Ontario—Facility and Resident Facts**

Total Homes ¹³	625	Total Beds	76,904
For Profit	357	For Profit	40,933
Non-Profit and Charitable	153	Non-Profit and Charitable	19,234
Municipal	103	Municipal	16,473
Eldcap ¹⁴	15	Eldcap	264
Current Utilization ¹⁵	98.9 %	Total Long Stay Wait List	24,033
		Male	8,033 (33.4 %)
Total Long Stay Demand (Residents + Wait List)	99,273	Female	15,999 (66.6 %)
Time to Placement (Average)	105 days	Average Length of Stay	3.0 years
Resident Age and Sex Distribution ¹⁶ (per cent)			
	Males	Females	Total
All ages	31.1	68.8	100.0
Under 65 years	3.1	3.4	6.5
65 to 74 years	4.3	5.3	9.6
75 to 84 years	11.9	22.0	33.9
85 to 94 years	10.5	31.8	42.3
95 years and over	1.3	6.4	7.7
Sources: The Conference Board of Canada; Ministry of Health and Long-Term Care; Canadian Institute for Health Information.			

Levels of Care

The amount of care provided in Ontario's LTC facilities is typically measured by the number of hours of direct contact between caregivers and residents per day. The amount of care provided varies. While the government announced in the 2008/09 budget that it would increase funding over the course of 4 years to raise the number of paid hours per resident to approximately 3.5 paid hours per day¹⁷—with a goal to reach 4 paid hours per resident per day by 2012¹⁸—generally, facilities provide levels of care that are below these levels. Moreover, there are differences in the levels of care provided by different kinds of facilities. Despite the differences, all LTC facilities find it very difficult to provide timely access to caregivers and the

¹³ Total homes and total bed figures from Ministry of Health and Long-Term Care, *Long-Term Care Home System Report*.

¹⁴ Three homes have both eldcap and non-eldcap beds. "The Elderly Capital Assistance Program (ELDCAP) provides services to Long-Term Care residents in units that are collocated within hospitals in small northern communities. ELDCAP beds are subject to the Long-Term Care program requirements but are funded through a hospital's global budget. ELDCAP beds are also used to classify interim Long-Term Care beds opened temporarily in hospitals." Mississauga Halton Local Health Integration Network, "Glossary of Terms."

¹⁵ Ministry of Health and Long-Term Care, *Long-Term Care Home System Report*. Figures as of April 2010.

¹⁶ Age and sex distribution figures from Canadian Institute for Health Information, *Continuing Care Reporting System, 2008–2009*.

¹⁷ Sharkey Commission. *People Caring for People*, 10.

¹⁸ Sharkey Commission. *People Caring for People*, 13-14.

recommended levels of care. As the population ages, the shortcomings currently evident within the system will be compounded.

Demand Trends and Future Challenges

Future challenges for LTC will be both *quantitative* and *qualitative* in nature. While increasing the number of beds will likely be necessary to help meet rising demand, simply increasing the number of beds will be insufficient. Although many baby boomers are healthier and fitter than their predecessors, the current trends in chronic disease prevalence suggest that demand for health care and support services will rise. The size and character of demand will also be influenced by the policy and investment choices of governments, and by the preferences and expectations of the public. Thus, the LTC sector, along with partners in continuing care, and the government, will need to prepare for both quantitatively higher demand *and qualitative* differences in the nature of that demand which will require new kinds of services, strategies, and resources.

Quantitative Trends

This section highlights the quantitative challenges that the system could face if the status quo approach to providing services is maintained—i.e., it presents scenarios assuming no significant policy or resource changes are made that would affect the supply and demand for LTC facilities. The analyses are based on population projections conducted by the Government of Ontario, as well as what is currently known about LTC in Ontario.

Based on past utilization patterns, and taking into account the aging of the baby boomer generation (those born between approximately 1946 and 1964), the demand for residential long term care will increase exponentially. According to data collected by Statistics Canada in 2006, 5 per cent of people over aged 65 were in LTC and 21 per cent of people over 85 years of age were in LTC.¹⁹ In 1995 the figures were 5 per cent and 18 per cent respectively.²⁰ Based on Statistics Canada's reported utilization rate by age and the Government of Ontario's population projection²¹, it is estimated that by 2035—when boomers are 71 to 89 years old—238,000 Ontarians will be in need of long-term care (versus about 98,000 today).²²

Chart 1 provides an illustration of the expected long-term care bed needs of Ontario over the next 25 years. The pink line—"Expected Supply (Current ratio)"—represents the growth in supply assuming the current ratio between supply and demand is maintained, which would result in a gap of 57,000 beds by 2035. The yellow line—"Expected Supply (1.5 per cent Growth)"—represents the growth trend assuming an increase of 1.5 per cent beds per year, and would result in a gap of nearly 127,000 beds by 2035. Thus, both scenarios would lead to major LTC supply crises.

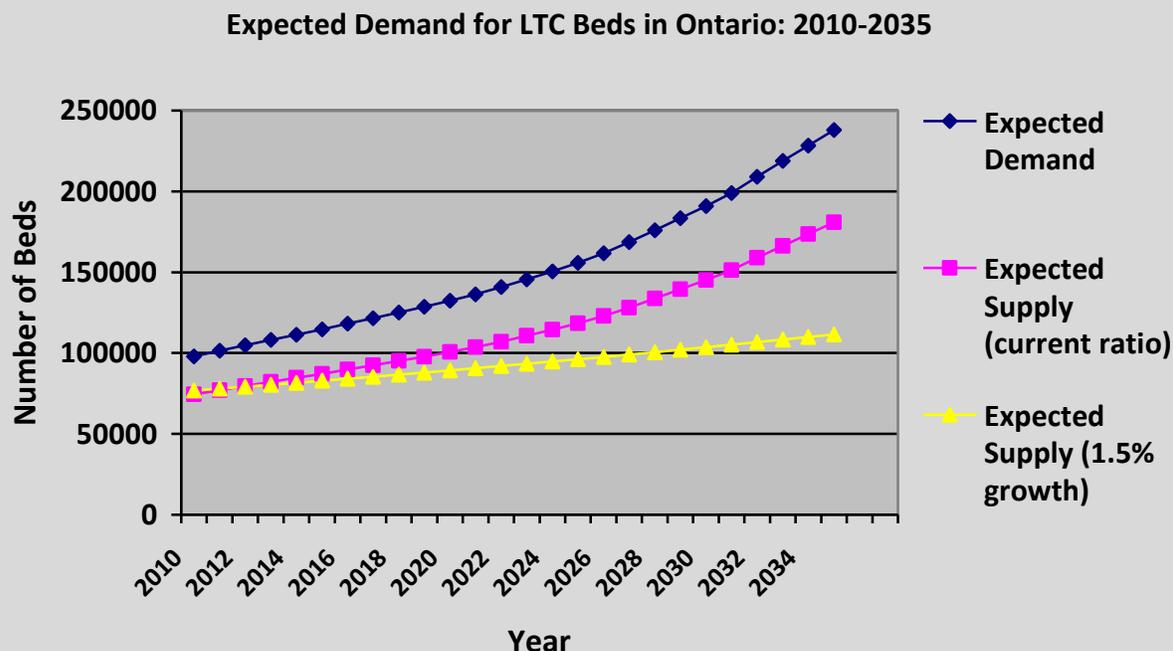
¹⁹ Statistics Canada, *Residential Care Facilities 2006/2007*, p. 62.

²⁰ Trottier, Martel, Houle, Berthelot, and Légaré, "Living at home or in an institution: What makes the difference for seniors?", 49.

²¹ Government of Ontario, *Ontario Population Projections Update*.

²² Note that the Ontario Ministry of Health and Long-Term Care states that approximately 99,000 individuals are currently in need of LTC. In other words, the estimate derived from Statistics Canada data and the Ontario population projections slightly underestimates the actual demand in Ontario, however, it is a very reasonable approximation.

Chart 1



Note: The above chart estimates the supply and demand of LTC beds based on the Government of Ontario's population estimates, Statistics Canada's report on LTC residents by age and the current utilization reported in the *Long-Term Care Home System Reports*. The supply of beds has been calculated in two ways, the first assumes that the ratio of beds to demand remains constant over the next 25 years, the second calculation assumes that the number of LTC beds increases by 1.5% every year.

Source: The Conference Board of Canada.

It is important to note that these scenarios are based on status quo assumptions about bed/population utilization rates, and not simply on age. A range of factors influence whether one becomes a resident of a LTC facility, including the presence/absence of a disability (including severity), presence/absence of a spouse/children, and income. Policies and investments, along with public choice could affect future utilization rates. For example, in Denmark, as a result of a significant shift of investments away from nursing homes toward greater home care and support, utilization rates (2002) were 3 per cent for those 65 years and older and 10 per cent for those 80 years and older.²³

Qualitative Changes in Demand: Healthcare Needs

Chronic diseases predominantly occur in later life and the increase in the number of elderly Canadians means these diseases will be more prevalent in future years. The healthcare needs of LTC residents (and potential residents) are increasing, and will continue to increase due to demographics. This implies not only a need for *more* staff and specialized equipment to attend to

²³ C. Glendinning, *Combining Choice, Quality and Equity in Social Services*, 13.

the healthcare needs of residents, but also a need for *more specialized* healthcare workers in LTC facilities, all of which entail higher costs.

The Canadian Institute for Health Information's Continuing Care Reporting System (CCRS) assesses the prevalence of diseases in continuing care facilities. Combining their 2008-09 data for Ontario with our forecast of the expected demand for LTC gives a snapshot of the potential frequency of diseases as the population ages (see Table 2. For a more detailed picture see Appendix C). Note, that the estimates do not take into account how potential advances in health care that may influence disease incidence. Table 2, highlights the frequency of co-morbidity in this population.

Table 2				
Prevalence of Dementia and Alzheimer's Disease, Physical Problems, and Other Diagnoses Among LTC Residents				
	Percentage of Residents with each Diagnosis ²⁴	Estimated Number of Residents with each Diagnosis ²⁵		
		2015	2025	2035
Dementia/Alzheimer's	56	64,427	87,553	133,659
Diabetes	24	27,516	37,394	57,085
Congestive Heart Failure	12	13,844	18,814	28,721
Stroke	21	24,215	32,907	50,236
Arthritis	35	39,572	53,776	82,095
Parkinson's	7	7,830	10,640	16,243
Cancer	9	10,536	14,318	21,858
Peripheral Vascular Disease	5	6,045	8,216	12,542
Osteoporosis	25	28,685	38,982	59,509
Emphysema/COPD	14	15,802	21,474	32,782
Arteriosclerotic Heart Disease	12	13,501	18,348	28,010

Sources: Canadian Institute for Health Information; The Conference Board of Canada.

New treatments and healthier lifestyles will likely mitigate some of these illnesses, thereby reducing the incidence rate of particular diseases among certain cohorts of the aged. However, as life expectancy increases, there will be greater numbers of the very old who, despite new treatments and healthier lifestyles, will likely experience a high prevalence of age-related diseases. Thus, just as the LTC sector is expected to face increasing *numbers* of residents, it will likely also face increases in the healthcare needs of residents. Consequently, there are two

²⁴ Canadian Institute for Health Information, *Continuing Care Reporting System, 2008–2009*.

²⁵ Based on the extrapolation of the expected demand for LTC.

simultaneously operating pressures on the system which require the attention of all the stakeholders within the health and community care sector, including all levels of government. An increase in the intensity and scale of innovation within the sector is needed to make more efficient use of resources to deliver quality care and services.

Qualitative Changes in Demand: Expectations and Characteristics

Two other qualitative changes in the character of the LTC resident and potential resident populations are also likely to introduce new pressures into the system:

Changing Preferences and Expectations

Many interviewees—including LTC operators, government officials, and independent experts—suggest that baby boomers tend to exhibit stronger preferences for independent living arrangements, greater autonomy, and choice in services than previous cohorts. This means that the LTC sector and its healthcare partners will need to develop and provide a wider range of services for residents, ensure more opportunities for residents to express their concerns and expectations, and accustom staff to be even more attentive and responsive to residents' requests. Not only will meeting these higher expectations require additional resources, but will also require a cultural shift in LTC facilities at all staff levels.

Ethnic and Linguistic Diversity

Additionally, because of immigration in previous decades, the ethnic and linguistic profile of the emerging cohort of the aged is also changing. 2006 Census results show that:

- 22.8 per cent of Ontario's population comprises individuals who self-identify as belonging to a visible minority (up from 19.1 per cent of the population in 2001 and 15.8 per cent in 1996);²⁶
- South Asians are the largest visible minority group in Ontario (28.9 per cent of the total visible minority population), followed by Chinese (21 per cent), Black (17.3 per cent), Filipino (7.4 per cent), and Latin American (5.4 per cent), among others;²⁷ and
- an increasing number of Ontarians report a mother tongue other than English or French—26.6 per cent in 2006 versus 24.2 per cent in 2001.²⁸

Notably, levels of ethnic and linguistic diversity among those aged 75 and over are expected to increase dramatically. While 2006 Census results for the Canadian population as a whole show that only 7.6 per cent of those aged 75 and older reported being a member of a visible minority, the proportion of visible minorities among those aged 65-74 was 10.3 per cent and among those aged 45-64 it was 12.7 per cent.²⁹ Given the generally higher proportion of visible minorities in Ontario relative to most other provinces, this likely underestimates the proportion of visible minorities among these age cohorts in the Ontario. In any case, over the next 25 years, the ethnic and linguistic

²⁶ Ministry of Finance, "2006 Census Highlights: Ethnic Origin and Visible Minorities"; Ministry of Finance, "2001 Census Highlights: Ethnic Origin and Visible Minorities."

²⁷ Ministry of Finance, "2006 Census Highlights: Ethnic Origin and Visible Minorities."

²⁸ Ministry of Finance, "2006 Census Highlights: Mother Tongue and Language."

²⁹ Statistics Canada, "Visible minority population, by age group (2006 Census)."

diversity among those aged 75 and older will increase thereby confronting the long term care sector—as well as the health care system more broadly—with new challenges.

This increasing diversity will continue to give rise to needs and preference for homes and services that the current system is ill-equipped to meet. While some homes are already oriented to providing specialized services to specific ethno-linguistic groups, new homes and arrangements will be needed, as will a greater sensitivity and additional support services to address, ethnic and linguistic differences in all homes. Again, adjusting to meet this change will require additional resources (e.g., for translators, culturally appropriate activities), augmented training, and innovations in service delivery.³⁰

Policy Changes and System Interfaces

While the analysis of trends, above, assumes a policy-neutral environment, the capacity of the LTC sector to meet challenges and fulfill its role will be affected by policy, investment and regulatory changes, along with public preferences. Whether *future* policies will have the effect of decreasing or increasing the scale and scope of challenges faced by the sector remains to be seen. However, what is clear is the effect of *current* policies on the nature of the challenges faced by the LTC sector, and its capacity to meet those challenges, both now and in the future.

Notably, the operation, planning, and costs of the LTC sector are strongly affected by two recent strategies:

1. *Emergency Room and Alternate Level of Care (ER/ALC) Strategy*

In Ontario, between 7 and 17 per cent of all hospitalizations (excluding obstetric and pediatric patients) are alternate level of care (ALC) related—that is, where the healthcare needs of the patient are such that they do not require hospitalization, and could be managed in another setting, provided that other setting is available.³¹ While most patients are classified as ALC near the end of their stay, approximately 6 per cent of patients are admitted to acute care as ALC.³² Forty-three per cent of ALC patients are eventually discharged to a LTC facility.³³ However, among long wait cases (i.e., those who have been in acute care for between 40 and 1,180 days, or in post-acute care for between 40 and 3,739 days) across the province, 82 per cent are waiting for LTC.³⁴ The majority of those patients are waiting in acute care, or complex continuing care.³⁵

Based on the Government of Ontario's population forecast, the number of individuals in need of LTC is expected to more than double by the year 2035. Not only will this cause a significant

³⁰ There are also unique challenges that emerge in rural as opposed to urban homes, and different challenges and opportunities for public, non-profit, and for-profit homes, especially as each type of home tries to identify and implement innovations. While it is beyond the scope of the present study to investigate these distinct challenges and opportunities, the development of an effective innovation strategy for the sector as a whole would benefit from additional research and understanding of these differences.

³¹ The 7 per cent estimate is provided by CIHI in *Alternate Level of Care in Canada*, 4. The higher (and more recent) figure of 17 per cent is provided by the Ontario Hospital Association, *Alternative Level of Care*.

³² CIHI, *Alternate Level of Care in Canada*, 19.

³³ CIHI, *Alternate Level of Care in Canada*, 11.

³⁴ Access to Care Program, *Provincial ALC Long Wait Cases Project*, 7.

³⁵ Access to Care Program, *Provincial ALC Long Wait Cases Project*, 8.

increase in the demand for LTC, it will also cause strain on acute and post-acute care in hospitals if changes are not made. By 2035, the number of long stay ALC patients awaiting placement in a LTC facility could be as high as 4,245 if the increase in ALC is proportional to the increase in LTC demand.

Recognizing that the extent of ALC hospitalizations represents a poor use of scarce healthcare resources, and also has the effect of reducing the availability of acute care beds for those who genuinely need them, the Ontario government unveiled an “Emergency Room and Alternate Level of Care” strategy aimed at:

- “Reducing ER demand, providing people with appropriate community-based care so they can avoid an ER in the first place;
- Building ER capacity and processes so that patients can get the fast, high quality care they deserve when they have genuine emergencies; and
- Faster discharge for patients requiring alternate levels of care, moving them out of acute care beds and into more appropriate settings.”³⁶

While the Ministry hopes to divert as many ALC patients as possible into home-based care, due to the lower costs associated with that setting and the preferences of people to stay at home as long as possible, the strategy will involve diverting ALC patients into LTC facilities where appropriate and where space is available. In that case, LTC facilities are likely to face residents with higher acuity levels than they are accustomed to and will need to find new ways and resources to meet those higher healthcare needs.

2. *Aging at Home Strategy*

People overwhelmingly prefer to remain in their own home as they age.³⁷ The Ontario government hopes to encourage and support people to stay in their home as long as possible before they access more costly services in long-term care, continuing complex care, and acute care facilities. The *Aging at Home Strategy* provides support to the LHINs to develop the enhanced home and community care services needed to help people remain at home.³⁸ This could relieve pressure on LTC facilities insofar as people who do not really need the higher-level and costlier services that residential LTC provides will age at home and not go on wait lists, be diverted from waiting lists they are already on, and perhaps even be encouraged to leave LTC homes if they are already there. In fact, Balance of Care projects completed in 9 regions in Ontario reveal that between 14 and 50 per cent of individuals on a LTC waiting list could be safely and cost-effectively diverted to home and community care which indicates that the Aging at Home strategy may have significant room to achieve its aims (See Textbox 2).³⁹

Both strategies could potentially have the effect of increasing the acuity levels of LTC residents. As indicated above, ALC patients diverted to LTC facilities may have greater average health care needs than facilities are accustomed to dealing with. At the same time, even if more individuals

³⁶ Ministry of Health and Long Term Care, *Results-based Plan Briefing Book 2009-2010*.

³⁷ A. Jones, *The Role of Supportive Housing for Low-Income Seniors in Ontario*, 4.

³⁸ Ministry of Health and Long-Term Care, “Ontario’s Aging at Home Strategy.”

³⁹ A. Williams and J. Watkins, *The Champlain Balance of Care Project: Final Report*, 7.

are encouraged to stay at home longer—and therefore will not access LTC until much later—when many of those individuals *do* request LTC services, their healthcare needs are also likely to be higher than what has been experienced in the past by the LTC sector.

Textbox 2

Balance of Care Projects

Balance of Care projects seek “to guide resource planning and allocation by asking what proportion of individuals in residential LTC (care homes) could have been safely and cost-effectively supported in home and community had they been given appropriate community-based supports”⁴⁰

As of November 2009, research teams from the University of Toronto and Ryerson University had completed Balance of Care assessments in 9 of Ontario’s 14 health planning regions using an extensive, multi-faceted assessment methodology.⁴¹ While results varied across the health regions and between rural and urban settings, the findings indicate that there are opportunities to direct more seniors to home and community care options, thereby reducing some of the strain on LTC facilities and waiting lists.

Sources: Williams and Watkins; *The Champlain Balance of Care Project*; Canadian Research Network for Care in the Community, “The Balance of Care.”

In short, with both strategies, even if the LTC population remains *quantitatively* stable, the cost of care and services per resident is likely to increase as a result of higher healthcare needs.

The Shape of the Future

As both the size and the character of the LTC resident and potential resident population changes, the sector will be increasingly pressed to deliver high quality care and services in cost-effective ways.

Does the Ontario LTC sector have the capacity to meet these challenges? Does it have sufficient numbers of high quality staff, appropriate facilities and technology, adequate funding, and an enabling regulatory environment to support the needs of Ontarians and contribute to the success of the government’s healthcare goals and strategies? As the following chapter reveals, the sector is not yet ready to address the present and future needs of the province.

⁴⁰ Ibid., 5-6.

⁴¹ For a description of the methodology, see Canadian Research Network for Care in the Community, “The Balance of Care.”

Chapter 3

Addressing the Challenges: Current and Future Capacity

Meeting demographic and policy challenges, and improving the inter-working of acute, long-term and home care, will require a well-prepared, well-supported LTC sector. While the sector manages to deliver high-quality care and services to its current residents, it struggles to do so and there are long waiting lists of potential residents who they are unable to help. Moreover, the sector is under-resourced and unprepared to meet the challenges that will intensify as the population ages and as the government attempts to rationalize the healthcare system. In particular, the LTC sector faces significant difficulties related to human resources, technology and facilities, funding, and regulation. In that case, as the report reveals, an effective innovation strategy for LTC will require targeted support, coordination, and resources from government.

Health Human Resources

Health human resources are the most critical issue facing the LTC sector, both in Ontario and elsewhere. A survey by the Organization for Economic Co-operation and Development (OECD) found that staff qualifications and shortages were the greatest concern to LTC policy makers in OECD countries.⁴² With a declining birthrate and an aging population this labour-intensive industry—in which approximately 80 per cent of operating budgets is devoted to salaries and benefits⁴³—will be hard pressed to find and retain sufficient staff.

The human resource problem due to rising demand is compounded by the decline of the working age population as a proportion of the overall population. The ratio of persons aged 20-64 (i.e. the working age population) compared to the number of people over 85 years of age (who are most likely to need LTC) declines from 19:1 in 2009 to less than 10:1 in 2035.⁴⁴ As demand rises and the labour pool shrinks, human resource challenges already faced by the industry will become more severe. And just as the sector must focus efforts on finding solutions to its *labour* shortages, it must also find solutions to its looming *skills* shortages—that is, the LTC sector needs to ensure that it employs highly skilled, well-trained, and motivated employees.

Labour Demand and Shortages

As noted in Chapter 2, the Ontario LTC sector not only faces an existing wait list of approximately 24,000 individuals, but the gap between demand and supply of beds will increase over the coming decades. At current utilization patterns, by 2035 between 57,000 and 127,000 Ontarians could be without the residential LTC services they need. If utilization patterns hold and beds are added to meet demand, substantial efforts will be needed to recruit, train, and retain sufficient staff. How many will be needed?

⁴² OECD, *Long-term Care for Older People*, 13.

⁴³ Canadian Healthcare Association, *New Directions for Facility-Based Long Term Care*, 91.

⁴⁴ The ratio was calculated based on the Government of Ontario's *Ontario Population Projections Update 2009-2036*.

In the 2008/2009 provincial budget, the government announced that it would increase funding over the course of 4 years to raise the number of paid hours per resident to approximately 3.5 paid hours per day, with a goal to reach 4.0 paid hours per resident per day by 2012.⁴⁵ As of 2008, however, the actual level was a province-wide average of 2.8 worked hours per resident per day.⁴⁶ Table 3 shows the number of nurses and personal care workers needed to meet a number of level-of-care scenarios, based on expected demand for long-term care in Ontario and assuming a 40 hour work week.

Table 3

Staffing Requirements based on Expected Demand for Long-Term Care in Ontario⁴⁷				
Year	Expected Demand	Staff Requirements (hours/resident/day)		
		2.8 (worked)	3.5 (paid)	4 (paid)
2010	97961	48,001	60,001	68,573
2011	101463	49,717	62,146	71,024
2012	104849	51,376	64,220	73,394
2013	108204	53,020	66,275	75,743
2014	111351	54,562	68,203	77,946
2015	114671	56,189	70,236	80,270
2016	118146	57,892	72,365	82,702
2017	121631	59,599	74,499	85,142
2018	125189	61,342	76,678	87,632
2019	128667	63,047	78,809	90,067
2020	132339	64,846	81,057	92,637
2021	136317	66,795	83,494	95,422
2022	140773	68,979	86,223	98,541
2023	145557	71,323	89,154	101,890
2024	150601	73,794	92,243	105,421
2025	155833	76,358	95,447	109,083
2026	161665	79,216	99,020	113,165
2027	168579	82,604	103,255	118,005
2028	175964	86,222	107,778	123,175
2029	183445	89,888	112,360	128,412
2030	190994	93,587	116,984	133,696
2031	199071	97,545	121,931	139,350
2032	209085	102,451	128,064	146,359
2033	218847	107,235	134,044	153,193
2034	228329	111,881	139,852	159,831
2035	237895	116,569	145,711	166,527

Source: The Conference Board of Canada.

⁴⁵ Sharkey Commission. *People Caring for People*, 10, 13-14.

⁴⁶Health Data Branch/HSIMI, Staffing Database, July 22, 2010.

⁴⁷ Number of workers was calculated by: (expected demand x (xxx) hours x 7 days/week)/40hours/week = number of full time nurses and personal care workers needed based on expected demand.

The exact number of staff employed in LTC homes in Ontario is difficult to quantify. While Statistics Canada estimates that Ontario-based homes for the aged employed 60,844 full-time equivalent personnel in 2007-08, this is likely an overestimation given that the agency provides an estimate of 749 operating facilities (versus the Government of Ontario's count of 625 facilities).⁴⁸ Another estimate by the Sharkey Commission suggests that LTC home in Ontario employ about 45,000 full-time equivalent personnel "providing nursing personal care, and program and support services to residents."⁴⁹ The Government of Ontario's staffing database indicated that in 2008 there were 40,903 FTE working in administration and direct care in LTC facilities.⁵⁰ Note that because many employees in LTC work part time hours, the number of actual individuals working in LTC is substantially higher than the FTE figures provided here.

It will be a challenge to recruit the required number of staff. Competition for the highly skilled and motivated workers that the Ontario LTC sector needs will be intense. International competition for staff is increasing—i.e., Ontario and Canada are competing with Australia, the European Union, the U.S., and others for talent. Additionally, the scarcity of labour faced by the LTC and other sectors will likely contribute to escalating wages thereby contributing to even greater difficulty in recruitment within the sector's financial means. Strategies to ensure that Ontario LTC is regarded as an attractive option for potential employees will need to be developed and deployed.

The Registered Nurses' Association of Ontario (RNAO) recommends a staff mix of: 1 nurse practitioner per facility and 20 per cent registered nurses, 25 per cent registered practical nurses and 55 per cent health care aids/personal support workers (as percentages of total).⁵¹ At the time the RNAO recommendations were published the available data indicated that the current staff mix relied heavily on personal support workers at 75 per cent, with 13 per cent registered practical nurses, and 11 per cent registered nurses.⁵²

Staff Characteristics and Skills Shortages

Staff need to be highly skilled. The nature of the LTC sector and its services demands the recruitment and retention of highly skilled and motivated staff. LTC facilities rely on a mix of doctors, Registered Nurses (RNs), Registered Practical Nurses (RPNs) and Personal Support Workers (PSWs) to care for residents. Additionally, LTC homes require physiotherapists, occupational therapists, activity and recreation staff, other direct care staff (including nursing aides, counselors, orderlies, social workers), as well as clerical, nutritional, maintenance, and other staff. As the acuity levels of residents and future residents continue to rise, the number of highly skilled direct caregivers among the general staff mix will need to be increased. Yet, current staff and skills shortages already limit the capacity of direct care workers to respond as effectively as they would wish to residents needs.

⁴⁸ Statistics Canada, Residential Care Facilities 2007/2008, 26, 65.

⁴⁹ The commission disaggregates the total into estimates of 28,900 PSWs, 10,650 licensed nurses, and 3,600 allied health professionals. Sharkey Commission. *People Caring for People*, 8.

⁵⁰ Health Data Branch/HSIMI, Staffing Database, July 22, 2010.

⁵¹ RNAO, *Staffing and Care Standards for Long-Term Care Homes*, 7.

⁵² *Ibid.*, 7.

The majority of direct care is provided by RNs, RPNs, and PSWs. While Ontario does not have minimum staffing ratios, other jurisdictions do set minimum levels, such as New Brunswick which has mandated 3.1 hours of care per resident.⁵³ New Brunswick specifies who will provide care, with 2.5 assigned hours broken down to a ratio of 20 per cent RN, 40 per cent RPN, and 40 per cent PSW time. Whether a jurisdiction adopts minimum levels and/or fixed distributions of responsibility, all LTC facilities will require an appropriate mix of the following staff positions to offer LTC residents the care that they need:

- *Doctors.* While some geriatricians—doctors who sub-specialize in geriatric medicine—and geriatric psychiatrists provide care at LTC facilities, the majority of residents are attended by family physicians.⁵⁴ It has been estimated that a mere 1 per cent of an MD’s four year curriculum is devoted to geriatric medicine, despite the fact that MDs currently spend approximately 70 per cent of their time with elderly patients.⁵⁵ At the same time more specialists are also needed. As of 2007 there were 211 geriatricians in Canada—less than half of the estimated 538 that are required.⁵⁶ Thus, greater numbers and additional training will be required to enable physicians to effectively respond to the growing needs of an aging population.
- *Nurses.* A nursing certificate in gerontology was first introduced by the Canadian Nurses Association in 1999. By 2007, less than 14 per cent of certified RNs had a specialty certificate in gerontology.⁵⁷ The actual amount of geriatric education or practice included in undergraduate nursing programs is currently unknown.⁵⁸ What is clear is that the needs of residents are becoming more complex and that an increase in gerontology content of current curricula is likely needed. As noted, future LTC residents are likely to be living with multiple chronic conditions and have higher care needs; consequently, the difficulties that LTC facilities have in attracting and retaining sufficient, appropriately educated RNs to meet direct care needs of residents will increase.⁵⁹
- *Personal Support Workers.* PSWs have the most direct contact with residents of any of the staff in LTC facilities. While they are unable to provide the more complex care that residents require, they are instrumental in assisting residents with activities of daily living. Consequently, sufficient numbers of PSWs are needed to treat residents with dignity and respect as they are assisted with activities of daily living. And sufficient numbers of nurses are needed to ensure that PSWs are not put in a position where they will be required to perform tasks they are not trained to do.

In addition to direct care staff, LTC facilities require a range of administrative, nutritional, maintenance and others staff to ensure that facilities are well-managed, provide healthy and attractive food options, and are clean and inviting. As with the direct care workers, however, recruiting, training, and retaining talented and motivated staff to perform these functions is becoming increasingly difficult.⁶⁰

⁵³ Canadian Healthcare Association, *New Directions for Facility-Based Long Term Care*, 95.

⁵⁴ *Ibid.*, 99.

⁵⁵ *Ibid.*, 99.

⁵⁶ *Ibid.*, 100.

⁵⁷ *Ibid.*, 98.

⁵⁸ *Ibid.*, 98.

⁵⁹ P. Armstrong et al., *They Deserve Better*, 54.

⁶⁰ For a discussion of the potential to employ immigrant care workers in LTC, and the challenges with that approach, see I. Bourgeault, et al., *The Role of Immigrant Care Workers in an Aging Society*.

Issues Affecting Recruitment and Retention

At the heart of the human resource challenges facing LTC facilities is the ability to recruit and retain talented employees. Direct care workers are more likely to be women (95.5 per cent),⁶¹ tend to be older (with an average age of approximately 45),⁶² and include a high percentage of immigrants—26 per cent of LTC workers are immigrants versus 21 per cent of the general population.⁶³ Given the physical nature of the job, the demographics of direct care employees have implications for the factors that affect recruitment and retention that are addressed below.

In their study of turnover rates and determinants of turnover among RNs and PSWs, Wodchis and colleagues found that, for RNs/RPNs:

- average levels of turnover were 12 per cent for full-time and 22 per cent for part-time RN/RPN staff in Ontario;
- municipally-run and larger homes (140+ beds) were less likely to have high turnover among full-time nursing staff; and
- homes with strong engagement of staff in quality improvement, a strong culture of quality improvement, and implementation of more clinical practice guidelines experienced lower turnover rates.⁶⁴

Among PSWs in Ontario, Wodchis and colleagues found that:

- average levels of turnover were 6.5 per cent for full-time and 16 per cent for part time PSWs;
- larger homes (140+ beds for part time and 80+ beds for full time) were associated with higher turnover of PSWs; and
- on-site education and training participation for PSWs appears to reduce turnover among part-time PSWs, while clinical practice guideline implementation appears to reduce full-time PSW turnover.⁶⁵

It should be noted that perception is as important to recruitment and retention as reality. Thus, even if some of the factors described below do not characterize the *reality* the LTC sector and facilities, they do characterize the perceptions of those both inside and outside the sector which, in turn, affects recruitment and retention outcomes.⁶⁶

- *Heavy Workloads.* In a survey of direct care workers in Canada, heavy workloads were the most frequently identified concern (58.6 per cent).⁶⁷ In Ontario, 62.6 per cent of the workers surveyed indicated that they had too much to do “all or most of the time.”⁶⁸ Nurses and PSWs

⁶¹ P. Armstrong, et al., *They Deserve Better*, 43.

⁶² *Ibid.*, 44.

⁶³ OECD, *The Long-Term Care Workforce*, 30. For discussion of immigrant workers and related issues in long term care in Canada, see I. Bourgeault, et al., *The Role of Immigrant Care Workers in an Aging Society*.

⁶⁴ Wodchis, et al., “Factors Associated with Turnover Among Registered Nursing Staff in Ontario LTC Homes.”

⁶⁵ Wodchis, et al., “Factors Associated with Personal Support Worker Turnover in Ontario LTC Homes.”

⁶⁶ For work that challenges some of these and other myths, see L. Young, “Shattered: 10 Myths About Long-Term Care Nursing.”

⁶⁷ P. Armstrong et al., *They Deserve Better*, 55.

⁶⁸ *Ibid.*, 61.

report not taking breaks, working overtime, and “running” to keep up with the workload. Consequently, many workers leave at the end of the day feeling ineffectual. Having spent their day responding to those in the greatest need and attempting to keep on schedule, workers often feel that they are not able to address residents’ social and psychological needs. Workers may feel physically spent and demoralized at the end of their shift.

- *Staffing Levels.* Staffing levels were the second most frequently identified sources of concern for direct care workers in Canada, at 57.3 per cent.⁶⁹ Moreover, “more staff” was the number one recommendation by LTC employees when asked what changes they would like to see in the sector.⁷⁰ Having the right mix of staff is also important. Working short-staffed is a common experience on a daily basis for a significant proportion of LTC workers in Ontario. An insufficient workforce increases employees’ already heavy workload, and further limits their ability to meet anything other than residents’ most basic needs.
- *Devaluation of LTC.* Nurses report feeling that their work in LTC is not as valued as work in acute care. One nurse summed it up by saying “[there is] a strong sense of LTC being a second class sector managed by second rate nurses.”⁷¹ To effectively attract and retain more people in LTC, there needs to be a revaluation of the entire sector. An awareness campaign targeted at nurses and PSWs, emphasizing the variability of the work and the skills required to deliver increasingly complex care in these facilities would help foster a greater appreciation of the work done in LTC.
- *Low Wages.* Nurses in LTC have lower wages than nurses in hospitals, are more likely to work part-time involuntarily, and less likely to have benefits.⁷² This limits the attractiveness of LTC as a career option and has an impact on retention.
- *Lack of Advancement and Training Opportunities.* Many direct care jobs are seen as “dead-end jobs” due to the lack of training and advancement opportunities.⁷³ To retain employees and ensure that they are engaged in the workplace they need to be working to the full scope of their practice.⁷⁴ Training initiatives need to be instituted on a regular basis, given the high turnover rate in this field. Additionally, training needs to be carefully planned and implemented to enable staff to participate in a manner that will not increase the workload of other staff.
- *Lack of Autonomy.* Many direct care workers also report a lack of choice and autonomy in discussions and decision-making related to the organization of work and providing residents’ care.⁷⁵ Direct care workers often feel frustrated that administrators and government regulators, who may have never worked on the front-lines, are influencing policy without complete awareness of the implications that this has on residents and direct care workers.

Thus, there are a number of factors that limit the current capacity of the LTC sector to attract and retain sufficient numbers of appropriately-qualified staff. As the demand for LTC rises and the

⁶⁹ Ibid., 55.

⁷⁰ Ibid., 56.

⁷¹ College of Nurses of Ontario, *Supporting Quality Nursing Care*, 6.

⁷² P. Armstrong et al., *They Deserve Better*, 86.

⁷³ J. Wiener, *Long-Term Care: Options in an Era of Health Reform*, 25.

⁷⁴ Canadian Healthcare Association, *New Directions for Facility-Based Long Term Care*, 92.

⁷⁵ P. Armstrong, “Long-term Care Problems.”

number of working age adult declines, left unaddressed, these factors will significantly impair the sector's ability to recruit and retain employees and thus hamper its ability to deliver high-quality care to residents. Indeed, higher staff levels are associated with reduced death rates, increased rates of discharges to home, lower incidences of pressure ulcers and urinary tract infections, and improved functional outcomes.⁷⁶ Consequently, difficulties attracting and retaining qualified staff will likely reduce the quality of life and physical well-being of residents in LTC.

Technology and Facilities

Technology

Technology can play a significant role in providing high quality, efficiently-delivered, and cost-effective care. *Information technologies*, for example, can improve the efficiency of administration, record-keeping, and reporting, while *assistive technologies* can improve workforce capacity and resident independence. To be sure, while technology is not a panacea for the many challenges faced by a sector that must rely on person-to-person contact to succeed, it is a tool that can improve many areas of LTC operation and thereby free up more resources and time for personal contact.

Despite the potential gains from technology adoption, interviews with LTC operators, government, and other stakeholders reveal that Ontario LTC providers are adopting technology at less than optimal rates. Thus, the sector is not achieving the productivity and care-enhancing benefits that technologies can provide.

Information Technologies

The majority of technologies for elderly populations are still in the conceptual, prototype and development phases.⁷⁷ There is a broad array of technologies that can be used in LTC from electronic health records to recreational and tracking devices. Information technologies have been more extensively utilized in LTC and health facilities; however, direct evidence of their effects and benefits in LTC is limited.

A relevant study in the U.S. compared the outcomes for clinicians who used electronic health records and those who did not. There were no differences on quality indicators based on whether or not electronic health records were used.⁷⁸ While the authors of the study cautioned that these results do not mean that electronic health records are not beneficial, they did suggest that benefits may take time to be realized, and may be experienced more by patients than by regulators. By contrast, another study on the use of electronic health records in a U.S. LTC facility *did* find significant benefits. In particular, the use of electronic health records resulted in less turnover and more job satisfaction for nurses, as well as decreased falls and lower hospitalization rates for residents.⁷⁹

⁷⁶ Registered Nurses' Association of Ontario, *Staffing and Care Standards for Long-Term Care Homes*, 5.

⁷⁷ S. Tak, et al., "Technology for Long-Term Care," 63.

⁷⁸ R. Martin, et al., *Essential but not Sufficient*, 21.

⁷⁹ *Ibid.*, 22.

Residents may receive a higher quality of care due to improved record keeping. As caregivers are able to rapidly access and search a resident's medical file they may more easily and effectively identify warning signs, diagnose and treat residents. When a resident is transferred to a hospital or other facility their entire medical record could also be transferred without delay. Among the benefits of electronic health records for staff is the ease with which they can access health records without the need to find charts, and the ability of multiple staff to review and document residents well-being simultaneously.⁸⁰ Electronic health records can help staff to offer more informed, efficient care to residents.

Textbox 3

Resident Assessment Instrument – Minimum Data Set (RAI-MDS)

The Resident Assessment Instrument – Minimum Data Set (RAI-MDS) is a computerized care management tool that helps health professionals in long-term care to record, assess, and track the care needs of residents. It is used not only in Ontario, but also in other provinces, France, Germany, Italy, Japan, the United Kingdom, and the United States among other jurisdictions.

According to the Ontario Family Councils Program, the RAI-MDS has many benefits, including:

- improved ease in sharing information among care workers in LTC facilities, due to the use of a common “language” and metrics;
- improved efficiency and accuracy of assessments;
- enhanced information for decision-making regarding quality improvement, assessment, and planning; and
- a greater capacity to sharing information across the health system as a whole, due to the transmission opportunities provided by digital records.⁸¹

The RAI-MDS is an example of a widely adopted technology that has great promise to improve efficiency and care outcomes in Ontario's LTC facilities. While time and costs of training cannot be overlooked, the benefits of the technology can justify these costs.

Source: The Conference Board of Canada; Ontario Family Councils Program.

While other information technologies—such as new accounting systems, reporting software, and recruitment tools—have been adopted by some LTC operators, interview results indicate that others appear to lag. In part this may be due to skepticism about benefits, but the cost of purchasing and training staff to use new technologies is also viewed as prohibitive by many interviewees given current resource constraints.

Assistive Technologies

Assistive technologies are already being put to good use in LTC facilities. Video surveillance allows staff to verify the security of residents in common areas from a central location. Electronic pass-cards can monitor and limit access to secure locations (e.g. secured wards for patients with cognitive impairments, medication and supply closets). Personal call devices can enable residents to get help while they are in their room or bathroom. In addition to these

⁸⁰ Ibid., 22.

⁸¹ Ontario Family Councils Program, “The Resident Assessment Instrument—Minimum Data Set.”

standard applications of technology in LTC facilities, there is potential for technology to further improve the quality of life and quality of care of residents.

Although many technological applications are still at the concept or development stage, they have the potential to play an increasingly important role in improving the quality of life in LTC. This will require a thoughtful application of technology to ensure that it allows for greater human interaction with residents rather than acting as a replacement for human interaction. Other assistive technologies at varying stages of development include:

- *Mechanical lifts for residents*—stationary overhead lifts and free-standing mobile lifts that increase the ease with which patients can be moved. With these lifts, staff can more effectively care for residents without unnecessary physical strain on their part. While the utility of the lifts may be limited due to space constraints a “lifting suit” is currently being developed in Japan that could also have application in LTC facilities. The Power Assist Suit is being piloted with aging farmers.⁸² The metal and plastic suit amplifies the strength of the users’ muscles enabling them to work more efficiently and with less physical discomfort. If successful, such a suit could be adapted and used by staff in LTC facilities.
- *Light Sensors*. Installing motion-sensitive lighting in residents’ rooms could help to prevent falls and increase security, particularly for residents with cognitive impairments who may wander at night.
- *GPS Tracking*. Although controversial, GPS tracking devices have been proposed for use with individuals suffering from dementia. While such devices may seem excessive for LTC facilities, it is a fact that each year a small proportion of residents suffering from dementia do manage to wander from the security of their facility. Identifying bracelets (e.g. medicalert) or identity cards would be a lower tech option that could also help to ensure that wandering residents are quickly identified and returned to their home.
- *Personal Digital Assistants* can provide residents with reminders to perform daily activities. The purpose of such a device would be to enable residents to maintain greater independence.

A number of assistive technologies are already being used in LTC facilities to increase the ease with which staff care for residents and to improve residents’ quality of life. While there is increasing research on how robotics can be used in LTC (e.g. Nursebot, robotic pets), it is paramount to consider residents’ well-being and desires when implementing such technology. Technology that is often appealing to designers, and perhaps even to LTC operators, may be less so to elderly individuals with physical ailments who tend to prefer more human contact. Still, Ontario LTC facilities could increase their rates of technology adoption, and may be forced to do so in the face of demographic and resource challenges.

Facilities

Moving into a long-term care facility can be an extremely difficult transition for many residents. Leaving the comfort and familiarity of a home where they are surrounded with memories and their own personal belongings, to enter what are often regarded as sterile, impersonal environments can be jarring. The transition is made even more challenging when the decision to

⁸² Agence France-Presse, *Robo-Suit Promises Superpowers for Farmers*.

enter a LTC facility is often made very reluctantly by residents and their families. Recognizing the constraints operators face in updating or building new facilities—such as costs and regulations—it is nevertheless critical that, because LTC facilities are residents’ homes, and because the nature of the environment affects care and quality of life outcomes, they must be designed in ways that maximize outcomes for residents.

For example, facilities should enable residents with physical and/or cognitive limitations to move about with relative ease, provide opportunities for residents to interact with each other, and they should facilitate the provision of care. Yet, despite the importance of facility design, a survey of direct care workers found that a significant proportion of staff felt that LTC facilities were not meeting the needs of residents.⁸³ In particular, staff reported that bathrooms (40 per cent), recreation areas (33 per cent) and outdoor spaces (33 per cent) were not meeting the needs of residents “very well or at all well.”⁸⁴ To be sure, the views of residents are necessary to assessments of the attractiveness and utility of facilities—and these should be sought when opportunities for renewal or redesign emerge—but the views of direct care staff provide an important perspective and many of their concerns were echoed by academic experts interviewed for this project.

While it may be challenging for administrators to update buildings that are already filled to capacity with residents, the benefits of adapting designs to meet residents’ needs cannot be overlooked. Facilities that are designed to promote independence, socialization and choice, enhance the residents quality of life.⁸⁵ And as baby boomers become the new residents of LTC facilities in Ontario, higher expectations of the facilities will heighten the need for change.

Recognizing the importance of facility design and atmosphere to care and quality of life outcomes, the Pioneer Network in the United States—a multi-stakeholder group focused on supporting innovation in LTC—is working toward the goal of making LTC facilities more homelike and less institutional. Network-led stakeholder meetings have produced a consensus view that ideal facilities would include resident direction, a homelike atmosphere, close relationships, staff empowerment, collaborative decision-making, and quality improvement processes.⁸⁶ To support improvements in buildings and facilities in line with Pioneer Network principles, Koren suggests that “policy makers can revise construction codes to remove barriers to person-centered environments and further encourage design innovations by creating tax credits, targeted grants, or interest rate reductions to make capital costs more manageable.”⁸⁷ However, further study and evidence would be required before conclusions can be reached about the advisability of programs for facility redesign.

The Ministry of Health and Long-Term Care and LTC operators have been working for over a decade on facility design and retrofit issues, with a particular emphasis on making homes less institutional and more home-like, and encouragements to introduce innovative design features. The *Long-Term Care Home Design Manual, 2009* “represents a consolidation and revision of

⁸³ P. Armstrong et al., *They Deserve Better*, 94.

⁸⁴ *Ibid.*, 94.

⁸⁵ Bell et al., *Environmental Psychology*, 425.

⁸⁶ M. Koren, “Person-Centered Care for Nursing Home Residents: The Culture-Change Movement.”

⁸⁷ *Ibid.*, 315.

policies contained in both *The Long-Term Care Facility Design Manual, May 1999* and the *Long-Term Care Retrofit Design Manual, January 2002*” and “promotes innovative design in long-term care homes in Ontario.”⁸⁸ While this suggests that there is positive inertia towards improving facilities, the present research did not reveal sufficient evidence to allow for an assessment of the progress and/or challenges with respect facility design and upgrade in accordance with the new standards, nor whether such changes would satisfy the concerns of the direct care workers surveyed by Pat Armstrong and colleagues (as noted above).

Funding

The Ontario LTC sector’s ability to deliver effective care and to invest adequately in HR, technology, and facilities required for effective care delivery, is directed affected by the financial resources it has at its disposal. At present, funding for LTC is derived from a mix of public funding and resident co-payments. While the government provides funding for nursing and personal care, program and support services, and raw food supplies, residents are required to make a co-payment to cover the costs of accommodation and other non-care services. This split between sources of funding reflects the fact that while LTC facilities provide healthcare—and thus receive public funding to deliver that care—the facilities are essentially the homes of residents—the cost for which, as in any other setting, is borne by the resident.⁸⁹

As of October 2010, LTC facilities receive \$147.77 per resident per day, of which residents pay \$53.23 per day for basic accommodation—a level set not by the market, but by the province. Adjustments are also made to LTC funding to reflect the acuity levels of residents. Additionally, LTC operators are eligible for a variety of other specialized funding programs for such things as the construction of new beds and replacement beds, capital funding for new construction and retrofits, premiums to meet structural compliance classification standards, and dialysis funding among many other things.

Recognizing that there are both for-profit and not-for-profit providers in the sector, the question of where profits can be taken is pertinent. The answer is that for-profit providers are permitted to extract profit only from the accommodation envelope of funding. Funding for nursing and personal care, program and support services, and raw food—i.e., health care, social care, and diet—are insulated from the profit-seeking activities. The implication is that for-profit facilities find profit only when they improve the efficiency and cost effectiveness of accommodation services—a space in which the gains, and thus profits, are rather limited under the current funding model.

Two issues about LTC funding in Ontario emerged from the literature and interviews—namely, concerns about the *levels* of funding and concerns about the *structure* of the funding model.

⁸⁸ Ministry of Health and Long-Term Care, *Long-Term Care Home Design Manual*, ii.

⁸⁹ Note that the present section on funding of the Ontario LTC sector is intended simply to offer a brief account of the funding model as it presently exists and to identify options and themes for discussion of changes in the model. It is beyond the scope of the present study to analyze the current model in depth, to analyze other possible models, and to make recommendations about what changes to make. This report is focused on the elements of effective innovation in LTC, and the government resources necessary to support innovation in the sector. Consideration of the funding model occurs only through that lens.

Level of Funding

The consensus among interviewees is that LTC providers lack sufficient resources in light of *current* demand, acuity levels, and resident preferences. While there are adjustment mechanisms to reflect different acuity levels, LTC operators appear to struggle financially to meet the care and other needs of residents. Additionally, interviewees agreed that, in the absence of significant changes by the province, the Ontario LTC sector will lack sufficient resources to meet future demand, acuity levels, and resident preferences.

Indeed, while LTC operators somehow manage to meet the care needs of residents, they are often without sufficient resources to improve facilities, adopt care-enhancing and time-saving technologies, to attract sufficient numbers of highly-qualified staff, and to coordinate record-keeping and compliance with regulation. At the same time, although interviewees generally agreed that the LTC sector needs more resources, responses were mixed about whether providers need and/or will need “a little” or “a lot” more.

Structure of the Funding Model

Few interviewees regard the structure of the funding model as problematic. While some expressed concerns about funding for capital renewal and indicated that a review of the way resident co-payment rates are set would be welcome, these sorts of remarks were in the minority. Notably, almost no concerns were expressed about the balance between what government and what residents pay. This is surprising given the ongoing discussions about “re-balancing” public and private funding in other jurisdictions. In Australia, EU, and US, there are intensifying discussions about and new models for LTC funding to prepare the sector for future challenges:

Australia

Australian government spending on aged care is expected to increase as a proportion of GDP from 0.7 per cent in 2006-07 to 1.9 per cent by 2046-47—as a result of the same demographic challenges faced by the Ontario LTC sector.⁹⁰ Consequently, in Australia there has been increasing talk about and movement towards “rebalancing” public and private contributions to LTC costs—i.e., requiring residents who have the resources to make greater contributions to their residential LTC.

Those in favour of a rebalancing emphasize that the accommodation portion of LTC services is something that residents would have to pay for themselves if they were not residents of LTC facilities—that is, if they were living in private homes, they would be expected to bear the full costs of rent, heat, electricity, and other basic accommodation expenses. Additionally, advocates suggest that there may be room in the budget of the average baby boomer to pay more for their accommodations—Australian baby boomers have an average net worth of \$381,000 AUD compared to \$292,500 AUD for all Australians.⁹¹ Those skeptical of efforts to rebalance the Australian LTC funding model worry that less affluent seniors will be further impoverished by such a policy, while others will not be able to afford the care they need at all.

⁹⁰ Productivity Commission, *Trends in Aged Care Services: Some Implications*, xv-xxv.

⁹¹ *Ibid.*, xv-xxv.

United States

The United States also faces the same trends and challenges to its LTC sector and, consequently, discussion about alternate approaches to funding LTC have emerged there as well. Public sector expenditures for LTC were \$150 billion in 2007 and are expected to climb to \$295 billion by 2030.⁹² In 2008, 77 per cent of nursing home residents had care covered by either Medicare or Medicaid. Private and employer-supported LTC insurance plans have increased their footprints in many states, though only 16 per cent of adults over 65 with annual incomes over \$20,000 have purchased LTC insurance. Still, that move reflects an increasing awareness that new approaches to funding LTC will be necessary of the U.S. is to successfully meet demographic challenges.⁹³

Germany

Germany recently adopted a *Social Dependency Insurance* program for LTC. The compulsory insurance plan requires contributions according to income and can be supplemented with private insurance. Benefits are paid as cash for the client at home, cash for home care paid to a provider, or cash for institutional care paid to a provider.⁹⁴ What is notable here is that by aligning LTC insurance contribution levels with incomes—rather than drawing from general government accounts to fund LTC—Germany has incorporated the notion that LTC funding should reflect a better, and more explicit, balance between public and private contributions.

France

Similarly, France has introduced a nation-wide, universal *Allocation Personnalisée d'Autonomie* which provides resources to individuals to fund LTC service at one of six levels of need.⁹⁵ While the program respects the strong disposition in France towards solidarity and sharing the costs of social programs, it does introduce some degree of contribution according to capacity—while individuals with incomes below a certain threshold pay no charges, those with incomes above the threshold level pay charges in line with income.

United Kingdom

Funding models for LTC in the U.K. differ across the countries that make up the U.K., however, the general approach is to share costs between the state and the care recipient, with services being “heavily means-tested.”⁹⁶ As of 2008, there has been a move towards offering personal budgets. Personal budgets are used to pay for care and “can be taken as a cash payment, or held by the local authority care manager, or managed by a trust or third party.”⁹⁷

While personal budgets introduce more flexibility and choice for consumers, their success depends on consumers becoming more aware than they currently are of the available care options and how to make appropriate choices between them. Moreover, “whether choices can be realised will depend on the capacity of local provider organisations to respond appropriately to changed market incentives, with individuals rather than local authorities becoming the main purchasers.”⁹⁸ Nevertheless, as Glendinning notes, “it is hoped that the emphasis on improving

⁹² G. DeFriesse and P. Welsh, “LTC Challenges Ahead.”

⁹³ G. DeFriesse and P. Welsh, “LTC Challenges Ahead.”

⁹⁴ C. Glendinning, *Dartington review on the future of adult social care*.

⁹⁵ *Ibid.*

⁹⁶ C. Glendinning, *Combining Choice, Quality and Equity in Social Services*, 36.

⁹⁷ *Ibid.*, 36.

⁹⁸ *Ibid.*, 37.

access to information, combined with [personal budgets] for publicly-funded social care service users, will improve equity between those whose services are publicly funded and those who pay for their own care.”⁹⁹

Despite the absence of a “rebalancing” discussion in the Ontario context, these international examples indicate that there are options available to help the LTC sector achieve financial sustainability as it delivers care and other services to a growing and increasingly complex resident population.

Regulation and Reporting

Despite consultations that preceded the recent adoption of the *Ontario Long Term Care Homes Act 2007*, nearly every interviewee believes that the sector is highly- or over-regulated. Indeed, the majority of interviews noted that the regulatory environment *makes it harder* not easier for LTC providers to deliver high-quality, cost-effective care. And there is a widespread view that the time required for compliance and reporting compounds human resource challenges and hampers innovation in LTC.

Regulation in the LTC sector is designed to ensure that residents receive high-quality care and are treated with dignity and respect. Cases of resident injury, neglect and abuse—though rare—nevertheless garner significant media attention and increase the pressure on politicians and Ministry officials to institute greater protections and standards. At the same time, because the LTC sector includes for-profit providers some take the view that additional scrutiny is required to ensure that care is not sacrificed for the sake of profit. Whether their concern is well-founded or not, it does appear to drive much thinking and action related to LTC regulation.

The result is that LTC providers are expected to regularly monitor and report on more than 300 criteria (and hundreds of additional sub-criteria), across a range of areas including residents’ rights, care, and services; admissions; councils; operation of homes; funding and spending; and others. This includes such critical concerns as skin and wound care and responses to altercations between residents, as well as what some interviewees describe as ‘minutia’ such as having “standardized recipes and production sheets for all menus.”¹⁰⁰ Many of the LTC operators and other individuals interviewed expressed frustration that much regulation appears to ‘micro-manage’ achievement of the health and care outcomes for which they are already accountable.

Interviewees in other jurisdictions noted that Ontario LTC is not alone in facing a significant regulatory burden—other provinces and countries also have heavily regulated LTC sectors. However, one interviewee from British Columbia noted that while B.C.’s LTC sector is heavily regulated, “judging from the press...Ontario seems to face an even higher regulatory burden.”

While the regulatory regime provides a mechanism for monitoring the health and safety of residents, it has two unintended effects on the LTC sector’s operations. In particular, the time required to comply with regulations, monitor, and report on compliance:

⁹⁹ Ibid., 37.

¹⁰⁰ Government of Ontario, “Ontario Regulation 79/10 made under the Long-Term Care Homes Act, 2007.”

- reduces availability of staff time for direct care for residents; and
- limits the ability of the sector to pursue opportunities to develop and implement innovations in the way it delivers care and other services.

In 2008, the Sharkey Commission recommended a shift away from a focus on compliance and towards “strengthening accountability in LTC homes by linking resources to resident outcomes”¹⁰¹ That recommendation still appears to be relevant. Many interviewees—including LTC operators and some government officials—suggested that the *compliance regime should be replaced* with one that allows providers more discretion to determine *how* care is provided while holding them *accountable* for outcomes.

The Ontario Health Quality Council’s *Residents First* initiative emphasizes accountability for outcomes over mere compliance with regulations. Given its provisions for continuous improvement resources and leadership development, it could provide the foundation to build a larger accountability regime (as opposed to a compliance regime) in LTC.¹⁰² Indeed, enthusiasm for *Residents First* among LTC operators, government, and other stakeholders suggests that it may constitute an approach that would satisfy all relevant parties. While the Ontario Health Quality Council set a target of 420 homes signed on at this stage, 463 of Ontario’s 625 homes have already signed on and public reporting of outcomes has already commenced.¹⁰³ However, if the initiative is only an *additional mechanism*, rather than an initiative that replaces some or much of the compliance regime, it could add to the current burden.

The Future of LTC in Ontario

Between the major trends and challenges outlined in Chapter 2, and the picture of LTC capacity presented in this chapter, there is cause for concern. Not only is the sector struggling to meet its objectives under current conditions, it appears under-prepared for the challenges that will emerge over the next two decades. Unless significant steps are taken to prepare the LTC sector to meet its future responsibilities, many elderly Ontarians will be left without the care they require in their final years.

¹⁰¹ Sharkey Commission, *People Caring for People*, 11.

¹⁰² “**Residents First** is one of the most comprehensive and innovative quality improvement initiatives in Canada. This provincial initiative supports long-term care homes in Ontario in providing an environment for their residents that enhances their quality of life. Residents First also facilitates comprehensive and lasting change by strengthening the long-term care sector’s capacity for quality improvement.” Ontario Health Quality Council, “About Residents First.”

¹⁰³ See Ontario Health Quality Council, “Long-Term Care Reporting.”

Chapter 4

Innovation Orientations and Options for Ontario Long-Term Care

In other social and economic sectors, in Ontario and elsewhere, it has been demonstrated that innovation offers a way to meet competitive challenges, improve productivity, lower costs, and reap a range of other benefits for firms, customers, and society. Given the pressures faced by the Ontario LTC sector, an innovation strategy may be critical to the long-term sustainability of LTC providers and their capacity to continue to deliver high quality care in cost effective ways. Innovation, resulting in productivity improvements in LTC, would lead to better care and cost savings for the increasingly resource-pressured health system.

What is less clear, however, is what innovation in the LTC sector might entail and what resources, attitudes, and initiatives must emerge for an innovation strategy to produce the kinds of benefits for LTC that have been produced in other sectors. After introducing the concept of innovation and indicating why it matters, this chapter sets out three innovation orientations for the Ontario LTC sector and provides illustrations of the sorts of innovations that might be pursued within each orientation.

A Primer on Innovation

What is Innovation?

The Conference Board of Canada, having studied innovation at the national, sector, and firm-levels for twenty years, has concluded that innovation is essential to long-term productivity performance and to prosperity and standards of living. We define innovation as “a process through which economic or social value is extracted from knowledge through the generation, development, and implementation of ideas to produce new or significantly improved products, processes, and services.”¹⁰⁴

Innovation creates value. It can lead to the development of new or improved products or services, which result in increased sales, expansion into new markets, higher margins and profits, and a range of other benefits for firms and consumers. Innovation can also lead to new or improved processes that improve efficiency, productivity, and lead to lower costs for consumers.

Critically, innovation should not be confused with invention—new ideas or improved products, processes, and services need not be ‘new to the world’, they need only be new to the sector, firm, or individual and create value to count as innovation. In fact, much innovation is incremental, not radical or disruptive—firms can improve their products and performance in small ways with significant benefits.

¹⁰⁴ The Conference Board of Canada, *Annual Innovation Report 2002: Including Innovation in Regulatory Frameworks*, 1.

What is Innovation?

Innovation is a process through which economic or social value is extracted from knowledge through the generation, development, and implementation of ideas to produce new or significantly improved products, processes, and services.

Source: The Conference Board of Canada.

Why Innovation Matters

In 2010, Canada's health-care system is forecast to consume 11.9 per cent of Gross Domestic Product (GDP) as the costs of health-care continue to rise. By 2025, healthcare is projected to consume 15 per cent of GDP.¹⁰⁵ At the same time, Canada faces a rising prevalence of chronic diseases as the Canadian population continues to age. Already, Canada has the third highest rate of mortality due to diabetes among OECD countries and the second highest rate of infant mortality.¹⁰⁶ As the Conference Board has observed previously, "innovation that reduces the growth rate of health-care costs, while raising productivity and improving health outcomes," is the best option for keeping Canada's health-care system sustainable.¹⁰⁷

In general, we find that "there is a clear link between economic success and levels of innovation at the country and company levels: countries that show more evidence of innovation are richer and grow faster, and companies that do so perform better financially and have higher share prices."¹⁰⁸ An economy with firms and sectors that innovate often and well experiences productivity growth which, in turn, leads to long-term economic prosperity and social well-being not only for firms, but also for consumers and citizens.

In the health-care sector, innovation could contribute to improved quality of care, increased efficiency in the delivery of care, and thus cost containment for the system as a whole. Moreover, improving and maintaining a well-functioning and sustainable health-care system is critically important given that productivity and economic growth depend on the presence of a healthy working population.¹⁰⁹

The health-care system is not alone in underperforming on innovation. In the Conference Board's 2010 report, *How Canada Performs: A Report Card on Canada*, Canada received a grade of "D" grade on innovation performance, ranking 14th out of 17 peer countries.¹¹⁰

¹⁰⁵ G. Prada, *The Health Enterprise: Charting a Path for Health Innovation*, 1-2.

¹⁰⁶ *Ibid.*, 2.

¹⁰⁷ *Ibid.*, 2.

¹⁰⁸ The Conference Board of Canada, *Performance and Potential 2003-2004: Defining the Canadian Advantage*, 64. Innovation is more important than ever in an era of tight global markets and increasing resource scarcity in the health and social sectors of the economy. Countries that are more innovative are passing Canada in productivity and on measures such as income per capita and the quality of social programs. There is a persistent and growing income gap between Canada and the United States—\$6,400 per person in 2008 (double what it was in 1984). Canada's labour productivity growth throughout the 2000s lagged behind most OECD peers and almost a full percentage point behind the United States. The Conference Board of Canada, *How Canada Performs: A Report Card on Canada*.

¹⁰⁹ G. Prada, *The Health Enterprise: Charting a Path for Health Innovation*, 2.

¹¹⁰ *Ibid.*, 6.

Moreover, we have been a consistent “D” performer in innovation since the 1980s. Similar conclusions about Canada’s weak innovation performance have been reached by many other researchers.¹¹¹

Still, to maintain and enhance our quality of life—including quality of education, healthcare, and the environment—Canada will need to improve its innovation performance, especially in the health-care system. Given our weak innovation track-record, identifying strategies and mechanisms to stimulate more innovation is essential.

Why Ontario LTC Needs to Innovate and How It Can Benefit

Conventional approaches to delivering care and other services in the LTC sector have been adequate to date, but their utility is rapidly declining in the face of increasing numbers of residents and their higher care needs and service expectations than previous resident cohorts. If the sector and its homes are to sustain operations, new and improved ways of operating, cooperating, funding, and delivering services will need to be implemented.

While that should be enough for many to take action, there are other, positive reasons for the sector to pursue innovation. New and improved ways of doing things and delivering services can lead to improved health and care outcomes for residents and cost savings for the homes, the sector, and the larger healthcare system.

While quantifying those improvements and savings in the Ontario context is beyond the scope of this study, a recent study in Australia revealed the potential for significant savings. Australia’s Productivity Commission found that if all LTC facilities in that country adopted innovations at a “notional best practice frontier” and restructured to benefit from “economies of scale”, there could be efficiency gains of approximately \$1.6 billion.¹¹² The study also showed what some LTC operators in Ontario may already have experienced—namely, that productivity gains have been achieved by some Australian LTC providers through “the use of flexible workplace agreements, investing in better technology and restructuring their activities.”¹¹³

Thus, the Ontario LTC sector and operators, and those that fund the system, should have sufficient motivation to pursue and support innovation. Not only will successful innovation allow the sector and operators to *survive* in the face of future trends and challenges, it may also lead to costs savings and benefits for operators, residents, and the healthcare system more broadly.

¹¹¹ Competition Policy Review Panel, *Compete to Win*; Science, Technology and Innovation Council, *State of the Nation 2008: Canada’s Science, Technology and Innovation System*; Expert Panel on Business Innovation in Canada, *Innovation and Business Strategy: Why Canada Falls Short*. The productivity and innovation performance of Ontario, in particular, is discussed in Task Force on Competitiveness, Productivity and Economic Progress, *Navigating Through the Recovery*.

¹¹² Productivity Commission, *Trends in Aged Care Services: Some Implications*, 173.

¹¹³ *Ibid.*, 173.

Textbox 5

Innovation Lessons from Other Sectors

Innovation in Canada's Post-Secondary Education Sector

Post-secondary education (PSE) in Canada is the responsibility of individual provinces and territories. Canada's performance in PSE is above the international average. In 2005, Canada ranked 3rd among 24 countries in terms of PSE completion/attendance rates—with 58 per cent of Canadians aged 20 to 24 either attending or having completed a college or university program compared with the OECD average of 49 per cent.

Yet, the PSE sector faces many challenges in the years ahead. The 'traditional' student market, for example, will soon be in sharp decline due to shifting demographics and falling birth rates—placing significant pressure on the PSE system to find new consumers and to offer more relevant and timely products and services to its client base. Innovations at the system level are leading the way to sustainability and growth. Through the coordinated effort and commitment of universities, colleges, and governments, Canada's PSE system is taking innovative and proactive steps to address its future challenges.

Many Canadian universities and colleges, for example, have dedicated resources and implemented programs to attract international students as a means of increasing revenues for their institutions, increasing enrolment in programs, creating culturally diverse learning communities, and increasing their institutions' profile in recruitment countries. PSE institutions, in collaboration with government and other stakeholder groups, continue to improve the attraction and retention of international students through innovative programs like the International Student Program; the Off-Campus Work Permit Program; the Canadian Experience Class; and through advancements in foreign credential recognition.

Innovation in Canada's PSE system is also evidenced by its attempts to address the needs of its client base to obtain degrees in less conventional ways. Until recently, most students had to commit 4 or more years of time and a hefty financial burden to complete a degree. Today, some universities now offer a tiered degree program that makes earning a degree more manageable for students by breaking down a multi-year commitment into smaller parts. It is an effort by the PSE system to attract more high school students into university and keep them there.

Lessons

While the PSE sector in Canada offers different services than the LTC sector in Ontario, there are sufficient similarities to draw lessons for the LTC sector. Both sectors rely on both public and private funding, face high public scrutiny, and must innovate in an environment constrained by external regulation. Still, under these conditions, the PSE sector in Canada has discovered and developed new services, markets, and clients. In particular, many institutions are exploring ways to specialize and differentiate themselves from competitors, while still fulfilling core government-mandated objectives—an approach that the Ontario LTC sector could further explore and pursue.

Additionally, while always facing criticism, PSE institutions in Canada have, over many years, successfully made the case that the services and products they provide have exceptional value for both the individuals who attend (e.g., development of skills, higher wages), but also for the wider society (e.g., improvements to innovation, productivity, and social and economic performance).

Finally, even as government transfers to the institutions for core operations have stagnated over the past decade, the PSE sector has been very successful in getting governments at all levels to provide resources for specialized programs and initiatives (e.g., Canada Research Chairs; Canada Research Excellence Chairs; Ontario Research Chairs). Here, the key lesson is that to attract new resources, a sector should demonstrate that it is not only doing something valuable, but also doing something new that builds on its existing strengths to provide additional value to the economy and society.

Source: The Conference Board of Canada.

Three Levels of Innovation Focus and Intensity for LTC in Ontario

If the Ontario LTC sector is to innovate strategically and successfully, it will need to develop an innovation strategy that sets out innovation opportunities and objectives at the organization, sector, and system-wide levels. Indeed, the sector will need to find ways to improve its firm-level services and operations, the performance of the sector as a whole, and the points at which LTC interacts with and supports the broader healthcare system.

To assist in the development of an *Innovation Strategy*, this section introduces and describes three “innovation orientations” and provides illustrations of the sorts of innovations that might be pursued within each orientation:

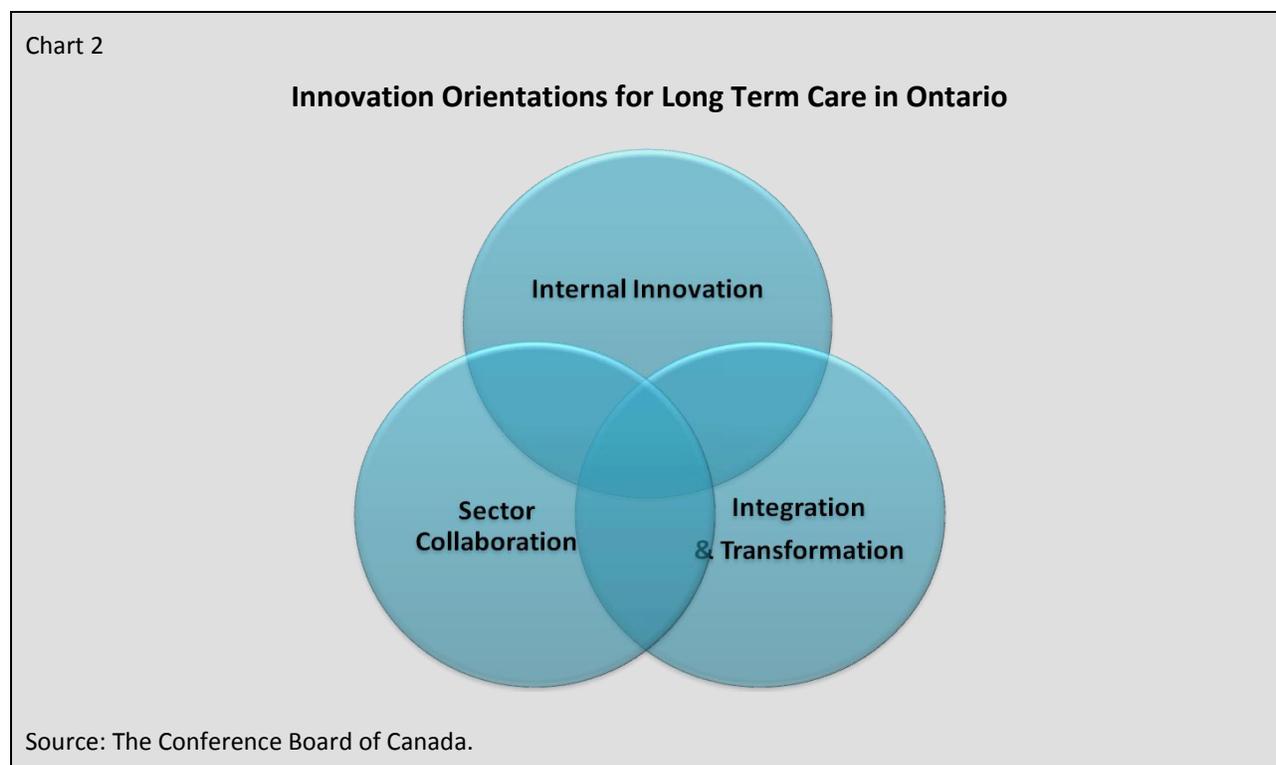
- *Internal Innovation*—innovation focused on improving performance inside the firm;
- *Innovation in Sector Collaboration*—innovation to enhance collaboration and cooperation across the sector; and
- *Innovation for Systemic Integration and Transformation*—innovation to better integrate LTC into the health system and identify new services and products for a changing environment.

The orientations are not exclusive options—innovations can be pursued within all three orientations simultaneously. Nor are the options neatly distinguishable—some innovations/initiatives involve planning and action across two or more orientations. Nevertheless, distinguishing between the three orientations will help the LTC sector recognize where its greatest innovation potential lies and where attention and resources should be directed.

Activities in all three orientations require a supportive environment and resources, much of which only the government can provide (see, below, chapters 5 and 6). The first step, however, is for the LTC sector to develop an innovation strategy with the right balance of orientations, clear priorities and preferred initiatives.

Orientation 1: Internal Innovation

The first innovation orientation would see LTC providers focus on their internal operations with a view to identifying and implementing new or improved ways of enhancing services, reducing the costs of services, and organizing and executing administrative functions. This is an obvious place for many LTC providers to start because it is the environment they know best and over which they have the greatest control. Additionally, firm-level innovation is good place to begin because the limited scale allows for easier tracking of progress and the returns of investment will be easier to observe and measure.



As each home focuses on identifying and improving processes and services in their own facilities, they might consider a wide range of opportunities, including:

- changes in HR recruitment, retention, and scheduling practices;
- accelerating the adoption of information and assistive technologies;
- research partnerships with academics to identify new and better ways of delivering high quality care and/or executing administrative functions; and
- outsourcing certain financial and administrative functions rather than maintaining expensive specialized staff or relying on overworked staff to complete these tasks (especially attractive for smaller homes); and
- further intensifying the recruitment, training, and best placement of staff dedicated to residents of specific ethnicities and with specific linguistic needs.

Recruitment and Retention

Innovation and the adoption of best practices in recruitment and retention processes can help cut staff turnover, an ongoing concern for the sector. Some facilities already use services such as ClearFit.com which facilitate testing and assessment of potential candidates' personalities and experience.¹¹⁴ Personality and experience profiles are assessed against characteristics of the position and workplace to predict the candidate's likelihood of fitting into and staying with the organization. While such services may seem like minor changes to recruitment and retention

¹¹⁴ ClearFit, "Frequent Asked Questions."

practices, incremental innovations such as these can produce measurable benefits at low cost and risk.

Additionally, LTC operators could explore and expand staff training and development opportunities. The Conference Board's bi-annual *Learning and Development Outlook* which surveys Canadian organizations about their training, learning, and development (TLD) spending and its impact on organizational performance, reveals that TLD spending is related to:

- employee satisfaction and retention;
- the production and delivery of quality goods and services;
- customer satisfaction; and productivity and profitability.¹¹⁵

Notably, the voluntary turnover rate among organizations that spend \$400 per employee per year or less on TLD was 15.5 per cent, whereas the rate was 9.5 per cent for organizations that spent over \$1,000 per employee per year.¹¹⁶ Thus, when organizations spend on TLD, they not only develop employees who are better trained and more productive, they also become employers-of-choice—thereby reducing the costs associated with turnover and recruitment of replacements.

Documentation and Tracking

Innovations in compliance and documentation can save valuable staff time now spent on regulatory and reporting requirements. A number of LTC operators report that adopting point-of-care touch screen or hand-held technologies to document activities of daily living (ADLs), medication, resident health assessments, and other activities, can reduce errors and improve efficiency. When the devices are used with software that tracks and aggregates entries, reporting and regulatory compliance can become more efficient.

Recognizing barriers to Information and Communication Technologies (ICT) adoption, the U.S. *Patient Protection and Affordable Care Act* includes a 4-year grant program (beginning in 2011) to help offset purchase, implementation, and training costs for IT, especially EHR, in LTC facilities. Indeed, while many LTC operators and staff are eager to introduce ICTs that would assist with care delivery and other duties, the costs of the technology are often prohibitive, and the time and resources necessary to train staff may be too onerous for resource-starved facilities to identify and allocate.¹¹⁷

Research Partnerships

As LTC providers must provide services to a diverse population with a wide range of complex care needs, and attend to administrative, financial, dietary, and other functions, it is rarely possible for them to have in-house research experts who can focus on new and better ways to deliver services and improve care outcomes and facility operations. Consequently, many facilities would find partnerships with external research organizations—such as universities and colleges—very helpful.

¹¹⁵ D. Hughes and A. Campbell, *Learning and Development Outlook 2009: Learning in Tough Times*, 49.

¹¹⁶ *Ibid.*, 51.

¹¹⁷ CAST. "Provisions Relevant to Aging Services Technologies."

Textbox 6

Schlegel-University of Waterloo Research Institute for Aging

The Schlegel-University of Waterloo Research Institute for Aging (RIA) was founded with a \$6 million endowment over 10 years by Dr. Ron Schlegel whose family is a well-known LTC provider in Ontario. The RIA supports interdisciplinary research, and the development and implementation of innovative quality of care improvements in community-based and long-term care environments all aimed at improving quality of life outcomes for senior citizens.¹¹⁸

Primary Researcher Partnerships

RIA's principal research partner is the **University of Waterloo**, where age-related research is conducted within a number of program areas, including Vascular Aging, Functional Abilities, Spiritual Care for Seniors, Fitness and Plasticity of Aging, and the Murray Alzheimer Research and Education Program. Researchers propose projects which are then evaluated by RIA on the basis of feasibility and fit with RIA's practical objectives. If the evaluation is favourable, the researchers are able to study how their initiatives fare in one of nine "living research environments"—i.e., continuing care facilities managed by the Schlegel family.¹¹⁹

RIA's collaborative network extends to other academic institutions (including **Seneca College** and the **University of Guelph**) and research institutes (including the **Canadian Institute for Advanced Research** and the **Lawson Health Research Institute**). It is also a founding member of the **Seniors Health Research Transfer Network (SHRTN)**—a platform for knowledge transfer between researchers, policy makers, and Ontario care workers. The network hosts regular knowledge transfer events in which best practice information about seniors' health and care can be discussed and exchanged.¹²⁰

RIA's wide-ranging network of partnerships facilitates access to new approaches and innovations in care. In combination with the unique, hands-on implementation and learning opportunities offered by Schlegel research and development sites, the result is an exemplary model of collaboration that is being recognized for stimulating innovation in long-term care. RIA recently received the Innovator's Award of the International Council on Active Aging¹²¹ and is also regarded as a leader by the Ontario Health Quality Council and Accreditation Canada.¹²²

RIA in Action: Research to Improve Seniors' Diet

A recent project involving the University of Guelph and Conestoga College clearly illustrates RIA's collaborative potential to turn basic research into initiatives of practical value. In this collaboration, a University of Guelph professor explored what makes mealtimes enjoyable for residents, as well as what factors support a healthy appetite. Looking specifically at the importance of social dynamics, the project suggests ways that caregivers can better engage residents while conducting their mealtime tasks. The results of the research will inform the curriculum of a new course to be offered at Conestoga College for food service supervisors and dietetic technicians.¹²³

In ways such as this, RIA collaborations are overcoming many of the challenges to innovation in the sector. Collaborating with RIA's academic partners offers a way for Schlegel's Seniors Villages to share the costs of critical research and development in an otherwise tight funding environment.

Sources: The Conference Board of Canada; The Research Institute for Aging; Josie D'Avernas.

¹¹⁸ The Research Institute for Aging. "RIA Objectives".

¹¹⁹ J. D'Avernas. "Closing the Gaps between Research, Education and Practice."

¹²⁰ For more, see: www.shrtn.on.ca

¹²¹ University of Waterloo, "Schlegel-Waterloo Research Institute for Aging wins major award."

¹²² J. D'Avernas. "Closing the Gaps between Research, Education and Practice," 22.

¹²³ *Ibid.*, 25

Not all facilities will be able to fund research partnerships on the scale of, for example, the Schlegel-funded *Research Institute for Aging* at the University of Waterloo and Conestoga College (See Textbox 6). Yet, there may be opportunities to develop smaller scale partnerships with other researchers—such as through the Sheridan Elder Research Centre—and to attract applied research funding from the Ontario and/or federal government to support research initiatives.

Orientation 2: Sector Collaboration

The second innovation orientation would see providers look beyond their own facilities and operations to find ways to enhance sector-wide collaboration and cooperation as a strategy for improving care and service delivery. While working with partners and the lack of individual control make innovation at this level somewhat more challenging, the opportunities to exploit inter-firm strengths and to achieve economies of scale (without formally consolidating) can lead to lower costs, improvements in productivity, and better care outcomes. Additionally, it may also help to clarify the (sector- and government-led) actions and resources necessary to ensure that the sector can meet the challenges of changing demographics and policy reform.

Innovation and best practices in sector collaboration and cooperation could include:

- supply chain and procurement innovation (such as shared purchasing arrangements);
- research collaboration and knowledge exchange;
- shared HR recruitment and training; and
- improved coordination of advocacy.

Shared Services

Research on U.S. nursing homes reveals that there may be significant benefits of “membership in a multi-facility chain” including “better access to additional resources, knowledge, skills, capital procurement, shared labour costs, economies of scale, and various care technologies.”¹²⁴ To be sure, not all Ontario LTC operators will be interested in formal consolidation with other facilities or in becoming part of a larger chain. Yet, LTC facilities may be able to achieve the benefits of coordination without formally consolidating by, for example:

- coordinating shared purchases of supplies at bulk rates;
- identifying and sharing external administrative, financial, and IT expertise;
- supporting and sharing specialized HR recruitment services;
- coordinating shared training programs/services for staff.

There has been a trend towards shared services—especially back-office functions—in the federal government, as well as many provincial governments, and it has produced cost savings and improved efficiency in many areas. *Shared Services British Columbia* (SSBC)—a national leader in shared service transformation and delivery—offers a variety of more cost-effective and efficient support functions to B.C. ministries and agencies that they had previously conducted on

¹²⁴ J. Davis, et al., “Organizational factors associated with the use of information systems in nursing homes.”

their own, including accommodation and real estate services, IT support, product supply and procurement, payroll and HR information, and accounting.¹²⁵ With careful negotiation and agreement on design, shared service models would likely provide LTC operators significant savings—both financial and staff time—as they promise to do in other areas of healthcare as well.¹²⁶

Teaching Long Term Care Homes

Teaching Nursing Homes or *Teaching LTC Homes* show promise as sites for preparing a health workforce to care for older adults and providing a platform for research into better care. (See Textbox 7). While experience with Teaching LTC Homes has been mixed in the United States, lessons from that experience, as well as from Norway’s successful teaching home initiative, indicate that the model has excellent potential in the Ontario context. Success depends on access to resources, good communication between LTC homes and academic partners, and design that benefits both LTC homes and academic researchers. Given the need for Teaching LTC Homes of sufficient size to ensure sustainability, implementing one or more initiatives in Ontario may require collaboration between two or more LTC homes to achieve scale.

Textbox 7

Teaching Long Term Care Homes

Teaching Nursing Homes (TNH) or *Teaching LTC Homes* (TLCH) show promise as sites for preparing a health workforce to care for older adults and providing a platform for research into better care. TLCHs allow nursing students to gain a more practical perspective on the skills required for a career in geriatrics, and also help to improve perceptions about LTC homes, notably that among medical practitioners.

Teaching Nursing Homes in the United States: Early Lessons

A U.S. TNH initiative was funded by the Robert Wood Johnson Foundation and was later implemented by the National Institute on Aging between 1982 and 1987. Eleven schools and twelve nursing homes participated in the early phases of this project which aimed “to increase the quality of care; to increase the interest in geriatrics in the school of nursing; to improve staff development; and to ensure independent financial survival for the program.”¹²⁷

While the initiative achieved some good results, the program ended in the late 1980s due to insufficient long-term funding. As TNH homes take some years to produce measurable success, and many stakeholders and state governments were impatient for results, additional funding and support was not available after the Foundation’s resources were depleted. The initiative also suffered from the persistence of a “culture gap” between academic nursing schools and nursing homes which contributed to miscommunication and misunderstanding.¹²⁸ Moreover, because it was modeled after the medical school system, the TNH initiative emphasized medical care whereas others thought that more emphasis should have been placed on the ‘social’ dynamics of nursing care.¹²⁹

Despite its challenges, the U.S. initiative produced some positive outcomes. For instance, at one participating school—Rutgers University—patient care and conditions significantly improved within the first year, including:

- a 50 per cent decrease in bedsores;

¹²⁵ Shared Services B.C., “Our Services.”

¹²⁶ R. Buckle and C. Buckle, “Shared Services: A Strategy to Reduce Costs Without Compromising Patient Care.”

¹²⁷ E. Bronner, “The Teaching Nursing Home Program,” 6.

¹²⁸ *Ibid.*, 7.

¹²⁹ *Ibid.*, 2.

- a 23 per cent decrease in the use of physical restraints in one unit;
- a 25 per cent decrease in the use of enemas;
- an 18 per cent fewer acute care transfers than previous years; and
- a 7 per cent drop in hospitalization rates during the first three months.

The TNH program also significantly improved undergraduate and graduate students' attitudes toward older adults and strengthened geriatric curriculum clinical experiences, faculty preparation, and research.¹³⁰ Lower turnover rates of nursing leadership and staff, and improved research opportunities for faculty also emerged.

Teaching Nursing Homes in Norway: A Model Initiative

The Norwegian TNH program differs significantly from the U.S. model, as it was designed in collaboration with, and is funded by, the Norwegian government. The TNH program aims to improve the competence of staff, enhance the prestige of working with older people, stimulate the development of services, facilitate research on the care of older persons, and develop strong learning environments for students.¹³¹ Norwegian TNHs were established on a permanent basis as of 2004 with funding from the Department of Health and Social Services.

Design and development of the Norwegian program was more gradual and strategic than the U.S. initiative. Four developmental phases were completed prior to the introduction of the national, permanent TNH program:

1. In Phase 1, extensive research was conducted to inform the initial design of the program;
2. Phase 2 involved experimentation wherein each participating institution developed a 'research and development unit' to monitor and measure early performance with the assistance of health professionals, consultants, and partners in education.
3. In Phase, the pilot initiatives were evaluated through a process that included annual reporting to government agencies and two formal evaluations each.
4. Phase 4 involved the full implementation of the national TNH program on a permanent basis after receiving approval and assistance from government.¹³²

Keys to Success

In addition to ensuring that TNHs and TLCHs have clear goals, measurement and evaluation mechanisms, commitment from administration and staff, and procedures for conflict resolution, the success of these initiatives will depend on:

- *Adequate funding.* Whereas the U.S. initiative ultimately failed because sustainable funding could not be secured, the Norwegian program is faring well due to the existence of long-term government funding;
- *Consultation and collaborative planning.* Initiatives must be designed in ways that provide mutual benefits for all participants—including homes, staff, academic researchers, students, and residents—otherwise motivation may wane.
- *Supportive culture.* As TNHs and TLCHs are ultimately implemented to increase opportunities for education and research oriented to improving LTC, all participants must strive to foster a climate of learning and openness to innovation.¹³³

Source: The Conference Board of Canada.

¹³⁰ M. Mezey, "Rethinking Teaching Nursing Homes," 9.

¹³¹ M. Kirkevold, "The Norwegian Teaching Home Program," 282.

¹³² Ibid.

¹³³ M. Mezey, "Rethinking Teaching Nursing Homes," 8.

Advocacy

Sector collaboration on advocacy efforts will be critical to achieving policy changes that support LTC innovation and an expanded role in the health system. Given that firms in the sector have policy and resource needs in common, there should be sufficient motivation to cooperate on advocacy. These include advocating for resources and assistance with the design of academic programs and curricula to train the next generation of LTC workers, develop skills credentialing tools; and improved government assistance with IT adoption, funding and regulatory reform.

Orientation 3: Integration and Transformation

The third innovation orientation is much more ambitious in scope. It would see providers innovate to better integrate LTC into the health system, and develop and offer new LTC-driven products and services to support aged care transformation. Individual operators, and the sector as a whole, would aim to leverage existing firm and sector strengths and expertise to enhance overall health system performance, and demonstrate the value to the government.

Changes to support system integration and transformation could include:

- adult day/night dementia care, and other adult day programs;¹³⁴
- expansion of respite care services;
- expansion of convalescent care services;
- education and support services for home-based care-givers (to play a role in supporting the government's Aging at Home strategy); and
- support for research on improving system interfaces and performance.

Respite Care

The Ontario LTC sector could take a greater leadership role in expanding the provision of respite care services given that demand for such services is likely to increase due to demographic trends and the emphasis on home care. This could include expanding *Adult Day/Night Programs* which provide recreation, physical activities, meals, transportation to the program, and some personal care to seniors living at home but who need or would like additional external activities and support. *Short-Stay Respite* programs could offer these same sorts of activities and supports to seniors for durations longer than a single day. Such programs could be offered for a fee paid by the attendee, or through some government-directed funding program.

Caregiver Support Services

LTC could provide more caregiver support services—the demand for which will likely increase given the current emphasis on home care. As home care often relies on the labour and efforts of individuals and families who have little or no experience in providing safe and appropriate care for seniors, there is a need—and thus an opportunity—for the expansion of training and support services. This may include:

- *caregiver training, information and education* to assist caregivers in providing care to someone at home, including creating Mini LTC Schools (see textbox 4);

¹³⁴ See, for example, S. Proudfoot, "Adult Day Programs Coming of Age."

- *support groups/group counseling* to facilitate discussion of home caregiver challenges, issues, and concerns, and to provide spaces for mutual support and/or care solutions.
- *individual support/counseling services* (though not all LTC facilities will be in a position to offer such services to caregivers).

Textbox 8

Mini LTC School

Mini Med Schools have emerged to satisfy public appetite for expert knowledge on health and wellness and are typically organized and run by health professionals with expertise in a given subject matter.¹³⁵ A series of public forums are held on health topics and medical knowledge on the topic is conveyed in an accessible and interactive manner.

If the government's *Aging at Home* strategy succeeds in getting more people aging in their homes, with care provided in whole or in part by family members, the need for knowledge and expertise will grow. Given existing expertise and experience, LTC providers could create **Mini LTC Schools** to help fill gaps in public knowledge and awareness related to aging and long term care. Few people think about age-related health issues and long-term care services until they or a member in their family is in crisis—a poor context for making informed decisions. And the complexities of long-term care services, coverage and access are such that many would welcome a publicly-oriented expert forum on the key issues of this sector.

Some Mini LTC Schools could be focused on specific care issues for home-care providers, such as understanding dementia and approaches to organizing and assisting with ADLs.

Source: The Conference Board of Canada.

Palliative and End-of-Life Care

LTC providers could also take a greater leadership role in providing palliative, pain management, and end-of-life care to residents and others who wish to receive the services of LTC homes. Based on LTC experience and expertise in aging and dying, the homes are well-positioned to become *centres of excellence* in palliative and end-of-life care.

Towards an Innovation Strategy for OLTC

The three innovation orientations presented here, along with the illustrations of specific initiatives that could be adopted, are tools that the LTC sector and its many providers can use to develop an *Innovation Strategy* for LTC in Ontario. The exact shape of the strategy and related initiatives will depend on the priorities it defines, the capacity and resources available to the sector and its providers, and its ability to overcome a number of common barriers to innovation. The act of developing an *LTC Sector Innovation Strategy* is a very important first step. Until the sector itself determines its innovation priorities and needs, and agrees to take action it will remain unclear to government and other stakeholders exactly what they can offer to help.

¹³⁵ See for example <http://www.minimed.uottawa.ca/eng/curriculum.html>.

Chapter 5

Preconditions for Innovation: An Assessment of Ontario LTC Capacity

Innovation is necessary, but it is not necessarily easy. While having an *Innovation Strategy* is an important first step to pursuing a comprehensive program of innovation in any sector, it is also necessary to ensure that a number of preconditions for effective innovation are in place, potential barriers are identified, and strategies to address barriers have been developed. Innovation in LTC will be especially challenging given that the barriers to innovation it faces are higher than those faced by many other sectors and organizations. Still, innovation is possible in LTC as it is in other sectors.

Preconditions for Effective Innovation

The Conference Board's study of innovation at national-, sector-, and organizational-levels over the past two decades has uncovered a number of determinants—necessary preconditions—of successful innovation.¹³⁶ Some of these preconditions—such as securing sufficient resources and staff to pursue initiatives—can be brought about relatively quickly. Others, such as having a supportive organizational culture and developing networks and alliances with relevant actors, require substantial and ongoing attention and nurturing.

Organizations and sectors wishing to innovate successfully, or enhance their innovation performance should attend to or develop the factors:

1. A Vision and Strategy for Innovation

Successful innovation requires vision for change, identification of priority areas, clear objectives, and the selection of initiatives that can achieve objectives. Having a vision and strategy ensures that organizations embarking on innovation have a clear and *shared* sense of their destination and a reference document that can help in identifying resources and actions. Moreover, when innovation requires requests for resources or support from government (or other actors), having a clearly articulated vision and strategy for the sector demonstrates sincere commitment. It is a strong signal that resources will be put to effective use.

While incremental innovation and problem-solving will be ongoing features of healthy organizations and may not require a grand vision and strategy, organizations aiming at significant self-transformation through innovation will require substantial resources: for them, a vision and strategy are critical.

2. Resources

Innovation requires resources. Financial resources are needed to purchase technologies and equipment, for training and marketing, and for monitoring and evaluation of initiatives. Innovating

¹³⁶ See, for example, G. Prada, *The Health Enterprise: Charting a Path for Health Innovation* and The Conference Board of Canada, *Performance and Potential*.

organizations will also need to free up time for staff and management to develop and pursue initiatives, and locate expertise to help in the design and implementation of changes.

Many organizations will fail or underperform on innovation because they cannot or will not allocate sufficient resources to projects and initiatives. To be sure, innovation involves risk and returns on investment may take months or years to emerge, if they emerge at all. But reluctance to commit resources at all is a guaranteed way to fail. Organizations that lack sufficient resources or those that are highly risk averse should consider exploring all possible sources of government funding for research and innovation. While many programs will require organizations to make matching contributions and perhaps partner with other organizations, the feasibility of initiatives may be greatly improved when additional external resources can be secured.¹³⁷

3. Leadership

Effective innovation requires leaders with the capacity to plan and implement strategies, motivate employees, allocate resources, and take informed risks. Innovation begins with top management's commitment and passion for change, including having a clear vision of where they want to take the organization. Leaders set the overall tone of an organization and help to shape its character and culture—another essential precondition for innovation. And leaders of innovative organizations constantly seek new and improved ways of doing things and work to identify and seize opportunities to develop new or improved products and services.¹³⁸ Indeed, not only do leaders need to have a rich awareness of their own organization—its strengths and weaknesses—but they also need to continuously think and consult with others about what opportunities are available and how those opportunities can be pursued.

While leaders need not be hands-on, in-the-trenches directors of innovative initiatives, they do need to have appropriate innovation skills and innovation literacy—i.e., the right mix of skills, attitudes and behaviours that allow them to support and motivate others to innovate—and need to encourage the development and exercise of those skills, attitudes, and behaviours in others.

4. Human Capital

A well-trained, skilled, and motivated workforce is necessary for successful innovation. Innovation requires staff in an organization to have an awareness of how things might be done differently—that is, an innovative organization requires staff that has the capacity for critical and creative thinking. Research demonstrates that human capital, as measured by educational achievement, is associated with an economy's (and a sector's) ability to undertake innovation.¹³⁹ So organizations that aim to innovate must ensure that their staff—at all levels—have adequate training and education and/or should begin to provide additional training, learning, and development opportunities to prepare them to play a role in transformation.

¹³⁷ For a very promising approach to conducting applied research and innovation, and securing government resources to do so, see D. Munro and J. Haimowitz, *Innovation Catalysts and Accelerators: The Impact of Ontario Colleges' Applied Research*.

¹³⁸ D. Watt, *How Innovation Occurs In High Schools: The Four Pillars of Innovation Research Project*, 22.

¹³⁹ The Conference Board of Canada, *Performance and Potential*, 63.

Innovation also takes a great deal of work and time to see through to fruition—time, that is, that is required *in addition to* performing regular duties and responsibilities. As such, innovative organizations will need to find ways to free up some staff time to develop and pursue initiatives. And they will also need to identify their most motivated employees and/or further motivate all employees, to take on the difficult, but often rewarding, work of innovation.

5. Supportive Organizational Culture

Innovative organizations tend to have cultures and climates that are receptive to ideas and constructive criticism, opportunity-seeking, learning-oriented, respectful, market- or customer-focused, and goal driven.¹⁴⁰ Some organizations will not have these cultural dispositions at the outset and may find it difficult to have them emerge quickly. To facilitate the emergence of an innovation-supporting organizational culture, leaders at the very top and front-line managers will need to set an appropriate tone. They will need to communicate and reinforce the message that the organization is open to ideas and supportive of individuals who explore new or improved ways of doing things—even when new ideas fail.

Moreover, leaders and managers need to back up what they *say* with tangible incentives and rewards to ensure that the organization does not appear simply to pay lip service to innovation, but demonstrates that it will tangibly support it. When employees see that others are encouraged and rewarded for pursuing innovation—even when they fail—they will develop confidence to pursue it themselves. By contrast, where employees hear that they *ought* to innovate, but perceive that innovators are *not rewarded* or are even *unintentionally punished* (e.g., by being forced to work longer hours to make up for the time “lost” to non-core activities), they will internalize an aversion to innovation which likely will severely impair the organization’s potential to change.

6. Competition as Driver

Previous research by the Conference Board reveals that “the degree of competition in an economy may be one of the key drivers of productivity, since lack of competition reduces the pressures on firms to adopt and use advanced technologies, re-organize the workplace, rationalize production, and improve productivity.”¹⁴¹ Where firms face sophisticated and demanding customers and rivalry from other firms they are driven to seek new and better (innovative) ways to satisfy customer demands and preferences.¹⁴²

¹⁴⁰ D. Watt, *How Innovation Occurs In High Schools: The Four Pillars of Innovation Research Project*, 24.

¹⁴¹ The Conference Board of Canada, *Performance and Potential*, 68.

¹⁴² *Ibid.*, 68.

Textbox 9

Innovation Lessons from Other Sectors: Innovation in Canada's Apparel Sector

Facing growing pressures from international competition, the phasing out of protectionist trade agreements, and the elimination of quotas and tariffs on imports from countries such as Bangladesh, Cambodia and Haiti, Canada's domestic apparel industry has seen a steady decline in the manufacture and export of goods, and a significant drop in employment.¹⁴³ Yet, despite the challenges, the apparel industry remains a key manufacturing employer in Canada, with upwards of 70,500 workers.¹⁴⁴ The industry has survived through innovation—by re-engineering and regenerating itself. Today, many of Canada's apparel manufacturers are succeeding by using their skilled workforce and capitalizing on special areas of competitive advantage. Rather than focusing on the production and manufacture of low value-added products, like t-shirts, many organizations within the Canadian apparel industry concentrated their efforts on higher value-added products and niche markets, like military uniforms and fire-retardant garments, to remain competitive.

To develop the skills and competencies needed to innovate, the apparel sector collaborated with government and management experts to develop a pilot strategic planning program designed to provide company owners with individualized strategies for developing and implementing strategic plans (beyond operational basics) and action plans (including human resources development strategies). This program includes 6 fundamentals:¹⁴⁵

1. Reviewing of mission statement (e.g., relevance, objectives, purpose).
2. Setting of objectives for the strategic planning process (e.g., desired outcomes; recognizing competitive advantages).
3. Conducting a situational analysis to assess the strengths, weaknesses, opportunities and threats of a company and its operating environment.
4. Setting of the strategic plan (e.g., determination of a company's viable niche – short and longer term, optimization of the value chain and regulatory environment).
5. Developing an action plan.
6. Maintaining of the strategic planning process through periodic reviews of a company's objectives, human resources capacity, and strategic plan.

Impact and Use as a Model

The program has significantly raised awareness in the industry of the need and opportunities for change, as well as improved awareness and understanding of the sector-specific barriers to innovation and how they can be addressed. In particular, of the participating companies:

- 77 per cent found that their sales and service strategies needed adjustment to unlock competitive advantage;
- 63 per cent identified weaknesses in their design strategies; and
- significant numbers also recognized the need to alter distribution and manufacturing practices.¹⁴⁶

While initiatives that build on the new-found awareness are still being implemented and assessed, industry stakeholders have indicated that the attrition rate of companies participating in the ASPP has been lower than that of the general industry, and they estimate that the ASPP has played a role in saving or creating upwards of 6,500 jobs in the Canadian apparel industry. The lesson for other sectors, including the LTC sector, is that developing and executing a plan for discussion of challenges and opportunities can improve awareness and performance in an industry. While many may believe that they already pursue this kind of activity, there are likely significant differences among firms in terms of their capacity and opportunity to do so rigorously and expertly.

Source: The Conference Board of Canada.

¹⁴³ D. Watt and D. Hughes, *On the Cutting Edge*, 2-3.

¹⁴⁴ *Ibid.*, 1.

¹⁴⁵ *Ibid.*, 7.

¹⁴⁶ *Ibid.*, 10.

While the pressures faced by the LTC sector in Ontario may not be precisely characterized as *competitive* pressures, the pressures the sector does face—i.e., increasing demand from individuals with higher expectations, some rivalry among some LTC providers and between LTC and other options for and preferences of the aged (such as home care), and reputational pressures from increased public reporting of outcomes—provide some pressure to stimulate innovation. However, there are significant limits on the terms under which LTC facilities can compete with one another. Emphasis on compliance with regulations rather than public accountability for outcomes may drive efforts towards finding new and more efficient ways of complying/reporting rather than new ways of improving outcomes through innovation. Thus a government-directed shift away from the regulatory compliance regime for LTC and towards accountability for outcomes may be worth exploring.

7. Networks, Alliances, Collaboration

Finally innovation in LTC and other sectors requires collaboration and alignment with:

- education/research institutions that have strong, knowledgeable, and creative talent pools;
- a private sector with capacity to assist in innovation activities;
- health-care organizations and professionals who interact daily with patients, residents, clients, and communities; and
- governments that design, implement, and enforce policies, standards, regulations, and incentives that encourage and reward innovation.¹⁴⁷

Creating and nurturing these links and networks effectively expands an organization's or sector's resources and thus enhances innovation performance and potential. Yet, good relationships that entail trust, open communication, and mutual benefits require time and patience to develop. At the same time, existing relationships can sour very quickly, so organizations will want to nurture their relationships not only in times of crisis or need, but also in an ongoing fashion.

Common Barriers to Innovation

While having these preconditions in place greatly improves opportunities for successful innovation, there are other barriers to overcome. We recently surveyed 222 leaders of Ontario-based public and private-sector organizations of varying sizes and sectors about innovation.¹⁴⁸ Nearly 90 per cent indicated that innovation is somewhat or very important to their organization. But despite the recognized importance of innovation and a desire to do more, respondents identified a number of barriers to their ability to innovate and spend more on research and development. (See Chart 3).

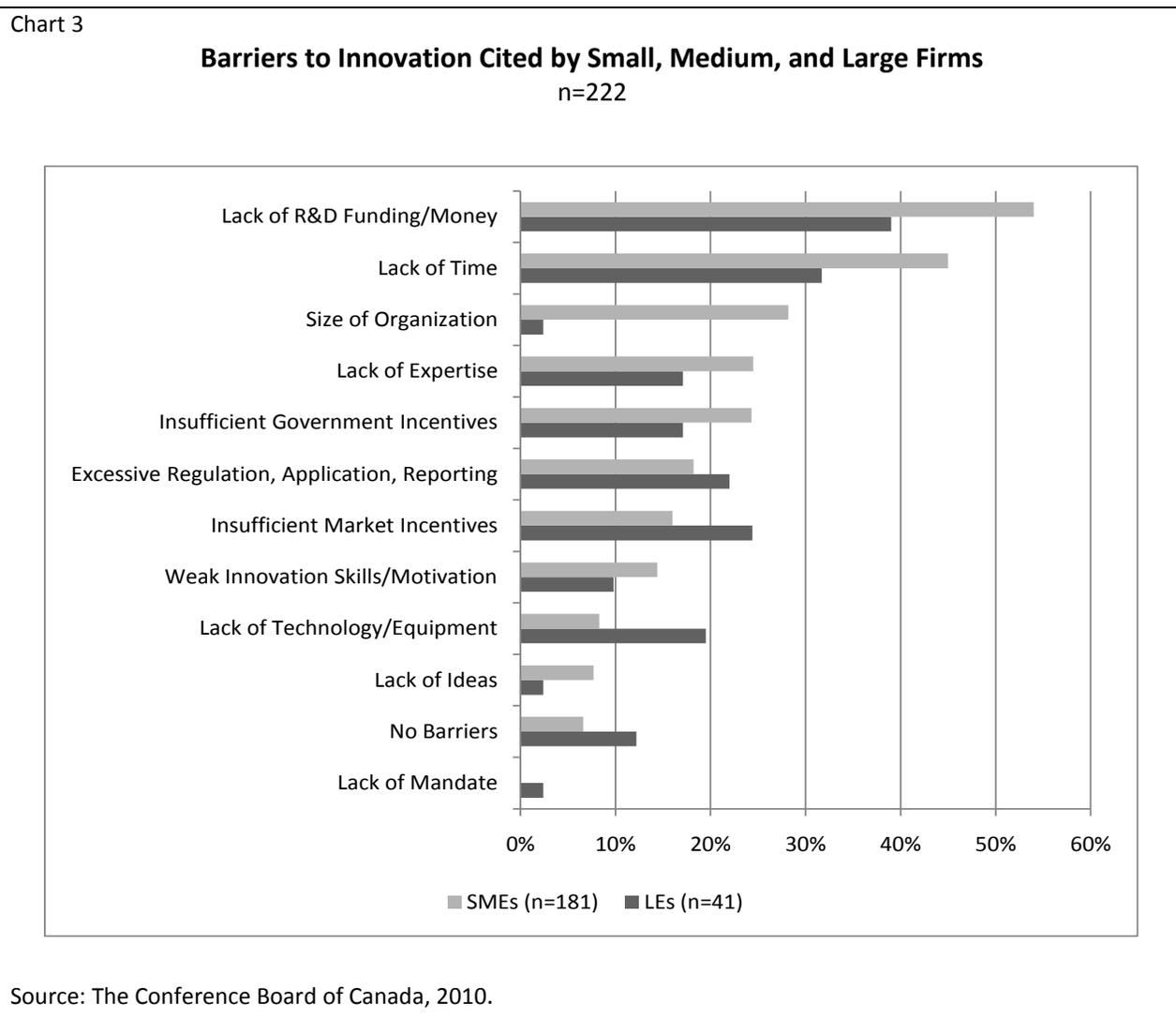
Among small and medium sized enterprises (SMEs), the most frequently cited barriers were:

¹⁴⁷ G. Prada, *The Health Enterprise*, 8-9.

¹⁴⁸ The 222 respondents and interviewees included both small and medium enterprises (SMEs) (n=181) and large enterprises (LEs) (n=41) based primarily in Ontario. Of these 222, over 40 completed in-depth interviews with the Conference Board on innovation and their recent R&D activities and collaborations with Canadian, primarily Ontario, colleges, institutes, and polytechnics. See D. Munro and J. Haimowitz, *Innovation Catalysts and Accelerators*.

- lack of research and development (R&D) funding/capital (53.6 per cent);
- lack of time (44.8 per cent);
- lack of in-house expertise (24.5 per cent); and
- insufficient government incentives (24.3 per cent).

Leaders of many SMEs felt that they often lacked the resources and time to pursue more innovation because of the *high demands of daily operations* of their core business. But even in cases where SMEs can find the capital and time, they often lack in-house expertise to conduct research and/or pursue innovation. While turning to external sources for help might not seem difficult, doing so can involve new time demands (e.g., finding and assessing experts, managing relationships), and new risks (e.g., exposure of sensitive information, data, and strategies to external actors; uncertainty about intellectual property rights; coordinating timelines with unknown collaborators).



Among large enterprises (LEs), the most frequently cited barriers were:

- lack of R&D funding/capital (39 per cent);
- lack of time (31.7 per cent);
- insufficient market incentives (24.4 per cent); and
- excessive regulation and/or onerous application and reporting requirements for government programs (22 per cent).

It is worth noting that while both SMEs and LEs point to a lack of R&D funding and a lack of time as key barriers, the frequency with which the barriers are mentioned by SMEs is much higher than by large firms. Moreover, while many SMEs identify a lack of in-house expertise as one of the major barriers (24.5 per cent), fewer large enterprises seem to face this challenge (17.1 per cent).

There are noticeable differences in the kinds of incentives regarded by leaders as necessary to stimulate innovation among firms of different sizes. Thus, while SMEs are more likely than large enterprises to point to the absence of *government* incentives as a barrier to innovation (24.3 per cent and 17.1 per cent, respectively), large enterprises are more likely than SMEs to cite the absence of *market* incentives as a barrier to innovation (24.4 per cent and 16 per cent, respectively).

Interestingly, large firms were more likely than SMEs to cite a lack of technology or equipment as a barrier to innovation (19.5 per cent and 8.3 per cent, respectively). The survey and interviews provided very little information to interpret this result; however, it may be that the innovation ambitions of large firms are greater than those of SMEs and thus require more expensive and/or difficult to access technology and equipment.

As many analyses of Canada's innovation performance have concluded, "there is no single cause of the innovation problem in Canada, nor is there any one-size-fits-all remedy."¹⁴⁹ Instead, what is needed is a sector-by-sector, and perhaps also firm-by-firm, analysis of the factors that create opportunities for and barriers to innovation. In that case, improving Canada's innovation performance will likely require a mix of targeted policies, tools, and mechanisms that are nimble enough to respond to more than one need or barrier faced by firms looking to innovate.

Barriers to Innovation in LTC

Many of the barriers faced by the Ontario LTC sector are also reported by firms in other sectors. However, some of these barriers are felt with greater intensity in LTC than elsewhere. In particular, the LTC sector faces high barriers to innovation with respect to regulation, time, resources/incentives, and expertise. It will need to identify actions—in consultation with government and other stakeholders—to address these barriers in its *Innovation Strategy*.

¹⁴⁹ Expert Panel on Business Innovation in Canada, *Innovation and Business Strategy*, 11.

1. Regulation

Interviewees inside and outside the sector agree that LTC in Ontario is highly regulated; some feel it is over-regulated. They observe that innovations and ideas for change may not emerge as often as they could because employees and managers focus much of their time and energy on regulatory compliance and reporting rather than on finding new and improved ways to deliver care fulfill administrative and other duties. In some cases, innovative energy is being directed towards finding new and improved ways to comply and report rather than improving core services themselves. Additionally, many interviewees maintained that regulatory restrictions on the kinds of services, activities, and physical arrangements that LTC facilities are permitted to offer limit and constrain innovation.

2. Time

Staff and management in LTC facilities lack sufficient time to pursue innovation. The time shortage is largely due to the fact that facilities are under-staffed and employees and managers face heavy workloads—that is, capacity to meet daily operational requirements and core responsibilities is already very close to the threshold of failure, thus opportunities for staff and facilities to innovate is simply not available. Time spent on regulatory compliance, documentation, and reporting is regarded as a key determinant of the time crunch. Unless LTC facilities are enabled to hire more staff and/or changes are made that would allow them reduce the burdens of current staff, the innovation potential of the sector is likely to be under-realized.

3. Resources and Incentives

Even if regulatory and time constraints can be overcome, many LTC providers—especially small homes—lack financial and other resources to implement and monitor pilot programs and other initiatives. Implementing new technologies, for example, requires not only the purchase or lease of technologies, but also resources to train staff, monitor implementation progress, and ensure the seamless integration of new technologies with old. Moreover, where the returns to investment in new technologies or other innovations are unlikely to emerge for a number of months or years and/or when the expectation of returns at all is still uncertain, LTC facilities lack sufficient short-term incentives and/or bridge funding to allocate resources to changes with longer return horizons.

4. Expertise and Human Capital

Where in-house expertise is lacking, LTC providers will need to form partnerships with others in order to pursue innovation. The general skill level and education of LTC staff is mixed. Given the prominence of PSWs, and their relatively weak educational attainment, front-line innovation may be problematic for LTC. This is not to say that lower-skilled PSWs do not innovate but, in the aggregate, a lower-skilled, weakly educated workforce will tend to innovate less frequently and less successfully than higher-skilled and better educated one.

Textbox 10

Lessons from Other Sectors

Innovation in Canada's Forest Products Sector

Canada's forest products sector employs more than 150,000 people in nearly 9,000 businesses. Traditional forest product industries such as pulp, paper, and paperboard manufacturing; sawmills; forestry and logging remain an important part of Canada's economy. However, in response to a slowing economy, ongoing trade and regulatory barriers, and increased competition from emerging economies like China and Brazil, Canada's forest industry (with support from different levels of government, education, and business) has implemented a series of innovation strategies to identify and develop new or improved value-add products, services and markets.

One of these strategies is the Bio-pathways project – an initiative started in 2009, and guided by the Forest Products Association of Canada, FP Innovations and the Canadian Forest Service along with industry partners. The Bio-pathways project is an industry-wide effort to look at ways of taking traditional wood fibre, or biomass, and transforming it into innovative product lines like renewable fuels, energy, plastics, solvents, and food additives.¹⁵⁰ Traditional forest industry sectors like pulp and paper mills across Canada are now looking at ways in which they can transform their businesses and develop potentially higher value-add bioproducts. For example, a mill in Thurso, Quebec, is transforming its hardwood pulp mill into a facility that makes a key ingredient used in the manufacture of rayon.¹⁵¹

The Bio-Pathways project initially brought together 65 experts from different sectors (e.g., finance, forestry, energy) to see what sort of biotechnologies and bioproducts might be the most viable—financially, socio-economically, and environmentally—to pursue for Canada's forest industry and forest dependent communities.¹⁵² To ensure that an innovation has a good chance of succeeding the Bio-pathways project adheres to six lines of inquiry:¹⁵³

- The capacity within Canada's forest products sector to manage innovation.
- The market potential of emerging bioproducts.
- New ways of managing the "value chain" and developing partnerships.
- The financial, socio-economic and environmental costs and benefits of different products and technologies (existing and emerging).
- The economics of the wood fibre supply.
- The market readiness of emerging technologies.

Impact and Use as a Model

While the initiative is still rather new and rigorous assessments of outcomes and impact are not yet available, the example does illustrate one strategy for identifying new ways to deploy existing resources and strengths in a changing environment. That is, instead of focusing solely on what they have always done, the forestry sector is collaborating to identify what *else* it can do with what it has. Given that some firms in a sector will tend to lag behind others in terms of innovation and change, this kind of collaboration can introduce healthy peer pressure that might stimulate laggards to improve. And in sectors where the performance and reputation of one firm has major implications for all other firms, motivating and supporting peers to improve is advisable.

Source: The Conference Board of Canada.

¹⁵⁰ Natural Resources Canada, "Bio-pathways Project."

¹⁵¹ B. Marotte, "Quebec Mill Sees New Life in Rayon Market."

¹⁵² Natural Resources Canada, "Bio-pathways Project."

¹⁵³ Ibid.

To overcome the *expertise* barrier, LTC providers may need to partner with universities, colleges, and research organizations to support innovation. Some have done so already, but that activity appears limited across the sector as a whole and thus remains a barrier. To overcome the *human capital* barrier—especially the lower skills and education attainment of frontline LTC workers—LTC providers should consider making greater investments in training, learning, and development opportunities for existing employees and making efforts to recruit more highly-skilled and educated frontline workers in the future. But because both strategies would require additional resources that are unavailable in most cases, the human capital barrier is likely to persist in the absence of significant external assistance from government and elsewhere.

5. *Perceptions and Organizational Culture*

While the four barriers described above are the most tangible ones faced by LTC, an additional complicating factor is pervasiveness of negative perceptions about LTC capacity to play a leading role, let alone be an innovator, in the healthcare system. Some decision-makers and members of the public believe the sector lacks innovation potential and thus do not listen to LTC's ideas on how to change the sector or what would be required to allow them to take on a larger role. Even some LTC employees and managers do not view the sector as having much innovation potential which contributes to a weak innovation culture and a discounting and discarding of ideas for improvement.

Until the sector's image and its internal culture improve, its ability to secure resources, regulatory space, and motivation to pursue innovation—i.e., its capacity to overcome the other barriers—will be limited. Consequently, LTC has a bootstrapping task ahead of it. It will need to take steps and make investments to improve its image and demonstrate the potential that it does have even before it manages to win substantial resources to overcome the other barriers it already faces to innovation.

Overcoming Barriers and Realizing LTC's Innovation Potential

Clearly, the Ontario LTC sector faces significant hurdles to innovation. But the hurdles need not halt innovation progress altogether. Indeed, the sector already exhibits some of the preconditions necessary for effective innovation. It is taking steps to build an *Innovation Strategy*, and both the sector as a whole and individual providers are allocating resources to innovation thereby signaling to government and other stakeholders that they are prepared to take the risks necessary to transform LTC in Ontario.

Together, these should be seen as critical first steps to building innovation and transformation momentum in LTC in Ontario. Once recognized, they should motivate government and the sector itself to seek ways to overcome the barriers and realize the leading role that LTC can play in responding to current and future challenges in aged care in the province.

Chapter 6

Pursuing and Supporting an Ontario LTC Sector Innovation Strategy

Supporting the Development of an Effective Innovation Strategy for Ontario Long-Term Care

Summary of Recommendations

For the Long-Term Care Sector

1. Develop an **LTC Sector Innovation Strategy** that contributes to the sector's ability to address Ontario's key health care priorities, including:
 - Assuring best practices to improve the quality of life and physical well-being of aging Ontarians;
 - Providing necessary, effective, and efficient health services to a rapidly increasing number of aging Ontarians with increasingly diverse service requirements; and
 - Caring for a higher share of residents with complex health challenges, including multiple diagnoses or co-morbidities, and chronic diseases so as to help implement the *Alternate Level of Care* and *Aging at Home* strategies.
2. Strengthen communications with LTC members, residents, families, other health care providers (including those in acute, continuing, and home care organizations), and government to encourage innovation and the adoption of best practices across the sector.
3. Enhance the skills and morale of staff by improving working conditions, work-loads, and providing ongoing training opportunities.
4. Partner with researchers, experts, and other health care providers to identify opportunities for innovation and best practice in care, administration, and services.
5. Continue to make efforts to improve perceptions of the LTC sector.

For Government

1. Actively encourage, and contribute funding to, the development and implementation of an **LTC Sector Innovation Strategy** that addresses critical Ontario priorities, including:
 - Assuring best practices to improve the quality of life and physical well-being of aging Ontarians; and
 - Assuring that the LTC sector is equipped to meet the needs of residents with more complex health challenges, so as to support implementation of the *Alternate Level of Care* and *Aging at Home* strategies.
2. Formally review the LTC regulatory regime, based on best practices in Canada and around the world, and shift the emphasis towards public accountability for outcomes in order to promote an innovation mind-set, in place of the current compliance mind-set.
3. Plan for and fund health human resource development to meet current and future LTC HR needs—and especially to support innovation in LTC.
 - Fund one or more *Teaching Long Term Care Home* pilot programs.
4. Provide incentives and resources to LTC providers to improve technology implementation and training.

Source: The Conference Board of Canada.

While the context for innovation in LTC is challenging, steps can be taken to ensure that the sector can innovate to meet the challenges of major demographic and policy changes in the province. An innovating, more productive LTC sector would lead to better care and cost savings for the increasingly resource-pressured healthcare system. To get there, action by the sector and government must be taken, some in collaboration with one another.

Recommendations for LTC

Recommendation 1:

Develop an *LTC Sector Innovation Strategy* that contributes to the sector's ability to address Ontario's key health care priorities, including:

- Assuring best practices to improve the quality of life and physical well-being of aging Ontarians;
- Providing necessary, effective, and efficient health services to a rapidly increasing number of aging Ontarians with increasingly diverse service requirements; and
- Caring for a higher share of residents with complex health challenges, including multiple diagnoses or co-morbidities, and chronic diseases so as to help implement the *Alternate Level of Care* and *Aging at Home* strategies.

Ontario's LTC sector should develop an *Innovation Strategy* in order to innovate on the scale it requires to meet the rising demand for enhanced long term care and to contribute towards the sector's ability to address Ontario's key health priorities. The Strategy will also help LTC attract the necessary support and resources from government and other stakeholders to undertake a truly effective program of innovation that should produce mutual benefits for LTC providers and the public.

The strategy should clearly set out the overall objectives of innovation in LTC and how they would advance government healthcare and other priorities. The strategy should identify key initiatives that will be pursued in each of the three innovation orientations: firm-level, LTC sector and overall health sector. In addition, it should make clear how the initiatives will help achieve strategic goals, and identify needed to see the initiatives through to fruition. Critically, the strategy should be a product of a broad-based collaboration among LTC providers, and should involve close consultation with residents, staff, government, and other stakeholders.

Recommendation 2:

Strengthen communications with LTC members, residents, families, other health-care providers (including those in acute, continuing, and home care organizations), and government to encourage innovation and the adoption of best practices across the sector.

As the LTC sector is simply a part—albeit a critical part—of the larger health-care system that includes many other actors with whom the sector will have ongoing, regular interactions, the sector should continue to make efforts to engage with these other players. In particular, the LTC sector should improve communication with those in acute, continuing, and home care organizations in order to encourage innovation and the adoption of best practices across the sector.

This will be especially important as the government pursues its ER/ALC and Aging at Home strategies which—while pursuing worthwhile goals—will likely cause transitional disruptions and challenges for the health-care system.

Recommendation 3:

Enhance the skills and morale of staff by improving working conditions, work-loads, and providing ongoing training opportunities.

It is important to prepare and motivate LTC staff to contribute to the success of the Strategy. Skill levels and morale of LTC staff are relatively low compared to employees in other sectors. To improve conditions, LTC providers should make investments in improving skills and morale by improving working conditions—including workloads, the organization of work, nature of contracts, working environment, and, where appropriate, wages and benefits—and by investing in more training, learning, and development of current staff.

Recommendation 4:

Partner with researchers and experts to identify opportunities for innovation and best practice in care, administration, and services.

While LTC operators can improve training for staff to innovate, and may have some in-house expertise to identify and pursue innovations in care, administration, and other services, there may also be a need to identify external experts, develop relationships, and benefit from the additional expertise and insights that they can offer.

At the same time, LTC operators should remember that individuals and groups with whom they partner will have interests and objectives of their own. Consequently, partnership agreements and arrangements should ensure that there are mutual benefits for all parties and include communications and conflict resolution mechanisms.

Recommendation 5:

Continue to make efforts to improve perceptions of the LTC sector.

Among the factors most likely to block or diminish the impact of innovation in LTC is the persistent negative perception of the sector among the government and the public. While changing perceptions is a difficult task—in many respects beyond the control of the sector itself—the LTC sector can take some steps to create opportunities for others to reconsider their perceptions.

New initiatives—such as providing educational and support services to home caregivers—may serve to improve perceptions. Indeed, a message based on what the sector can offer to the system and the public, rather than one based simply on what it needs to survive, is more likely to find a receptive audience and facilitate a transformation of perceptions.

Recommendations for Government

Recommendation 1:

Actively encourage, and contribute funding to, the development and implementation of an **LTC Sector Innovation Strategy** that addresses critical Ontario priorities, including:

- Assuring best practices to improve the quality of life and physical well-being of aging Ontarians; and
- Assuring that the LTC sector is equipped to meet the needs of residents with more complex health challenges, so as to support implementation of the *Alternate Level of Care* and *Aging at Home* strategies.

Innovation in the LTC sector in Ontario is critical. In the face of demographic trends and resource constraints, LTC operators will need to find new and improved ways to provide care, deliver services, and execute administrative and other functions. Moreover, given the implications of the government's ER/ALC and Aging at Home strategies on the LTC sector—namely, an expected increase in resident acuity levels—the government will itself need an innovative, more productive, and better prepared LTC sector. Consequently, as the sector develops its *Innovation Strategy*, the government should explore ways to support that strategy and provide resources to ensure its success.

Recommendation 2:

Formally review the LTC regulatory regime, based on best practices in Canada and around the world, and shift the emphasis towards public accountability for outcomes in order to promote an innovation mind-set, in place of the current compliance mind-set.

The Ontario government notes in its *Innovation Agenda* that “regulation plays a very important role in society by protecting the environment, consumers, workers, investors and others. It must balance these goals with an understanding that companies need to respond quickly to seize global opportunities.”¹⁵⁴ Moreover, the agenda states that “Ontario’s goal is to lead all Canadian jurisdictions with its efforts to measure and reduce the regulatory burden.”¹⁵⁵ Recognizing that regulation is necessary, but also acts as a barrier to innovation, the government should consider a review of the way that LTC providers are regulated and evaluated and, in doing so, should consider reducing the regulatory burden and replacing it with more accountability for outcomes.

In particular, the government should explore how the Ontario Health Quality Council’s *Residents First* initiative might provide the basis for a shift from a regulatory compliance regime and towards an accountability regime which is accompanied by collaboration and support for improving those outcomes. Such a shift would allow operators more latitude in identifying and implementing new and improved ways to deliver excellent care and accommodation (rather than

¹⁵⁴ Ministry of Research and Innovation, *Seizing Global Opportunities: Ontario’s Innovation Agenda*, 20.

¹⁵⁵ *Ibid.*, 21.

micro-managing how that is done), while holding them publicly accountable for their performance.

Recommendation 3:

Plan for and fund health human resource development to meet current and future LTC HR needs—and especially to support innovation in LTC.

- Fund one or more *Teaching Long Term Care Home* pilot programs.

While demographic trends are leading to current and future increases in the demand for LTC services, those same trends are also leading to labour and skills shortages thus making it difficult for LTC to attract the highly skilled and motivated staff it will need to fulfill its conventional role, let alone pursue sector-wide innovation. To ensure that the LTC sector will have the human resources it needs to meet future demand, the government should improve efforts to plan for and fund human resource development specifically oriented to LTC human resource needs.

As part of that effort, the government should consider funding one or more Teaching Long Term Care Home pilot projects which would provide opportunities for students opportunities to work in LTC homes and thereby develop a better understanding of what is involved, and opportunities for academics to perform aged-care research which could, in turn, serve to improve the delivery of care and other services by the sector.

Recommendation 4:

Provide incentives and additional resources to LTC providers to improve technology implementation and training.

While many LTC operators and staff may be eager to introduce new technologies that would assist with care delivery and other duties, the costs of the technology are often high, and the time and resources necessary to train staff may be too onerous for resource-starved facilities to identify and allocate. In light of these barriers and the many benefits that these technologies bring to safety and quality of care, the government should consider providing incentives to improve technology implementation and training.

Guidance may be available from the United States in light of the recent passage of the *Patient Protection and Affordable Care Act* which includes a 4-year grant program (beginning in 2011) to help offset purchase, implementation, and training costs for IT, especially EHR, in LTC facilities.

The Innovation Challenge for LTC

If the LTC sector is able to develop and take steps towards implementing an *Innovation Strategy* and if the government is able to provide the supports necessary to realize the strategy, then Ontario will be much better prepared for the looming demographic challenges and the effects of necessary policy changes. Still, both the sector and the government should recognize that

innovation is often incremental and that setbacks and failures are common occurrences. Although massive transformation is necessary, one should not expect it to emerge overnight.

With patience and the right resources, the LTC sector in Ontario should be able to realize its innovation potential and take on a leading role in supporting the government's interest in controlling healthcare costs while ensuring that aging Ontarians have access to high quality care in appropriate settings.

Appendix A

Innovation and Best Practice in Long Term Care: A Scan of Initiatives and Resources

A literature search was conducted to learn of innovative long-term care (LTC) practices and/or policies in jurisdictions outside of Canada. Four themes were of interest: health human resources, funding, regulation, and technology/facility design. The purpose of the scan was to develop an understanding of issues, challenges, and practices elsewhere in order to provide context for assessing the LTC situation in Ontario. In many cases, insights from the scan have been incorporated into the main text above. This appendix provides additional detail for those insights, and discusses other issues, challenges, and practices that were not profiled in the main text.

Methodology

A variety of strategies were used in the literature search. Databases (i.e., Infomart, EconLit, Canadian Reference Centre and Business Source Premier and PubMed) were searched using the keywords and phrases:

- long-term care and innovation;
- long-term care and health human resources;
- long-term care and funding;
- long-term care and regulation;
- nursing homes and innovation.

Articles of relevance were identified by the researcher, retrieved and reviewed. In addition, a variety of international websites were hand-searched including: OECD, European Observatory, European Commission, University of York (UK), London School of Economics, The Kings Fund, UK Department of Health, the Institute of the Future of Aging Services, the Commonwealth Fund, and the Agency for Healthcare and Research Quality, among others.

Finally web searches were performed for discussion and policy documents from key jurisdictions—including Australia, New Zealand, the United States, the United Kingdom and other countries in the European Union.

The articles consulted are listed in the bibliography. A sample of interesting initiatives, and resources that provide inventories of innovations and best practices, are listed in Exhibit 1, “Innovation and Best Practice in Long Term Care: A Sample of Initiatives and Resources.” Discussion of themes and some of the initiatives follows.

Exhibit 1

Innovation and Best Practice in Long Term Care A Sample of Initiatives and Resources

Theme	Keywords	Jurisdiction	Initiative
Health Human Resources	Leadership Training Culture Change Retention	United States	<p>Wellspring Program</p> <p>The Wellspring Program is an effort to improve nursing home care through the exchange of information and joint training of frontline staff and leadership on quality improvement and cultural change processes and best practices. The program aims both to improve care and quality of life outcomes for residents, as well as the nursing home as a work environment.</p> <p>A 2002 evaluation of the model (focused on clinical quality improvement and environmental cultural change) found improved quality outcomes, better staff retention rates, and reduced turnover rates.</p> <p>Sources: Agency for Healthcare Research and Quality; and A. Rahman, "The Nursing Home Culture-Change Movement."</p>
	Leadership Training Culture Change Retention	United States Canada Europe Australia	<p>Eden Alternative</p> <p>The Eden Alternative is a culture change initiative that has trained over 17,000 staff and worked with more than 300 nursing homes in the United States, Europe, Australia, and Canada. The ongoing training and improvement initiatives were created nearly 20 years ago by Dr. William Thomas.</p> <p>Small-scale studies of facilities that have adopted the Eden Alternative have found mixed results on performance.</p> <p>Source: A. Rahman, "The Nursing Home Culture-Change Movement."</p>

Health Human Resources	Training Culture Change Facilities		<p>The Green House Model of Care</p> <p>The Green House is an “offspring of the Eden Alternative concept.” Operating on a more intimate scale (i.e., homes have no more than 10 residents) the model aspires to provide a “warm, inviting home.” “The certified nursing assistants who work in the Green House are called Shahbaz (Shahbazim: plural), in an effort to overcome the stereotypical term of nurse aide used in the traditional nursing home.” They “receive 120 hours of additional training for the expanded universal role that includes cooking, cleaning, laundry, shopping, and more, [and] Shahbazim are given greater latitude in decision-making.”</p> <p>A 30-month evaluation of Green House facilities and 2 “traditional” homes found that Green House residents reported being more satisfied than those in traditional homes, and emotional well-being was higher. However, incontinence was more prevalent in the Green House.</p> <p>Source: V. Ragsdale and G. McDougall, “The Changing face of Long-Term Care.”</p>
	Recruitment Retention	United Kingdom	<p>Accolades (SkillsforCare)</p> <p>The <i>Accolades</i> program is run by the <i>SkillsforCare</i> organization in the UK—a non-profit charity that works with 35,000 adult social care employers to “set the standards and qualifications to equip 1.5 million social care workers with the skills and knowledge needed to deliver high quality care to people who use services and carers.” <i>Accolades</i> awards celebrate outstanding social care employers in an event that is said to be the Oscars of social care. A research briefing prepared by <i>SkillsforCare</i> found that one of the most effective ways to attract staff to care homes is ‘word of mouth’ and reputation. Programs like <i>Accolades</i> that draw positive attention both to the sector and to outstanding care organizations are likely to be a source upon which reputations are built.</p> <p>Source: SkillsforCare, “Accolades.”</p>

Health Human Resources	Training Morale Recruitment	United States	<p>Qualification Credit Framework (SkillsforCare)</p> <p><i>SkillsforCare</i> is also engaged in the development of a new <i>Qualification Credit Framework</i>—an employer- and sector-led process that provides a means to recognize and reward social care workforce skills and knowledge. The core units include, among others, personal development, person-centered support, communication and handling information. The <i>SkillsforCare</i> approach aligns with findings from a 2009 OECD publication that training programs and career structures for LTC workers help to counter the traditional poor image of the sector and draw more people into it.</p> <p>Sources: SkillsforCare, “Qualifications and Credit Framework”; R. Fujisawa and F. Colombo, <i>The Long-Term Care Workforce: 4</i>.</p>
	Recruitment Working Conditions	United States	<p>Better Jobs Better Care</p> <p>The 4-year <i>Better Jobs Better Care</i> research and development program for LTC yielded a significant number of insights into policies and practices to enhance the retention among LTC workers. For example, research on the importance of supervisors in nursing homes found that frontline supervisors are critical to direct care worker retention; formal supervisory training is critical but is currently lacking and job satisfaction is enhanced when supervisors have the appropriate coaching and communication training to support a positive and team-oriented milieu among staff. A segment of this research examined the role of a retention specialist and found that a retention team can significantly reduce direct care worker turnover.</p> <p>Source: Better Jobs Better Care, http://www.bjbc.org/.</p>
	Leadership Training Knowledge Exchange	United States	<p>The Ideal Administrator</p> <p>The training tool “The Ideal Administrator” allows for self-assessment on a variety of leadership domains and comparison with a nationwide peer group. The tool assists leaders in identifying their training needs and also allows them to connect online with peers on issues or concerns they experience.</p> <p>Source: R. Peck, “It’s all about leadership,” 26.</p>

Health Human Resources	Training Recruitment Research	United States	<p>Teaching Nursing Homes (U.S.)</p> <p>A U.S. TNH initiative was funded by the Robert Wood Johnson Foundation and was later implemented by the National Institute on Aging between 1982 and 1987. Eleven schools and twelve nursing homes participated in the early phases of this project which aimed “to increase the quality of care; to increase the interest in geriatrics in the school of nursing; to improve staff development; and to ensure independent financial survival for the program.” While the initiative achieved some good results, the program ended in the late 1980s due to insufficient long-term funding.</p> <p>Source: E. Bronner, “The Teaching Nursing Home Program,” 6.</p>
	Training Recruitment Research	Norway	<p>Teaching Nursing Homes (Norway)</p> <p>The Norwegian TNH program differs significantly from the U.S. model, as it is was designed in collaboration with, and is funded by, the Norwegian government. The TNH program aims to improve the competence of staff, enhance the prestige of working with older people, stimulate the development of services, facilitate research on the care of older persons, and develop strong learning environments for students. Norwegian TNHs were established on permanent basis as of 2004 with funding from the Department of Health and Social Services.</p> <p>Source: M. Kirkevold, “The Norwegian Teaching Home Program,” 282.</p>
Technology and Facilities	Technology Occupational Health and Safety	United States	<p>Nursing Home eTool</p> <p>The Nursing Home eTool provides a number of training tools in easy-to-understand formats that aim to contribute to awareness of and improvements to occupational health and safety standards and best practices. It was designed “to assist employers and employees in identifying and controlling the hazards associated with nursing homes and residential care facilities.” It. The many areas covered by the eTool include: blood borne pathogens, ergonomics, dietary, laundry, maintenance, nurses stations, pharmacy, tuberculosis, housekeeping, whirlpool/shower, and workplace violence.</p> <p>Source: U.S. Department of Labor, OSHA, “Occupational Hazards in Long Term Care: Nursing Home eTool.”</p>

Technology and Facilities	Information Technology System Interface Transitional Care	United States (Oklahoma)	<p>Oklahoma Department of Veterans Affairs “911 Record”</p> <p>The importance of transitional care was highlighted in the literature. The need for clear and concise 2-way communication between hospital and LTC facilities was raised. The Oklahoma Department of Veterans Affairs (7 nursing homes with 1,400 beds) uses their computerized patient record system to produce a “911” record for residents that are transferred to hospitals. This summary record provides core information necessary for the admitting physician.</p> <p>Source: J. Conn, “A Long-term solution.”</p>
	Technology Inventories Advocacy	United States	<p>Center for Aging Services Technologies (CAST)</p> <p>CAST is an international network of over 400 “technology companies, aging-services organizations, businesses, research universities and government representatives” who work under the direction of the American Association of Homes and Services for the Aging. Activities include:</p> <ul style="list-style-type: none"> • “Provid[ing] opportunities for collaboration to rapidly advance aging services technologies to benefit older adults. • Creat[ing] and maintain[ing] an online information clearinghouse to provide the latest information and knowledge on aging services technology developments as well as to provide a forum for providers to engage in discussions with researchers and to share experiences. • Engag[ing] government representatives to gain support for technology-related policy and facilitate private public sector partnerships to advance technology development and application.” <p>Source: American Association of Homes & Services for the Aged, “CAST Overview.”</p>

Technology and Facilities	Technology Inventories	United States	<p>Technology for Long-Term Care Website</p> <p>The Technology for Long-Term Care website is a government-funded resource that contains detailed information on over 1200 technologies designed to contribute to improvements in care and quality of life for people in long-term care facilities (including nursing homes, assisted living, boarding care, and adult day care programs). The many areas covered by the website include: assistance call, bathing, communication and memory, dressing, eating, fall management, incontinence, leisure, lifting and transferring, medication management, mobility, and wander management and wound care.</p> <p>Source: Technology for Long-Term Care, “What is Technology for Long-Term Care?”</p>
	Technology Implementation	United States (New York)	<p>New York State Nursing Home Health Information Technology (HIT) Demonstration Project</p> <p>The New York State Nursing Home Health Information Technology (HIT) Demonstration Project aimed to support the implementation of point-of-care medical records in 20 nursing homes located in New York City. While receiving public subsidies, participating homes replaced paper records with electronic ones in less than six months (not including the time required for an “intensive pre-implementation planning period”). While all participating homes managed to implement the technology successfully, studies of the demonstration project revealed differences between homes with respect to: “organizational aims for adapting HIT; the technology’s perceived or real effects; and implementation of quality improvement efforts as a result of newly available data.”</p> <p>Source: S. L. Klinger and S. White, <i>Lessons from a Health Information Technology Demonstration in New York Nursing Homes</i>.</p>
	Facility Culture Change	United States (Pennsylvania)	<p>Centers for Medicare and Medicaid Services Artifacts of Culture Change Tool</p> <p>The Artifacts of Culture Change Tool is an online resource that allows nursing homes to assess their own progress and success in implementing a number of culture change initiatives against 79 criteria that are drawn from “actual changes that culture changing homes have made.”</p> <p>Source: Pennsylvania Culture Change Coalition, “Development of the Artifacts of Culture Change Tool.”</p>

Technology and Facilities	Facility	United States	<p>Assisted Living</p> <p>Assisted living is an important housing and LTC option in the United States, though it is more frequently found in areas with higher educational attainment, income, and housing wealth. In surveys, people who need assistance with ADLs tend to prefer assisted living over institutional long-term care facilities because they are perceived to be more homelike. “In contrast to the nursing home sector, where facilities are heavily regulated and depend mostly on public dollars, the assisted living sector has, to date, grown without substantial government regulation or financing.” States have tended to be reluctant to extend Medicaid coverage for assisted living services in part because the cost- effectiveness of assisted living relative to nursing homes is unclear.</p> <p>Source: D. Stevenson and D. Grabowski, “Sizing Up the Market for Assisted Living.”</p>
	Facility	United States	<p>Pioneer Network</p> <p>The Pioneer Network in the US—a multi-stakeholder group focused on supporting innovation in LTC—is working toward the goal of making LTC facilities more homelike and less institutional. A stakeholder meeting led to the consensus view that the ‘ideal facility’ would include resident direction; homelike atmosphere; close relationships; staff empowerment; collaborative decision-making; quality improvement processes.</p> <p>Source: M. Koren, “Person-Centered Care for Nursing Home Residents: The Culture-Change Movement.”</p>
	Facility	United States	<p>Subacute Care Market</p> <p>Subacute care is a term for “a range of medical and rehabilitative services for patients who have experienced an acute illness or exacerbation of a disease and need continuation of care.” Research reveals that “nursing homes generally enter the subacute care market by establishing dedicated patient units that provide specialized care ranging from rehabilitation to hospice care” and that subacute care participation among U.S.-based nursing homes has grown significantly since the 1990s. However, specific trends in participation and success rates appear to be influenced by the policy and funding environment in which homes operate.</p> <p>Source: R. Weech-Maldonado, A. Qaseem, and W. Mkanta, “Operating environment and USA nursing homes’ participation in the subacute care market: a longitudinal analysis.”</p>

Funding		Australia	<p>Rebalancing Public-Private Contributions to LTC</p> <p>In Australia there has been increasing talk about and movement towards “rebalancing” public and private contributions to LTC costs—i.e., requiring residents who have the resources to make greater contributions to their residential LTC. Those in favour of rebalancing emphasize that the accommodation portion of LTC services is something that residents would have to pay for themselves if they were not residents of LTC facilities—that is, if they were living in private homes, they would be expected to bear the full costs of rent, heat, electricity, and other basic accommodation expenses. Additionally, advocates suggest that there may be room in the budget of the average baby boomer to pay more for their accommodations—Australian baby boomers have an average net worth of \$381,000 AUD compared to \$292,500 AUD for all Australians. Those skeptical of efforts to rebalance the Australian LTC funding model worry that less affluent seniors will be further impoverished by such a policy, while others will not be able to afford the care they need at all.</p> <p>Source: Productivity Commission, <i>Trends in Aged Care Services: Some Implications</i>, xv-xxv.</p>
		United States	<p>Long Term Care Insurance</p> <p>Private and employer-supported LTC insurance plans have increased their footprints in many states reflecting increasing awareness that new approaches to funding LTC will be necessary of the U.S. is to successfully meet demographic challenges. However, only 16 per cent of adults over 65 with annual incomes over \$20,000 have purchased LTC insurance.</p> <p>Source: G. DeFries and P. Welsh, “LTC Challenges Ahead for North Carolina.”</p>
		France	<p>Allocation Personnalisée d’Autonomie</p> <p>France has introduced a nation-wide, universal <i>Allocation Personnalisée d’Autonomie</i> which provides resources to individuals to fund LTC service at one of six levels of need. While the program respects the strong disposition in France towards solidarity and sharing the costs of social programs, it does introduce some degree of contribution according to capacity—while individuals with incomes below a certain threshold pay no charges, those with incomes above the threshold level pay charges in line with income.</p> <p>Source: C. Glendinning, <i>Dartington review on the future of adult social care</i>.</p>

Funding		Germany	<p>Social Dependency Insurance</p> <p>Germany recently adopted a <i>Social Dependency Insurance</i> program for LTC. The compulsory insurance plan requires contributions according to income and can be supplemented with private insurance. Benefits are paid as cash for the client at home, cash for home care paid to a provider, or cash for institutional care paid to a provider. What is notable here is that by aligning LTC insurance contribution levels with incomes—rather than drawing from general government accounts to fund LTC—Germany has incorporated the notion that LTC funding should reflect a better, and more explicit, balance between public and private contributions.</p> <p>Source: C. Glendinning, <i>Dartington review on the future of adult social care</i>.</p>
		Austria Denmark Germany Others	<p>Personal Budgets</p> <p>Personal budgets are “consumer-directed” funding programs that generally provide individual envelopes for purchase of services, including employing professional care assistants, informal care givers in the form of income support, and/or direct payments to persons needing care without constraints on use.</p> <p>“Often these programmes are still experimental, covering only a small part of the population. But in Austria and Germany, a large part of the public scheme to provide for publicly funded long-term care is built around these concepts. These initiatives enable more people with care needs to stay at home as long as possible, by mobilizing or sustaining the contribution from informal care. Consumer choice can improve the self-determination and satisfaction of older persons and increase the degree of independent living, even in cases of dependency on long-term care. In general, these programmes are appreciated by older people because they give people greater control over their own lives.”</p> <p>In 2003, a pilot project was conducted in a number of municipalities in Denmark in which people were given a cash payment to purchase the services they were assessed as needing. The provider is approved by the municipality, which also oversees the quality of the services received. By 2006, seven municipalities were taking part, involving 58 people. There are no plans to make the scheme permanent.</p> <p>Sources: OECD, <i>Ensuring quality long-term care for older people: Policy Brief, 4</i>; C. Glendinning and N. Moran, <i>Reforming Long-Term Care: Recent lessons from other countries, 24</i>.</p>

Regulatory Approaches		United States	<p>Negotiated Risk Agreements</p> <p>Negotiated risk agreements address the tension between regulatory oversight on safety and resident choice and autonomy. These contracts between facilities and residents (or surrogate) make explicit the preferences and choices of the resident that will be honoured by the facility. These agreements were authorized in 14 states and the District of Columbia in their assisted living licensure laws by the end of 2006. The use of these agreements has mainly been in assisted living arrangements.</p> <p>Source: K. Burgess, “Rum Raisin, Monkey Crunch, and Mocha Frappucino Cherry with Gummy Bears on Top: Striving for Personal Autonomy and Choice in a Regulated Long-Term Care Environment.”</p>
	Legislation Technology Implementation	United States	<p>U.S. <i>Patient Protection and Affordable Care Act</i></p> <p>Recognizing the importance of ICT adoption, but also the barriers, the U.S. <i>Patient Protection and Affordable Care Act</i> includes a 4-year grant program (beginning in 2011) to help offset purchase, implementation, and training costs for IT, especially EHR, in LTC facilities. \$67.5 million is available for HER grants and two LTC programs to provide incentives for staff training and development and to improve management practices. Grants will be available for demonstration projects for best practices in skilled nursing facilities and the use of IT to improve resident care.</p> <p>Source: CAST, “Provisions Relevant to Aging Services Technologies.”</p>

International Innovations and Best Practices: Discussion

Background

The issues associated with long-term residential care—staffing, financing and quality to name a few— are well known and have been the subject of much study. These issues are not unique to Ontario; they dominate the international LTC literature as well. A review of this literature yielded some interesting trends, practices, and innovations around five themes of interest: health human resources, technology, funding, quality and regulation.

Organization of LTC and Issues

Informal care: In the EU informal care is the predominant means of providing support to elderly who are experiencing physical and functional decline; over 80 per cent of the social care hours provided is informal and this is true even of those countries that invest significantly in LTC.¹⁵⁶

Formal care: As compared to the US, in the EU there is a much larger share of those 65 years and older that receive care in their home (on average 7.6 per cent in the EU and 2.7 per cent in the US) versus an institution (on average 3.3 per cent in the EU and 4.3 per cent in the US).¹⁵⁷ “Nowhere in the EU do 65+ who are cared for in institutions represent more than 6.5 per cent.”¹⁵⁸

Although there is a general commitment to support people in their homes, a majority of the public investment in EU countries is on residential care. Sweden is an outlier among the member states; it devotes the largest share of GDP to LTC (3.9 per cent of GDP) and concentrates this investment on those with the highest need.¹⁵⁹ The trend in EU countries is to target nursing home care to more fragile older people; as in Canada a sizable proportion of those in nursing homes in the EU are living with dementia—over 50 per cent in some cases.¹⁶⁰

LTC Innovation

In terms of innovation in LTC generally, research by Zinn et al (2005) used the following measures to construct an index of innovation in LTC:

- Presence of an Alzheimer’s unit
- Presence of a ventilator care unit
- Presence of a rehabilitation unit
- Presence of a hospice program
- Presence of a nurse aide training/evaluation program

¹⁵⁶ B. Marin, et al., *Who Cares?: Care coordination and cooperation to enhance quality in elderly care in the European Union*, 5.

¹⁵⁷ *Ibid.*, 7.

¹⁵⁸ *Ibid.*, 13.

¹⁵⁹ *Ibid.*, 14.

¹⁶⁰ *Ibid.*, 26.

- Employment of physician extenders (such as nurse practitioner or physician assistant)
- Employment of over ½ FTE physiotherapist or occupational therapist on staff.

The research found that while innovation is key to better performance in LTC facilities, 40 percent of homes in the research dataset innovated minimally or not at all. The study suggests that innovation in LTC is considered an ‘oxymoron’ and little research has been conducted to understand nursing home innovations. Similarly, in an article about Intel’s role in fostering seniors’ independence, Eric Dishman of Intel suggests that “getting LTC as seat at the table for healthcare innovation is a big challenge.”¹⁶¹

The literature provided some examples of either fostering or recognizing innovation in LTC. Mankato Lutheran Home and its parent company, Ecumen, established “The Innovation Station”—an intranet site “where employees can submit an innovation that they have put into practice at their respective sites that improves residents’ experience or makes their jobs more efficient.”¹⁶² The innovations have to be a policy or practice that has already been implemented at a facility, and a recognition system rewards those who submit innovations.

A May 2010 article on developing new innovations in organizations suggests that “...successful innovators start by developing new perspectives about their industries, their customers, and themselves.”¹⁶³ The US Agency for Healthcare Research and Quality (AHRQ) *Innovations Exchange* spotlights innovative approaches and practices in long-term care that have been developed by just such an approach. In one example, a group of seven nursing homes under one corporation undertook a variety of initiatives to create a “more home-like, resident-focused environment and culture” that ultimately led to better quality and financial performance, higher resident satisfaction and lower staff turnover.¹⁶⁴ The homes implemented a number of activities including:

- the introduction of a quality of life specialist within the home;
- the creation of ‘neighborhoods’ within the facility and permanent staff assignments to these neighborhoods;
- greater flexibility in routines; and
- constant communication around the need for culture change including quality improvement presentations and quarterly awards.

Spotlighting innovative LTC programs was a recurrent theme in the literature. In some cases it was a call to take this step, such as that found in RTI researcher Joshua Wiener’s 2009 paper *Long-Term Care: Options in an Era of Health Reform*.¹⁶⁵ In other cases, the literature described fresh and creative ways that innovations are being spotlighted.

¹⁶¹ R. Peck, “How Intel fosters senior independence.”

¹⁶² J. Stahl, “Creating a culture of innovation.”

¹⁶³ C. Jones, “Starting with a Blank Sheet of Paper Doesn’t Work.”

¹⁶⁴ Agency for Healthcare Research and Quality, “Nursing Homes Create Home-Like, Resident-Focused Environment and Culture, Leading to Better Quality and Financial Performance, Higher Resident Satisfaction and Lower Staff Turnover.”

¹⁶⁵ J. Wiener, *Long-term care: Options in an era of health reform*.

One instance that stands out is the *Accolades* program run by the *SkillsforCare* organization in the UK. *SkillsforCare* is a non-profit charity that works with 35,000 adult social care employers to “set the standards and qualifications to equip 1.5 million social care workers with the skills and knowledge needed to deliver high quality care to people who use services and carers.”¹⁶⁶ Among other activities this organization offers *Accolades* awards that celebrate outstanding social care employers in an event that is said to be the Oscars of social care.¹⁶⁷ The Department of Health is a strong supporter and partner of these efforts. A research briefing prepared by *SkillsforCare* found that one of the most effective ways to attract staff to care homes is ‘word of mouth’ and reputation. Programs like *Accolades* that draw positive attention both to the sector and to outstanding care organizations are likely to be a source upon which reputations are built.

Theme-based Findings

1. Health Human Resources

The rising contribution of health and long-term care to economies is raised in several EU publications. These sectors have higher rates of job growth than the general economy, with social service jobs growing faster than health.¹⁶⁸ Most social service jobs in many EU countries are focused on elder care. A persistent theme in the literature is the question of whether this growth can keep up with the rise in demand for LTC.

The health human resource issues in LTC are remarkably similar across countries. Workforce shortages are prevalent, morale is low and turnover high, and recruitment and retention are a continual challenge. Skill-mix, training and wages are frequently discussed. In response to these challenges a number of innovative approaches to either increase the LTC workforce, or build on existing capacity, have been developed in some regions.

The US based *Better Jobs Better Care* four year research and development program for LTC yielded a significant number of insights into policies and practices to enhance the retention among LTC workers.¹⁶⁹ For example, research on the importance of supervisors in nursing homes found that frontline supervisors are critical to direct care worker retention; formal supervisory training is critical but is currently lacking and job satisfaction is enhanced when supervisors have the appropriate coaching and communication training to support a positive and team-oriented milieu among staff. A segment of this research examined the role of a retention specialist and found that a retention team can significantly reduce direct care worker turnover.

Leadership

A number of US articles addressed the importance and qualities of LTC leadership. The American College of Health Care Administrators focuses on the primary training needs for LTC administrators.¹⁷⁰ The training tool “The Ideal Administrator” allows for self-assessment on a

¹⁶⁶ See www.skillsforcare.org.uk.

¹⁶⁷ SkillsforCare, “Accolades.”

¹⁶⁸ B. Marin, et al., *Who Cares? Care Coordination and Cooperation*, 10.

¹⁶⁹ Better Jobs Better Care, “About Us.”

¹⁷⁰ R. Peck, “It’s all about leadership,” 26.

variety of leadership domains and comparison with a nationwide peer group. The tool assists leaders in identifying their training needs and also allows them to connect online with peers on issues or concerns they experience.

Training/Credentialing

Research from the European Union has shown that most member states “...have introduced or are introducing training and lifelong learning schemes in order to maintain the staff’s expertise and enhance their capacity in dealing with specific long-term care specialties such as geriatrics.”¹⁷¹ In some countries, specialized organizations have been established to promote best practice in social care. For example, the “Social Care Institute for Excellence” and “Training Organization for Personal Social Services” in the UK fulfill this mandate. In addition, the UK’s *SkillsforCare* organization is built on a vision of “creating expertise in social care” and mission of:

- Supporting employers
- Engaging people
- Setting standards
- Developing skills
- Building careers
- Gathering evidence
- Influencing policy¹⁷²

This leading edge institution is also engaged in the development of a new *Qualification Credit Framework*—an employer and sector led process that provides a means to recognize and reward social care workforce skills and knowledge. The core units include, among others, personal development, person-centered support, communication and handling information. The *SkillsforCare* approach aligns with findings from a 2009 OECD publication that training programs and career structures for LTC workers help to counter the traditional poor image of the sector and draw more people into it.¹⁷³

The OECD report also found that changes in the content of a job in LTC can improve morale and enhance retention. This is supported by evidence from job-rotation schemes introduced in Hungary—these programs allowed staff to gain management skills and participate in a variety of projects and evidence suggests that staff turnover may have been reduced as a result.¹⁷⁴

This same OECD publication discusses the trend of using low-skilled immigrant workers as a labour pool in many countries, including Canada where foreign trained LTC workers are thought to make up about one-fifth of the LTC workforce.

¹⁷¹ European Commission, *Long Term Care in the European Union*, 31.

¹⁷² SkillsforCare, “What we do.”

¹⁷³ R. Fujisawa and F. Colombo, *The Long-Term Care Workforce*, 4.

¹⁷⁴ B. Marin, et al., *Who Cares? Care Coordination and Cooperation*, 10.

Eldercare Benefits in Business Sector

The impact of eldercare on employee productivity and organizational performance is increasingly being recognized. To counter this, some businesses have developed innovative practices and services to offer their employees. And it's been suggested that those that do are likely to improve both retention and productivity.¹⁷⁵ In a survey by MetLife Mature Market Institute found that about ¼ of the US businesses surveyed have added 'eldercare benefits' to their compensation packages.¹⁷⁶ Information and education about elder care services are among the priorities. For example, employees at Astra Zeneca have access to a referral service, can access 6 hours per year with an expert on geriatric care, and are offered lunchtime seminars on aging-related topics. Companies are contracting onsite geriatric case managers to be available each week for interested employees.

2. Technology and Facilities

Technology

A US survey (2006) on information technology and plans from 916 LTC facilities and 166 assisted living facilities found that the large, national, multi-facility companies were aggressively pursuing IT implementations while the smaller, independent facilities were moving forward but at a slower pace.¹⁷⁷ Some organizations that have been early adopters are moving beyond reporting core data sets electronically to use IT for care planning and tracking meals and diet preferences.

The importance of transitional care was highlighted in the literature. The need for clear and concise 2-way communication between hospital and LTC facilities was raised. The Oklahoma Department of Veterans Affairs (7 nursing homes with 1,400 beds) uses their computerized patient record system to produce a "911" record for residents that are transferred to hospitals. This summary record provides core information necessary for the admitting physician.¹⁷⁸

Facilities

Denmark has been moving towards an LTC system that emphasizes community care and deinstitutionalization. In 1987 legislation was introduced that banned the construction of further nursing homes. In the 20 years following this Act, nursing home beds halved.¹⁷⁹ Persons over 75 years of age receive a visit twice a year from a municipally employed case manager to help with plans for remaining independent in homes. Supportive housing complexes with various levels of assistance are available and typically located near community centres or nursing homes.

¹⁷⁵ HR Focus, "Why You Should Consider Elder-Care Benefits As a Retention Tool," 5-6.

¹⁷⁶ D. Kotz, "Need Help? Ask your employer."

¹⁷⁷ J. Conn, "A Long-term solution."

¹⁷⁸ Ibid.

¹⁷⁹ C. Glendinning and N. Moran, *Reforming Long-Term Care: Recent lessons from other countries*, 24.

The *Pioneer Network* in the US—a multi-stakeholder group focused on supporting innovation in LTC—is working toward the goal of making LTC facilities more homelike and less institutional. A stakeholder meeting led to the consensus view that the ‘ideal facility’ would include¹⁸⁰:

- Resident direction
- Homelike atmosphere
- Close relationships
- Staff empowerment
- Collaborative decision-making
- Quality improvement processes.

3. Funding

Research from the OECD suggests that the labour-intensive nature of social care means unit costs increase over time in line with wages (and not general inflation). For example, in the UK, the estimates are that these yearly unit cost increases are 2 percent above general price levels.¹⁸¹ Long-term care insurance was raised in a number of research articles. In the US there is a slow but steady increase in the uptake of this insurance among employees. However, only 16 per cent of adults over 65 with annual incomes over \$20,000 have purchased LTC insurance.¹⁸²

In light of cost pressures and the need to contain them, a number of countries have begun to explore new models for financing LTC.

Australia

Australian government spending on aged care is expected to increase as a proportion of GDP from 0.7 per cent in 2006-07 to 1.9 per cent by 2046-47—which is a reflection of the same demographic challenges faced by the Ontario LTC sector.¹⁸³ Consequently, in Australia there has been increasing talk about and movement towards “rebalancing” public and private contributions to LTC costs—i.e., requiring residents who have the resources to make greater contributions to their residential LTC.

Those in favour of a rebalancing emphasize that the accommodation portion of LTC services is something that residents would have to pay for themselves if they were not residents of LTC facilities—that is, if they were living in private homes, they would be expected to bear the full costs of rent, heat, electricity, and other basic accommodation expenses. Additionally, advocates suggest that there may be room in the budget of the average baby boomer to pay more for their accommodations—Australian baby boomers have an average net worth of \$381,000 AUD compared to \$292,500 AUD for all Australians.¹⁸⁴ Those skeptical of efforts to rebalance the

¹⁸⁰ M. Koren, “Person-Centered Care for Nursing Home Residents: The Culture-Change Movement.”

¹⁸¹ J-L. Fernandez, et al., *How can European states design efficient, equitable and sustainable funding systems for long-term care for older people?*

¹⁸² G. DeFriesse and P. Welsh, “LTC Challenges Ahead for North Carolina.”

¹⁸³ Productivity Commission, *Trends in Aged Care Services: Some Implications*, xv-xxv.

¹⁸⁴ *Ibid.*

Australian LTC funding model worry that less affluent seniors will be further impoverished by such a policy, while others will not be able to afford the care they need at all.

United States

The United States also faces the same trends and challenges to its LTC sector and, consequently, discussion about alternate approaches to funding LTC have emerged there as well. Public sector expenditures for LTC were \$150 billion in 2007 and are expected to climb to \$295 billion by 2030. In 2008, 77 per cent of nursing home residents had care covered by either Medicare or Medicaid. Private and employer-supported LTC insurance plans have increased their footprints in many states, though only 16 per cent of adults over 65 with annual incomes over \$20,000 have purchased LTC insurance. Still, that move reflects an increasing awareness that new approaches to funding LTC will be necessary of the U.S. is to successfully meet demographic challenges.¹⁸⁵

Germany

Germany recently adopted a *Social Dependency Insurance* program for LTC. The compulsory insurance plan requires contributions according to income and can be supplemented with private insurance. Benefits are paid as cash for the client at home, cash for home care paid to a provider, or cash for institutional care paid to a provider.¹⁸⁶ What is notable here is that by aligning LTC insurance contribution levels with incomes—rather than drawing from general government accounts to fund LTC—Germany has incorporated the notion that LTC funding should reflect a better, and more explicit, balance between public and private contributions.

France

Similarly, France has introduced a nation-wide, universal *Allocation Personnalisée d'Autonomie* which provides resources to individuals to fund LTC service at one of six levels of need.¹⁸⁷ While the program respects the strong disposition in France towards solidarity and sharing the costs of social programs, it does introduce some degree of contribution according to capacity—while individuals with incomes below a certain threshold pay no charges, those with incomes above the threshold level pay charges in line with income.

Despite the absence of a “rebalancing” discussion in the Ontario context, these international examples indicate that there are options available to help the LTC sector achieve financial sustainability as delivers care and other services to a growing and increasingly complex resident population.

4. Regulatory Approaches

From the US, there has been experimentation with ‘negotiated risk agreements’ to address the tension between regulatory oversight on safety and resident choice and autonomy. These agreements are contracts between facilities and residents (or the surrogate if a resident is incompetent) that make explicit the preferences and choices of the resident that will be honoured by the facility. These agreements were authorized in 14 states and the District of Columbia in

¹⁸⁵ G. DeFriesse and P. Welsh, “LTC Challenges Ahead for North Carolina.”

¹⁸⁶ C. Glendinning, “Dartington review on the future of adult social care.”

¹⁸⁷ Ibid.

their assisted living licensure laws by the end of 2006.¹⁸⁸ The use of these agreements has mainly been in assisted living arrangements.

There has been recognition of the need to assist LTC operators with the implementation of ICTs. The U.S. *Patient Protection and Affordable Care Act* includes a 4-year grant program (beginning in 2011) to help offset purchase, implementation, and training costs for IT, especially EHR, in LTC facilities. \$67.5 million is available for HER grants and two LTC programs to provide incentives for staff training and development and to improve management practices. Grants will be available for demonstration projects for best practices in skilled nursing facilities and the use of IT to improve resident care.¹⁸⁹

¹⁸⁸ K. Burgess, "Rum Raisin, Monkey Crunch, and Mocha Frappuccino Cherry with Gummy Bears on Top," 166.

¹⁸⁹ CAST, "Provisions Relevant to Aging Services Technologies."

Appendix B

Disease Prevalence in Residential Facilities

Health Condition	Percentage of Residents with each Diagnosis ¹⁹⁰	Estimated Number of Residents with each Diagnosis ¹⁹¹		
		2015	2025	2035
Endocrine/Metabolic/Nutritional Diseases	36.7	42,059	57,156	87,255
Diabetes Mellitus	24.0	27,516	37,394	57,085
Hyperthyroidism	1.2	1,399	1,901	2,902
Hypothyroidism	15.1	17,316	23,532	35,925
Heart/Circulation Diseases	66.4	76,168	103,509	158,017
Arteriosclerotic Heart Disease	11.8	13,501	18,348	28,010
Cardiac Dysrhythmia	6.8	7,843	10,659	16,272
Congestive Heart Failure	12.1	13,844	18,814	28,721
Deep Vein Thrombosis	1.7	1,980	2,691	4,108
Hypertension	50.0	57,376	77,971	119,031
Hypotension	1.1	1,305	1,773	2,707
Other Cardiovascular Disease	14.6	16,792	22,820	34,837
Peripheral Vascular Disease	5.3	6,045	8,216	12,542
Musculoskeletal Diseases	52.8	60,598	82,350	125,716
Arthritis	34.5	39,572	53,776	82,095
Hip Fracture	7.9	9,020	12,258	18,713
Missing Limb	1.1	1,285	1,747	2,667
Osteoporosis	25.0	28,685	38,982	59,509
Pathological Bone Fracture	1.5	1,710	2,323	3,547
Neurological Diseases	74.6	85,510	116,205	177,398
Dementia	56.2	64,427	87,553	133,659

¹⁹⁰ Canadian Institute for Health Information, *Continuing Care Reporting System, 2008–2009*.

¹⁹¹ Based on the extrapolation of the expected demand for LTC.

Alzheimer's Disease	19.0	21,776	29,593	45,176
Dementia Other Than Alzheimer's Disease	42.4	48,665	66,134	100,960
Amyotrophic Lateral Sclerosis (ALS)	--	-	-	-
Aphasia	5.9	6,807	9,250	14,121
Cerebral Palsy	0.6	639	868	1,325
Cerebrovascular Accident (Stroke)	21.1	24,215	32,907	50,236
Hemiplegia/Hemiparesis	5.4	6,157	8,367	12,773
Huntington's Chorea	0.3	362	492	752
Multiple Sclerosis	1.2	1,382	1,878	2,867
Paraplegia	0.7	787	1,069	1,632
Parkinson's Disease	6.8	7,830	10,640	16,243
Quadriplegia	0.3	325	441	673
Seizure Disorder	5.3	6,134	8,336	12,725
Transient Ischemic Attack (TIA)	4.6	5,314	7,221	11,024
Traumatic Brain Injury	0.9	1,015	1,379	2,105
Psychiatric/Mood Diseases	33.5	38,434	52,231	79,735
Anxiety Disorder	6.5	7,496	10,187	15,551
Depression	27.4	31,406	42,680	65,155
Manic Depressive (Bipolar Disease)	2.0	2,291	3,114	4,753
Schizophrenia	2.9	3,268	4,441	6,780
Pulmonary Diseases	16.0	18,314	24,888	37,994
Asthma	3.4	3,934	5,347	8,162
Emphysema/COPD	13.8	15,802	21,474	32,782
Sensory Diseases	22.1	25,340	34,436	52,570
Cataracts	11.6	13,348	18,139	27,691
Diabetic Retinopathy	0.7	800	1,088	1,661

Glaucoma	7.5	8,604	11,692	17,849
Macular Degeneration	5.6	6,471	8,794	13,424
Other Diseases	50.5	57,852	78,618	120,018
Allergies	25.2	28,879	39,245	59,911
Anemia	12.2	13,977	18,994	28,997
Cancer	9.2	10,536	14,318	21,858
Gastrointestinal Disease	14.5	16,610	22,572	34,459
Liver Disease	1.0	1,113	1,513	2,310
Renal Failure	8.4	9,601	13,048	19,919

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