

Rehabilitation Therapy Services in Home Care



September 2011

The National Voice of Home Care

This paper was reviewed by the Canadian Physiotherapy Association and the Canadian Association of Occupational Therapists.

About the Canadian Home Care Association

The Canadian Home Care Association (CHCA) is a not-for-profit membership association dedicated to ensuring the availability of accessible, responsive home care and community supports to enable people to stay in their homes with safety, dignity and quality of life. Members of the Association include organizations and individuals from publicly funded home care programs, not-for-profit and proprietary service agencies, consumers, researchers, educators and others with an interest in home care. Through the support of the Association members who share a commitment to excellence, knowledge transfer and continuous improvement, CHCA serves as the national voice of home care and the access point for information and knowledge for home care across Canada.

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Executive Summary

The home care sector plays a vital role in an integrated health care system and is essential to effective primary health care delivery, chronic disease management and strategies to support ‘aging at home’. Home care services allow individuals to recover or manage their health care issues in their home setting and remain active in their community. Over the past 10 years, home care programs across Canada have experienced a 51 percent increase in the number of care recipients to over 1 million, with approximately 70% of those individuals aged 65 and over (Canadian Home Care Association).



Seniors’ use of the health care system is linked to the prevalence of chronic disease in their age group and with the increasing numbers of seniors in Canada, it is important to understand the ways in which home care can effectively respond. Realizing the full potential of home care will require that a broad array of services currently not readily accessible in home care be available to meet assessed needs. In this paper, the important role of rehabilitation therapy services in home care is presented.

Research demonstrates the value of rehabilitation services in home care. Therapists can assist clients to achieve independence and remain active; support and aid with community integration; and provide solutions to help elderly clients stay safely in their homes. Therapists’ interventions are effective at increasing independence, decreasing risk of health deterioration, improving health management, decreasing loss of autonomy and loss of function. Therapists make an important contribution to the health care team and when integrated effectively enhance the care delivery for the client – often a senior.

While the focus of this paper is to shed light on the rehabilitation therapy services in home care, the overarching message is that full constellation of care must be available as required. To do otherwise is to deny those (primarily seniors) who would have heretofore received that full array of health care in the hospital full access to care because they are sent home. It compromises access to health services – one of the eight key domains of community living that enable seniors with varying needs and capacities to live in security, good health and to participate fully in society (The National Seniors Council).

Given a general strategy in Canada to increase the amount of care at home, it is vital that we not compromise care by under-resourcing any single service. The Canadian Home Care Association believes that it is time for governments to commit to comprehensive home care in Canada. This would include:

1. **Increasing the awareness of rehabilitation services** as an element of care within the full range of health care offerings that the system provides.
2. **Adopting a national set of home care principles** to which funding and accountability mechanisms can be linked.
3. **Supporting research and evidence-informed decision making** as to the best leveraging of the range, location and mix of health care services outside of the hospital – in home care.
4. **Improving the interprofessional collaboration** through the elimination of funding, practice and communication barriers.

Over the past two decades, the health care system has been impacted by economic constraints, an aging population and increased demands for health services associated with chronic conditions. Jurisdictions across Canada are undertaking to transform their health care delivery to greater integrative proactive interventions at home (Health Council of Canada). Strategies to expedite discharge home from hospital; avoid premature admission to institutions and unnecessary use of emergency room resources have been a priority across the country. The goal is to help people become or remain as independent as possible for as long as safely possible. As a result of this increased focus, home care programs across Canada have experienced a 51 percent increase in the number of home care recipients served annually. This number is expected to continue to increase as governments leverage a strategy of shifting care from institution to community.

Home Care - an array of services for people of all ages, provided in the home and community setting, that encompasses health promotion and teaching, curative intervention, end-of-life care, rehabilitation, support and maintenance, social adaptation and integration and support for the family caregiver.

The number of senior citizens will increase rapidly over the next few decades from 13% in 2005 to 23% - 25% of the population in 2031 and 25% - 30% in 2056 (Bélanger, Martel and Caron-Malenfant). Seniors today are typically healthier and more independent longer in life, however, chronic conditions are more prevalent among the elderly and the proportion of seniors with a disability or handicap also rises with age. The number of chronic conditions has been found to be the strongest determinant of the frequency with which seniors consult physicians and use medications. Having chronic conditions also increases the likelihood of being hospitalized and receiving home care (Rotermann 33-45; Canadian Institute for Health Information).

Recent Canadian and international research suggests that community-based services that are integrated and co-ordinated across the health care system can be a cost-effective way to maintain people's independence and that it can prevent admissions to hospitals and long-term care facilities (Béland et al. 367-373). A challenge is in the funding and delivery of care in the home care sector which is often prescribed by service type and amount. Services provided in the hospital, such as rehab, pharmacy, respiratory therapy, to name a few, can be safely and effectively provided at home and yet are not funded. As a result, those discharged home are not afforded the benefit of the full array of services that when appropriately deployed improve utilization and clinical outcomes.

Four in five seniors living at home have at least one diagnosed chronic condition compared to one in ten of those between the ages of 25 and 54 (Rotermann, 2006).

Understanding the value of rehabilitation services within the home care context is important to establishing the right mix of providers to appropriately respond to needs on both an individual and population basis.

Defining Rehab Services

Rehabilitation (rehab) therapy is the term to reflect the five professional therapy services that are offered to a greater or lesser extent across Canada. These include: Dietetics, Occupational Therapy, Physiotherapy, Social Work and Speech-Language Pathology. Each professional service is governed by a professional college that articulates and governs practice:



- **Registered Dietitians** translate the science of nutrition into healthy food choices for clients, and use their expertise in the treatment and prevention of nutrition-related disorders.
- **Occupational Therapists** (OTs) bring a unique ability to address the complex interaction of psychosocial, physical, and emotional skills, assisting clients with critical life skills for living in the community.
- **Physiotherapists** (PTs) assess limitations in movement and function and are skilled in treatment techniques that promote mobility, reduce pain, restore function, and prevent disability.
- **Social Workers** (SWs) are trained to mediate the complex interactions between the individual and his/her environment, family dynamics, and functioning, and to develop strategies to enhance coping.
- **Speech-Language Pathologists** (SLPs) have specific knowledge and skills in human communication, oral motor, and swallowing disorders

Home care programs across Canada primarily include care coordination or case management, nursing and home support or personal support (Canadian Home Care Association). The availability of rehabilitation and other related services, such as **pharmacy** and **respiratory therapy** (RT), while consistently provided in acute care institutions is inconsistent and often non-existent in home care programs across Canada. The absence of services in the community suggests that the successes in shortening hospital stays are achieved at a cost of decreased access to the full range of health care services.

The Evidence for Rehab Services

Research demonstrates the value of rehabilitation services in home care. Therapists can assist clients to achieve independence and remain active; support and aid with community integration; and provide solutions to help elderly clients stay safely in their homes. Additionally, therapists support students in schools to develop the requisite skills to enhance learning and communication.

Therapists' interventions are effective at increasing independence, decreasing risk of health deterioration, improving health management, decreasing loss of autonomy and loss of function.

A number of studies have provided evidence of the feasibility and effectiveness of rehabilitation for older persons in home-based settings.

Home Based Rehab for Musculoskeletal (MSK) Disorders

In Canada, musculoskeletal (MSK) diseases and conditions account for 10 percent of the economic burden of illness, second only to cardiovascular disease. With the aging of our population, the incidence of MSK related diseases and conditions are on the rise, affecting more than half of the Canadian population over age 75 (Frank).

A comprehensive literature review of inpatient versus home-based rehabilitation for older adults with musculoskeletal disorders concluded that home based rehabilitation achieved equivalent or better functional or quality of life outcomes than inpatient rehabilitation (Stolee et al. 403-410).

Rehabilitation (PT/OT) provided through home care programs, can achieve functional benefits for clients with musculoskeletal disorders, and system benefits in terms of successful discharges from home care and reduced Long Term Care admissions. Preliminary conclusions of an analysis to investigate the impact of PT/OT on functional outcomes for home care clients with MSK disorders showed that:

- Individuals who are functionally “independent” and who receive rehabilitation are 1.57 times more likely to have a “good discharge” – one that does not result in rehospitalisation or admission to long-term care.
- Individuals with some IADL (Instrumental Activities of Daily Living which describe functioning necessary to live independently in the community, e.g. shopping, telephone use, housework) impairment who receive rehabilitation are 1.79 times more likely to have a “good discharge” and 1.46 times more likely to become more functionally independent.
- Individuals with both IADL and ADL (Activities of Daily Living – used to reflect a person’s functional status related to self-care, e.g. personal hygiene, feeding) impairment are 1.17 times more likely to improve their functional status, and 1.32 times more likely to have a “good discharge” (Stolee et al. 403-410).

Home care after orthopaedic surgery has been shown to improve outcomes and reduce health care costs among patients receiving a hip replacement. A study of patients at Toronto Western Hospital, University of Toronto, and North York General Hospital found that there was no difference in pain, functional outcomes, or patient satisfaction between the group that received home-based rehabilitation and the group that had inpatient rehabilitation. The researchers recommended the use of home-based rehabilitation following elective primary total hip or knee replacement as it is the more cost-effective strategy (Mahomed et al. 1673-1680).

Home Based Rehab and Stroke

Stroke is the third leading cause of death in Canada. Approximately 40,000 to 50,000 people in Canada experience a stroke each year and about 80% of these people survive, leaving many with significant impairments and disabilities. Canadians spend a total of 3 million days in hospital because of stroke. (Heart and Stroke Foundation)

A meta-analysis of individual stroke patients who remained in hospital versus those sent home with rehabilitation services showed that “appropriately resourced” home care to support early discharge can reduce long-term dependency and admission to institutional care as well as shortening hospital stays (Langhorne et al. 501-506).

A randomized controlled trial of intensive home rehabilitation with occupational therapy in Montreal allowed for earlier hospital discharge by three (3) days, and higher levels of overall physical health, home management skills, and social reintegration, at one and three months post hospital discharge for persons with a stroke (Phillips, MD. MPH. C. O. et al. 1358-1367).

A UK study showed that the stroke patients who were not admitted to hospital benefited from intervention from an occupational therapist at home; and that there was important benefits to the family caregiver (Walker et al. 278-280).

Most recently, a study in Ontario showed greater improvements in quality of life for stroke survivors using a specialized interprofessional team approach to community-based rehabilitation compared to usual home care (Markle-Reid et al. 317-334).



Home Care Rehab and Chronic Obstructive Pulmonary Disease (COPD)

COPD is the fourth leading cause of death among Canadians (Canadian Lung Association). The Canadian Thoracic Society guidelines recommend pulmonary rehabilitation (PR) as the standard of care in Canada (Brooks et al. 87-92). PR programs typically consist of respirologists, physiotherapists, respiratory therapists and pharmacists; and the programs include supervised exercise training, education-self-management, psychological and social support (Brooks et al. 87-92). Notwithstanding the evidence and recommendations, pulmonary rehabilitation is under-utilized (Brooks et al. 87-92). The availability of such programs is limited and as such more community- or home-based programs that offer exercise and self-management are believed to be effective.

A randomized Canadian trial showed that self-monitored, home-based rehabilitation is a useful, equivalent alternative to hospital-based outpatient rehabilitation in patients with chronic obstructive pulmonary disease (COPD) (Maltais et al. 869-878).

A 12-week home care rehab program for patients with COPD showed beneficial effects equal to those in an outpatient hospital-based program in patients with moderate to severe airflow limitations. However, the home care population maintained the improvements longer and continued to improve (Strijbos et al. 366-372).

Home Care Rehab and Dementia

The prevalence Home Care Rehab and Dementia of Alzheimer's disease and related dementias represent 1.5% of Canada's population and by 2038, the number affected will have almost doubled (2.8% of the population) (Alzheimer Society of Canada).

In a randomised controlled trial, researchers found evidence that 10 sessions of community occupational therapy, given over five weeks, improves the daily functioning of patients with dementia and diminishes the burden of care on their primary caregivers. The process skills and need for assistance in performing daily activities improved in patients, and their caregivers felt more competent at six weeks (one week after completion of occupational therapy), and these beneficial effects remained at 12 weeks (seven weeks after completion of the occupational therapy program) (Walker et al. 278-280; Graff et al. ; Graff et al. ; Graff et al.).

Home Care Rehab in Palliative Care

Palliative care represents a small portion of home care services in Canada – approximately 3-6% of overall services (Canadian Home Care Association). This is expected to increase as home care programs work to realize the preference of Canadians to die at home.

The role of the rehab team in palliative care is supported through experience but there is limited research evidence that rehabilitation interventions can impact function and symptom management in terminally ill patients. However, the rehabilitation team can assist in preparing the home; in addressing pain and in helping to maintain physical function and independence for as long as possible (Santiago-Palma and Payne 1049-1052).

The Challenge

Evidence supports the efficacy of therapy for those with active and immediate needs and rehabilitation at home has also been shown to improve functional status and decrease mortality (Stolee). However, while many home care clients (and many older persons generally) would benefit from rehabilitation, many do not receive any type of rehabilitation therapy.

There is a limited understanding in Canada of the allocation and outcomes of home care services, particularly the rehabilitation services that could benefit older home care clients with musculoskeletal disorders (Stolee). In a study in Quebec, seniors who received home care after discharge from hospital for partial hip surgery were 43% less likely to die in the three months following the procedure. However, less than 16% of elderly patients discharged home after partial hip surgery in the study group received home care (Rahme et al.).

In Ontario, approximately 16% of acute care beds are occupied by ALC patients as there is no home care available for them (The Change Foundation). 35% of these ALC patients have health needs that are no more urgent or complex than usual home-care clients (The Change Foundation).

The home care sector is a key component of our health care system and is integral to the achievement of quality health outcomes of Canadians. It can be particularly effective for those at high risk of admission to an institution because once admitted, the probability of return home declines significantly (Hirdes, Poss and Curtin-Telegdi). The limited availability of community based services through the publicly funded system will adversely impact the achievement of quality of life for Canadians and delivery of health care in Canada. Rehab services are an important component of the system of care in Canada and essential to home care. However, rehab is but one component of the home care team. Recognizing that the nature of the team varies depending on the needs of the client, the CHCA believes that full constellation of care must be available in the community as required. Limiting singular services is to deny those who would have previously had access to that support in the hospital (primarily seniors) full access to care because they are

The complexity of the health issue defines the task. The more interdependency needed to serve the patient, the greater the need for collaboration among team members. (Oandasan et al.)

sent home. It compromises access to health services - one of the eight key domains of community living that enable seniors with varying needs and capacities to live in security, good health and to participate fully in society (The National Seniors Council).

Given a general strategy in Canada to increase the amount of care at home, it is vital that we not compromise care by under-resourcing any single service. The home care team must be supported to effectively provide the most appropriate clinical resource to meet the needs of the individual and establish care guidelines based on outcomes realized. Home care recipients (most often the elderly) require and must be entitled to the full constellation of health care services. To do otherwise would potentially create a lower tier of health care and compromise clinical outcomes.



The Solution

The Canadian Home Care Association believes that it is time for governments to commit to comprehensive home care in Canada. This would include:

1. **Increasing the awareness of rehabilitation services** as an element of care within the full range of health care offerings that the system provides.
2. **Adopting a national set of home care principles** to which funding and accountability mechanisms can be linked. These principles would serve to ensure equitable access to a full range of home care services, including rehab therapy; and would provide for a level of flexibility to enable the right services to support people to remain at home.
3. **Supporting research and evidence-informed decision making** as to the best leveraging of the range, location and mix of health care services outside of the hospital – in home care.
4. **Improving the interprofessional collaboration** through the elimination of funding, practice and communication barriers.

The home care sector makes an important contribution to Canada's health care system and to the health and wellbeing of Canadians. Over the past forty years home care programs have become increasingly sophisticated in the delivery of services and in the evaluation of services. Evidence has shown that the provision of services in the home and community can reduce wait times for acute hospital beds, effectively support frail and vulnerable seniors to remain independent and safe at home, proactively support individuals with chronic conditions and provide choices for end-of-life care.

Today's reality is that the our health care system is, and will continue to be, challenged to meet the desire of Canadians to access timely, quality health care. The aging population, shifting dependency ratio, and increased costs of providing care will require that every resource is optimized. The highest quality and most efficient approach to care must equally support the continuum of care and shift the emphasis from costly episodic acute care focus to long-term preventative community based care. Continued investment and development of the home care sector so that the full constellation of care is available will support this continuum and enable the health system to realize the best value for Canadians.

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