

# Health Care Redesign for Responsive Behaviours—The Behavioural Supports Ontario Experience: Lessons Learned and Keys to Success

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## ABSTRACT

Our health care system is ill prepared for the growing number of older adults and their families/care-givers who live with responsive behaviours associated with cognitive impairment. Considering the burden of illness, quality of life issues, and escalating costs, system-wide redesign is warranted. The Behavioural Supports Ontario (BSO) project is a province-wide, regionally implemented, evidence-informed change strategy that utilizes quality improvement principles and knowledge translation best practices as critical enablers. This paper describes the project and key lessons learned in the implementation of this initiative that can be applied to other jurisdictions wishing to enable large-scale system redesign and sustainable system change.

**Keywords:** Behavioural Supports Ontario, responsive behaviours

## RÉSUMÉ

Notre système de santé est mal préparé pour faire face au nombre grandissant de personnes âgées ayant des comportements réactifs liés à des déficits cognitifs et dont s'occupent leurs proches ou des personnes soignantes. Étant donné le fardeau lié à la maladie, les questions de qualité de vie que cela soulève et l'escalade des coûts que cela implique, une révision du système est nécessaire. À cet égard, le projet Behavioural Supports Ontario, qui couvre l'ensemble de la province et est mis en œuvre dans les diverses régions selon leurs besoins, offre une stratégie qui s'appuie sur des données probantes et sur des principes d'amélioration de la qualité et les meilleures pratiques de transmission des connaissances. Dans cet article, nous décrivons ce projet et les principales leçons que l'on peut tirer de sa mise en œuvre, ce qui peut être utile à d'autres administrations qui souhaiteraient restructurer le système en profondeur en apportant des changements durables.

**Mots clés :** Behavioural Supports Ontario (projet de soutien en cas de troubles du comportement), comportements réactifs

## INTRODUCTION

Cognitive impairment due to dementia, mental health issues, addictions, and some neurodegenerative disorders (such as Parkinson's disease) can change the way people think, understand, and perceive their environment. Significant behavioural and psychological symptoms such as depression, agitation, wandering, verbal and physical aggression, and socially inappropriate or disruptive behaviours often accompany cognitive impairment (Patterson, Gauthier, Bergman, Cohen, Feightner, Feldman, & Hogan, 1999). While these behavioural and psychological symptoms are influenced by biological factors, such as neurobiological processes and neurotransmitter systems in the brain (Gauthier et al., 2010), they are often precipitated by unmet psychosocial or physical needs that cannot be clearly communicated or are associated with something in the environment that is confusing or frightening to the person (Anand & Verma, 2012; Cohen-Mansfield, 2000; Kunik et al., 2010). These behaviours, often called *responsive*, can frequently be ameliorated through appropriate and timely strategies. However, when not effectively addressed, such behaviours are potentially dangerous to the person and others, present significant challenges for care providers, and contribute to institutionalization and caregiver stress (Gaugler, Yu, Krichbaum, & Wyman, 2009).

Individuals with cognitive impairment may live in the community, in retirement homes, or in long-term care home (LTCH) settings. It has been estimated that 58% of LTCH residents have dementia, with 78% of those with dementia experiencing behavioural and psychological symptoms. Prevalence rates for other psychiatric disorders, including depression, anxiety, and substance abuse, range widely from 3% to 82% (Seitz, Puradnare, & Conn, 2010). Further, it has been estimated that 29% of home care recipients with dementia also exhibit responsive behaviours (Alzheimer Society of Ontario, 2007).

The current system of care is challenged to meet the needs of individuals with complex chronic conditions (Hebert, Durand, & Tourigny, 2003; Johri, Beland, & Bergman, 2003), and in particular, the needs of those living with mental health problems (Mental Health Commission of Canada, 2009), including Alzheimer's disease and related dementias (Callahan et al., 2006; Sachs, Shega, & Cox-Hayley, 2004). Identified challenges for dementia care include: lack of recognition and underdiagnosis of cognitive impairment (Iliffe & Manthorpe, 2004; Valcour, Masaki, Curb, & Blanchette, 2000); lack of health-professional knowledge about dementia and presenting symptoms (Barrett, Haley, Harrell, & Powers, 1997; Woods, Moniz-Cook, Iliffe, Campion, Vernooij-Dassen, Sanetti, & Franco, 2003); and inadequate knowledge of screening, assessment (Feldman et al., 2008), and care strategies (Hinton, Franz, Reddy, Flores, Kravitz, & Barker, 2007). Moreover, limited community supports and few education and training opportunities for health care providers (Teel, 2004) make capacity development difficult. As well, in Canada, there are limited specialist resources to meet the care needs of persons with dementia (Hogan et al., 2012). In fact, much of the care for persons with dementia is provided by family members (Brodaty & Donkin, 2009), often with minimal assistance or support (Peacock & Forbes, 2003; Peacock et al., 2010). Caregivers can experience tremendous stress associated with the caregiving role, often at the expense of their own physical and mental health (Canadian Institute for Health Information, 2010; Schulz & Martire, 2004). Caregivers often struggle to maintain their loved ones at home and, for various reasons (including lack of system navigation support), tend to access available supports only when they are overwhelmed and no longer able to cope (Gaugler, Kane, Kane, & Newcomer, 2005; Pratt, Clare, & Kirchner, 2006).

These health system challenges will intensify over the next two decades as demands on the health system escalate due to the anticipated increase in the number of people with dementia (Smetanin, Kobak, Briante, Stiff, Sherman, & Ahmad, 2009). Health care costs associated with dementia, estimated in Ontario in 2009/2010 to be a minimum of \$1.8 billion, will be difficult to sustain (Smetanin et al., 2009). Dementia care is frequently provided through specialized clinics, programs, and geriatric services, most often at a tertiary-care level (Jolley, Benbow, & Grizzell, 2006; Morgan et al., 2009), with minimal coordination and integration with community and primary care. Although a number of effective interventions and best practices for managing responsive behaviours have been documented (e.g., Canadian Consensus Conference on Dementia, 2007; Gauthier et al., 2010), it is not clear how widely adopted these are; greater efforts aimed at knowledge translation, mobilization, transfer, and exchange are needed to ensure that innovations in care are shared, utilized, and enhanced (Stolee, Hillier, Cook, & Rockwood, 2011). Most dementia-related interventions focus on a single point of care, rather than the entire system of care, and are disease-centred, reactive, and episodic, rather than patient-centred, proactive, and preventive. As well, there is no underlying, cohesive, and system-wide care model on which to base interventions. Although Canada is a leader in dementia research, it is the only Group of Eight (G8) industrialized country without a national dementia strategy; Ontario is also without such a strategy (Public Health Agency of Canada, 2013).

Given these challenges and costs associated with dementia care, there is considerable support for transforming the system of care for those with dementia. As well, there have been calls for reform specifically recommending system design consistent with chronic disease management models of care (Fillit, 2007; Tsasis, 2009) and interagency, multidisciplinary, and collaborative approaches and partnerships for care (Lee, Hillier, & Harvey, 2014; Massoud, Lysy, & Bergman, 2010; Pratt et al., 2006; Venohr, Fine, Saunders, Tenney, Vahan, & Williams, 2001). In Ontario, the urgent need for system redesign was highlighted following a coroner's inquest into the deaths of two Ontario LTCH residents caused by a fellow resident (Office of the Chief Coroner of Ontario, 2005). In response to the coroner's recommendations, the Ontario Ministry of Health and Long-Term Care (MOHLTC) identified the need for: (a) better care coordination and integration; (b) education and consultation support for care providers; and (c) greater emphasis on prevention, and better supports and strategies to manage responsive behaviours (Ontario Ministry of Health and Long-Term Care, 2007a). However, developing a system-wide approach (from community-based primary care to specialty care) that focuses on health promotion (from an illness to a wellness orientation) and person-centred care (from a provider-driven health care system to person- and family-directed/informed care) and that will optimize the care and quality of life for those living with responsive behaviours and their caregivers, is complex. Such system redesign requires changes in the culture and approach to care across multiple sectors, including different approaches to service coordination, service delivery, and the promotion of care-provider skills.

In 2009, the Alzheimer Knowledge Exchange (AKE),<sup>1</sup> a MOHLTC-funded knowledge exchange and resource centre whose goal is to mobilize dementia knowledge and make it accessible to both care providers and caregivers, brought together key stakeholders, who worked either directly (clinicians, frontline workers, service providers) or indirectly (researchers, administrators, policy-makers, provincial associations) with persons with dementia for discussions aimed at improving care for those living with responsive behaviours (Dudgeon & Reed, 2013). There was consensus regarding the need for a behavioural support system guided by provincial policy with the key objective of implementing an integrated-systems approach to the provision of care for those with responsive behaviours. Building on this key stakeholder discussion and on additional pan-provincial consultations with more than 80 representatives from various dementia-related services across health care sectors, strategies needed to create a system change framework were identified (Dudgeon & Reed, 2013).

In January 2010, the MOHLTC announced support for the development of an evidence- and experience-based framework to facilitate the development of integrated cross-sectoral supports and services designed to reduce the burden of care and improve outcomes for persons living with responsive behaviours. Building on past investments in dementia care, such as Ontario's Strategy for Alzheimer Disease and Related Dementias (Ontario Ministry of Health and Long-Term Care, 1999), and Ontario's Aging at Home strategy (Ontario Ministry of Health and Long-Term Care, 2007b), the BSO project was introduced. This project was developed as a multi-phase strategy:

1. Phase 1: design and laying the foundation for change;
2. Phase 2: demonstrating and testing, and developing tools and protocols for implementation; and
3. Phase 3: provincial implementation.

This paper describes the development and province-level implementation of these phases within the context of unique regional approaches to dementia care. It also provides details regarding the planning and coordination of this initiative, as well as preliminary evidence of program effectiveness and key lessons learned in the development and implementation of the BSO project.

## BSO DEVELOPMENT AND IMPLEMENTATION

### Phase 1: Developing a Framework for System Improvement

Phase 1 (January–October 2010) focused on defining the project's target population, developing both a system model and an evaluation framework, building a business plan and a strategy for provincial implementation, and confirming system readiness for change. Leadership was provided by the North Simcoe Muskoka Local Health Integration Network (LHIN),<sup>2</sup> Health Quality Ontario (HQP), the Alzheimer Society of Ontario, the AKE, and the MOHLTC.

In an effort to make the system more patient-focused, a model of care was developed that weighted equally the lived experience of those with dementia and their caregivers, clinical expertise/experience, and research evidence. Specifically, province-wide focus groups involving 100 family caregivers were organized in order to develop the proposed model of care. As well, regional forums were held for practising professionals by the Seniors Health Research Transfer Network, Mental Health Community of Practice. Both activities were conducted by individuals experienced in facilitating focus groups, as well as forums. In addition, both practice-based information and research evidence were obtained from a comprehensive literature review of best practices in behavioural support services for individuals with cognitive impairment. The process used for this review was consistent with standard practices for literature reviews and qualitative data analysis (Hart, 2013; Patton, 2002). These focus groups and forums identified current system strengths, challenges, and gaps in care, as well as opportunities for service enhancements. The literature review identified impactful interventions as well as efficacious models of care (Ellen, 2010). Further development of the model of care was informed by feedback on draft frameworks from a virtual advisory panel, key informant interviews, and opinion leaders from targeted sectors. Table 1 summarizes the principles that guided the development of the BSO framework. Components of this framework are consistent with those of other frameworks and guidelines aimed at redesigning the mental health care system and calling for greater emphasis on prevention, improved access to the most appropriate services when needed, support for caregivers, capacity building for professional care providers, and greater collaboration and integration at all levels of care (Mental Health Commission of Canada, 2009; Mental Health Commission of Canada, 2011).

The principles, service delivery, core model elements, and implementation strategies of the BSO framework are organized under three foundational pillars related to system coordination and management, intersectoral and interdisciplinary service delivery, and capacity building for health care teams. While many dementia care programs and services already existed along the care continuum, the aim of this initiative was to realign and enhance the system in a manner that both facilitated collaboration and partnerships among like or complementary services and leveraged existing resources. It included: specialized geriatric services, geriatric mental health outreach teams, community support services, geriatric emergency management nurses,

**Table 1**  
**Principles That Guided the Development of the Ontario Behavioural Support System Framework**

PILLARS	System Coordination and Management	Integrated Service Delivery: Intersectoral and Interdisciplinary	Knowledgeable Care Team and Capacity Building
PRINCIPLES	<p><b>System Coordination and Integration:</b> Systems are built upon existing resources and initiatives and encourage the development of synergies among existing and new partners to ensure access to a full range of integrated services and flexible supports based on need.</p> <p><b>Accountability and Sustainability:</b> The accountability of the system, health, and social service providers to funders and to each other is defined and ensured.</p>	<p><b>Person-Centred Care—Respect:</b> All persons are treated with respect and accepted as they are. Respect and trust characterize the relationships between staff and clients and between providers across systems.</p> <p><b>Behaviour is Communication:</b> Challenging behaviours can be minimized by understanding the person and adapting the environment or care to better meet the individual's unmet needs. Behaviours are not meaningless; they are an attempt to express distress, problem-solve or communicate unmet needs.</p> <p><b>Diversity:</b> Practices value the language, ethnicity, race, religion, gender, beliefs/traditions, and life experiences of the people being served.</p>	<p><b>Collaborative Care:</b> Accessible, comprehensive assessment and intervention require an interdisciplinary approach that includes professionals from different disciplines, as well as the client and family members, to cooperatively create a joint, single plan of care.</p> <p><b>Safety:</b> The creation of a culture of safety and well-being is promoted where older adults and families live and visit and where staff work.</p>
CORE ELEMENTS OF SERVICE DELIVERY MODEL	<ul style="list-style-type: none"> <li>• System management/accountability:               <ul style="list-style-type: none"> <li>◦ Governance structure</li> <li>◦ Organizational coordination</li> <li>◦ Regional system coordination</li> </ul> </li> <li>• Centralized/collaborative intake and referral</li> </ul>	<ul style="list-style-type: none"> <li>• Mobile interdisciplinary behavioural support outreach teams</li> <li>• Case management and transitional supports</li> <li>• Enhanced day treatment and respite care</li> <li>• Specialized residential treatment for both short- and long-stay clients</li> </ul>	<ul style="list-style-type: none"> <li>• Learning and development to build a skilled workforce at the:               <ul style="list-style-type: none"> <li>◦ point-of-care level</li> <li>◦ organizational level</li> <li>◦ system level</li> </ul> </li> <li>• Knowledge translation and exchange for continuous quality improvement</li> </ul>

... continued



**Table 1**  
(Continued)

PILLARS	System Coordination and Management	Integrated Service Delivery: Intersectoral and Interdisciplinary	Knowledgeable Care Team and Capacity Building
POLICY ENVIRONMENT/ IMPLEMENTATION	<ul style="list-style-type: none"> <li>• LHIN-based</li> <li>• Accountability agreements reflective of BSO deliverables</li> <li>• Locally informed funding structures</li> </ul>	<ul style="list-style-type: none"> <li>• Person-centred care that is fully integrated</li> <li>• Adherence to principles in:               <ul style="list-style-type: none"> <li>◦ Mental Health Strategy</li> <li>◦ Long-Term Care Act</li> <li>◦ Excellent Care for All Act</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Incentive for culture change through public reporting</li> <li>• Evidence-informed care practices</li> <li>• Links to local Health Human Resources for staff recruitment and retention</li> </ul>
VISION	An Ontario Behavioural Support System that demonstrates an integrated cross-sectoral comprehensive system of supports and services to meet the needs of people with responsive behaviours associated with complex mental health issues, dementia, or other neurological conditions.		

*Source:* Adapted from *Older Adults Behavioural Support System* (Dudgeon & Reed, 2013).

inpatient geriatric assessment units, primary care-based memory clinics, adult day programs, and Alzheimer Society education, counselling, and support programs. As seen in Table 1, core elements of the proposed integrated service delivery included: (a) mobile interdisciplinary behavioural support outreach teams that provide support to professional care providers and informal family caregivers; (b) case management and transitional supports to ensure care continuity and integration across sectors, as well as dementia day programs and respite care; and (c) specialized short- and long-stay residential care for those with particularly complex and challenging health issues.

## Phase 2: Testing the BSO Framework

In the fall of 2011, four early adopter (EA) LHINs (North Simcoe Muskoka, Central East, Hamilton Niagara Haldimand Brant, and South East), who had been identified through a competitive process, were selected to demonstrate and test the BSO framework. These four LHINs were charged with: (a) working together to develop processes and structures that would coordinate existing local services at all levels of care for older people with (or at risk for) responsive behaviours linked to cognitive impairments, as well as for their caregivers; (b) promoting the development and implementation of new care pathways and clinical tools to assess and measure change in responsive behaviours; (c) identifying and translating best practices from one sector to the next; and (d) evaluating local, along with system-wide impacts.

The process of translating the framework to the local context and culture of existing services is consistent with the Promoting Action on Research Implementation in Health Services (PARIHS) framework (Kitson, Harvey, & McCormack, 1998; Rycroft-Malone, Kitson, Harvey, McCormack, Seers, Titchen, & Estabrooks, 2002), a multidimensional model for promoting evidence-based practice change. Within the PARIHS framework, sustained practice improvement is dependent on: (a) the nature of the evidence (which needs to integrate clinical/practical experience); (b) the context or setting in which the practice change occurs; and (c) the ways in which evidence-based practice change is facilitated. From this perspective, each of the EA LHINs developed a unique BSO model of care consistent with the framework's principles, core elements of service delivery, and their local policy environment, taking into account identified gaps in care, existing resources, program and service infrastructures, and unique opportunities for collaboration and capacity building for system improvements within their regions.

For example, to address LTCH care gaps, the Central East LHIN developed "in-house" (embedded within LTCHs) BSO teams comprised of registered nurses (RNs), registered practical nurses (RPNs), and personal support workers (PSWs). The goal of this specialized team was to increase the knowledge and skills of LTCH staff providing care to those living with responsive behaviours, and to support quality improvement and capacity building strategies. In contrast, to address its unique service gaps, the Hamilton Niagara Haldimand Brant LHIN invested in strengthening existing outreach and crisis teams with the introduction of new Behavioural Support Outreach Coaches. As well, Intensive Geriatric Service Workers were charged with building capacity within existing services, along with Integrated Community Leads, who coordinated and planned community-based services for community-dwelling individuals with responsive behaviours. In addition, this LHIN developed BSO mobile teams to respond to referrals specifically from LTCHs. Despite local differences that led to the implementation of differing strategies, both of these EA LHINs engaged in developing and testing quality improvement strategies focused on a number of BSO-related processes (e.g., accessing services, managing referrals, communication among care providers, the use of evidence-based assessment tools and procedures, data collection, and staff training and recruitment) (Quality Improvement Innovation Partnership, 2009).

Preliminary assessments of Phase 2 impacts on clients, family members, providers, and the health system were conducted in the summer of 2012. Focus groups held in all four EA LHINs provided greater understanding of client and family impacts. An algorithm that identified the BSO target population within existing administrative data sources was developed, and baseline information that identified service gaps and challenges was used to refine the proposed service delivery model. A preliminary analysis of 2009/2010 emergency room (ER) visit information, showed that 5.3% of ER patients had a diagnosis that could be associated with probable behavioural issues (Hay Group, 2012). Hospital admission rates among Ontarians 50 years of age and older were higher among those persons with responsive behaviours (28.1%) than among those without responsive behaviours (18.2%). Mean total length of hospital stay was three times longer for persons with responsive behaviours (20.9 days) than for persons without responsive behaviours (7.4 days) (Hay Group, 2012). These findings highlighted the need for strategies that would improve transitions from hospital to home.



As a strategy to share lessons learned from Phase 2, leaders from all 14 LHINs were invited to the BSO All-LHIN Knowledge Exchange on February 16, 2012. Attendees participated in exchanges on a number of topics including primary care integration, enhanced access/central intake, mobile team development, evaluation strategies, standardized assessment, and capacity building, with the goal of promoting and accelerating the work being done by the EA LHINs. For example, at the capacity building exchange, attendees were introduced to the document *Capacity Building Roadmap* (Behavioural Supports Ontario, 2012a). This tool provides a framework for service providers to help organize their approach to training new staff and to align the first six months of training activities with the 12 core competencies listed in the document (e.g., clinical skills related to assessment and management of responsive behaviours, change management skills, cultural skills and diversity, communication and collaboration skills, technical skills).

### Phase 3: Implementing the BSO Framework Across Ontario

Building on the shared information and the momentum generated at the knowledge exchange in February 2012, the remaining 10 LHINs implemented the BSO framework (South East LHIN, 2011). The Coordination and Reporting Office (CRO) ensured fiscal accountability and coordinated province-wide LHIN-based implementation. Following submission, LHIN-based action plans, developed by both policy-makers and practitioners, needed to be approved by the CRO, HQO, and the BSO Provincial Resource Team to ensure fidelity with the BSO framework. Provincial exchanges ensured the sharing of innovative strategies, implementation of learnings, and practice-based evidence across the 14 LHINs. Links were established with other related projects, particularly the Residents First initiative, a strategy led by HQO designed to strengthen the LTCH sector's capacity for ongoing quality improvement (Health Quality Ontario, 2012). Recruitment of new health care practitioners (nurses, PSWs, and other health care professionals) was supported through the creation of common job descriptions. Offered as well were training and education opportunities designed to build capacity for evidence-based care of individuals with responsive behaviours, regardless of where they lived.

By the end of September 2012, specialized training and education had been provided for approximately 14,000 new and existing frontline staff. By December 31, 2012, more than 500 new frontline staff (both 1.0 and 0.5 FTE roles) had been recruited, with in-house behavioural support staff in place in hundreds of LTCHs and selected community agencies across Ontario (Behavioural Supports Ontario, 2012b; Behavioural Supports Ontario, 2012c). Skill-building tools, including assessment tools that encouraged new insights into why people may exhibit responsive behaviours, were developed and shared. Care pathways and approaches to clinical integration that produced early wins were disseminated.

Capacity building tools and resources such as the *Behavioural Education and Training Supports Inventory* (BETSI) were also rolled out across the province (Behavioural Supports Ontario, 2012d). BETSI is a framework designed to help operational leaders identify both the education needs of their staff as well as their readiness for this education. Once need and readiness have been determined, the tool provides information on suggested programs. Capacity building efforts were further supported by the previously described *Capacity Building Roadmap* (Behavioural Supports Ontario, 2012a). This tool provides details

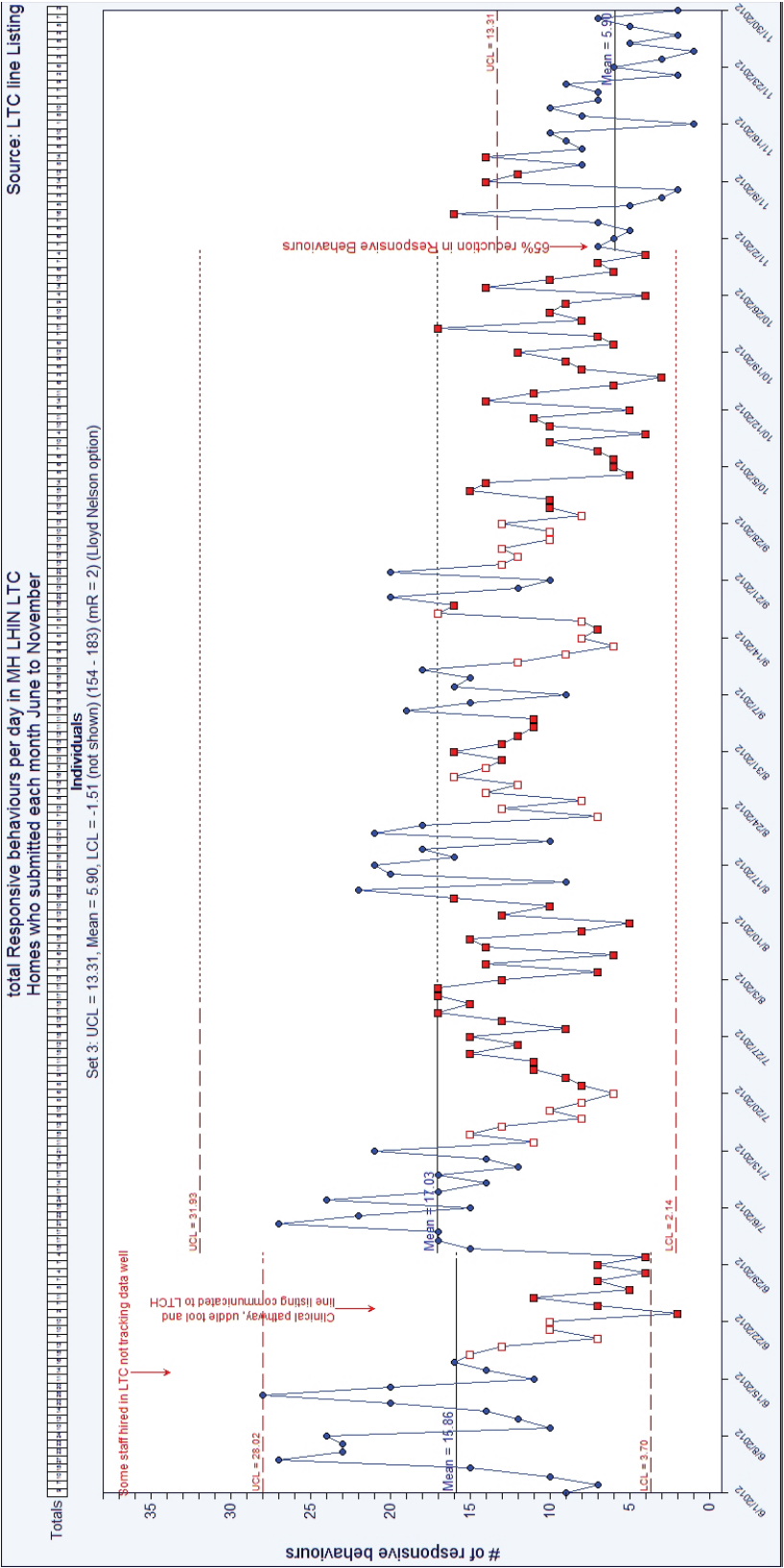
regarding the 12 core competencies required to provide optimum care for those with responsive behaviours (Behavioural Supports Ontario, 2012a). Aligned with these core competencies is the *Person and Practice-Based Learning* (PerPLe) framework, a guide to learning activities that enhance these 12 core competencies (Behavioural Supports Ontario, 2012e). All of these capacity-building resources, specific to the BSO initiative, are available on-line ([www.bsoproject.ca](http://www.bsoproject.ca)) and, in most cases, supported by resources such as facilitator guides, video clip demonstrations, discussions, and links to other national and international resources related to responsive behaviours.

### PRELIMINARY EVIDENCE OF EFFECTIVENESS

Both LHIN-level and province-wide metrics and evaluations designed to demonstrate impacts at individual, sectoral, and system levels have been tested and are being refined. In some of the LHINs, the evaluation process includes the monitoring of responsive behaviours among LTCH residents. For example, in the Mississauga Halton (MH) LHIN, the BSO model of care in local LTCHs includes specially trained and embedded RPNs and PSWs whose sole role is to assess and manage responsive behaviours and build capacity among all LTCH staff. The staff have been trained to monitor and report the number of responsive behaviours that occur within their home on a daily basis, using a line-listing surveillance system. Figure 1 presents an example of the daily reports of responsive behaviours in the MH LHIN, showing an almost 50% decrease in the total number of responsive behaviours across LTCHs (mean number of responsive behaviours: preBSO 20.2; postBSO 11.0) (Behavioural Supports Ontario, 2012b).

Early evidence suggests that this initiative may have led to a decreased use of acute care services by LTCH residents (details of analysis available upon request). As seen in Table 2, data from three time periods were compared (data from the fiscal year prior to the implementation of BSO (2011/2012) and annualized data for the first two quarters of the fiscal year 2012/2013). By the end of the first quarter following BSO implementation, hospitals in the four EA LHINs had achieved a reduction in the total number of inpatient days among LTCH residents with responsive behaviours (from 42,329 days to 39,408 days). As well, the number of alternate level of care (ALC) days (days when a patient is occupying a bed in a hospital but does not require the intensity of resources/services provided in this care setting) decreased from 15,435 days to 12,036 days. In contrast, hospitals in the remaining 10 LHINs experienced an increase in both total inpatient days (89,958 to 94,520) and ALC days (30,507 to 32,360). Moreover, further reductions were achieved in the EA LHINs in the second quarter whereas only small reductions were achieved in the remaining 10 LHINs. While there are certainly a number of other factors that can impact length of stay and ALC days, such as availability of LTCH beds and other services (Walker, Morris, & Frood, 2009), changes in the capacity of LTCH to assess and manage responsive behaviours may be resulting in fewer transfers to hospital. Also, due to this strategy, LTCHs are better resourced to support residents' transition from acute care back to the home. As a result, LTCHs may be more willing to accept these residents. However, as these data are preliminary, the findings must be interpreted with caution. Ongoing local evaluation will provide more definitive information on system-level as well as person-level impacts.

**Figure 1**  
**Total Responsive Behaviours per Day in Long-Term Care Homes in the Mississauga Halton LHIN, June–September 2012**



Source: Behavioural Supports Ontario (2012b).

**Table 2**  
**Inpatient Hospital Days and ALC Days for Long-Term Care Home Residents**  
**With Responsive Behaviours Admitted to Hospital in Four Early Adopter LHINS and**  
**the Other 10 LHINS by Fiscal Period**

Fiscal Period	4 Early Adopter LHINS		Other 10 LHINS	
	Days	ALC Days	Days	ALC Days
2011/2012	42,329	15,435	89,958	30,507
2012/2013 Q1*: April 1–June 30, 2012	39,408	12,036	94,520	32,360
2012/2013 Q2*: July 1–September 30, 2012	35,532	11,948	89,840	28,660
% Change from 2011/2012 to Q2	-16.1%	-22.6%	-1.0%	-6.0%

*Note.* LHIN = Local Health Integration Network; ALC = Alternate Level of Care; Q = Quarter.

\*Annualized counts based on data from noted fiscal quarter.

*Source:* Hay Group (2012).

## KEYS TO SUCCESS AND LESSONS LEARNED

The development of and adherence to a pan-provincial change strategy framework was fundamental to the success of the project. This framework galvanized values, philosophies, and cultures within and between health care sectors. The principle-based, evidence-informed framework was developed with input from both formal and informal care providers and respected lived experiences, as well as practice-based evidence and research. Structures brought together people from multiple sectors and provided oversight, clinical resources, and advice. This included family physicians, geriatricians, geriatric psychiatrists, neurologists, nurses, occupational therapists, physiotherapists, social workers, PSWs, and individuals at administration and management levels working in primary care, acute care, complex continuing care, and long-term care, as well as clinical and health services researchers. Nongovernment organizations, such as the Alzheimer Society of Ontario, the Ontario Long-Term Care Association, the Ontario Association of Non-Profit Homes and Services for Seniors, and the Ontario Long-Term Care Physicians, were also invited to these collaboratives.

The CRO supported effective communication and knowledge exchange. As well, regionally driven planning, development, and accountability were reviewed by provincial structures to ensure framework fidelity prior to local implementation. Leadership at provincial and local tables and accountability structures at the provincial, LHIN, and point-of-care levels enabled cross-sectoral commitment and implementation consistent with the vision and mandate of BSO. Implementation was also supported by the creation and use of

standardized tools, protocols, resources, and the collection of common metrics, all of which were developed at the testing phase of the project but refined through the “learning by doing” process at the regional level.

Due to unique contextual factors specific to each LHIN (e.g., existing services, percent of population living in remote areas, current processes for care integration and coordination, existing intake practices) implementation of the provincial BSO framework varied from LHIN to LHIN. However, implementation of the BSO framework resulted in local areas being able to identify both strengths and gaps in existing services to the BSO target population. This process ensured regional buy-in and, as a result, accelerated the identification of collaborative activities and strategies that would have high impact, were perceived as easy to implement, and took into account stakeholder readiness for change.

Leveraging existing initiatives contributed to the success of the provincial implementation. In addition, the pace of system redesign was maximized through alignment with other strategic directions, such as the Aging at Home strategy (Ontario Ministry of Health and Long-Term Care, 2007b), aimed at improving community-based care; Ontario’s Strategy for Alzheimer Disease and Related Dementia (Ontario Ministry of Health and Long-Term Care, 1999), which increased access to specialized consultation support and education; and the AKE. By embedding continuous quality improvement into LTCH work plans through Residents First, BSO was rolled out within an evaluation culture. Trained HQO-funded Improvement Facilitators in each LHIN helped LTCHs apply quality improvement tools and techniques to the local decision-making process, and coached local care teams as the LHIN’s BSO action plan was implemented. Other key BSO success factors are summarized in Table 3 and have been organized using the Donabedian structure-process-outcome model (Donabedian, 2005).

Rapid pan-provincial implementation is not without challenges. The entire initiative demanded aggressive timelines that, although demanding, contributed to a sense of urgency, priority, commitment, and cohesiveness across the province. Structures, such as the learning collaboratives that promoted the implementation and testing of best practices, enabled accelerated capacity development. Further, the operationalization of the defined target population varied somewhat across the LHINs, thereby making province-wide evaluation challenging.

## SUMMARY

BSO is not a new service, but a catalyst for change—an approach that breaks down barriers, encourages collaborative work, shares knowledge, and fosters partnerships. BSO has transformed the service culture and service mix for those living with responsive behaviours, their caregivers, and their care providers. BSO has already produced measurable changes to patient care and health service delivery and continues to promote a renewed culture of quality improvement; a co-created, redesigned system of care; and enhanced services for a vulnerable population. This initiative demonstrates that rapid cross-sectoral system transformation, when built on evidence- and experience-based platforms, can be achieved in a respectful and safe manner. The BSO capacity development strategy and approach to the development of a model of care is replicable across sectors and in other jurisdictions that wish to enable large-scale system redesign to facilitate quality improvements and sustainable system change. Ongoing evaluation, which will be the focus of future publications, will provide evidence of capacity building, enhanced client and caregiver experience, increased system efficiency, and equitable access to comprehensive, safe services.

**Table 3**  
**Key Factors Contributing to the Successful Development and Implementation of  
 the Behavioural Supports Ontario (BSO) Initiative**

### **Critical Enablers**

#### *Provincial framework*

- Clearly articulated model of care driven by the goals and priorities of the community sector using a cross-sectoral and person- and care provider-centred approach with quality improvement tools and approaches.

#### *Structures*

- Coordination and Reporting Office (CRO): provides oversight and makes project-level decisions.
- Provincial Resource Team (PRT): acts as a clinical resource and advisory body for the CRO.
- Education and Training Subgroup: provides resources for learning, knowledge transfer and development programs.
- Communication and Knowledge Exchange Working Group: supports effective communication and knowledge exchange across the province.
- Data, Measurement and Evaluation Committee: provides strategic direction and recommendations regarding evaluation.
- LTC Provider Advisory Council (consisting of representatives of various provincial LTC and CCAC-related organizations): facilitates collaboration on matters related to implementation in LTC homes.

#### *LHIN rollout approach*

- Development of a “Framework for Care,” created thorough research and consultation, to guide system redesign and cultural change.
- Early implementation by four early adopter LHINs; key learnings shared with other LHINs using a “buddy system” approach.
- Upfront investments in quality improvement training to set stage for change.
- Engagement of persons with lived experience to inform planning, implementation, and evaluation processes.
- Engagement of key stakeholders from various areas including clinical (medicine, nursing, occupational and physical therapy, social work, personal support), policy, service organizations (home care provider agencies), research, consumer groups (senior- and disease-related), government (e.g., CCAC, Ontario MOHLTC Health Quality and Health Analytics Branches, LHIN Collaborative), and nongovernmental organizations (e.g., Alzheimer Society, OLTC, OAFHT).
- Commitment to knowledge transfer through various events and tools.
- Monitoring and implementation of timelines in a timely manner.
- Continuous interface between practice and policy.
- Respect for the diversity of viewpoints and innovations, and the critical importance of relationship building and convergent attitudes in the way we think and do things in health care.

*... continued*



**Table 3**  
(Continued)

*Local processes developed*

- To promote the alignment of BSO with other strategic directions:
  - Aging at Home strategy (Ontario Ministry of Health and Long-Term Care, 2007b): supporting seniors to live at home.
  - Ten-year mental health and addictions strategy: aimed at early diagnosis and intervention (Ontario Ministry of Health and Long-Term Care, 2009).
  - Excellent Care for All Act and Action Plan for Health Care (Ontario Ministry of Health and Long-Term Care, 2012): aimed at improving the health care standards to ensure quality health care (Ontario Ministry of Health and Long-Term Care, 2010; Ontario Ministry of Health and Long-Term Care, 2012).
- To leverage resources from existing initiatives:
  - Ontario's Strategy for Alzheimer Disease and Related Dementias: Psychogeriatric Resource Consultants and Public Education Consultants (Ontario Ministry of Health and Long-Term Care, 1999).
  - Alzheimer Knowledge Exchange (AKE): knowledge translation and dissemination ([www.akeresourcecentre.org](http://www.akeresourcecentre.org)).
  - Learning and development programs, including:
    - U-First ([www.U-first.ca](http://www.U-first.ca)) and Putting the P.I.E.C.E.S. Together™ ([www.piecescanada.com](http://www.piecescanada.com));
    - Gentle Persuasive Approach (Speziale, Black, Coatsworth-Puspoky, Ross, & O'Regan, 2009);
    - Dementia Education Needs Assessment ([www.dena.org](http://www.dena.org)); and
    - Montessori Methods for Dementia ([www.dementiability.com](http://www.dementiability.com)).

*Outcomes*

- Creation and use of standardized tools, protocols, and common evaluation metrics.
- Knowledge exchange opportunities and mechanisms.
- Increased awareness and use of quality improvement strategies including:
  - Kaizen events; and
  - Value stream mapping.

*Note.* LHIN = Local Health Integration Network; CCAC = Community Care Access Centre (responsible in Ontario for home care services and long-term care placements); LTC = Long-term care; OLTCA = Ontario Long-Term Care Association; OAFHT = Ontario Association of Family Health Teams; Ontario MOHLTC = Ontario Ministry of Health and Long-Term Care.

## NOTES

1. The AKE has recently merged with the Canadian Dementia Resource and Knowledge Exchange (CDRAKE) and is now referred to as brainXchange (<http://brainxchange.ca>).
2. In Ontario, LHINs are regional health authorities responsible for planning and administration of health care services across all sectors.

## REFERENCES

- Alzheimer Society of Ontario. (2007). *A profile of Ontario's home care clients with Alzheimer's disease or related dementia*. Retrieved from [http://www.nelhinc.on.ca/uploadedFiles/Public\\_Community/Report\\_and\\_Publications/ALC/Profile%20of%20Home%20Care%20Clients-final.pdf](http://www.nelhinc.on.ca/uploadedFiles/Public_Community/Report_and_Publications/ALC/Profile%20of%20Home%20Care%20Clients-final.pdf)
- Anand, K. S. & Verma, R. (2012). A case of undue violent behavior associated with Alzheimer's disease. *American Journal of Alzheimer's Disease & Other Dementias*, 27, 10–12. doi:10.1177/1533317511436208
- Barrett, J. J., Haley, W. E., Harrell, L. E., & Powers, R. E. (1997). Knowledge about Alzheimer disease among primary care physicians, psychologists, nurses, and social workers. *Alzheimer Disease and Associated Disorders*, 11, 99–106. doi:10.1097/00002093-199706000-00006
- Behavioural Supports Ontario. (2012a). *Capacity Building Roadmap*. Retrieved from <http://www.akeresourcecentre.org/files/BSOResources/Capacity%20Building%20Roadmap%20Updated%20191212.pdf>
- Behavioural Supports Ontario. (2012b). *Behavioural Supports Ontario quarterly report Q1 2012/13. Period April 1, 2012–June 30, 2012*. Retrieved from [http://www.akeresourcecentre.org/files/BSOResources/BSO\\_Q1%20Report%20FINAL\(B\).pdf](http://www.akeresourcecentre.org/files/BSOResources/BSO_Q1%20Report%20FINAL(B).pdf)
- Behavioural Supports Ontario. (2012c). *Behavioural Supports Ontario quarterly report Q2 2012/13. Period July 1, 2012–September 30, 2012*. Retrieved from [http://www.akeresourcecentre.org/files/BSOResources/BSO\\_Q2%20Report%20FINAL%20\(B\).pdf](http://www.akeresourcecentre.org/files/BSOResources/BSO_Q2%20Report%20FINAL%20(B).pdf)
- Behavioural Supports Ontario. (2012d). *Behavioural Education and Training Supports Inventory (BETSI)*. Retrieved from <http://www.akeresourcecentre.org/BETSI>
- Behavioural Supports Ontario. (2012e). *Person and Practice-Based Learning (PerPLe)*. Retrieved from <http://www.akeresourcecentre.org/files/PerPLe/PerPLeTool.pdf>
- Brodaty, H., & Donkin, M. (2009). Family caregivers of people with dementia. *Dialogues in Clinical Neuroscience*, 11, 217–228.
- Callahan, C. M., Boustani, M. A., Unverzagt, F. W., Austrom, M. G., Damush, T. M., Perkins, A. J., . . . Hendrie, H. C. (2006). Effectiveness of collaborative care for older adults with Alzheimer disease in primary care: A randomized controlled trial. *Journal of the American Medical Association*, 295, 2148–2157. doi:10.1001/jama.295.18.2148
- Third Canadian Consensus Conference on Diagnosis and Treatment of Dementia. (2007). *146 approved recommendations—Final, July, 2007*. Retrieved from [http://www.cccdd.ca/pdfs/Final\\_Recommendations\\_CCCDDT\\_2007.pdf](http://www.cccdd.ca/pdfs/Final_Recommendations_CCCDDT_2007.pdf)
- Canadian Institute for Health Information. (2010). *Supporting informal caregivers—The heart of home care*. Retrieved from [https://secure.cihi.ca/free\\_products/Caregiver\\_Distress\\_AIB\\_2010\\_EN.pdf](https://secure.cihi.ca/free_products/Caregiver_Distress_AIB_2010_EN.pdf)
- Cohen-Mansfield, J. (2000). Theoretical frameworks for behavioral problems in dementia. *Alzheimer's Care Quarterly*, 1, 8–21.
- Donabedian, A. (2005). Evaluating the quality of medical care. *The Milbank Quarterly*, 83, 691–729. doi:10.1111/j.1468-0009.2005.00397.x
- Dudgeon, S. & Reed, P. (2013). *Older Adults Behavioural Support System*. Retrieved from <http://www.akeresourcecentre.org/files/BSO/Older%20Adults%20Behavioural%20Support%20System.pdf>
- Ellen, M. (2010). *A rapid literature review on behavioural support services*. Distance Learning Group.
- Feldman, H. H., Jacova, C., Robillard, A., Garcia, A., Chow, T., Borrie, B., . . . Chertkow, H. (2008). Diagnosis and treatment of dementia: 2. Diagnosis. *Canadian Medical Association Journal*, 178, 825–836. doi:10.1503/cmaj.070798
- Fillit, H. (2007). Commentary on “The Third Canadian Consensus Conference on the Diagnosis and Treatment of Dementia, 2006.” Clinical guidelines are not enough: System-wide, population-based programs are needed to improve the care of patients with Alzheimer's disease and related dementias. *Alzheimer's & Dementia*, 3, 441–443. doi:10.1016/j.jalz.2007.09.003

- Gaugler, J. E., Kane, R. L., Kane, R. A., & Newcomer, R. (2005). Early community-based service utilization and its effect on institutionalization in dementia caregiving. *Gerontologist*, 45, 177–185.
- Gaugler, J. E., Yu, F., Krichbaum, K., & Wyman, J. F. (2009). Predictors of nursing home admission for persons with dementia. *Medical Care*, 47, 191–198. doi:10.1097/MLR.0b013e31818457ce
- Gauthier, S., Cummings, J., Ballard, C., Brodaty, H., Grossberg, G., Robert, P., . . . Lyketsos, C. (2010). Management of behavioral problems in Alzheimer's disease. *International Psychogeriatrics*, 22, 346–372. doi:10.1017/S1041610209991505
- Hart, C. (2013). *Doing a literature review: Releasing the social science research imagination*. London, UK: Sage Publications.
- Hay Group. (2012). *Behavioural Supports Ontario. Hay Group interim report submitted to CRO*. Retrieved from [http://www.akeresourcecentre.org/files/Policy/BSO%20CRO\\_Memo\\_Mar%2031-12%20Interim%20Evaluation%20Report\\_24-May-12.pdf](http://www.akeresourcecentre.org/files/Policy/BSO%20CRO_Memo_Mar%2031-12%20Interim%20Evaluation%20Report_24-May-12.pdf)
- Health Quality Ontario. (2012). *Residents First: Advancing quality in Ontario's long-term care homes*. Retrieved from <http://www.residentsfirst.ca/documents/communicationsnewsletters/rfbrochureen.pdf>
- Hebert, R., Durand, P., & Tourigny, A. (2003). Frail elderly patients: New model for integrated service delivery. *Canadian Family Physician*, 49, 992–997.
- Hinton, L., Franz, C. E., Reddy, G., Flores, Y., Kravitz, R. L., & Barker, J. C. (2007). Practice constraints, behavioral problems and dementia care: Primary care physicians' perspectives. *Journal of General Internal Medicine*, 22, 1487–1492. doi:10.1007/s11606-007-0317-y
- Hogan, D. B., Borrie, M., Basran, J. F. S., Chung, A. M., Jarrett, P. G., Morais, J. A., . . . Woodmore-Goodwin, S. (2012). Specialist physicians in geriatrics—Report of the Canadian Geriatrics Society Physician Resource Work Group. *Canadian Geriatrics Journal*, 15, 68–79. doi:10.5770/cgj.15.41
- Iliffe, S., & Manthorpe, J. (2004). The hazards of early recognition of dementia: A risk assessment. *Aging and Mental Health*, 8, 99–105. doi:10.1080/13607860410001649653
- Johri, M., Beland, F., & Bergman, H. (2003). International experiments in integrated care for the elderly. *International Journal of Geriatric Psychiatry*, 18, 222–235. doi:10.1002/gps.819
- Jolley, D., Benbow, S. M., & Grizzell, M. (2006). Memory clinics. *Postgraduate Medical Journal*, 82, 199–206. doi:10.1136/pgmj.2005.040592
- Kitson, A., Harvey, G., & McCormack, B. (1998). Enabling the implementation of evidence based practice: A conceptual framework. *Quality in Health Care*, 7, 149–158.
- Kunik, M. E., Snow, A. L., Davila, J. A., Steele, A. B., Balasubramanyam, V., Doody, R. S., . . . Morgan, R. O. (2010). Causes of aggressive behavior in patients with dementia. *Journal of Clinical Psychiatry*, 71, 1145–1152. doi:10.4088/JCP.08m04703oli
- Lee, L., Hillier, L. M., & Harvey, D. (2014). Integrating community services into primary care: Improving the quality of dementia care. *Neurodegenerative Disease Management*, 4, 11–21. doi:10.2217/nmt.13.72
- Massoud, F., Lysy, P., & Bergman, H. (2010). Care of dementia in Canada: A collaborative care approach with a central role for the primary care physician. *Journal of Nutrition Health and Aging*, 14, 105–106. doi:10.1007/s12603-010-0020-2
- Mental Health Commission of Canada. (2009). *Toward recovery and well-being: A framework for a mental health strategy for Canada*. Retrieved from <http://www.mentalhealthcommission.ca/English/document/241/toward-recovery-and-well-being>
- Mental Health Commission of Canada. (2011). *Guidelines for comprehensive mental health services for older adults in Canada*. Retrieved from <http://www.cmhawpg.mb.ca/documents/seniors-guidelines.pdf>
- Morgan, D. G., Crossley, M., Kirk, A., D'Arcy, C., Stewart, N., Biem, J., . . . McBain, L. (2009). Improving access to dementia care: Development and evaluation of a rural and remote memory clinic. *Aging and Mental Health*, 13, 17–30. doi:10.1080/13607860802154432
- Office of the Chief Coroner of Ontario. (2005). *Inquest touching the death of Ess-el-dine Ed-Roubi and Pedro Lopez: Jury recommendations, April 18, 2005*. Retrieved from [http://www.advocacycentreelderly.org/pubs/nursing/Jury\\_Recommendations\\_Restyled.pdf](http://www.advocacycentreelderly.org/pubs/nursing/Jury_Recommendations_Restyled.pdf)

- Ontario Ministry of Health and Long-Term Care. (1999). *Ontario's Strategy for Alzheimer Disease and Related Dementias—Preparing for our future*. Retrieved from [http://www.health.gov.on.ca/en/common/ministry/publications/reports/alz/alz\\_strat.pdf](http://www.health.gov.on.ca/en/common/ministry/publications/reports/alz/alz_strat.pdf)
- Ontario Ministry of Health and Long-Term Care. (2007a). *Building a better system: Caring for older individuals with aggressive behaviours in long-term care homes*. Retrieved from [http://www.southeastlh.on.ca/uploadedFiles/Home\\_Page/Report\\_and\\_Publications/Building%20a%20Better%20System.pdf](http://www.southeastlh.on.ca/uploadedFiles/Home_Page/Report_and_Publications/Building%20a%20Better%20System.pdf)
- Ontario Ministry of Health and Long-Term Care. (2007b). *Ontario's Aging at Home strategy*. Retrieved from [http://www.health.gov.on.ca/en/public/programs/ltc/33\\_ontario\\_strategy.aspx](http://www.health.gov.on.ca/en/public/programs/ltc/33_ontario_strategy.aspx)
- Ontario Ministry of Health and Long-Term Care. (2009). *Every door is the right door: Towards a 10-year mental health and addictions strategy*. Retrieved from [http://www.health.gov.on.ca/en/public/programs/mentalhealth/advisorygroup/docs/rep\\_everydoor.pdf](http://www.health.gov.on.ca/en/public/programs/mentalhealth/advisorygroup/docs/rep_everydoor.pdf)
- Ontario Ministry of Health and Long-Term Care. (2010). *Ontario's Excellent Care for All strategy*. Retrieved from <http://health.gov.on.ca/en/public/programs/ecfa/default.aspx/>
- Ontario Ministry of Health and Long-Term Care. (2012). *Ontario's Action Plan for Health Care: Better patient care through better value from our health care dollars*. Retrieved from [http://health.gov.on.ca/en/ms/ecfa/healthy\\_change/docs/rep\\_healthychange.pdf](http://health.gov.on.ca/en/ms/ecfa/healthy_change/docs/rep_healthychange.pdf)
- Patterson, C. J., Gauthier, S., Bergman, H., Cohen, C. A., Feightner, J. W., Feldman, H. & Hogan, D. B. (1999). The recognition, assessment, and management of dementing disorders: Conclusions from the Canadian Consensus Conference on Dementia. *Canadian Medical Association Journal*, 160, S1–S15.
- Patton, M. Q. (2002). *Qualitative evaluation and research*. Thousand Oaks, CA: Sage.
- Peacock, S. C. & Forbes, D. A. (2003). Interventions for caregivers of persons with dementia: A systematic review. *Canadian Journal of Nursing Research*, 35, 88–107.
- Peacock, S. C., Forbes, D., Markle-Reid, M., Hawranik, P., Morgan, D., Jansen, L., ... Henderson, S. R. (2010). The positive aspects of the caregiving journey with dementia: Using a strengths-based perspective to reveal opportunities. *Journal of Applied Gerontology*, 29, 640–659. doi:10.1177/0733464809341471
- Pratt, R., Clare, L., & Kirchner, V. (2006). 'It's like a revolving door syndrome': Professional perspectives on models of access to services for people with early-stage dementia. *Aging and Mental Health*, 10, 55–62. doi:10.1080/13607860500307530
- Public Health Agency of Canada. (2013). Canada showing international leadership at G8 Dementia Summit. Retrieved from [http://www.phac-aspc.gc.ca/media/nr-rp/2013/2013\\_1211-eng.php](http://www.phac-aspc.gc.ca/media/nr-rp/2013/2013_1211-eng.php)
- Quality Improvement Innovation Partnership. (2009). *Learning Collaborative One: An improvement journey for primary healthcare teams*. Retrieved from <http://www.hqontario.ca/portals/0/Documents/qi/qi-report-learning-collaborative1-0909-en.pdf>
- Rycroft-Malone, J., Kitson, A., Harvey, G., McCormack, B., Seers, K., Titchen, A. & Estabrooks, C. (2002). Ingredients for change: Revisiting a conceptual framework. *Quality and Safety in Health Care*, 22, 174–180. doi:10.1136/qhc.11.2.174
- Sachs, G. A., Shega, J. W., & Cox-Hayley, D. (2004). Barriers to excellent end-of-life care for patients with dementia. *Journal of General Internal Medicine*, 19, 1057–1063. doi:10.1111/j.1525-1497.200430329.x
- Schulz, R. & Martire, L. M. (2004). Family caregiving of persons with dementia: Prevalence, health effects, and support strategies. *American Journal of Geriatric Psychiatry*, 12, 240–249. doi:10.1097/00019442-200405000-00002
- Seitz, D., Puradnare, N., & Conn, D. (2010). Prevalence of psychiatric disorders among older adults in long-term care homes: A systematic review. *International Psychogeriatrics*, 22, 25–39. doi:10.1017/S1041610210000608
- Smetanin, P., Kobak, P., Briante, C., Stiff, D., Sherman, G., & Ahmad, S. (2009). *Rising tide: The impact of dementia in Canada in 2008 to 2038*. Toronto, ON: Risk Analytica.
- South East LHIN. (2011). *Local Health Integration Networks launch groundbreaking project: \$40 million invested in health human resources to support seniors with complex mental health needs*. News release retrieved from [http://www.southeastlh.on.ca/uploadedFiles/Home\\_Page/News\\_Rooms/290811-News%20Release-BSO%20Funding.pdf](http://www.southeastlh.on.ca/uploadedFiles/Home_Page/News_Rooms/290811-News%20Release-BSO%20Funding.pdf)
- Speziale, J., Black, E., Coatsworth-Puspoky, R., Ross, T., & O'Regan, T. (2009). Moving forward: Evaluating a curriculum for managing responsive behaviors in a geriatric psychiatry inpatient population. *Gerontologist*, 49, 570–576. doi:10.1093/geront/gnp069

- Stolee, P., Hillier, L. M., Cook, S., & Rockwood, K. (2011). Cause, care, cure: Research priorities for Alzheimer's disease and related dementias. *Canadian Journal on Aging*, 30, 657–667. doi:10.1017/S0714980811000523
- Teel, C. S. (2004). Rural practitioners' experience in dementia diagnosis and treatment. *Aging and Mental Health*, 8, 422–429. doi:10.1080/13607860410001725018
- Tsasis, P. (2009). Chronic disease management and the home-care alternative in Ontario, Canada. *Health Services Management Research*, 22, 136–139.
- Valcour, V. G., Masaki, K. H., Curb, D., & Blanchette, P. L. (2000). The detection of dementia in the primary care setting. *Archives of Internal Medicine*, 160, 2964–2968. doi:10.1001/archinte.160.19.2964
- Venohr, I., Fine, R., Saunders, V., Tenney, E., Vahan, V., & Williams, M. (2001). Improving dementia care through community linkages: A multi-site demonstration project. *Home Health Care Services Quarterly*, 19, 51–63. doi:10.1300/J027v19n04\_03
- Walker, J. D., Morris, K., & Frood, J. (2009). Alternative level of care in Canada: A summary. *Healthcare Quarterly*, 12, 2009. doi:10.12927/hcq.2009.20674
- Woods, R. T., Moniz-Cook, E., Iliffe, S., Champion, P., Vernooij-Dassen, M., Zanetti, O., & Franco, M. (2003). Dementia: Issues in early recognition and intervention in primary care. *Journal of the Royal Society of Medicine*, 96, 320–324.