



Ensuring a more equitable healthcare system: addressing the needs of Canada's frail elderly

Canadian Frailty Network
2017 Pre-Budget Submission to the
House of Commons Standing Committee on Finance

August 5, 2016

Why does frailty matter?

Frailty isn't simply getting older. The risk of becoming frail increases with age, but the two are not the same. Frail people are at higher risk for negative health outcomes and death than we would expect based on their age alone. Frailty is a state of increased vulnerability, with reduced physical reserve and loss of function across multiple body systems. This reduces ability to cope with normal or minor stresses, which can cause rapid and dramatic changes in health.^{1,2,3}

The burden of frailty in Canada is steadily growing. Today, approximately 25% of people over age 65 and 50% past age 85 – over one million Canadians – are medically frail.⁴ And in 10 years, well over two million Canadians may be living with frailty.⁵ Frail elderly Canadians are over-represented in all parts of the healthcare system: primary care, community and residential care, acute care and end-of-life care.

Frailty is also linked to higher consumption of healthcare resources. Of the \$220 billion spent on healthcare annually in Canada (11% of GDP), 45% is spent on people over 65 years old, although they are only 15% of the population.^{6,7,8}

This growing population is both under-recognized and under-served, challenging the healthcare system to improve the quality and quantity of care delivered.

Currently, we have little evidence to guide the care of our frail elderly. We don't know if current therapies are beneficial or cause harm, are cost-effective or waste scarce healthcare resources.

As well, the healthcare system is ill equipped to deal with frailty:

- Healthcare systems are organized to manage illness based on single body systems and diseases, not the complex multi-system problems of frail people.
- Frailty is poorly understood, pervasively under-recognized, and under-appreciated by healthcare professionals and the public.
- Few healthcare professionals have expertise in caring for the frail elderly.
- Poor system integration causes poor outcomes for frail people.

The Canadian Frailty Network (CFN) is a not-for-profit organization focussed on frailty, funded in 2012 by the Government of Canada's Networks of Centres of Excellence program. CFN's mandate is to improve the care of frail elderly Canadians and their families within the Canadian healthcare system by developing, rigorously evaluating and ethically implementing care strategies and practices founded on the best available evidence.

What can be done?

To improve care for the frail elderly, we need to break down traditional silos that focus on single diseases and silos of local and regional healthcare systems and settings. Addressing frailty requires a coordinated, multidisciplinary approach. CFN brings together the collective expertise, knowledge and talent in Canadian healthcare research, including disciplines and professions outside medicine,

geriatrics and gerontology: decision-makers, policy experts, international experts, clinicians, researchers, ethicists, legal experts and citizens. Together, these groups can advance the dialogue on how to improve care of the frail elderly on both clinical and societal levels.

CFN is improving care of the frail elderly by:

- increasing frailty recognition and assessment
- increasing evidence for decision-making through engaging frail elderly people and their caregivers
- advocating for change in the healthcare system to meet the needs of this vulnerable population.

Our work will generate important socioeconomic benefits for Canada. CFN's activities will distribute improved healthcare tools, technologies and treatments for the frail elderly.

We see three broad areas of priority to address the needs of Canada's frail elderly in a more equitable healthcare system across the country:

1. Establish a Health Accord funding model based on age and considering frailty.
2. Standardize how frailty is determined.
3. Increase evidence on frailty and late life issues.

1. Establish a Health Accord funding model based on age and frailty

In a country as diverse and varied as Canada, a per capita funding model creates winners and losers. For provinces with flourishing economies or younger populations, the formula may be welcome. But for many provinces and territories, this funding formula fails to recognize and accommodate their particular challenges and needs. This is because per capita models fundamentally ignore the sometimes extreme variations in socio-economic, demographic and health status of regional populations across Canada – a significant oversight.

Some have called for asymmetric fiscal transfers based on specific provincial demographics such as age. A model based on age alone is attractive because healthcare spending rises overall with increasing age. However, not all Canadians age in the same way. Compare an individual in their 60s with multiple medical problems that require repeated use of the healthcare system versus a healthy octogenarian with few or no health problems.

We advocate going one step further and including the more precise and evidence-based concept of "frailty."

Frailty is a better determinant of health outcomes and healthcare utilization than age alone. Basing a Health Accord funding model on frailty will direct our precious healthcare dollars efficiently – and provide the right care at the right time to the right populations.

Our health system evolved when people generally died younger, with a “single system” illness. Many people lived in intergenerational households or close to family who could help them live independently. Jump forward several decades. Today, our health system is scrambling to meet the needs of older people with multiple simultaneous, inter-related health and social issues that threaten their independence – the essence of frailty.

Simply put, our health system does not respond well to frailty.

Our current healthcare structure excels at treating specific illnesses, but treatments can pose higher risks and offer lower potential benefits for frail people. Healthcare may provide frail people with both too much care and the wrong kind of care. This can be expensive and harmful, and could threaten the sustainability of our healthcare system.

So why should the new Health Accord include frailty – and base fiscal transfers on the concept (along with other important factors)? Because a large and growing proportion of our healthcare spending is and will increasingly be focused around frail older Canadians.

Targeting federal health funding based in part on frailty would help provinces and territories with greater health and social care needs in frailty. It would also flag frailty as a concern that needs to be urgently addressed across the country.

2. Standardize how frailty is determined

Our current health system is fragmented, with everyone gathering different information relevant to frailty, using different assessment tools, and reporting information in different ways. Reliably evaluating care, health outcomes and healthcare resource utilization by frail people is close to impossible. Frailty in the elderly is under-recognized, under-documented and under-coded in data from medical encounters, hospital discharge summaries and death certificates.⁹

Implementing standardized ways to determine frailty will support comparisons between jurisdictions and identify variations in care, outcomes and healthcare resource utilization. This can increase value from healthcare resources by avoiding underuse and overuse of care by frail people.¹⁰

No care setting in Canada currently identifies and assesses frailty as standard clinical practice.

In community settings, frailty predicts future hospitalization,¹¹ worsened quality of life¹², and loss of ability to carry out activities of daily living.¹³ Routinely identifying frailty offers opportunities for targeted care, including applying clinical practice guidelines and tools specific for frailty.^{14,15}

In primary healthcare, such as family practices, identifying frail people is a proactive approach. It can improve their understanding of their overall health and engage them and their families in making

decisions with their healthcare provider about preventive strategies and medical or surgical treatments.^{16,17,18,19} Most frail people live in the community, so strengthening primary healthcare for frail adults is crucial to help them age in their preferred setting. It also offers them access to appropriate community resources when needed.

In nursing homes, almost all residents are frail or are pre-frail.²⁰ Enhancing or preserving their quality of care and quality of life is the dominant goal, keeping in mind their own goals of care and wishes about death and dying.²¹ Assessing their degree of frailty may support more appropriate care plans, including approaches to medication use and advance planning for palliative care.

In the emergency department, screening acutely-ill, high-risk older adults for frailty can alter the trajectory of care in the hospital and after their discharge.²² Given the hectic workflow of the emergency department, though, screening requires brief, valid and reliable tools that support further assessment and guide options for treatment.^{23,24,25}

Frailty screening in different care settings can be *mass screening* of large populations or *case finding* (opportunistic screening) of individuals who consult health services for another reason.²⁶ Although mass screening is advocated by some organizations, it remains controversial.²⁷ Organizations such as the British Geriatrics Society advocate case finding.²⁸ Both approaches have merit. CFN has consulted with its stakeholders, network members and frailty experts, and advocates case finding. **All older adults who come into contact with the healthcare system and who meet pre-specified criteria should be assessed for frailty.**

Simple and effective tools to assess frailty are readily available and can be part of routine healthcare.²⁹ Often, tools commonly used to measure frailty are also useful to identify possible treatments³⁰ that can prevent, slow or significantly delay negative outcomes.³¹ This can help older adults to stay in their homes and communities and to be as functional as possible for as long as possible.³²

3. Increase the evidence on frailty and late life issues

Canada is a leader in frailty research. Some of the most commonly-used scales to measure frailty, such as the Frailty Index, Clinical Frailty Scale, or Edmonton Frailty Scale^{33,34,35}, were pioneered by Canadian researchers. No matter how it is measured or in what setting, though frailty is clearly linked to worsened health outcomes.^{36,37,38,39}

Despite Canadian leadership in frailty research, the Canadian healthcare system has lagged behind other jurisdictions in applying what is known about frailty. The United Kingdom, for example, has adopted explicit frailty strategies such as 'Fit for Frailty' and systematic screening for frailty in primary care.^{40,41}

High-quality evidence on the effectiveness of frailty treatments is scarce.⁴² This is especially worrying since we know that frail seniors should not necessarily get the same care as sick but non-frail seniors. Questions frequently faced by healthcare providers and policy-makers include:

- Is this healthcare treatment effective in frail seniors?
- Is the risk-to-benefit ratio the same as in younger or non-frail patients?
- Is the treatment good value for the healthcare resources expended?
- What is the most appropriate setting of care for this particular frail senior?
- Do individual people, their families and caregivers prefer one kind of treatment and care setting over another?

Frailty clearly needs a coordinated, multidisciplinary approach. To improve health outcomes for frail people, we need more and stronger evidence on:

- how to improve frailty itself
- how to reduce negative health events in frail people
- how to best deliver care, organize healthcare supports and improve health service delivery to frail people
- how to improve advance care planning and end-of-life care.

How can these steps help frail elderly Canadians?

Tailored individual care

It needs to be emphasized that improvements in care of the frail elderly and realization of socio-economic benefits are not about reducing care. They are about tailoring care to individuals and checking that any contemplated care is effective in frail people.

Improved use of healthcare resources through better evidence

Although healthcare costs increase with age and frailty, increased use of healthcare resources may not improve health outcomes or quality of life. Treatments may be ineffective for frail people and may waste healthcare resources – or even cause harm and increase use of healthcare resources. Better evidence of effectiveness can help.

Improved quality of life

When considering the socioeconomic benefits of improving care for frailty, we need to include benefits from longer independent living. This is difficult to measure, but potentially transforms costs into investments.

Citizens engaged in research, policy setting and healthcare

Educating the public on frailty and late life is essential. Engaging frail people will better align research conducted, policies enacted and healthcare delivered with peoples' preferences. This will ultimately improve satisfaction with healthcare delivery.

References Cited

- ¹ Xue Q. (2012). The Frailty Syndrome: Definition and Natural History *Clin Geriatr Med.* 27(1): 1–15.
- ² Clegg A, Young J. (2011). The frailty syndrome. *Clinical Medicine* 11(1): 72–5
- ³ Walston J, Hadley E, Ferrucci L *et al.* (2006). Research Agenda for Frailty in Older Adults: Toward a Better Understanding of Physiology and Etiology: Summary from the American Geriatrics Society/National Institute on Aging Research Conference on Frailty in Older Adults. *J Am Geriatr Soc* 54:991– 1001.
- ⁴ Hoover M, Rotermaun M, Sanmartin C, Bernier J. (2013). Validation of an index to estimate the prevalence of frailty among community-dwelling seniors. *Health Reports*, 24(9): 10-17. Statistics Canada, Catalogue no. 82-003-X
- ⁵ Website: <http://www.statcan.gc.ca/pub/91-215-x/2015000/charts-graphiques-eng.htm> Accessed May 16, 2016
- ⁶ Canadian Institute for Health Information (2015) National Health Expenditure Trends, 1975 to 2015. Ottawa, ON.
- ⁷ Fowler, R and Hammer, M (2013) SPECIAL SERIES – END OF LIFE CARE: End-of-Life Care in Canada. *Clin Invest Med* 2013; 36 (3): E127-E132.
- ⁸ Canadian Institute for Health Information (2007) Healthcare Use at the End of Life in Western Canada (Ottawa).
- ⁹ Evans S, Sayers M, Mitnitski A, Rockwood K (2014). The risk of adverse outcomes in hospitalized older patients in relation to a frailty index based on a comprehensive geriatric assessment. *Age and Ageing* 43: 127–132
- ¹⁰ Wennberg J. Gittelsohn A. (1973). Small Area Variations in Health Care Delivery. *Science* 182(4117): 110 2-1108. DOI: 10.1126/science.182.4117.1102
- ¹¹ Kojima G (2016). Frailty as a predictor of hospitalisation among community-dwelling older people: a systematic review and meta-analysis. *J Epidemiol Community Health.* doi: 10.1136/jech-2015-206978. [Epub ahead of print]
- ¹² Kojima G, Iliffe S, Jivraj S and Walters K (2016). Association between frailty and quality of life among community -dwelling older people: a systematic review and meta-analysis. *J Epidemiol Community Health.* doi: 10.1136/jech-2015-206717. [Epub ahead of print]
- ¹³ Vermeulen J, Neyens JC, van Rossum E, Spreeuwenberg MD and de Witte LP (2011). Predicting ADL disability in community-dwelling elderly people using physical frailty indicators: a systematic review. *BMC Geriatr* . 1:11-33. doi: 10.1186/1471-2318-11-33.
- ¹⁴ Mallery LH, Ransom T, Steeves B, Cook B, Dunbar P and Moorhouse P (2013) Evidence-informed guidelines for treating frail older adults with type 2 diabetes: From the diabetes careprogram of Nova Scotia (DCPNS) and the palliative and therapeutic harmonization (PATH) program. *Journal of the American Medical Directors Association.* 14(11):801 -8.
- ¹⁵ Mallery LH, Allen M, Fleming I, Kelly K, Bowles S, Duncan J, and Moorhouse P (2014) Promoting higher blood pressure targets for frail older adults: A consensus guideline from Canada. *Cleve Clin J Med.* Jul;81(7):427 -37.
- ¹⁶ Moorhouse P and Mallery LH (2012). Palliative and therapeutic harmonization: a model for appropriate decision-making in frail older adults. *J Am Geriatr Soc* 60(12):2326-32.
- ¹⁷ Keiren SM, van Kempen JA, Schers HJ, Olde Rikkert MG, Perry M and Melis RJ (2014) Feasibility evaluation of a stepped procedure to identify community-dwelling frail older people in general practice. A mixed methods study. *Eur J Gen Pract.* 20(2):107-13.
- ¹⁸ Braithwaite RS, Fiellin D and Justice AC (2009) The payoff time: A flexible framework to help clinicians decide when patients with comorbid disease are not likely to benefit from practice guidelines. *Med Care* 47(6):610-7.
- ¹⁹ Mallery LH and Moorhouse. (2011) Respecting frailty. *J Med Ethics* 37(2):126-8.
- ²⁰ Kojima G (2015). Prevalence of Frailty in Nursing Homes: A Systematic Review and Meta -Analysis. *J Am Med Dir Assoc.* 16(11): 940-5.
- ²¹ Brownie S and Nancarrow S (2013).) Effects of person-centered care on residents and staff in aged-care facilities: a systematic review. *Clin Interv Aging,* 8:1-10.
- ²² Salvi F, Morichi V, Grilli A, Lancioni L, Spazzafumo L, Polonara S, Abbatecola AM, De Tommaso G, Dessi-Fulgheri P and Lattanzio F (2012).) Screening for frailty in elderly emergency department patients by using the Identification of Seniors at Risk (ISAR). *Nutr Health Aging.* 16(4):313-8.
- ²³ Wright PN, Tan G, Iliffe S and Lee D (2014) The impact of a new emergency admission avoidance system for older people on length of stay and same-day discharges. *Age Ageing.* 43(1):116-21.
- ²⁴ Costa AP, Hirdes JP, Heckman GA, Dey AB, Jonsson PV, Lakhani P, Ljunggren G, Singler K, Sjostrand F, Swoboda W, Wellens NI and Gray LC (2014).) Geriatric syndromes predict post discharge outcomes among older emergency department patients: findings from the interRAI Multinational Emergency Department Study. *Academic Emergency Medicine,* 21(4): 422-433.
- ²⁵ Wallis SJ, Wall J, Biram RW, Romero-Ortuno R (2015).) Association of the clinical frailty scale with hospital outcomes. *QJM.* 108(12):943-9.
- ²⁶ Website. http://www.med.uottawa.ca/SIM/data/Screening_e.htm Accessed April 15, 2016.

- ²⁷ Morley J, Vellas B, van Kan G, Anker S *et al.* (2013). Frailty consensus: a call to action. *J Am Med Dir Assoc.* 14:392-7.
- ²⁸ Turner G, Clegg A. (2014). Best practice guidelines for the management of frailty: A British Geriatrics Society, Age UK and Royal College of General Practitioners report. 43 (6): 744-747. doi: 10.1093/ageing/afu138
- ²⁹ Clegg A, Rogers L, Young J. (2014). Diagnostic test accuracy of simple instruments for identifying frailty in community-dwelling older people: a systematic review. *Age Ageing.* 0: 1-5.
- ³⁰ Marshall EG, Clarke BS, Varatharasan N and Andrew MK. (2015). A Long-Term Care-Comprehensive Geriatric Assessment (LTC-CGA) Tool: Improving Care for Frail Older Adults? *Can Geriatr J,* 31;18(1):2-10.
- ³¹ Tavassoli N, Guyonnet S, Abellan Van Kan G, Sourdet S, Krams T, Soto ME, Subra J, Chicoulaa B, Ghisolfi A, Balardy L, Cestac P, Rolland Y, Andrieu S, Nourhashemi F, Oustric S, Cesari M and Vellas B (2014) Description of 1,108 older patients referred by their physician to the “Geriatric Frailty Clinic(GFC) for Assessment of Frailty and Prevention of Disability” at the Gerontopole. *J Nutr Health Aging,* 18(5):457-64.
- ³² http://www.laservices.ca/docs/media/CNW_Survey_Dec09.pdf
- ³³ Rockwood K, Mitnitski A, MacKnight C (2002). Some mathematical models of frailty and their clinical implications. *Rev Clin Gerontol* 12:109-17.
- ³⁴ Rolfson DB, Majumdar SR, Tsuyuki RT, Tahir A, Rockwood K (2006). Validity and reliability of the Edmonton Frail Scale. *Age Ageing,* 35(5):526-9.
- ³⁵ Rockwood K, Song X, MacKnight C, Bergman H, Hogan DB, McDowell I and Mitnitski A (2005). A global clinical measure of fitness and frailty in elderly people. *CMAJ,* 173(5):489-95.
- ³⁶ Rockwood K, Song X and Mitnitski A(2011). Changes in relative fitness and frailty across the adult lifespan: evidence from the Canadian National Population Health Survey. *CMAJ.* 17;183(8):E487-94. doi: 10.1503/cmaj.101271.
- ³⁷ Kahlon S, Pederson J, Majumdar SR, Belga S, Lau D, Fradette M, Boyko D, Bakal JA, Johnston C, Padwal RS and McAlister FA (2015). Association between frailty and 30-day outcomes after discharge from hospital. *CMAJ.* 11;187(11): 799-804. doi: 10.1503/cmaj.150100.
- ³⁸ Bagshaw SM, Stelfox HT, McDermid RC, Rolfson DB, Tsuyuki RT, Baig N, Artiuch B, Ibrahim Q, Stollery DE, Rokosh E and Majumdar SR (2014). Association between frailty and short- and long-term outcomes among critically ill patients: a multicentre prospective cohort study. *CMAJ.* 186(2):E95-102. doi: 10.1503/cmaj.130639.
- ³⁹ Hubbard RE, Peel NM, Samanta M, Gray LC, Fries BE, Mitnitski A and Rockwood K (2015). Derivation of a frailty index from the interRAI acute care instrument. *BMC Geriatr.* 18;15:27. doi: 10.1186/s12877-015-0026-z
- ⁴⁰ Turner G and Clegg A (2014). Best practice guidelines for the management of frailty: A British Geriatrics Society, Age UK and Royal College of General Practitioners report. *Age Ageing,* 43(6):744-7.
- ⁴¹ Website: www.bgs.org.uk/campaigns/fff/fff_full.pdf Accessed April, 15, 2016
- ⁴² Bibas L, Levi M, Brendayan M *et al.* (2014). Therapeutic Interventions for Frail Elderly Patients: Part 1. Published Randomized Trials. *Progress in Cardiovascular Diseases.* 57: 134-143.