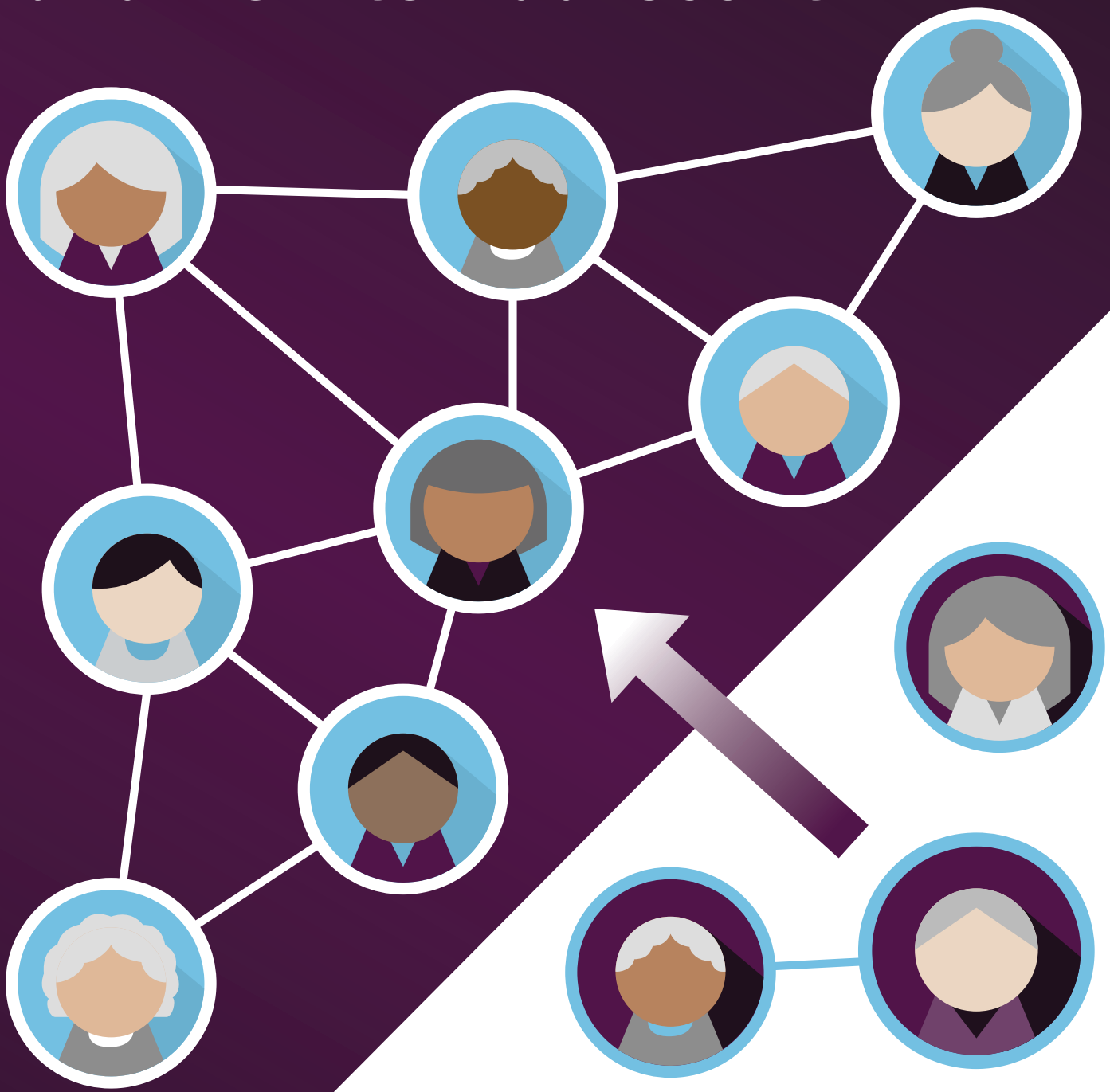
Understanding Social Isolation and Loneliness Among Older Canadians and How to Address It



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About the National Institute on Ageing

The National Institute on Ageing (NIA) is a public policy and research centre based at Toronto Metropolitan University (formerly Ryerson University). The NIA is dedicated to enhancing successful ageing across the life course. It is unique in its mandate to consider ageing issues from a broad range of perspectives, including those of financial, psychological, and social well-being.

The NIA is focused on leading cross-disciplinary, evidence-based, and actionable research to provide a blueprint for better public policy and practices needed to address the multiple challenges and opportunities presented by Canada's ageing population.

The NIA is committed to providing national leadership and public education to productively and collaboratively work with all levels of government, private and public sector partners, academic institutions, ageing related organizations, and Canadians.

About the RTOERO Foundation

Our foundation was formed in 2011 by RTOERO members to raise and invest funds in research and programs that benefit Canada's ageing population.

The health and well being of older adults in Canada is a priority for RTOERO members. The foundation's work aligns with RTOERO's focus on aging well, maintaining social connection, giving back and advocacy.

Our foundation is among the few Canadian foundations focused exclusively on healthy and active aging. We invest strategically in three critical activities through our grant program:

1. Research to better understand and address the complex needs of older adults;

2. Post-secondary training in the field of geriatrics and gerontology; and

3. Innovative projects that promote social engagement.

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Executive Summary

Social isolation and loneliness are increasingly recognized as important public health concerns. Globally, as well as in Canada, these issues have significant implications for the health and well-being of older persons. Older adults are at increased risk of experiencing social isolation and loneliness, and are especially vulnerable to their negative impacts. With older persons making up a rapidly growing proportion of Canada's population, the number of either isolated or lonely older adults is also expected to increase,[1] meaning that both the individual and societal consequences of loneliness and social isolation are expected to become more severe. As such, it is important to fully understand the prevalence and consequences of social isolation and loneliness in Canada, and to work to implement effective, evidence-based strategies to reduce their impacts and better support healthy ageing.

Media, government and academic literature tend to use the terms "social isolation" and "loneliness" interchangeably. While they are related, these are distinct states that can occur throughout the lifespan and reflect different aspects of an individual's relationships. Social isolation is the objective lack of contacts, family or friends, while loneliness is an undesirable subjective experience, related to unfulfilled social needs.[2] Drawing a distinction between these two concepts allows us to remember that subjective perceptions of social resources do not always reflect the actual social context. However, social isolation and loneliness also share some similarities in their predisposing factors, modifiers and outcomes.

This suggests that there are likely common risk factors, consequences and potentially beneficial interventions that can be used to target and address both social isolation and loneliness.

Older adults are at higher risk of experiencing social isolation and loneliness due to predisposing factors that tend to occur more often in later life, such as transitional life events, declines in health and functional mobility and the loss of loved ones. Furthermore, due to changing demographic and societal factors such as decreased fertility rates, increased divorced rates and fewer intergenerational living arrangements, older adults also have fewer family members to rely on and are more likely to be geographically separated from their families than in past generations. Moreover, both social isolation and loneliness have been linked to a range of adverse health outcomes among older adults, including mood disorders, dementia, cardiovascular disease and premature mortality.[3–5]

Despite the significant consequences of social isolation and loneliness, a lack of consistent definitions and measurement scales makes it challenging to fully characterize the scope of the problem in Canada and elsewhere. Thus far, data to understand these issues has been obtained from a variety of population-based surveys, which have generated diverse estimates from proxy or composite measures. Moreover, these methods are less likely to be inclusive of the entire older Canadian population, particularly residents in institutionalized settings or rural and remote

areas. For these reasons, it remains difficult to understand the full scope of the problem for older adults and the overall Canadian population. Estimates suggest that 12 per cent of Canadians aged 65 years and older feel socially isolated and 24 per cent report low social participation.[5] Similarly, about 25 per cent of older women and 20 per cent of older men report feeling lonely at least some of the time.[6] Other estimates in the Canadian population have ranged from 20 per cent to as high as 80 per cent.[7]

While Canada has launched several national initiatives to address social isolation and loneliness, few sustainable, long-term strategies have been adopted, despite a clear recommendation from the federal government's National Seniors Council (NSC) to do so almost a decade ago in 2013.[7]

To address the growing issue of social isolation and loneliness in older Canadians, the National Institute on Ageing recommends that the federal government develop a national strategy prioritizing a comprehensive and balanced approach to the issue. Globally, some countries have begun to track the social status of their populations, and to design targeted campaigns and interventions through national strategies. A Canadian national strategy could enable the creation of consistent definitions and measures to track the prevalence and impact of social isolation and loneliness across the country, and develop best practices to support effective programs and interventions to address these issues at the national, regional and local level.

The NIA has developed the following six policy recommendations to help advance a national strategy:

1. Adopt consistent national definitions and focus on clearly identifying the actual scope of social isolation and loneliness in Canada

2. Raise awareness, de-stigmatize and promote best practices for older Canadians who are experiencing or at risk of experiencing social isolation and loneliness

3. Raise public and health provider awareness about the risks of social isolation and loneliness to people of all ages, including the adverse health effects

4. Ensure research efforts continue to focus on understanding the impact of social isolation and loneliness in Canada, as well as evaluating the effectiveness of interventions to address it at the local, regional and national levels

5. Build the collective capacity of organizations to address social isolation and loneliness and improve overall service delivery

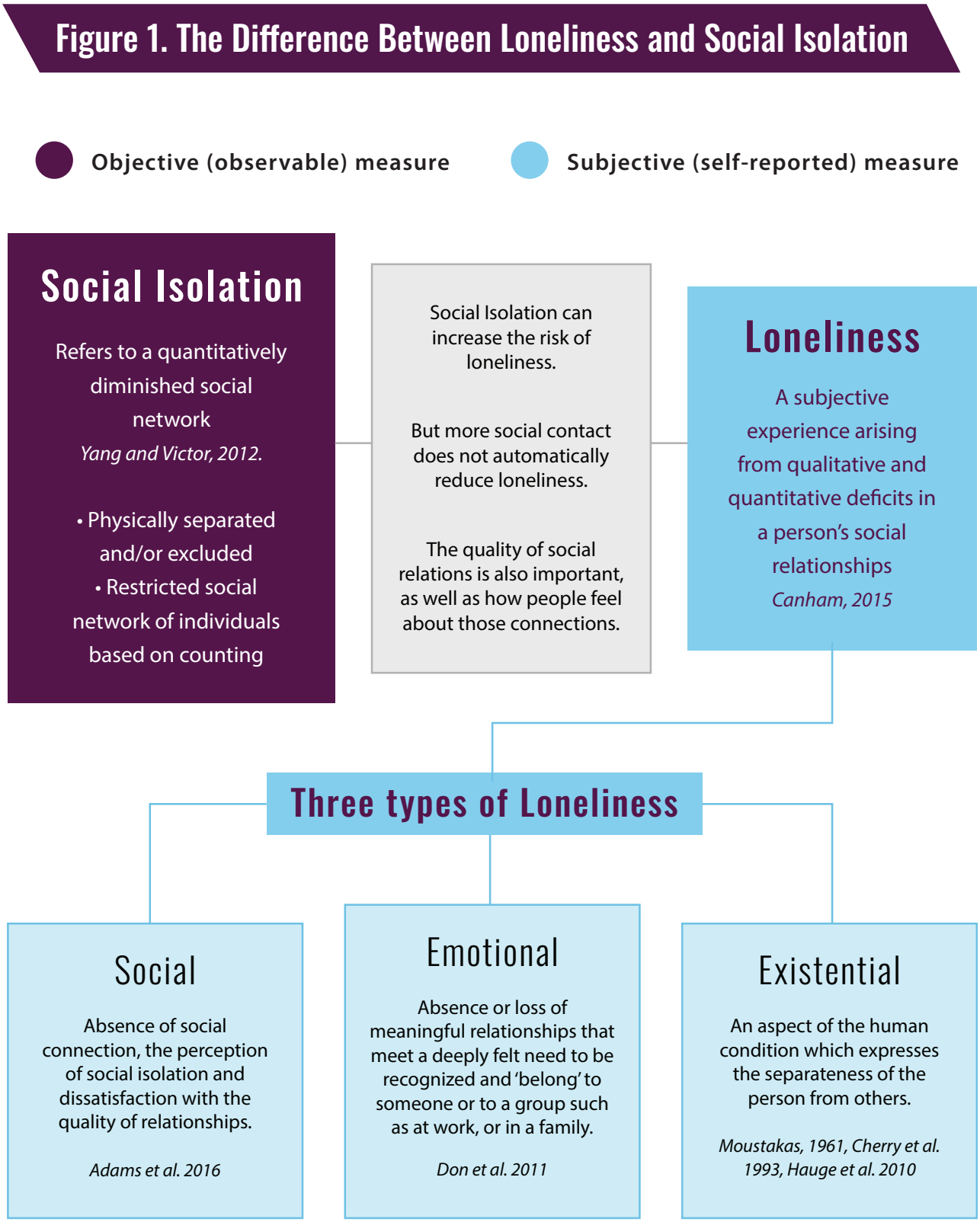
6. Prioritize equity, accessibility and inclusion-based approaches to addressing social isolation and loneliness

Background and Context

Social isolation and loneliness are increasingly recognized as being important to a person's overall health and well-being, and as important public health concerns that need to be addressed. In Canada, considerations of social determinants of health have become more likely to include social exclusion as a negative factor and the presence of a social safety net as a positive factor.[8] Taken together, this shows a growing recognition of the importance of social connection and inclusion in the overall health and well-being of Canadians of all ages, and among older Canadians in particular.

Social isolation and loneliness can be considered together or separately. Media, government and some academic literature tend to use these terms interchangeably. While related, social isolation and loneliness are distinct states that can occur throughout the lifespan; these concepts also reflect different aspects of our social lives. "Social isolation" is defined as a measurable lack of contacts, family or friends, while "loneliness" is defined as an undesirable internal experience, related to unfulfilled intimate and social needs.[2] More detailed descriptions of each state will follow in this report, and these states will be considered in parallel, while their differences will be highlighted where necessary.

Figure 1. The Difference Between Loneliness and Social Isolation

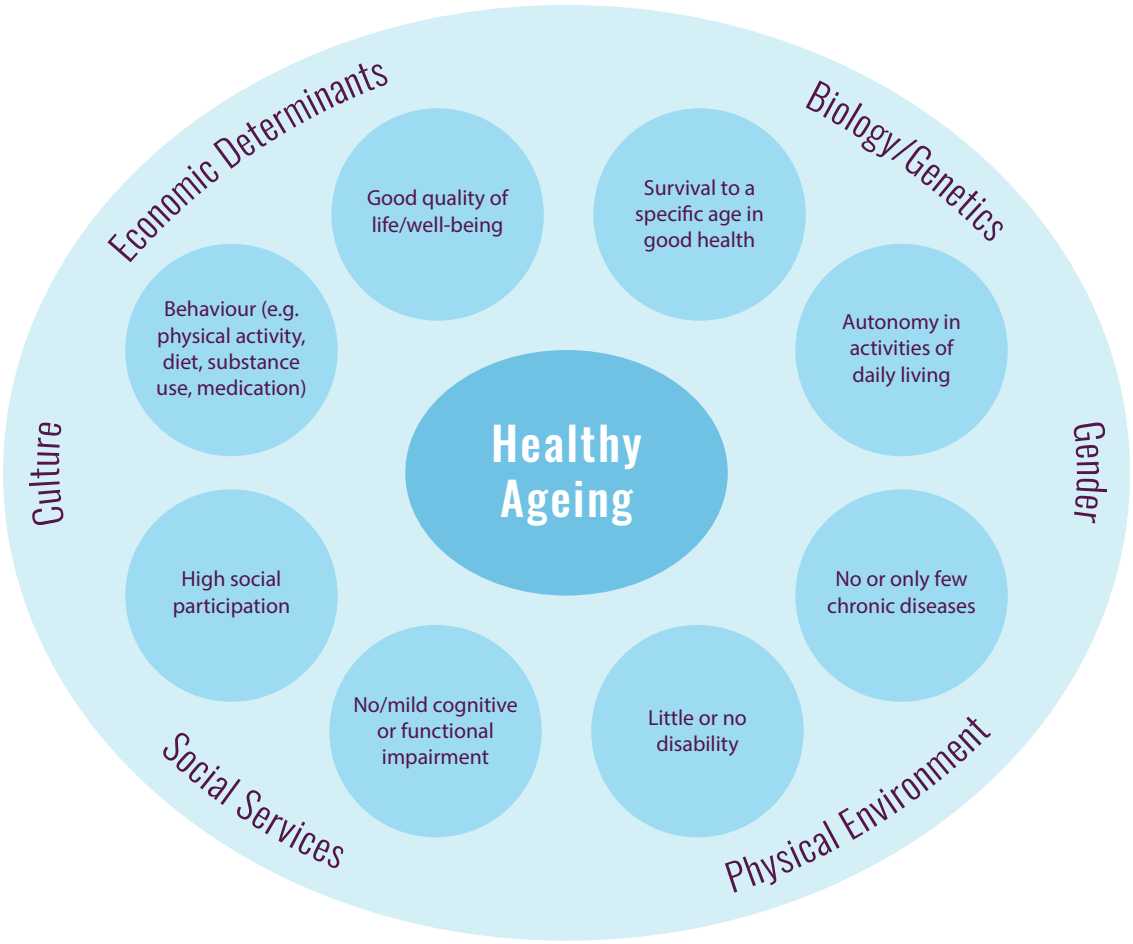


Adapted from: Hardoon D. (2019). Understanding loneliness: what does it mean? How do we experience it across the lifecourse? What Works Wellbeing.

The World Health Organization (WHO) considers social well-being to be one of the key elements of a healthy lifestyle, and identifies social isolation as a significant concern in the industrialized world.[9] The WHO Global Strategy for Ageing and Health connects social engagement to the health and well-being of older people, and emphasizes the value older adults contribute to society through their participation as mentors, caregivers, artists, consumers, innovators, entrepreneurs and members of the workforce.[10]

The concept of "successful ageing," as originally defined by Rowe and Kahn, refers to high physical, psychological and social functioning in old age without major diseases, where active social functioning involves interpersonal relations and productive activity.[11,12] With modern technological advancements, there is a perception that our society is achieving a greater level of connectedness. However, mounting research suggests that being alone is one of the most pressing and growing concerns facing modern society.[13]

Figure 2. Key Determinants of Healthy Ageing



Source: Fuchs J, Scheidt-Nave C, Hinrichs T, Mergenthaler A, Stein J, Riedel-Heller SG, Grill E. Indicators for healthy ageing--a debate. Int J Environ Res Public Health. 2013 Dec 2;10(12):6630-44. doi: 10.3390/ijerph10126630. PMID: 24317381; PMCID: PMC3881131.

Throughout the world, rates of "kinlessness," or older adults with no living kin, have been found to range from two per cent in countries such as China and South Korea to greater than 10 per cent in Canada.[14]

In Canada, almost one-quarter of adults aged 65 years and older reported they would like to have participated in more social activities in the past year.[15] Similarly, 19% of individuals aged 65 years and older felt a lack of companionship, left out or isolated from others, while 30% of older Canadians were determined to be at risk of social isolation.[1,16]

In an Angus Reid Institute survey from 2019, among a representative randomized sample of 2,055 Canadian adults, 35 per cent of respondents reported being alone often or always, while 62 per cent reported wishing family and friends would spend more time visiting or socializing with them.[17] This poll categorized the respondents by both social isolation and loneliness, identifying 23 per cent of respondents as being very lonely as well as isolated.[17]

The COVID-19 pandemic only intensified levels of social isolation and loneliness among older Canadians. A recent report for the Federal, Provincial and Territorial Forum of Ministers Responsible for Seniors used data from the Canadian Longitudinal Study on Aging (CLSA) to reveal that the percentage of older adults reporting that they were experiencing loneliness increased between six and eight per cent for older men and 11 and 17 per cent for older women during the first year of the pandemic.[18] A National Institute on Ageing (NIA)/TELUS Health survey further found that 40 per cent of Canadians aged 55 years and older have experienced a lack of social connections and companionship during the pandemic.[19] International evidence also suggests that social isolation and loneliness among older adults increased during the pandemic in other jurisdictions such as the United States, the Netherlands and Austria.[20–22]

Social isolation and loneliness have significant implications for older adults, including associations with mood disorders, cardiovascular disease and an increased overall risk of mortality.[23] Globally, it is estimated that the number of adults who are 60 and older will grow from 901 million to 1.4 billion between 2015 and 2030, and then to 2.1 billion by 2050 and 3.2 billion by 2100.[24] In Canada, it has been predicted that close to a quarter of the population will be older than 65 years of age by 2031, growing from the current number of 6.6 million to an estimated nine million people.[25,26] Therefore, the number of isolated or lonely older adults is also expected to increase, and with it, the individual and societal consequences associated with loneliness and social isolation.[1]

Several countries have developed large-scale initiatives to better address the structural and societal factors that appear to contribute to social isolation and loneliness in older adults. In Canada, the COVID-19 pandemic highlighted social isolation and loneliness as issues affecting Canadians of all ages; the increasing attention to both has contributed to a broader understanding and awareness of these issues and created a stronger mandate to adequately address them.

Defining Social Isolation and Loneliness

The terms "social isolation" and "loneliness" are used inconsistently in research and the media, which makes it hard for many to appreciate the unique aspects of these interrelated but distinct concepts.

A representative definition of "social isolation" refers to a measurable deficiency in the number of social relationships that a person has. Common manifestations include infrequent social interactions or a lack of participation in social activities.[27] In comparison, "loneliness" is most frequently formally defined as an internal subjective experience; it is an unpleasant sensation felt when a person's social relationships are lacking in quality and/or quantity compared to what they desire.[28] It can be further divided into emotional loneliness, referring to a lack of intimacy, and social loneliness, referring to a lack of community and acquaintances.[29] There are multiple definitions for each term used in media, print and academic literature; a detailed review of all definitions is beyond the scope of this report. However, it is important to highlight some key commonalities and differences in the discussion of both concepts.

Social isolation and loneliness are conceptually distinct because they account for different aspects of how individuals experience their social context. Drawing a distinction between these two concepts recognizes an important caveat about how individuals manage their social lives: a person's subjective perceptions of their social resources do not necessarily reflect their actual social context. This means that an individual's experience of their social situation can differ from objectively measured relationships or social contacts. Despite these distinctions, social isolation and loneliness have similarities, such as predisposing factors, modifiers and outcomes,[30,31] which suggests that they likely share common risk factors and consequences — and, potentially, interventions that can be used to target and address both.

Defining Social Isolation and Loneliness

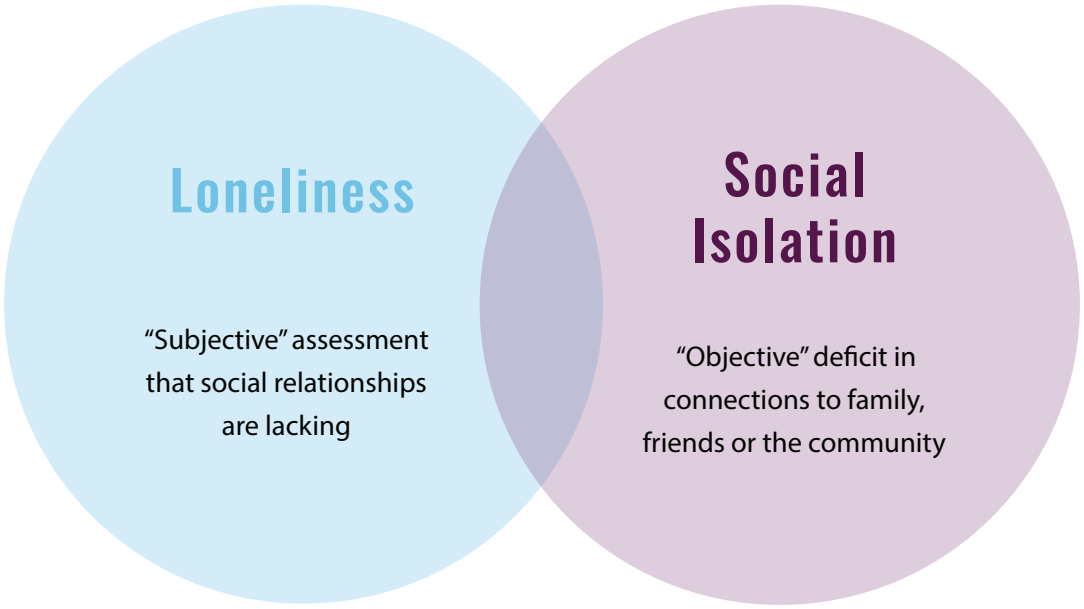
Social Isolation

A measurable deficiency in the number of social relationships that a person has.

Loneliness

An internal subjective experience; it is an unpleasant sensation felt when a person's social relationships are lacking in quality and/or quantity compared to what they desire.[28]

Figure 3: The Overlap Between Social Isolation and Loneliness



Several other terms are also used to define similar aspects of social relationships and their importance for health in later life. For example, "social engagement," which also has no universal definition, was proposed as one of three components in the "successful ageing" paradigm introduced in Figure 2.[11] Similarly, "social vulnerability" has been defined as a person's susceptibility to a negative health state (physical, functional, mental or psychological) due to their overall social situation, which includes variables such as socioeconomic status, social support, social exclusion, social networks, social engagement, social capital and social cohesion.[32]

Heterogeneity in findings across studies on the causes and consequences of social isolation and loneliness is exacerbated by the use of these distinct but related concepts in contemporary literature.

However, despite the varied definitions, it is clear there are great personal and societal costs to reduced social contact and dissatisfaction with one's social circumstances. Importantly, while loneliness, social isolation and their related concepts share many consequences and hypothesized causes, they are also generally targeted and addressed using similar interventions.[33]

Measuring Social Isolation and Loneliness

Across disciplines and research contexts, various indicators and instruments are used to measure social isolation and loneliness. Loneliness scales are more established within the existing literature, such as the UCLA Loneliness Scale and the De Jong Gierveld Loneliness Scale.[34,35]

The briefest scale in use is Hughes' Three-Item Loneliness Scale, designed for ease of administration, which asks about companionship, feeling left out and feeling isolated.[36]

Table 1. Hughes et al. Three-item Loneliness Scale

Questions	Hardly Ever	Some of the Time	Often
1. How often do you feel that you lack companionship?	1	2	3
2. How often do you feel left out?	1	2	3
3. How often do you feel isolated from others?	1	2	3
Scoring: *Sum the total of all Items, up to a max score of 9. Higher scores indicate greater loneliness*			

Social isolation has been more challenging to operationally define; there is no universally accepted research definition. Many proxy measures, such as living alone or a person's self-reported number of friends, have been developed to try to quantify social connectedness, but those may not comprehensively capture social relationships in a way that accurately characterizes a person's underlying level of social isolation.

Commonly used scales to measure social isolation include the Lubben Social Network Scale[37] and the Duke Social Support Index,[38] which are designed to quantify social contacts and social participation. These scales are both presented in Appendix I, while the Lubben Six-item Social Network Scale is presented below.

Table 2. Lubben et al. Six-item Social Network Scale

Questions	None	One	Two	Three or four	Five to eight	Nine or more
Family: *Considering the people to whom you are related by birth, marriage, adoption, etc…*						
1. How many relatives do you see or hear from at least once a month?	0	1	1	3	4	5
2. How many relatives do you feel at ease with that you can talk to about private matters?	0	1	2	3	4	5
3. How many relatives do you feel close to such that you could call on them for help?	0	1	2	3	4	5
Friendships: *Considering all of your friends including those who live in your neighbourhood*						
4. How many of your friends do you see or hear from at least once a month?	0	1	2	3	4	5
5. How many friends do you feel at ease with that you can talk to about private matters?	0	1	2	3	4	5
6. How many friends do you feel close to such that you could call on them for help?	0	1	2	3	4	5
Scoring: *Total score is an equally weighted sum of these six items. Scores range from 0 to 30.*						

Any interpretation of existing research must be done with an understanding of the limitations of the heterogeneous definitions and measurement scales that are used. Conclusions that have been drawn from some studies are difficult to apply broadly when divergent definitions have been used. However, universal themes have still emerged in the scientific literature, aided by using validated, reliable questionnaires or scales to study older populations. Systematic reviews and meta-analyses have also demonstrated consistency in clinically important outcomes, such as mortality, despite the heterogeneity in methods and definitions used.[3,4,39] Common themes also emerge when considering the detrimental effects of social isolation or loneliness on mental and physical health, frailty and well-being. While it is true that a person can be socially isolated but not lonely, and vice versa,[17] this paper will consider these concepts in tandem, and clarifications or distinctions will be made between them where necessary.

Why are Older Persons at Increased Risk of Experiencing Social Isolation and Loneliness?

Older persons are at higher risk of experiencing social isolation and loneliness for a host of reasons, with the majority being outside of their control. There are many systemic contributors to both social isolation and loneliness later in life, including recent demographic shifts such as the increased geographic mobility of family members (meaning that families are less likely to live in close physical proximity to each other), lower fertility rates, higher divorce rates and fewer intergenerational living arrangements.[40–42, 14,43] Another environmental factor is a lack of opportunities to meet people due to one's geographic location, particularly in rural or low-income urban areas.[44,45] Loneliness has been linked to the overall neighbourhood environment, which encompasses the physical, social and service environment as much as it does sense of belonging, social support and type of housing.

Additional considerations include accessibility and transportation issues. In rural populations, social isolation is associated with loss of one's driving ability,[46] while in urban populations, individuals who use public transport report experiencing lower levels of loneliness.[47] Overall, limited transportation options and transportation barriers may result in experiences of both social isolation and loneliness that are influenced by the size or setting of an individual's community.[48,49]

Figure 4. Reasons why Older Adults are at Increased Risk of Experiencing Social Isolation

Source: National Seniors Council, Who's at risk and what can be done about it? A review of the literature on the social isolation of different groups of seniors, February 2017.

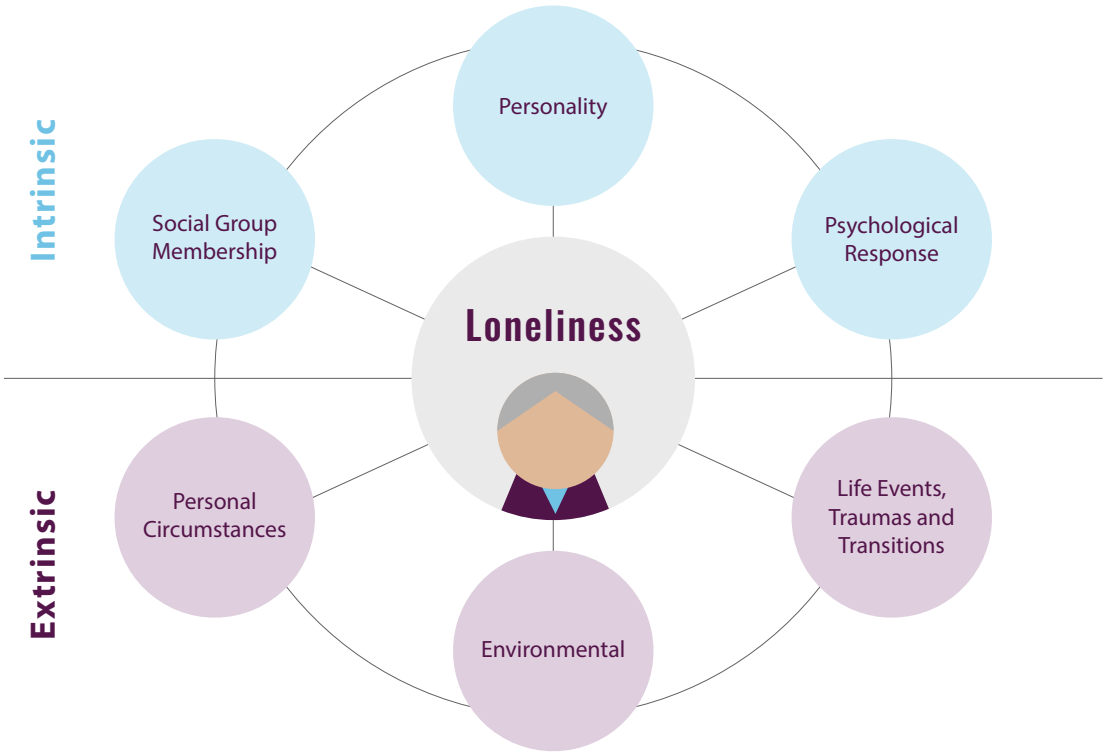
The ageing process is often characterized by multiple life-course transitions that significantly shift one's social roles and circumstances, and the extent to which one can maintain or establish social ties with others.

Throughout the lifespan, traditional sources of social support usually stem from marriage, family and participation in the labour force, as well as from social and religious activities. [50]

Common transitional life events such as retirement, widowhood, death of friends and relocation often contribute to social isolation and loneliness in older persons, with retirement and the death of friends or a spouse being especially impactful. [7,41]

In semi-structured interviews with older adults, self-identified barriers to making social connections included a lack of social opportunities associated with separation from or loss of loved ones, being an unpaid caregiver to another individual, living alone, geographic re-location and immigration.[51]

Figure 5. Intrinsic and Extrinsic Factors Contributing to Loneliness



Source: Goodman, A., Adams, A., & Swift, H. J. (2015). Hidden citizens: How can we identify the most lonely older adults. London: The Campaign to End Loneliness.

Socio-demographic characteristics have also been linked to increased social isolation and loneliness. Loneliness has been found to be more common in older members of ethnic minority groups,[52,53] in particular among immigrant populations where the language and culture in the destination country differ significantly from the country of origin.[54]

Lower language proficiency has also been related to lower social participation, and is a risk factor for social isolation among older immigrant adults.[55]

Canada's 2013 National Seniors Council Report on the Social Isolation of Seniors also identifies sexual orientation and gender (e.g., non-binary) as risk factors;[1] older adults identifying as 2SLGBTQIA+ report having less social support and more loneliness.[56] Interviews with older adults have also emphasized that attention should be directed to the relationship between poverty, inequality and disadvantage and social isolation.[57]

Older adults may also experience reduced social participation due their declining physical health and/or mobility as they age.[58] Health factors can include high comorbidity rates (i.e., having multiple chronic conditions),[58,59] poor self-reported health,[9,60] mobility difficulties,[39,48,61] incontinence,[62,63] visual impairment,[64] hearing impairment[65] and frailty.[66]

What Factors have been Found to Help Reduce Social Isolation and Loneliness?

To the extent that loneliness and social isolation — on their own or in combination — put individuals at risk of health problems, personal characteristics that have been identified as helping to prevent or blunt their negative consequences may be especially important for improving the health and well-being of older persons. Flexible coping, gratitude and positive emotions are among the personal factors that have been identified to protect against loneliness,[67] along with personal authenticity (defined as the propensity to express and act in line with one's true thoughts and feelings)[68] and a younger subjective age (when individuals feel and perceive themselves to be younger than their chronological age)[69]

Recent studies also show that among older adults, women,[60,70] those who are married and do not live alone,[7,60,70] and those with better visual and hearing abilities[71,72] are less likely to experience social isolation. Furthermore, a longer length of residence in the community [60] and participation in community or religious events have also been shown to decrease rates of social isolation. [60,73]

The presence of positive social supports can lead to more self-satisfaction and has been associated with reduced mortality,[74] while social engagement may prevent functional disability.[42]

Indeed, maintaining physical functioning is associated with improved frequency of contact with family and friends.[75] Overall, maintaining interpersonal relationships with increasing age appears to contribute positively to social well-being and should thus become a societal focus to improve the overall quality of life for older persons.[76]

What are the Consequences of Social Isolation and Loneliness in Older Persons?

Studies have repeatedly shown an association between social isolation and/or loneliness and negative consequences for physical and mental health. As previously stated, existing research shows that feelings of loneliness do not depend entirely on actual levels of social isolation, with studies showing weak correlations between experiencing loneliness and social network size and frequency of interactions.[36,77,78] However, research focused on the physical and mental health implications of being lonely or socially isolated have described an overall negative impact of both states on one's well-being. Due to the heterogeneity in measurement scales and operational definitions, this paper reviews the general consequences of social isolation and loneliness together — reflecting the literature in this area.[31]

Figure 7 illustrates a framework identifying associations and relationships between social connections and health impacts. Mediators are variables that may explain the relationship between social isolation or loneliness and health outcomes, such as living environment and health status. Many of these variables, whether at the individual, community or societal level, are bidirectional, highlighting the complexity of interactions between personal circumstances, personality, comorbidities and social connections.

Existing literature makes clear that social isolation and loneliness are associated with poor health behaviours and adverse health outcomes.

Adverse health behaviours associated with social isolation and loneliness include smoking, increased alcohol consumption and physical inactivity, while adverse health outcomes include cardiovascular disease, psychiatric disorders (e.g., major depressive disorder, increased suicidal ideation, non-fatal suicidal behavior, suicide in later life) and an increased use of psychoactive (or mood altering) medications that in turn increase risk of falls. [79–85]

Other notable associations include dementia, increased functional decline and increased elder abuse. However, potentially the most concerning outcome that has been associated with social isolation and loneliness is the overall increased risk of premature mortality.[3–5]

Second, meta-analyses report that social isolation and loneliness can each independently predict mortality. [3,4,86–88]

The most prominent analysis by Holt-Lunstad et al. (2015) found that the health effects of prolonged social isolation were equivalent to smoking 15 cigarettes a day.[4]

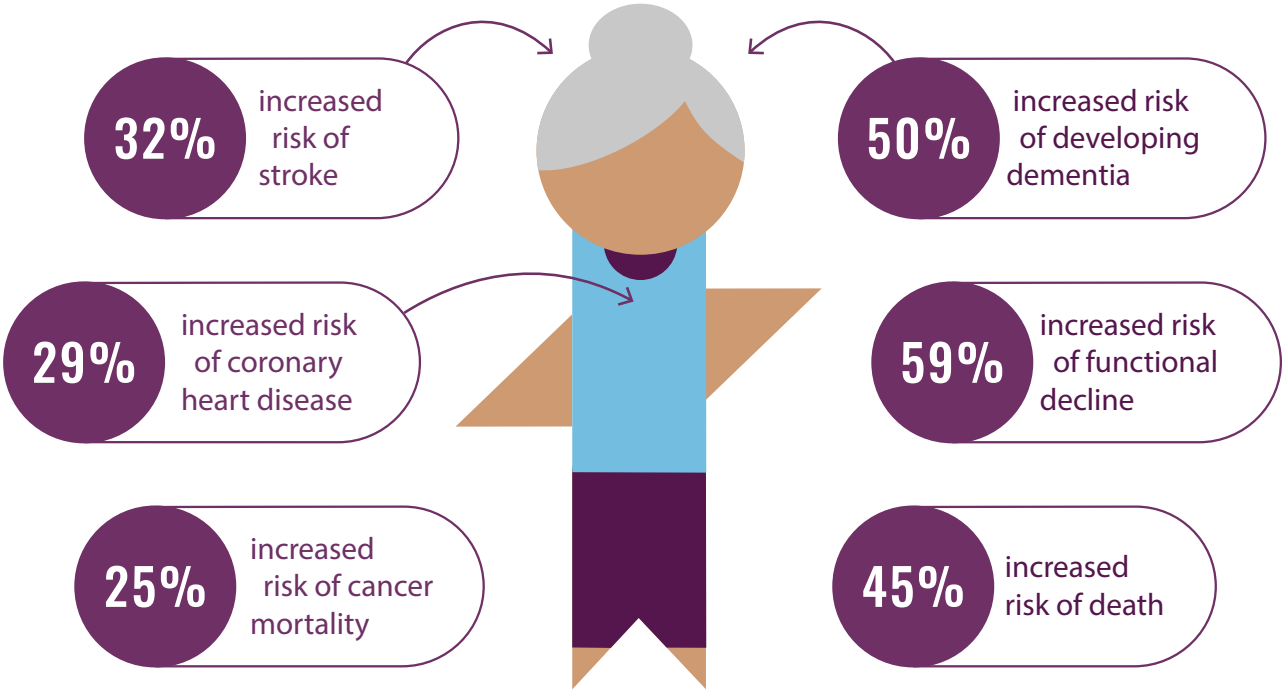
Based on this data, Holt-Lunstad et al. (2015) concluded that individuals lacking social connections were at risk for premature mortality on a comparable level to other well-established risk factors, including a lack of physical activity, obesity, substance abuse, injury and violence, and a lack of access to health care.[4] The relationship between social isolation and mortality has also been investigated using Canadian survey data, with findings showing that low social participation is associated with an increased risk of death for both men and women.[5] Similarly, numerous studies have shown that loneliness independently predicts mortality in older age groups.[203,220]

Other health conditions that have been associated with social isolation and loneliness include: metabolic disorders,[13] multi-morbidity,[7,44,58] malnutrition[89,90] and cognitive decline.[91,92] Loneliness is also often associated with physical inactivity,[93] and it increases the likelihood of being undernourished.[94] Social isolation has also been proposed as a nutritional risk factor, with poor nutrition being associated with several other adverse health outcomes such as frailty and functional decline.[89]

Figure 6: What are the Consequences of Social Isolation and Loneliness for Older Adults?

Isolation and Loneliness Affect the Body, Too

When older adults are socially isolated, their mental and physical health decline. Isolation and loneliness have been associated with higher rates of depression, anxiety and suicidal thoughts. Here's how other types of risk increase for adults over 50 who aren't staying connected:



Adapted from Hannah Kirchwehm, "Isolation and loneliness affect the body, too"

Sources:

National Academies of Sciences, Engineering, and Medicine. (2020). Social isolation and loneliness in older adults: Opportunities for the health care system. National Academies Press.

Valtorta, N. K., Kanaan, M., Gilbody, S., Ronzi, S., & Hanratty, B. (2016). Loneliness and social isolation as risk factors for coronary heart disease and stroke: systematic review and meta-analysis of longitudinal observational studies. Heart, 102(13), 1009-1016.

Kuiper, J. S., Zuidersma, M., Voshaar, R. C. O., Zuidema, S. U., van den Heuvel, E. R., Stolk, R. P., & Smidt, N. (2015). Social relationships and risk of dementia: A systematic review and meta-analysis of longitudinal cohort studies. Ageing research reviews, 22, 39-57.

Holt-Lunstad, J., Smith, T. B., Baker, M., Harris, T., & Stephenson, D. (2015). Loneliness and social isolation as risk factors for mortality: a meta-analytic review. Perspectives on psychological science, 10(2), 227-237.

Perissinotto, C. M., Cenzer, I. S., & Covinsky, K. E. (2012). Loneliness in older persons: a predictor of functional decline and death. Archives of internal medicine, 172(14), 1078-1084.

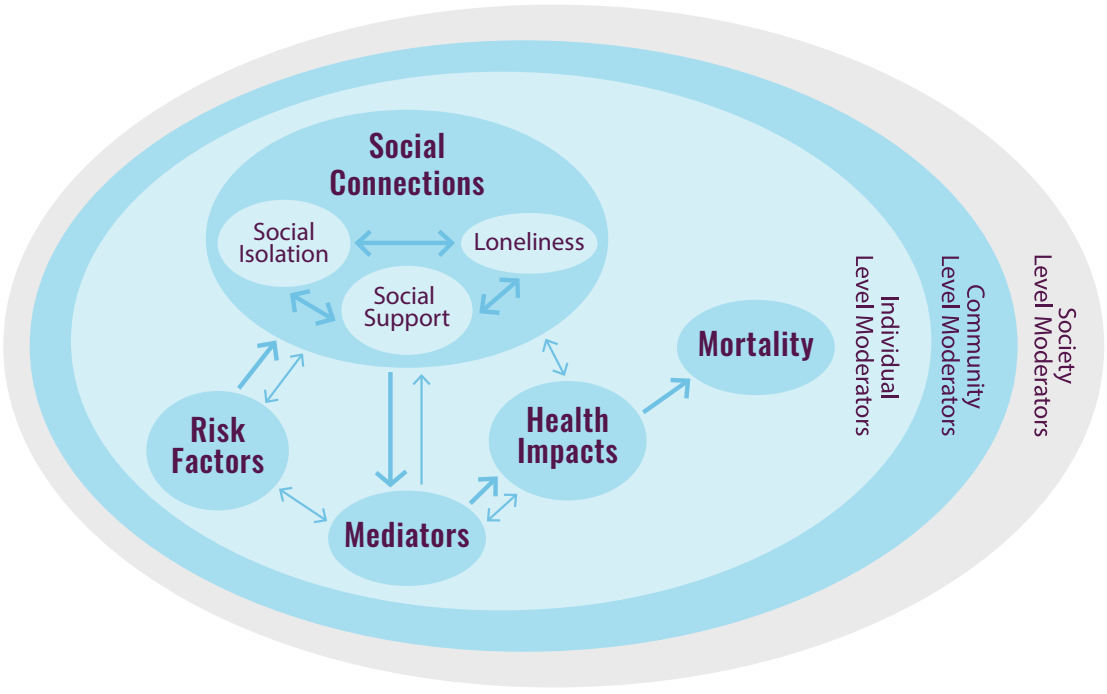
Finally, social isolation and loneliness can also have significant impacts on the mental health of older adults.

Having reduced social contacts is associated with a reduced quality of life, while loneliness increases the odds of experiencing low life satisfaction.[95]

Depression is associated with loneliness or living alone,[96] and social isolation has been identified as a risk factor for suicidal ideation.[82,97] Additionally, loneliness is predictive of experiencing clinically significant anxiety symptoms[98] and has been associated with psychological stress.[80]

There is also an overlap between symptoms and behaviours that are associated with both major depressive disorder and loneliness, such as physical inactivity, a lack of cognitive exercise, substance use and poor sleep.[27,99,100] It has also been suggested that psychiatric disorders, such as major depressive disorder, could be a contributing factor in the relationship between social isolation or loneliness and mortality,[101] though the exact mechanisms underlying this finding have not been clearly identified. Therefore, addressing social isolation and loneliness can be vital to maximizing the mental health, well-being and life satisfaction of older persons.

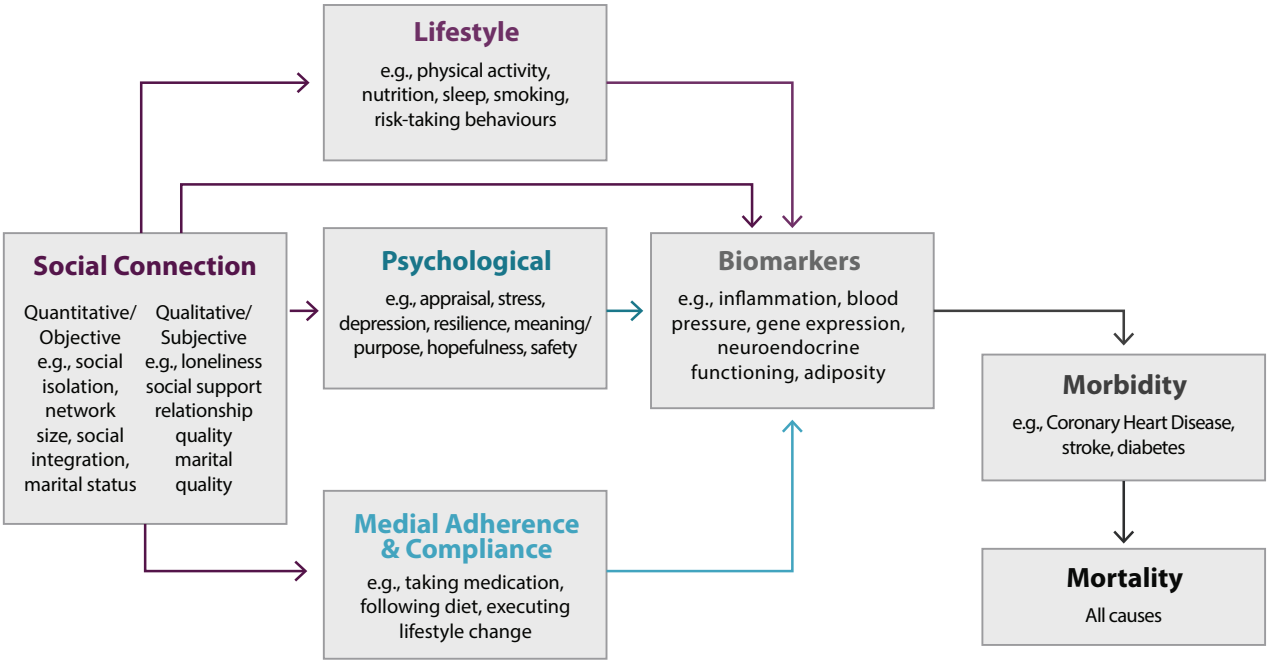
Figure 7. The National Academy of Sciences Conceptual Framework on the Relationship Between Social Connections and Health Outcomes



The research is also beginning to describe a relationship between social isolation, loneliness and frailty. Frailty is another composite condition associated with ageing, and while it is an important public health problem, there is no current consensus around its definition, components and diagnosis.[102,103] However, there are two key clinical models being used to assess and diagnose frailty.[104,105] First, the Fried model, also known as the "Frailty Phenotype," defines frailty as a clinical syndrome in which three or more of the following criteria associated with poor outcomes and functional decline are present: 1) unintentional weight loss (10 pounds in past year); 2) self-reported exhaustion; 3) weakness (grip strength); 4) slow walking speed; and 5) low physical activity.[104] The other leading approach is the cumulative deficit model developed by Rockwood et al (2005), which views frailty as an age-associated accumulation of deficits that are measured with a Frailty Index, in which a patient's various clinical deficits (identified by means of signs, symptoms and abnormal test results) are counted and divided by the total number of possible deficits being considered.[105,106]

To date, evidence on the significance and independent impacts of social isolation and loneliness on frailty has been mixed, but research has identified associations using both the Fried Frailty Phenotype[30,107–110] and the Frailty Index.[111]

Figure 8. Possible Mechanisms by which Social Connections Influence Disease Morbidity and Mortality, Holt-Lunstad and Smith, 2016



A lack of a social network has been associated with living alone and loss of ability to live independently, [50] which have been shown to increase the risk of institutionalization and death. [40] Furthermore, frailty itself has been associated with experiencing a loss of independence.[112] Older adults' social circumstances influence their experiences of frailty and its outcomes, and contribute to their overall vulnerability.[113] As such, social assessments with questions related to social status are increasingly being integrated into frailty assessment tools.[114] Recently, a study among community-dwelling older adults found that frailty increased the risk of mortality, but the risk of death was found to be even higher for older adults who were both frail and socially isolated or lonely.[115]

Finally, the negative health implications of social isolation and loneliness may contribute to excess health-care costs via more frequent engagement with the health-care system.

Loneliness may prompt socially isolated people to seek medical assistance as a means of social interaction, as loneliness is associated with increased physician visits,[116] an increased use of outpatient services,[117] and an increased use of primary-care services.[118,119]

In a Canadian sample, loneliness was associated with more frequent Emergency Medical Services use among older adults: 49% of older persons who called EMS more than five times per year self-identified as being lonely, while 37% rated themselves as intensely socially lonely.[120]

The frequency of outpatient visits may also be explained by the multi-morbidity that is associated with social isolation and loneliness.[121] However, even when accounting for comorbidities, social isolation is still associated with increased hospitalization and emergency department utilization [(122)], but not ambulatory care use.[(121] Older persons who are socially isolated are also found to be at higher risk of readmission to hospital.[9,74,123] Both social isolation and loneliness have been associated with reduced medication adherence.[124] Conversely, having a strong social support network has been associated with having fewer health problems and a lower level of health-care utilization.[125]

The link between social isolation and loneliness and increased health-care utilization has cost implications, driven in part by prolonged hospitalizations.[121] For example, in a study of patients hospitalized for hip fractures in the United Kingdom,[126] being socially isolated or at a high risk of social isolation was associated with delayed discharges, and increased hospital stays by 2.6 days. These older adults were also more likely to need a referral to a publicly funded rehabilitation unit, resulting in an additional 4.9 days in hospital. The total costs of delayed discharges in these patients was estimated between 2,352 euros and 9,317 euros ($3,702 to $14,666 CAD) per patient.[126] In the United States, Medicare spending data has been used to estimate that a lack of social contacts among older adults is associated with approximately $6.7 billion USD ($8.9 billion CAD) in federal spending annually.[127] As such, better addressing social isolation and loneliness may have the potential to significantly reduce health-care utilization and costs.

What do we Know about Social Isolation and Loneliness in Older Canadians?

Due to data gaps, such as lack of representative samples and inconsistency in variables used to measure social isolation and loneliness, current prevalence estimates of social isolation and loneliness in Canada vary widely. This makes it difficult to get a true sense of the extent of issue among older Canadians. Nevertheless, it is clear that many older Canadians experience social isolation and loneliness, with its prevalence likely to continue escalating in the future as the population ages.

When thinking about social isolation, a Canadian literature review found that about 16 per cent of older Canadians are socially isolated, and about 30 per cent are at risk of becoming socially isolated.[128,129]

Key Statistics, 2008-09 CCHS

12%
People aged 65 years and older who feel socially isolated

More than 24%
People aged 65 years and older who report low social participation

About 50%
Older Canadians who participate frequently in social activities with family and friends

A recent 2020 Statistics Canada analysis using data from the 2008-09 Canadian Community Health Survey (CCHS) also found that more than 24 per cent of Canadians aged 65 years and older wished they could participate in more social activities.[5] In fact, estimates from the same 2008-09 data show that only about half of older Canadians participate frequently in social activities with family and friends[15] and more recent estimates using 2016 data find that almost 20 per cent report having only moderate or low levels of social support.[130]

In terms of loneliness, Statistics Canada's 2008-09 CCHS found that about 19 per cent of Canadians aged 65 years and older report feeling lonely. More recent estimates using 2018 data have found that about 25 per cent of older women and 20 per cent of older men report feeling lonely at least some of the time. [6]

Overall, the prevalence of social isolation among community-dwelling older Canadians appears to range anywhere from six to 43 per cent, while 10 to 50 per cent report feeling lonely.[1,23,129,131]

Canadian data to understand these issues has been obtained from a variety of population-based surveys. These surveys have generated diverse measures used to estimate the scope of social isolation and loneliness in Canada. Only Saskatchewan has reported its intent to start collecting data as it implements its seniors' umbrella association project (see Table

1 for details). Otherwise, population-level data to assess the prevalence of social isolation and loneliness in Canada has traditionally come from the Canadian Longitudinal Study on Aging (CLSA) and the Canadian Community Health Survey-Healthy Aging.

The prevalence of social isolation in Canada has been estimated using either composite scales that measure structural variables (living alone) or both structural and functional (social support) indicators.

In the CLSA, analyses of social isolation among Canadians based on the composite scale, incorporating only structural variables (such as living alone), demonstrated that 8.7% of adults aged 65 years and older were considered socially isolated. This increased to 12.5% when considering both structural and functional factors (such as perceived social support or emotional support),[132] where some functional factors could be considered loneliness measures.

Overall, rates varied between 5.4 per cent to 25 per cent among adults aged 45 to 85.[132] This illustrates the importance of scales or composite measures when considering social isolation: for instance, surrogate single measures such as living alone would automatically result in 25.7 per cent of adults aged 65 years and older being classified as socially isolated,[133] but alternative scales may yield a different number.

The Angus Reid Institute surveyed Canadian adults regarding isolation and loneliness in 2019 and concluded that people who live alone are disadvantaged in terms of their social interactions because the majority of social stimulation comes from within the home.[17] The survey classified adult Canadians into groups of those who are both socially isolated and lonely (23 per cent), lonely but not socially isolated (10 per cent), and socially isolated but not lonely (15 per cent).[17]

Table 3. The Overlap Between Social Isolation and Loneliness Among Canadians, 2019

How loneliness and social isolation intersect:					
		Loneliness Index			
		Very lonely	Somewhat lonely	Somewhat not lonely	Not lonely
Social Isolation Index	Very isolated	**54%**	**28%**	**21%**	**18%**
	Somewhat isolated	**21%**	**27%**	**21%**	**18%**
	Somewhat not isolated	**17%**	**28%**	**34%**	**37%**
	Not isolated	**8%**	**17%**	**24%**	**37%**

Source: The Angus Reid Institute (2019)

In 2020, Statistics Canada used data from the 2008-09 Canadian Community Health Survey to assess the relationship between social isolation and mortality in older Canadians.[5] In this study, social isolation was defined using two primary measures. The first was "subjective social isolation," a composite of two measures capturing "loneliness" and "sense of community belonging." Loneliness was defined as individuals who scored highly on the Hughes Three-Item Loneliness Scale, while sense of community belonging was based on one question: "How would you describe your sense of belonging to your local community?" Responses ranged from very strong to very weak.[5] The second primary measure was "low participation," based on responses to social participation questions about eight community-related activities. Low social participation was defined as not taking part in any of the eight activities on a weekly basis. Based on this data, an estimated 525,000 older Canadians (12 per cent of the population aged 65 years and older) in 2008-2009 felt socially isolated and over 1 million older Canadians (24 per cent of the population aged 65 years and older) reported low social participation.[5]

Estimates of loneliness in Canada also vary. Based on a single loneliness question in the CLSA — "How often did you feel lonely?" (1 = all of the time [5-7days]; 2 = occasionally [3–4 days]; 3 = some of the time [1–2 days]; 4 = rarely or never [less than 1 day], where all of the time or occasionally were classified as lonely) — approximately 10 per cent of Canadians aged between 45 and 85 years could be classified as lonely. [44]

Data from Statistics Canada's General Social Survey measured loneliness using the short form of the De Jong Gierveld Loneliness Scale, where a score of 0 suggests minimal loneliness and 6 suggests a high degree of loneliness; among the sample of 3,799 respondents aged 65 years and older, the mean score was 1.27 (SD = 1.32).[134] Other estimates of loneliness in the Canadian population have ranged from 20 to 80 per cent. [7]

Some studies on loneliness in Canada have focused on specific populations, such as immigrants and refugees, who are identified as more likely to experience loneliness. [54,135] Immigrants from countries with differences in native language/culture have been found to be significantly lonelier.[54] These findings highlight the challenges in defining the scope of social isolation and loneliness in Canada.

Overall, it is likely that social isolation and loneliness have significant impacts, especially among older Canadians.

Ultimately, a lack of consistent definitions and measurement scales of loneliness and social isolation make it challenging to fully characterize the scope of the problem in Canada. On top of that, accurate measurement and tracking of socially isolated older adults is likely further hindered by the very fact that they are isolated and may not be easily reached by traditional population-based sampling methods such as electronic or mailed surveys.

These methods are also less likely to be inclusive of the entire older Canadian population, including those residing in institutionalized settings or in rural and remote areas such as First Nations communities. This underlies the importance of identifying appropriate screening strategies, or innovative strategies to assess and address levels of social isolation, such as the "community canvassing" that has been employed in the United Kingdom. [136]

Many other countries have generated population-based data and adopted national strategies to better address both loneliness and social isolation. These initiatives can provide a framework for potential change in Canada. There are currently no routine national data-collection efforts in Canada that occur regularly at the population level, nor coordinated efforts to routinely collect individual data. Indeed, population-based surveys currently only happen occasionally in Canada. By contrast, in the U.K., measures of social isolation or loneliness are included as core questions within the country's ongoing general health and wellness surveys. This enables policymakers and researchers to look at trends over time. Expanding Canadian survey offerings and collecting data on social isolation and loneliness more routinely would facilitate comprehensive, longitudinal data collection, monitoring and meaningful response efforts.

Additional Insights on Social Isolation and Loneliness Generated as a Result of the COVID-19 Pandemic

Multiple reports and editorials have drawn attention to social isolation and loneliness in the context of the COVID-19 pandemic. The early social restrictions imposed with the aim of protecting public health during the pandemic increased concerns about the social well-being of older adults across the world. There were widespread reports of growing social isolation and loneliness resulting from mandates to reduce in-person contacts and avoid leaving the home. [20,137] Self-isolation disproportionately impacts older individuals, whose social contacts tend to occur primarily out of the home — such as at community centres, places of worship and adult day centres.[138] Furthermore, there was a growing risk that older people who previously had not reported being socially isolated and lonely may have become so as they lost their usual levels of social contact from regular activities.[139] There was also concern about increasingly ageist commentary, such as the devaluing of older people and subtext of negativity, and the possibility of this contributing to feelings of worthlessness, being burdensome and having no value, all of which could further harm the mental health and social efficacy of older persons.[139]

Globally, literature on the effects of the COVID-19 pandemic has been mixed, but suggests that there was likely an increase in feelings of loneliness and social isolation. A study of community-dwelling older adults in the Netherlands identified an increase in loneliness after two months of restrictions.[21] Similarly, in the United States, survey-based data collected longitudinally during a shelter-in-place order suggested that 40 per cent of adults were experiencing social isolation and more than half (54 per cent) reported worsened loneliness due to COVID-19, which was associated with worsened mental health.[20] In Austria, older adults reported increased loneliness in 2020 compared with previous years, and loneliness was moderately correlated with the number of restriction measures, with the highest levels of loneliness occurring during a lockdown. [22] Age UK, a charitable organization dedicated to Britain's ageing population, identified that demand for services increased during the pandemic, with double the usual number of calls tracked on its Advice Line, in addition to increased usage of other friendship and helpline services.[140]

Canadian evidence also suggests that the COVID-19 pandemic exacerbated levels of social isolation and loneliness among older adults. A recent report for the Federal, Provincial and Territorial Forum of Ministers Responsible for Seniors used CLSA data to reveal striking increases in feelings of loneliness among older women and men in Canada during the first year of the pandemic. [18] Estimates comparing baseline data collected in 2011-15 to data collected in April-December 2020 suggest that among women aged 65-74 years and 75-84 years, there was a 67 per cent and 37 per cent increase in loneliness, respectively. Increases in loneliness among older Canadian men were smaller but still significant, with a 45 per cent increase for men aged 65-74 years and 33 per cent increase for men aged 75-84 years.

Based on the CLSA data collected pre-pandemic, it is estimated that approximately 20 per cent of older Canadians experienced loneliness some of the time or more, and that about 10 per cent experienced chronic or intense levels which could have detrimental effects on multiple health and well-being outcomes.[6] Specifically, among older women aged 65-74 years and 75-84 years, 25 per cent and 31 per cent felt lonely at least some of the time, respectively. Among men aged 65-74 years and 75-84 years, the respective rates of loneliness were 18 per cent and 19 per cent in 2011-15. Comparatively, CLSA data collected during the pandemic showed that rates of loneliness were around 40 per cent for older women (41 per cent for women aged 65-74 years and 42 per cent for women aged 75-84 years) and 26 per cent for older men (26 per cent for both men aged 65-74 years and 75-84 years). Overall, the absolute percentage increase in loneliness experienced among older Canadians during the first year of the pandemic ranged from 6 per cent to 8 per cent for older men and 11 per cent to 17 per cent for older women.[18]

There were multiple factors contributing to social isolation and loneliness among older adults during the COVID-19 pandemic, including the federal government's early recommendation for those with a higher risk of serious illness — including otherwise healthy older adults — to stay home as much as possible.[41] Subsequently, all people aged 70 years and older in Ontario were advised to self-isolate,[142] with similar recommendations across other provinces and territories.[143] Second, access to programs and services was significantly reduced as gathering limits were imposed and businesses or organizations deemed "non-essential" were mandated to close. [144] Third, no-visitor policies were enacted at long-term care and retirement homes, as well as hospitals, during at least the first six months of the pandemic and at other times as deemed necessary. This was linked to declines in the physical and mental health and well-being of long-term care residents[145] and older persons who were forced to self-isolate in their rooms for prolonged periods of time, leading some to experience what was dubbed "confinement syndrome." This term refers to a constellation of negative outcomes and generalized decline in overall well-being, including increased social isolation, increased loneliness, deteriorating mental health and cognition, and increases in care dependency and medication use.[146]

Certain sub-populations of older adults were also found to be especially vulnerable to social isolation and loneliness during the COVID-19 pandemic. In the report for the Federal, Provincial and Territorial Forum of Ministers Responsible for Seniors, older adults living in rural, remote and Northern communities, 2SLGBTQIA+ older adults, ethnic minority and immigrant older adults, Indigenous peoples, older adults living with dementia, caregivers and low-income older adults were identified in academic and grey COVID-19 literature as particularly vulnerable to experiencing social isolation during the pandemic.[18]

Much of what has been suggested regarding social isolation and loneliness in older adults has been affirmed by data obtained during the pandemic. A Statistics Canada report published to examine the degree of social support older adults may have had access to during the COVID-19 pandemic based on data from 2016 found that while the majority of Canadians aged 65 years and older reported experiencing a high level of social support, at least 1 in 10 did not.[130]

The CLSA has also published preliminary findings from its analysis of the impact of

the pandemic on the social activities of older Canadians. Survey data collected between April and May 2020 identified that the proportion of older adults aged 55 years and older who experienced separation from their families was between 54.3 and 62.3 per cent.[147] Among participants who had not left their home in the previous month, the telephone was the most frequently used method to stay in contact (used by 81 per cent of adults over 85). Rates of video calling and social media use progressively declined as age increased, with 75 per cent of adults aged younger than 55 years using video calling compared to 30 per cent of adults aged 85 years and older. Similarly, social media was used by 75 per cent of those aged younger than 55 years but only 22 per cent of adults aged 85 years and older.[147] In a survey sample of older Canadians reached through RTOERO, a national organization for retired educators, during the stay-at-home measures, less than half (43.1 per cent) reported feeling lonely at least some of the time in the previous week, with 8.3 per cent reporting feeling lonely always or often and 34.8 per cent reporting loneliness some of the time.[148]

In response, the Government of Canada and some provincial and territorial governments increased funding for local organizations that provide practical services to older persons. [149] Not to be overlooked were the family- and community-driven innovations to ensure that older persons remained connected during the COVID-19 pandemic, with volunteerism driving many of the efforts to equip older adults with communications technology and expand phone-based services. [150–152]

At the outset of the pandemic, digital technology was leveraged to organize more virtual meetings and expand telephone programs. Individuals and agencies have also been adapting to societal changes that have impacted traditional forms of volunteering, with the emergence of "virtual volunteering" where individuals can pursue leisure activity in virtual spaces.[153] However, one study from the United States that assessed telemedicine technology found that many older adults were not prepared for the growing demand for video visits, due, in general, to their inexperience with technology.[154] Furthermore, an estimated 20 per cent of older patients were not ready for telephone visits because of difficulties hearing and communicating, or the presence of dementia.[154] Combined with the reported proportion of older adults using social media and video calling from the CLSA, these findings underscore that digital solutions have their limitations, which are highlighted elsewhere in this report.

Overall, these new initiatives have laid the groundwork for additional efforts to maintain engagement beyond the COVID-19 pandemic and expand on existing community infrastructure and resources. Because of growing calls for Canada's health-care systems to identify, prevent and mitigate loneliness as part of COVID-19-related public health efforts,[155] there is a unique opportunity to build capacity to identify and intervene with older adults who are experiencing social isolation or loneliness.

The COVID-19 pandemic has also highlighted the idea that social isolation and loneliness occur across the lifespan, with reports of younger adults also significantly suffering due to the restrictions placed on social activities. A NIA/TELUS Health survey of Canadians conducted in late July 2020 found that Canadians aged younger than 55 years seemed to struggle more with social isolation than older Canadians [19] (see box below). Another report showed that among a sample of Ontario teenagers, stress during the COVID-19 pandemic appeared to be related to loneliness and depression, despite their spending more time on social media.[156]

Loneliness and COVID-19 in Canada

As the COVID-19 pandemic severely limited the ability of people to regularly socialize in person with their family and friends, a National Institute on Ageing/TELUS Health Survey of more than 1,500 Canadians conducted in late July 2020 found:

- 67 per cent believed that a lack of companionship and social connections with other people negatively impacts one's overall health and well-being.
- 51 per cent of Canadians aged younger than 55 years reported that they had been experiencing a lack of companionship and regular social connections with other people, especially during the COVID-19 pandemic, compared to just over 40% of Canadians aged 55 years and older.
- While 70 per cent of Canadians aged younger than 55 years reported that a lack of companionship and social connections negatively impacts one's health and well-being, only 54 per cent of Canadians aged 75 years and older agreed.
- Canadians aged younger than 55 years were significantly more likely than those aged 55 years and older to report that they had been experiencing a lack of real companionship and regular social connections with other people, especially during the COVID-19 pandemic.

Even prior to the pandemic, frequent loneliness was common among younger adults aged younger than 30 years.[157] Changes in social networks and relationships naturally occur over time, with one theory proposing that younger individuals tend to have a higher quantity of social relationships[158] while older adults tend to maintain a greater level of high-quality relationships.[159,160] Other research has shown that young adults report experiencing twice as many days feeling lonely and isolated than late-middle-age adults, despite, paradoxically, having larger social networks.[161] And the 2018 Toronto Social Capital study, sponsored in part by the NIA, found that older Torontonians are almost twice as likely to report satisfaction with their frequency of contact with family and friends compared to those between aged 25 and 54 years.

The increasing reports of loneliness among younger individuals [162] will likely have significant implications as these populations age. This will especially be the case if social isolation is indeed rising and the development of high-quality relationships continues to be lacking earlier in life, which is reportedly a consequence related to increasing social media use and a concurrent increase in loneliness in teenagers. [163]

How are Other Countries Addressing Social Isolation and Loneliness?

In countries such as Finland, Germany, Australia and the U.K., which have investigated social isolation and loneliness at a population level, rates of loneliness have been estimated to range between five and 37 per cent,[164,165] while rates of social isolation have been estimated at between 10 and 20 per cent.[132,166] Some countries have been more proactive in addressing social isolation and loneliness in their older populations. The U.K. first introduced its "Campaign to End Loneliness" on a large scale in 2010. New Zealand has also developed national strategies to combat loneliness.[167] Several other countries, such as Japan and Australia, have prioritized both understanding and mitigating loneliness and social isolation.

Comparing efforts across countries, the U.K. continues to have the most comprehensive and centralized infrastructure to combat loneliness.

The Jo Cox Commission on Loneliness was launched in 2017 and released its final report in 2018.[136] Its recommendations included developing a U.K.-wide strategy and nominating a lead minister, both of which have been implemented successfully. The report also focused on identifying measures to be used to identify and track loneliness within the population. Age UK, one of the U.K.'s largest charitable organizations, has been instrumental in enacting the Commission's recommendations. Initiatives spearheaded by Age UK include: outreach strategies to identify lonely older people, including a "loneliness heat map" showing geographical areas where older persons have been determined to be at high risk; a national calling service; befriending services; and exercise and physical activity classes to support increased social connectedness.

In addition, Age UK also runs a multitude of awareness campaigns, generates research and publishes policy positions related to loneliness and social isolation in older persons. For example, Age UK's "Great Wirral Door Knock" saw the borough of Wirral, in Northwest England, targeted based on a heat map that identified the community as likely to have high levels of loneliness. Through this initiative, a team of volunteers coordinated through Age UK, Wirral city council and police and fire services spent three days knocking on every door of the community to hand out resources for local activities and organization.[136] Subsequently, this project was deployed in additional communities throughout the U.K. with the goal of reaching all individuals in four areas per year.

Australia has developed a range of targeted government and community support programs to address social isolation and loneliness that are collectively identified as "The Australian Coalition to End Loneliness." The Coalition integrates universities, non-profit organizations and agencies, community groups and volunteers, and is closely modelled after the Campaign to End Loneliness in the

U.K. Additionally, there is federal government support for certain initiatives, such as a national Community Visitors Scheme, which supports local organizations in recruiting volunteers who provide regular visits to Australians receiving government-subsidized aged care services.

In New Zealand, the government pledged to prioritize supporting their ageing population by launching a "Better Later Life" plan in 2019. The plan works to enhance opportunities for social connections and participation to reduce loneliness by supporting financial security, health, housing, social connections and accessibility for older people. Additionally, a large charitable organization called "Loneliness New Zealand" was established to foster social connectedness in communities and serve as an educational resource for individuals.

Japan is notable for being the country experiencing the most accelerated rate of ageing due to its declining birthrate and concurrent increase in life expectancy. [168] Several distinct terms have been developed in Japan because of its high prevalence of loneliness and social isolation issues. For example, "kodokushi," translated as lonely deaths, are solitary deaths which can go unnoticed for days or weeks, and are estimated to account for more than 30,000 deaths per year in Japan. [169] Japan's response to this data, and other data from its National Institute of Population and Social Security Research and Annual Report on the Ageing Society, is integrated into its Basic Act on Measures for the Ageing Society. This act was initially drafted in 1995 and revised in 2012. It details policies that promote social integration of older Japanese persons, and it aims to ensure that there is opportunity to participate in diverse social activities or work throughout the lifespan. [170] Japanese initiatives to tackle loneliness and social isolation have been community-based, using a citizens register to identify solo residents aged 70 years and older who were not subscribed to a public health insurance program, and employing household canvassing as part of its "Zero Isolation Project," which aims to promote ageing in place and create community. [171] Japan also recently created a ministerial position to oversee its efforts to better address social isolation and loneliness.[172]

The U.S. has no dedicated federal office, position or co-ordinated programming to address social isolation or loneliness. However, many organizations have spearheaded projects that receive federal funding. For example, "Senior Corps" is supported through the federally funded Corporation for National and Community Service. Senior Corps is a network of national service programs for Americans aged 55 years and older who volunteer with programs designed to improve community relationships and foster civic engagement. The three types of Senior Corps programs that currently operate in local communities across all states are the Foster Grandparent Program, the Retired Senior Volunteer Program and the Senior Companion Program (see box below). Many of these programs are designed to facilitate social connections. Volunteers in the Senior Companion program also receive a federal stipend of $2.65 per hour, funded by government grants.[121]

Senior Corps - Tackling Social Isolation in the USA

1. Foster Grandparent Program:

The Foster Grandparent Program supports local programs that engage adults 55 and over to serve as loving and experienced tutors and mentors to children and youth with exceptional needs. Foster Grandparents serve an average of 20 hours per week in schools, hospitals, drug treatment centres, correctional institutions and/or child care centres.

2. Retired Senior Volunteer Program:

RSVP engages people aged 55 and older in diverse range of volunteer activities, including: tutoring children, renovating homes, teaching English to immigrants, assisting victims of natural disasters, providing independent living services and recruiting and managing other volunteers.

3. Senior Companion Program:

The Senior Companion Program supports local programs that engage adults 55 and over to provide companionship and support to other adults in need of extra assistance to remain at home or in the community for as long as possible.

The American Association of Retired Persons (AARP) has also developed multiple initiatives to target social isolation. In 2012, it released a report on social isolation that was used to develop subsequent programming. Its projects include the "Connect 2 Affect" campaign, which promotes the use of technology that can help older persons maintain connections, including through phone-to-phone companionship. It also created a self-assessment questionnaire to help older persons identify their level of isolation. The "Connect 2 Affect" Program also serves as a public information and awareness campaign, conducting public surveys and creating a framework for program evaluation and implementation.[173] The AARP Foundation also runs and funds a program called "Experience Corps." Experience Corps is an inter-generational, volunteer-based tutoring program that helps children who are not reading at grade level. [174,175] The program has nearly 2,000 trained volunteers working in more than 20 cities and serves more than 30,000 students every year in high-needs elementary schools.

AGE UK: QUICK FACTS about the UK's largest age-related Charity

- Charitable organization founded in 2009.
- Age UK information and advice reaches 5 million people each year.
- The network comprises around 170 local Age UK Chapters through Age UK, Age Scotland, Age Cymru and Age NI.

Table 4. AGE UK Services

AGE UK Services	
Befriending services	Telephone friendship: The Silver Line is a free telephone friendship service available either for a volunteer to make a scheduled phone call or a 24-hour helpline service to speak at any time. Face-to-face befriending: A volunteer befriender is connected to an older person to visit with them in their home, or accompany them to an activity outside the home.
Transport	Coordinated efforts with other community organizations to provide door-to-door transport for older people. Other services include wheelchair-accessible minibus service, or using a befriender as a travelling companion.
Social activities	Region-dependent based on availability at each local Age UK; includes arts and crafts, bridge groups, morning coffee, Men in Sheds, photography club, pub lunch, quizzes and tea dances. Opportunities require booking and may require a small fee.
Day centres	Full programming with trained staff and volunteers with singing, music, quizzes, gentle exercise, arts and crafts, day trips as well as hot lunch and refreshments. Some centres offer services such as mobile supermarkets, assisted bathing, hair dressing and foot care.
Lunch clubs	Cafés and restaurants that provide an opportunity for people to get together over a meal or drink and socialize, with proceeds supporting their local Age UK. Lunch clubs are recurring groups that meet weekly or monthly and require an advance payment with transportation (but can be arranged by Age UK).
IT Training	Training courses that are geared towards helping older adults successfully navigate computers and the internet.

AGE UK: CASE STUDIES

These community-level initiatives involved older people, academics, service-delivery leaders, policy thinkers, funders and government experts in designing programming and interventions to gather non-academic evidence through the experiences of older persons participating in the novel interventions.[176]

1. **Essex County Council Isolation Index:** By using commercial demographic data and specific variables associated with isolation and loneliness, a unique "Isolation Index" was generated. This was used to identify households that were potentially vulnerable to loneliness and isolation in order to allocate resources and inform community planning.

2. **Touchstones:** A project delivered through local Age UKs which provided practical skills for day-to-day living for bereaved older people; 200 older adults were engaged over 18 months by 49 staff and volunteers. Events were advertised by radio, print, electronic and social media, and access was by self-referral or general practitioner referral. Sessions delivered practical skills training that was directed by the participants. Feedback showed 91 per cent felt more involved or connected with their community and 86 per cent felt they had more confidence to go out and meet people.

3. **Fit for the Future:** A program run by local Age UKs where a trained staff or volunteer would meet with an older adult to design a personal, tailored plan for activities and exercise groups. Referrals were through healthcare professionals, friends and relatives or other community organizations. Of the 4,799 participants enrolled across the country, more than 35 per cent increased their amount of moderate to intense physical activity, and almost a quarter experienced an improvement in social connectedness.

4. **The Silver Line Helpline:** 24-hour, free and confidential helpline which offers information, friendship and advice to older people.

5. **Active Online:** A project designed to provide free internet training with Viridian Housing, a social housing association that houses more than 30,000 people in England. Training operated on a one-on-one basis using existing organizations that provide training and support for technological literacy. Evaluation showed that 76 per cent of residents thought the tablet was easy to use and 61 per cent felt more in touch with the world around them.

What Interventions can Effectively Address Social Isolation and Loneliness?

The heterogeneity in definitions of social isolation and loneliness has made it challenging to assess the comparative efficacy of various interventions. Furthermore, most intervention-based studies report short-term follow-up outcomes, leaving their long-term impact unknown. Another factor to consider is the wide variety of social isolation and loneliness scales and scores as outcome measures. There is also no guidance for whether changes in objective scores can be considered clinically significant or modify clinical outcomes of interest, such as health-care utilization or mortality.

Overall, despite a broad range of interventions, it is unclear which of them are effective in either the short- or long-term. Furthermore, the mechanism to explain the reason for improvement in connectedness or feelings of loneliness is often unclear; research is still needed to evaluate why certain interventions are effective.[177] However, the number of factors contributing to loneliness and social isolation also means that there are opportunities for multifaceted interventions to target smaller components of these complex conditions.

Evaluation should be a priority for any effort to reduce social isolation and loneliness if it is to lead to sustainable, larger-scale interventions. Systematic reviews have repeatedly highlighted important limitations of existing evaluations, namely that programs are small in scale and have not been rigorously evaluated (e.g., in a randomized, controlled trial with a control group). It has been suggested that evaluations should be comprehensive, with sound design, comparators and assessments of cost-effectiveness.[178,179]

The accessibility of programs has also been identified as a concern, with some participants experiencing setbacks based on multi-morbidity, family, social, economic or cultural factors.[180] Furthermore, programming should consider barriers identified by older adults, which include: fears of experiencing social rejection; exploitation; identity loss; illness; loss of contact with friends and relatives; lack of a supportive community; and a lack of acceptable social opportunities.[181]

Generally, systematic reviews and meta-analyses have concluded that educational and social activity group interventions that target specific groups have the potential to alleviate social isolation and loneliness among older people;[182] however, the quality of evidence for most forms of interventions is limited.[33] Other interventions that have shown promise include programs to improve social skills, enhance social support, increase opportunities for social interaction, and address deficits in social cognition (the concept that loneliness impacts one's perception of their social interactions and may bias them towards negative impressions of their social interactions).[183] Fortunately, the multifactorial nature of both loneliness and social isolation allows for multi-modal intervention strategies.

There are four general principles identified in primary literature to guide the development of interventions to combat social isolation and loneliness:

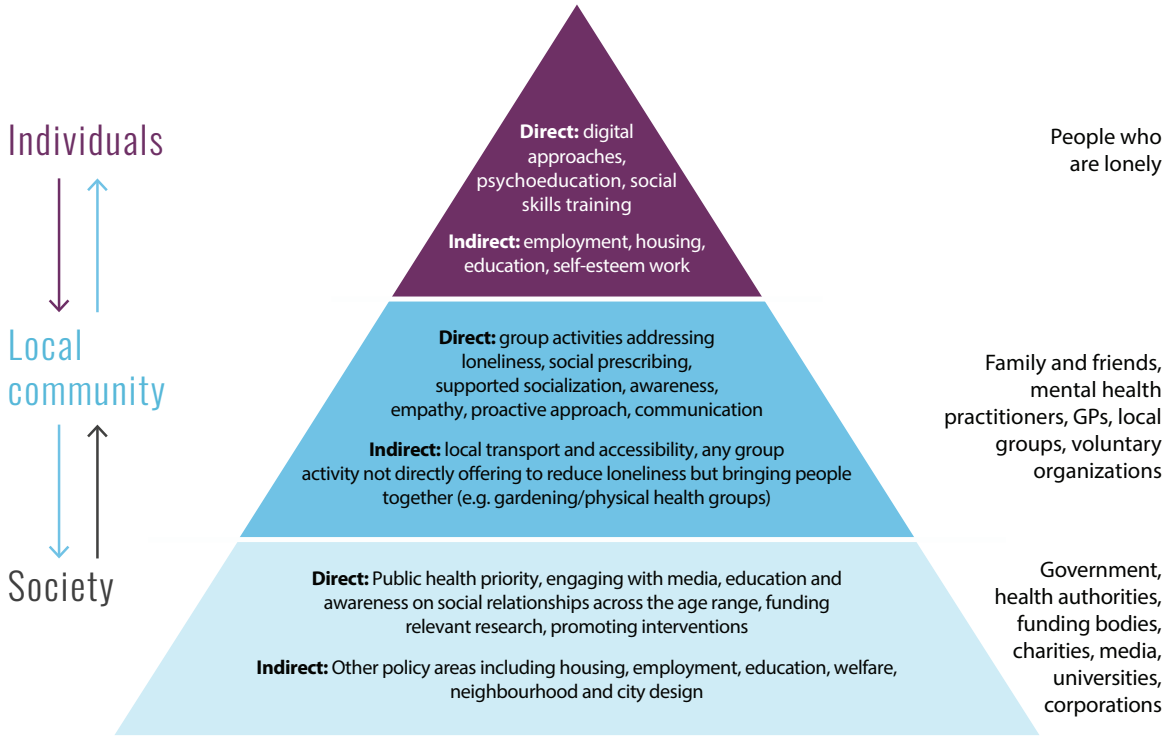
1. Intervention strategies should leverage existing community resources, such as charitable organizations, as seen in the U.K. and Australia;

2. Interventions should be designed to be socially and culturally appropriate and safe to meet the needs of specific populations, such as 2SLGBTQIA+ communities[184] or racialized and ethno-cultural communities;[53,54]

3. Interventions should include older people in their program design, planning, execution and evaluation;[166]

4. Based on a social-ecological model, the individual, family, community/ neighbourhood and social policy levels can all be targeted with interventions, because all of these levels involve factors that are tied to social isolation and loneliness.[185]

Figure 9. Levels of responsibility for public health interventions to prevent and address social isolation and loneliness



Adapted from: Mann, F., Bone, J. K., Lloyd-Evans, B., Frerichs, J., Pinfold, V., Ma, R., ... & Johnson, S. (2017). A life less lonely: the state of the art in interventions to reduce loneliness in people with mental health problems. Social psychiatry and psychiatric epidemiology, 52(6), 627-638.

Age UK advocates for an individualized approach to addressing loneliness based on three key issues:

1. Reaching lonely individuals;
2. Understanding the nature of an individual's loneliness and developing a personalized response; and
3. Supporting lonely individuals to access appropriate services.[186]

Additionally, in an integrative review, common features of successful interventions included: adaptability to local needs; a community-development approach engaging older people and prioritizing autonomy; and productive engagement (as opposed to passive activities).[33]

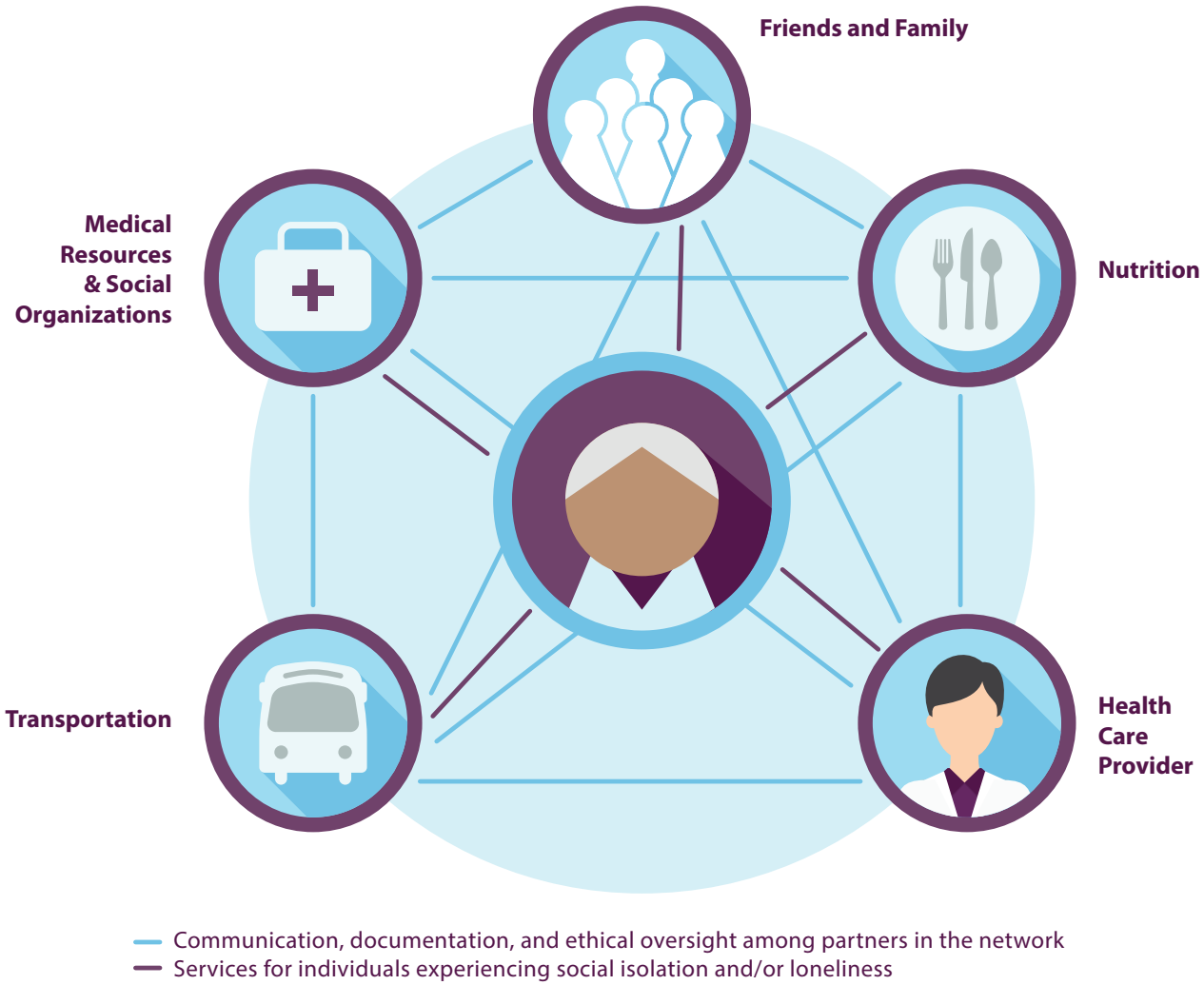
Priorities identified based on thematic analyses show that lonely older adults are often unaware of programs in their neighbourhood, are concerned about the stigma and stereotypes associated with being lonely, and have negative views of social groups that have little to no structured activity rather than meeting for a shared interest.[165] This reinforces the principle that older adults should be involved in community planning in order to prioritize the services or experiences that they feel would be beneficial.[181]

Moreover, at all levels, accessibility is vital. Factors related to access to providers or programs — such as the physical environment, transportation and digital connectedness — should be considered.

Furthermore, inclusivity should also be considered. Stigma can also lead to social exclusion for particular groups, many of which are already at higher risk of social isolation and loneliness based on race, sexuality or comorbidities.[57]

Many different types of interventions have been assessed, including: personal contact (scheduled with another person); activity and group discussions; animal contact; skills courses; engagement with services (e.g., multifaceted programming); reminiscence; robotics; radio programming; and support groups.[177] There has also been increased interest in psychological approaches to mitigating loneliness.[187] Some examples of these will be explored below.

Figure 10. Social and Technological Infrastructure Enabling Co-ordinated Action and Sustained Intervention for Social Isolation and Loneliness



Source: Social Isolation and Loneliness in Older Adults, The National Academy of Sciences

Individual interventions should be designed to improve social skills, enhance social support, increase opportunities for social interaction and identify and address barriers such as mobility and transportation.[13] Programs that create opportunities to socialize are felt to be generally beneficial.[188] Individual-level interventions not based on direct socialization include pet ownership, which has been shown to reduce loneliness and promote physical activity,[189] and formal or informal adult learning programs, which have been demonstrated to benefit physical, psychological and social well-being.[190]

Attention to psychological factors is also important for interventions at the individual level. Characteristics of the person are incorporated into one of the most established models of loneliness, which includes how a person's psychological characteristics are translated into thoughts, feelings and behaviours.[28]

Different models incorporate similar concepts, such that perceived social isolation is analogous to feeling unsafe and leads to cognitive biases: relative to non-lonely people, lonely individuals see the social world as a more threatening place, expect more negative social interactions, and remember more negative social information.[191]

The U.K.'s Campaign to End Loneliness released a report in July 2020 focused exclusively on the psychology of loneliness, which provides a broad review of how psychological factors can be effectively incorporated into loneliness interventions.[186]

The Campaign to End Loneliness outlines what it calls the "Downward Spiral of Loneliness": in essence, the negative social expectations of lonely people tend to prompt behaviours from others that confirm their expectations, creating a self-fulfilling prophecy in which they withdraw from potential social partners.[192]

Internalized ageism has also been referred to as a self-fulfilling prophecy, with stereotypes and expectations related to loneliness in old age being associated with subsequently reported loneliness many years later.[193]

It has also been suggested that reduced social participation may be linked to fears about engaging in social participation opportunities, including fears of social rejection and/or exploitation, among older adults.[181] The Campaign to End Loneliness report suggests cognitive behavioural therapy, mindfulness and positive psychology are important tools to combat loneliness.[186] The report ultimately calls for future programs to explicitly include psychological approaches to addressing loneliness, along with evaluation of programs based on psychological interventions.[186]

A range of technology-based interventions can also be considered. For example, digital literacy, electronic social connections (such as chat rooms or online games), radio shows and robotic companions all involve the use of technology. While some research suggests that older adults feel anxious about using new technology and have concerns about the security of their personal data, many also report that they are open to learning to use new technologies.[194] In fact, the overall use of technology among

older persons is increasing.[195] In Canada, age is the primary determinant of internet use among the population aged 65 years and older, with Canadians aged 80 years and older the least likely to use the internet. Notably, higher educational attainment and socio-economic status also increase the likelihood of internet use. From 2007 to 2016, internet use among older Canadians more than doubled, from 32 per cent to 68 per cent.[196]

Data collected during the COVID-19 pandemic further suggests older Canadians have continued to become increasingly comfortable with digital technologies.[18] According to the CLSA data collected during the initial months of COVID-19 pandemic in 2020, 48 per cent of older adults isolating at home used video calls to stay in contact during the pandemic, and 44 per cent used social media. Moreover, a poll of Canadians aged 65 years and older conducted by AgeWell in 2020 found that the pandemic had significantly increased technology use among older Canadians, with 72 per cent reporting that they felt confident using technology and 88 per cent reporting that they used the internet daily.[197] However, while the pandemic has led more older adults to incorporate technology into their daily lives, that is less likely to be the case for those aged 80 years and older.[18]

While evidence around the effectiveness of computer and internet programs in managing loneliness in older adults remains mixed,[198,199] the overall impact of technology use may be a reduction in social isolation and loneliness.[200,201] However, the accessibility of digital or technological interventions may be limited. A recent literature review on the impacts of the COVID-19 pandemic on older adults found that a "digital divide" continues to exist in Canada, with certain segments of the population less likely to use and/or have access to digital technology.[18] Certain populations of older adults — such as those with low incomes or physical disabilities, those living in rural communities and the very old — are less likely to use or have access to high-speed internet and digital technology. Thus, technology-based interventions must be developed with those with significant sensory impairments, limited internet access and financial limitations in mind. Moreover, existing evidence, while anecdotal, suggests that a key enabler for the success of technology-based interventions is providing older adults with technology education and training programs, as well as accessible and affordable technology and internet services.[18] The federal government's recent announcement that it will provide high-speed internet for low-income older adults for $20 a month should help to improve internet accessibility.[202]

Another technology-based intervention is the use of assistive technologies designed to support communication. The ability to communicate is important in maintaining social interactions among older adults.[203] Furthermore, hearing loss is associated with loneliness and social isolation.[65] The use of hearing aids has been associated with improvement in social and emotional communication, as well as reduced loneliness.[204,205] Therefore, greater assessment of hearing and use of hearing technologies is another possible area of intervention that could improve the ability of older adults to communicate and maintain social engagement.

Ultimately, specific interventions will require additional assessment. Although the diversity of technological interventions is appealing, not all of them will be universally suitable or accessible for all older persons.

Case Study: The Good Companions' Seniors' Centre Without Walls

The Good Companions is a non-profit multi-service seniors' centre based in Ottawa that offers programs and services to provide older adults with opportunities to participate in social, recreational, educational and volunteer activities, and supports their independence, health and well-being. [206]

One of its programs is a Seniors' Centre Without Walls (SCWW), which offers free telephone-based group activities for older adults aged 55 years and older, as well as adults with disabilities, living in Ottawa and surrounding rural areas. Using group telephone calls, the SCWW runs a series of various activity programs that offer isolated, lonely and vulnerable older adults the opportunity to access important information and regularly connect with each other and the community. For example, the lineup of programs includes a health and wellness series and a music and storytelling series. The programs provide participants with health-related information from professionals in the community and frequent opportunities to engage in brain-stimulating activities and create meaningful friendships

Initially launched as a pilot project in 2015, the Good Companions' SCWW was the first initiative of its kind in Ontario, modelled on similar programs from the United States that have been running successfully for more than 25 years. Between July 2020 and March 2021, the program offered more than 3,000 telephone sessions, serving more than 4,000 older adults in the region. About 80 per cent of participants surveyed by the organization report that the SCWW has allowed them to access information and services they would not have been able to access otherwise. Moreover, 66 per cent of participants reported that they felt lonely (lonely, very lonely or extremely lonely) before joining the program, while only 30 per cent rated themselves as lonely since joining the program.[207]

The Good Companions is currently leading a three-year expansion project to establish SCWWs in other communities across Ontario and the Atlantic Provinces. The main goals of the project are to support 250 other agencies that serve vulnerable older adults in their communities to deliver SCWWs, and reduce social isolation and loneliness for more than 14,000 older adults living across these communities. The Good Companions has already trained and supported more than 150 agencies across Ontario to start SCWWs during the COVID-19 pandemic.

Plans also include the creation of a National Advisory Committee to guide and support the expansion, as well as a Central Database of key resources from across Canada and the United States that will be regularly updated to support partner agencies.

The SCWW expansion also includes a language expansion project, with plans to add services in Somali, Arabic, Russian and Spanish, in addition to those services currently offered in English, French, Cantonese and Mandarin.

The Good Companions' SCWW provides a great example of the types of effective and accessible initiatives that can be easily implemented to help combat social isolation and loneliness among older Canadians. Moreover, the three-year expansion project demonstrates that with co-ordinated efforts and targeted resourcing, sustainable programs to break social isolation and loneliness among older adults can be implemented and delivered.

Existing programming interventions are generally focused on befriending activities or partaking in shared activities, including exercise, to encourage social engagement and companionship. The most common types of programs are exercise-based, which have generally achieved favourable results in reducing loneliness and social isolation.[51,208] Exercise programs are also known to improve physical functioning and reduce the risk of falls, leading to positive outcomes in various health domains.[209,210] In Canada, for example, the Government of Ontario began funding 2,000 free exercise and fall-prevention classes in 2013, as part of its Seniors Strategy.[211] While the program continues to operate, its effectiveness at preventing falls or combating social isolation has never been evaluated.

Specific health-care interventions that have been devised to address social isolation and loneliness include "social prescribing," in which prescriptions are written for non-pharmacologic interventions such as engaging in social activities or exercise.[212] Evidence for social prescribing is generally supportive of its potential to reduce health-care utilization.[213] However, in one study, older individuals who were surveyed did not identify loneliness as an illness and felt their primary care provider lacked an understanding of problems that were not physical in nature.[119] Patients may also be unlikely to disclose loneliness-related issues due to their associated stigma.[119] Despite this, primary health-care providers generally acknowledge the importance of social factors in determining a patient's health and well-being, and have identified social prescribing as a potentially useful intervention.[178] Many social prescribing programs are currently being evaluated to better understand their feasibility and longevity.[214,215]

Social prescribing is an opportunity to connect health and social activity; however, procedural aspects and the broader social setting need to be considered.[216]

Higher-level interventions should be based on a population health approach and integrate screening and counselling.[13] It has also been suggested that health providers should routinely document psychosocial information, such as social supports, given the identified health consequences of both loneliness and social isolation. Questions designed to identify a psychosocial "vital sign" indicator for inclusion in electronic health records would promote screening and assessment of social situations.[13] Tools designed to collect socio-demographic information are increasingly being used in primary and acute care. As biopsychosocial assessments, or the initial assessments conducted to assess the biological, psychological and social factors contributing to isolation and loneliness become more robust, they will likely help to identify data that can be used as indicators for social well-being.

Connections between social determinants of health and social isolation and loneliness have been shown to exist via demographic factors, including education and socioeconomic status.[57,217] Many barriers to intervention are inherently related to these factors. This includes group-level segregation, referring to populations that are more likely to be socially excluded as a whole.[217] These populations tend to be at higher risk for other poor health outcomes. Similarly, frailty has been correlated with low education levels and living in the most deprived neighbourhoods.[218]

People who are more satisfied with their neighbourhood and its facilities tend to feel less lonely.[48] In addition, use of transportation has been shown to mitigate loneliness,[48] suggesting that accessible transportation and accessible physical environments are important considerations.

Overall, there is some evidence that both social isolation and loneliness have structural determinants, and that larger-scale interventions targeting socioeconomic or social determinants of health may be impactful in reducing loneliness and social isolation.[57]

What Existing Initiatives Could be Leveraged in Canada to Address Social Isolation and Loneliness in Older Canadians?

While Canada has launched several national initiatives to address social isolation and loneliness, few sustainable, long-term strategies have been adopted, despite recommendations from the federal government's National Seniors Council (NSC) almost a decade ago in 2013.[1] By incorporating contemporary evidence and looking to the best practices of other countries, Canada can continue to develop individual and population-based interventions to improve the social health of older Canadians.

In the meantime, as data in support of social isolation and loneliness as important public health issues has emerged, cities and communities across the country have also advocated for evidence-based changes to support the greater social connectedness of older persons.[219,220] The main interventions being used by local and community-based programs include:

1. Physical or virtual contact programs that aim to provide older persons with companionship and ties to the community;

2. Programs that seek to connect older persons to services and information that can help prevent or reduce isolation; and

3. Programs that attempt to build more long-standing connections between older persons and others in the community.

All federal, provincial and territorial governments in Canada provide some level of online and phone-based information for older persons and their family members. These directories of services and resources are portals to government and community-based services, including the types of interventions listed above, in their respective jurisdictions.

In 2004, the Government of Canada established its New Horizons for Seniors Program (NHSP) to fund community organizations to mitigate the risk of social isolation with projects that promote social participation, mentoring and volunteering. The goals of the NHSP are to empower and encourage older adults to share their knowledge, skills and experience with others in the community; enhance social well-being and community vitality; and address social inclusion. The program has funded more than 23,600 projects since 2004.

In 2016, the federal government identified social isolation as a priority and distributed funding to nine projects designed to specifically combat social isolation.[221] In the 2019 budget, the government further announced an additional $100 million over five years for the NHSP to support local organizations across the country to have a positive impact on older adults, social participation and community development. Some programs have created multifaceted programming, including in Hamilton and Toronto in Ontario. Hamilton released a

report at the end of its project highlighting the specific programs that were established to identify and reduce social isolation, as well as the population level outcomes achieved and significant improvements in isolation among participants.[222] The most recent 2022 federal budget has proposed another $20 million over two years to continue expanding the NHSP program and support more projects.[223]

Provincial governments have also funded projects and organizations to develop programming for older adults. For example, since 2014 in Ontario, the Seniors Community Grant Program has encouraged community involvement among older persons by supporting hundreds of projects focused on volunteerism, learning, financial awareness, social inclusion, elder abuse prevention, mental well-being and physical activity. The province committed $5 million in 2021-22, an increase from $3 million in 2019-20, for non-profit community organizations and municipalities to receive funding ranging from $1,000 to $25,000 for local projects.[224] The Ontario government has also expanded its funding to Seniors Active Living Centres (SALCs) as part of its Seniors Strategy. SALCs offer a range of activities for seniors in the community, including exercise clubs, workshops and social gatherings,[225] and many centres successfully transitioned to providing online or virtual programming due to the COVID-19 pandemic.[226] There are now more than 300 SALCs across the province.

Community and non-profit organizations have been at the forefront of outreach and service delivery targeting social isolation and loneliness among older adults. However, many of the successful programs and interventions offered at this level are only supported by short-term grants and funding, threatening their long-term sustainability.[18] Ensuring community and non-profit organizations can secure adequate and sustainable funding to support operations and successful programs is key to addressing social isolation and loneliness among older adults moving forward, particularly in the face of the additional challenges brought on by the COVID-19 pandemic.

Canada's New Horizons for Seniors Program

When Employment and Social Development Canada (ESDC) identified seniors' social isolation as a key issue, the 2015-16 Pan-Canadian Call for Proposals (CFP) of the New Horizons for Seniors Program (NHSP) was used to support projects that aimed to address this issue. Nine collaborative programs received $21 million in funding until 2019. Several projects have provided details of their results:

1. Quebec City, QC – Collectif Aînés IS Ville de Québec

The members of the Collectif aimed to inform and act to create favourable environments with the supports of community groups and other stakeholders. The main partners were Accès transports viables, Centre d'action bénévole du Contrefort, Réseau uebecois de villes et villages en santé, and l'Université Laval.

2. Montreal, QC – Caregivers Collective

A collaborative effort developed with a focus on reducing isolation, social withdrawal and disorientation among caregiving older adults. Three main programs were established: a drop-in respite (Cummings Drop-in Program), a peer mentorship program (Caregiver Navigator Project) and Huddol — a social collaborative application designed to build supportive networks and connections to professionals, health organizations and peers.

3. Ottawa, ON – Keeping Ottawa Seniors Connected

A collaborative effort reported to have engaged 9,094 older adults in 3,118 activities at 86 locations, for a total of 60,262 participants. It also engaged 1,721 volunteers, of whom 1,501 were older adults; secured $772,226 of in-kind support; and connected with 123 collaborators.

4. Toronto, ON – Engagement to Reduce Isolation of Caregivers at Home and Enhancing Seniors (ENRICHES)

Programming focused on family caregivers based on collaboration between the Alzheimer Society Toronto, Canadian Mental Health Association Ontario, North York Community House, WoodGreen Community Services and the Reitman Centre at Sinai Health System. Programming created a network of more than 240 organizations and stakeholders across Toronto, engaged more than 6,000 caregivers and connected them to services, and trained more than 2,180 professionals and more than 700 volunteers.

5. Hamilton, ON – Hamilton Seniors Isolation Impact Plan (HSIIP)

The HSIIP, funded between 2016 and 2019, was comprised of seven community partners structured around a backbone organization, direct service organizations and a research team responsible for data collection, training and knowledge mobilization. It focused on understanding how providers and the community understood social isolation and addressing social isolation at the population level. The team included a central group of representatives from various organizations and programs. The research team had an additional research advisory group of older people who were consulted throughout the project (see p. 56 for further information).

6. South and Central Saskatchewan – Reducing Isolation in Seniors in South and Central Saskatchewan (RISC)

Collaborative project between the Saskatchewan Seniors Mechanism, the Alzheimer's Society of Saskatchewan, and the Canadian Red Cross (Saskatchewan) – along with SPHERU and the Lifelong Learning Centre at the University of Regina. Initiatives included older adult abuse prevention, dementia helpline, a friendly visiting program among others. There was a full evaluation of the project facilitated by the University of Regina.

7. Edmonton, AB – Pan-Edmonton Group Addressing Social Isolation of Seniors (PEGASIS)

One main project was to facilitate transportation among older Albertans. The program provided volunteer-based door-to-door rides to low-resourced older adults with physical and mental challenges that make them ineligible or inappropriate for other public transit options. It has provided 31,730 assisted rides to 823 older adults over 293,350 kilometres using 37,670 volunteer hours.

8. Vancouver, BC – Allies in Aging

More than 30 organizations worked together to connect more than 15,000 older adults to supports and services. The focus was on older adults at risk of isolation due to disability, low income, language or cultural barriers. Between 2016 and 2019, they ran several events and workshops, annual gatherings and other projects. The final evaluation report in November 2019 reported improvement in feelings of connection, availability of supports and the percentage of older adults participating in meaningful activities.

9. Nanaimo, BC – Seniors Connect

This project was designed to measurably reduce the rate of social isolation among older adults in Nanaimo, B.C., with a focus on high-risk older adult populations. This was a collaborative project through Nanaimo Family Life Association, Nanaimo Women's Resource Centre, the City of Nanaimo municipal government, Lifeline and HealthWell Educators and Consultants (a private company).

Hamilton Seniors Isolation Impact Plan (HSIIP)

Goals:

1. Ensure that 20 per cent of isolated older adults have improved access to help and support
2. Ensure 10 per cent participate more regularly in activities
3. Ensure 20 per cent feel more connected to people
4. Ensure 10 per cent feel more valued by people.

The components of programming included:

I. **Backbone Project:** A Backbone staff coordinates meetings, guides planning and evaluation, shares information, promotes communication and conducts community outreach.

II. **CareDove Project:** An online portal provides information about services available to older adults in Hamilton and enables organizations to exchange referrals.

III. **Research Project:** Researchers gain qualitative insights from older adults and service providers, and mobilize knowledge about isolation through delivery of training, reports and publications.

IV. **Community Connector Project:** Staff work one-on-one with older adults throughout Greater Hamilton to anchor them into services and activities.

V. **Hospital Connector Projects:** Staff work one-on-one with older adults who are returning home from a hospital stay to anchor them into services and activities.

VI. **Peer Connector Project:** Volunteers aged 55 and older provide weekly friendly visits to older adults and can accompany them to activities in the community.

The project engaged approximately 200 organizations, businesses and community groups. It served more than 1,556 isolated older adults, with an additional 390 family members or friends indirectly benefiting from supports. Therefore, as its first population-level outcome, the HSIIP reached 13.7 per cent of isolated older adults in Hamilton, or about 70 per cent of its target.

The HSIIP Collaborative felt this was a very positive outcome considering the challenges of establishing new programs, identifying isolated older adults in the population, facing issues around program accessibility in the community, augmenting existing referral networks and case complexity. Overall, the HSIIP Collaborative determined that more than 90 per cent of the clients served were significantly connected to services through the HSIIP project.

In an exit survey of one-third of participants, 90 per cent agreed they had more help and support, 87 per cent agreed they were more connected to services and 65 per cent agreed they were more connected to people. On intake, 45 per cent reported feeling isolated often or always; upon exit, this was reduced to eight per cent. The proportion of older adults who reported participating in activities only a few times per year or less was reduced from 63 per cent to 33 per cent.

The HSIIP Collaborative met three other important population-level outcomes:

- 8.8 per cent of isolated older adults in Hamilton now participate more in social and physical activities, achieving 88 per cent of its population target.
- 8.7 per cent of isolated older adults feel more valued by people, equating to 87 per cent of its population goal.
- 9.5 per cent of isolated older adults feel they are more connected to people, achieving 48 per cent of its population goal.

The collaborative found that the population of older adults who are isolated and lacking supports is growing steadily. They have been falling through the cracks of the current system and need help to access services. The consequences of not intervening are expensive; unmet needs lead to preventable declines in health and functional capacity, increasing the number of isolated older adults who will require access to emergency and acute care in the future.

Recommendations for Addressing Social Isolation and Loneliness in Canada

In 2017, Canada's National Seniors Council provided a framework through which recommendations could be made to address social isolation and loneliness in older Canadians. Similarly, the 2017 Canadian Chief Medical Officer of Health Report on Connected Communities outlined a series of principles for recommendations designed "to stop the growing public health 'epidemic' of social isolation, stress and loss of community".[227] Overall, it is clear that a comprehensive and balanced approach to address social isolation and loneliness with federal leadership and support is required. This approach should also clearly define measures to evaluate and consistently track the impact of social isolation and loneliness across the Canadian population, and integrate assessments throughout the lifespan (e.g., as part of routine population health screening) which can help identify changes in older age.

The NIA therefore recommends that the Canadian federal government, like other countries, create a national strategy to comprehensively address the growing issue of social isolation and loneliness in older Canadians. The key elements of a national strategy should include the creation of national definitions and measures that can be easily applied at multiple levels.

Furthermore, Canada's Minister of Seniors and Minister for Mental Health and Addictions could share the responsibility to create and implement such a strategy. Acknowledging social isolation and loneliness at a national level will also help to raise awareness and create opportunities to develop best practices to support national, regional and local programming and interventions.

To facilitate this, the NIA offers the following recommendations to advance a national strategy:

1. Adopt consistent national definitions and clearly identify the scope of social isolation and loneliness in Canada

There are multiple tools and measures that can be used to assess social isolation and loneliness. Using clear and predetermined national definitions will promote understanding through consistency. It will allow for changes to be tracked longitudinally in a more meaningful way, and to clearly determine the impact of interventions. Standardized tools can also be used in a variety of contexts and could be integrated into clinical, organizational and primary data collection and research settings. For example, a brief scale could be integrated into assessments done by community agencies working with older persons or home-care services that are engaging with older Canadians in the community. It could also help older hospital inpatients,

a population shown to be at risk of social isolation after discharge, by identifying this as an issue for follow-up with outpatient health-care providers, or prompting referrals to community agencies and services.

Given the link between social isolation and loneliness and frailty, falls and malnutrition, older adults should be assessed for social vulnerability by all members of their care team, including nurses, social workers, pharmacists, physiotherapists, occupational therapists and dieticians, in addition to physicians. Any involvement in the community or health-care setting can be used to help identify potentially vulnerable individuals and groups who are not already being supported and ensure they have proper supports and services.

The NIA suggests that the federal government further seek expert opinions to determine which measures from population-level data would be most appropriate and feasible. For example, living alone is commonly used as a proxy for less frequent social contacts and is more readily available than data regarding activities and the frequency of social contact. Alternatively, it could develop standardized questionnaires that can sample the population with a focus on social isolation and loneliness.

There are multiple scales used for the measurement of social isolation and loneliness. The NIA suggests that the Hughes Three-Item Loneliness Scale as a brief assessment tool and the six-item Lubben Social Network Scale be considered for use in clinical and other assessments. These scales could be routinely implemented by health-care providers, with particular attention to assessment at transitional moments such as retirement, relocation, divorce or bereavement. Other scales, such as the more comprehensive UCLA Loneliness Scale and the Duke Social Support Index, should be strongly considered for programming and research purposes, as both are readily available and validated for use in older adults.

Attention should be paid to all populations of older Canadians, such as older Indigenous adults or older adults living in long-term care settings, to ensure any potential measures being proposed are both culturally appropriate and safe.

2. Raise awareness, de-stigmatize and promote best practices for older Canadians who are experiencing or at risk of experiencing social isolation and loneliness

By employing a national strategy, Canada can better acknowledge and address social isolation and loneliness on a national level. This will facilitate awareness, both for individuals and communities, as well as on a larger provincial or territorial scale. Collaboration between provinces and territories in a national strategy would create opportunities to develop best practices for programming and interventions. This could build on the Government of Canada's toolkit — *Working Together for Seniors: A Toolkit to Promote the Social Integration of Seniors in Community Services, Programs and Policies* — developed through Federal, Provincial and Territorial Ministers Responsible for Seniors Forum and released in 2007.

Awareness is also vital to combatting stigma, and it is important to emphasize the valuable roles that older Canadians can play in society through, for example, entrepreneurship,

mentorship, volunteerism and community participation. Efforts can be guided by established and successful programming in other countries, such as the U.K.'s Campaign to End Loneliness, as well as regional initiatives that have been shown to be successful. The federal government has previously executed similar campaigns, such as the Government of Canada Federal Elder Abuse Initiative in 2008.[228] In addition to top-down government initiatives, awareness-building efforts can leverage the work of organizations that have taken a bottom-up approach to work with older Canadians in the community, with inspiration and implementation strategies coming from successful but time-limited initiatives such as the Hamilton Seniors Isolation Impact Plan.

A national strategy should be evidence-based, building on the recent Canadian estimates of vulnerable or at-risk older Canadians, and involve key stakeholders — including older Canadians and the organizations that support them. National recognition of social isolation and loneliness as public health concerns should be linked to existing assets, such as the federal government's New Horizons for Seniors Program, and integrate lessons learned from previous time-limited NHSP initiatives. Many of these initiatives created educational materials for distribution, both in online and print formats.

Increased public awareness can also help to identify older adults experiencing social isolation and/or loneliness, as individuals and organizations may already have existing concerns or have identified at-risk persons whom they have contact with. Furthermore, awareness is a prerequisite for discussions among stakeholders before they work together to develop or implement additional initiatives.

3. Raise public and provider awareness about the risks of social isolation and loneliness to people of all ages, including the adverse health effects

Awareness efforts should also focus on the adverse impacts of social isolation and loneliness, as the main consequences are well described. Public awareness can prompt individuals to identify concerns regarding their own level of social connection, or that of others they know. The U.K.'s Campaign to End Loneliness has suggested that in order to promote self-awareness and self-efficacy, public health messaging should emphasize the importance of meaningful social relationships and the psychological and emotional aspects of how to nurture them. Additionally, integrating screening for social isolation and loneliness into health-care settings can help prevent or reduce adverse health effects. Screening in other settings such as community centres, libraries and centres of worship may also identify at-risk individuals.

With increasing concern about loneliness and social isolation in younger ages, screening will become increasingly important to mitigate long-term consequences that will negatively impact population health in the future. Screening can be done throughout the lifespan to identify at-risk individuals, or patients who are socially isolated or lonely, as a means of facilitating primary prevention. The integration of scales or screening questions into health-care settings (primary or acute care) will also de-stigmatize these issues. Primary-care providers who have an established, longitudinal relationship with patients can engage in questioning around social habits and connections and monitor

changes over time. Primary-care screening is also important for other concurrent disorders or risk factors, such as hearing or visual loss and psychiatric diagnoses, or to identify important life transitions that may increase an individual's risk for loneliness, such as the recent loss of a spouse. The primary-care provider can make referrals as appropriate for audiology assessments, visual assessments or mental health assessments.

Some interventions, such as social prescribing, have already been implemented in primary care settings. Opportunities for social prescribing would be enhanced by service co-ordination and improved awareness of programming in the community. Currently, social prescribing initiatives are being piloted in many regions.[229] Given that infrastructure has been developed in Ontario through the Alliance for Healthier Communities project, the government should consider expanding this practice. Importantly, these programs should include an evaluation component to assess their feasibility, accessibility, cost and benefits.

Health providers are increasingly prescribing non-pharmacologic interventions, such as diet and exercise, with the recognition that health and well-being can be positively impacted by engagement in specific behaviours. Enhanced primary-care models, such as Ontario's Community Health Centres and Family Health Teams, often have connections to social work or mental health supports, which can provide other important non-pharmacologic interventions. Enhanced primary care models can provide resources or treatment for concurrent mood disorders and engage in psychoeducational programming to provide general information about isolation and loneliness. They can also more readily provide evidence-based social interventions (such as CBT or social skills training) and referrals to community-based programs.

The national strategy should focus on providing access to both information and services and programs at all levels (municipal, provincial/territorial and federal). The development of comprehensive centralized resources can further assist in providing wraparound services by connecting individuals to multiple supports as needed.

4. Ensure research efforts continue to focus on understanding the impact of social isolation and loneliness in Canada, as well as evaluating the effectiveness of interventions to address it at the local, regional and national levels

As part of the national strategy, the federal government should fund research to evaluate the impact of existing services and programs targeting social isolation and loneliness. Community and non-profit organizations, which have been at the forefront of delivering programs and services to support older adults during the pandemic, in particular need the capacity to formally evaluate their programs. Currently, many lack that capacity, with the success of their interventions primarily evaluated using a varied and often incomplete range of evidence such as participant feedback and other anecdotal information.[18] There are also important sub-populations for which data is limited, including older adults who live in long-term care settings, have cognitive impairment, identify as 2SLGBTQIA+ or are non-English speaking.

Ensuring quantitative and qualitative evaluations using an intersectional approach will be essential to understanding the needs of older adults, and the utility and impact of interventions. This will further enable interventions to be reproduced and scaled.

There is also a need for further population-level and community-level data to identify and measure the proportion of socially isolated and/or lonely older adults. Academic pursuits, such as research by academic institutions and institutes associated with tertiary care facilities, should continue to evolve knowledge about risk factors, comorbidities and interventions targeting social isolation and loneliness. Knowledge translation should also be a priority.

As noted earlier, establishing consistent definitions and measurements will facilitate the reliable evaluation of programs to determine the actual effectiveness of interventions. Given the global impact of social isolation and loneliness, collaborative efforts with countries that have strong infrastructure for research and evaluation of social isolation and loneliness can provide a framework and a basis for cross-cultural comparisons. For example, other nations highlighted previously (e.g. the U.K., New Zealand, Japan), emphasize research and academic endeavours by organizations and charities that lead initiatives in their respective populations. The U.K.'s National Health Service (NHS) has proposed a common outcomes framework designed for social prescribing — focusing on the impact on the person, community groups and the health and care system — that may be applied more broadly.* Working with these other countries to potentially adopt internationally accepted definitions and measures would further support international collaboration and comparisons.

5. Build the collective capacity of organizations to address social isolation and loneliness and improve overall service delivery

There are existing programs and organizations working to improve the social well-being of older Canadians, but as illustrated by Age UK, combining organizational resources can facilitate more co-ordinated service delivery. There may be overlap in use of services by individuals in the community, or conversely, an individual may only be connected with a single agency but would benefit from other services or opportunities. As illustrated by Hamilton, co-ordination of agencies allowed for direct referrals between organizations and the creation of a centralized resource for organizational providers. Furthermore, redundancies in programming and services can be consolidated between organizations. For example, during the COVID-19 pandemic, many different centres were able to initiate phone-based interventions. The efforts of volunteers could be better maximized if there was collaboration between agencies to co-ordinate such interventions.

There is geographic variation in the needs of communities and the feasibility of multi-modal interventions; therefore, building collective capacity through collaboration in a regional approach can also benefit socially isolated or lonely older Canadians. For example, Age UK modelled a

* (Personalized Care June 2020 NHS).

neighbourhood approach in which it piloted its projects in specific areas. In Canada, where many programs have restricted areas of service, greater overall collaboration between smaller areas may allow different organizations to fill gaps in services in different regions. The government's Working Together for Seniors toolkit could be updated and disseminated to organizations to provide guidance and promote more consistent approaches to collaboration.

Capacity-building also refers to building capacity for coping, as highlighted by the recent Age UK publication on the psychology of loneliness. While coping strategies are varied,[230] organizations should be encouraged to build capacity to promote coping via psychology-based interventions such as CBT and mindfulness.

6. Prioritize equity, accessibility and inclusion-based approaches to addressing social isolation and loneliness

Both social isolation and loneliness have been linked to socioeconomic status and other structural factors. Therefore, an upstream approach targeting structural or societal variables should be considered. As mentioned above, some populations are at greater risk of social exclusion and loneliness; for example, older adults who are low-income, immigrants or diagnosed with mental illness are less likely to have adequate social support.[15] To promote equity-based and inclusive approaches to social isolation and loneliness among older adults, funding, research and focus groups should include at-risk subpopulations (e.g., older adults who are immigrants or identify as2SLGBTQIA+) to better understand risk and opportunities for intervention. The ways in which information is provided and programs are delivered must also be tailored to diverse groups reflecting the heterogeneity of Canada's older population. Information should be communicated in multiple formats, and provided using a range of mechanisms (electronic, print, radio or telephone) to maximize accessibility and mitigate the impact of any audio-visual impairments. Initiatives should also be tailored to the linguistic and cultural needs of different sub-populations.[18]

Equitable approaches must give special attention to the fact that income is a determinant of risk. Technology is less utilized and less accessible to low-income older adults, and lack of transportation is more common in low-income older adults. Difficulty navigating systems or lack of knowledge about services and programs have been identified as barriers to community participation or programming that can positively impact social isolation or loneliness[231] and is more likely to be of concern for marginalized populations, who have lower education or income levels.

Prioritizing accessibility and promoting inclusion is also critical to appropriately counter and prevent the consequences of social isolation and loneliness among older adults. Participating in programming and engaging with community organizations requires that the varying needs, capacities and resources of older adults are reflected in how they are designed and delivered. Specifically, improving access to information, services and programming may require addressing the physical

environment and technology use.
Creating age-friendly physical environments and spaces is a practical approach to reduce social isolation and loneliness and promote the health, well-being and inclusion of older adults. Many regions in Canada and internationally are working towards becoming Age-Friendly Communities. The World Health Organization launched its Age-Friendly Communities initiative in 2007 to promote the development of accessible and inclusive communities that support health, well-being and enhanced quality of life as people age.[232] Age-Friendly Communities adapt structures and services across eight key domains that enable successful and active ageing, including physical spaces and transportation. For example, these communities may include well-maintained and well-lit sidewalks, automatic door openers and elevators, and accessible public transit. Accessible environments and transportation services may prevent and reduce social isolation and loneliness among older adults by encouraging sustained social participation and community engagement, while also ensuring they can access key support services and programs. To date, all 10 provinces in Canada are promoting some level of age-friendly community initiatives.[233] Making communities more age-friendly should become a universal goal to ensure that there are no transportation or infrastructure barriers that prevent older Canadians from engaging within their communities.

Efforts to counter social isolation and loneliness in older populations should also focus on technology-based interventions. Virtual programming and the use of digital information technologies rapidly expanded during the COVID-19 pandemic and are likely to remain higher than before. Specific interventions, such as phone calling services or virtual meetings, should be made sustainable to continue beyond the pandemic if there is ongoing interest from older Canadians. However, to ensure all older Canadians are able to participate in digital programming, universal internet access and digital literacy should also be prioritized.

As current generations age, rates of technology use will continue to increase. Ensuring that older adults have the resources (e.g., access to the internet, a computer or tablet) and appropriate training (provided individually or in small groups in the home or community setting) they need will minimize the digital divide and maximize technology-enabled connectedness.

Support for technology-based interventions should be targeted, given that older adults with lower educational attainment and socio-economic status are more likely to have lower digital literacy, in part due to less exposure to information and communication technology.[196] Initiatives for lower-income older adults should continue to be prioritized, such as the TELUS Mobility for Good for Seniors Initiative. This project provides older Canadians receiving the Guaranteed Income Supplement (GIS) with a free refurbished smartphone and subsidized mobility rate plan.[234] Approximately 2.2 million Canadians are eligible for the program. Similar wide-scale initiatives for tablets, computers or laptops could also be considered.

Conclusion

Social isolation and loneliness are important public health concerns that will need to be addressed to better support Canada's ageing population. The effects of social isolation and loneliness on health and well-being are widespread, ranging from mood disorders and dementia to premature mortality. While the full extent of the problem in the Canadian population is not well understood, due in part to a lack of consistent definitions, measurement scales and data collection efforts, the estimates that are currently available make clear that concerted efforts are needed to begin systematically tackling social isolation and loneliness across Canada. By developing a national strategy and applying the six policy recommendations the NIA has identified in this report, the federal government can begin to establish the initiatives and best practices needed to support more co-ordinated and effective programs and interventions to address social isolation and loneliness at the national, regional and local levels.

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APPENDIX I

LUBBEN SOCIAL NETWORK SCALE – REVISED (LSNS-R)

FAMILY: Considering the people to whom you are related by birth, marriage, adoption, etc....

1. How many relatives do you see or hear from at least once a month?

0 = none | 1 = one | 2 = two
3 = three or four | 4 = five thru eight
5 = nine or more

2. How often do you see or hear from the relative with whom you have the most contact?

0 = less than monthly | 1 = monthly
2 = few times a month | 3 = weekly
4 = few times a week | 5 = daily

3. How many relatives do you feel at ease with that you can talk about private matters?

0 = none | 1 = one | 2 = two
3 = three or four | 4 = five thru eight
5 = nine or more

4. How many relatives do you feel close to such that you could call on them for help?

0 = none | 1 = one | 2 = two
3 = three or four | 4 = five thru eight
5 = nine or more

5. When one of your relatives has an important decision to make, how often do they talk to you about it?

0 = never | 1 = seldom | 2 = sometimes
3 = often | 4 = very often | 5 = always

6. How often is one of your relatives available for you to talk to when you have an important decision to make?

0 = never | 1 = seldom | 2 = sometimes
3 = often | 4 = very often | 5 = always

FRIENDSHIPS: Considering all of your friends including those who live in your neighborhood...

7. How many of your friends do you see or hear from at least once a month?

0 = none | 1 = one | 2 = two
3 = three or four | 4 = five thru eight
5 = nine or more

8. How often do you see or hear from the friend with whom you have the most contact?

0 = less than monthly | 1 = monthly
2 = few times a month | 3 = weekly
4 = few times a week | 5 = daily

9. How many friends do you feel at ease with that you can talk about private matters?

0 = none | 1 = one | 2 = two

3 = three or four | 4 = five thru eight

5 = nine or more

10. How many friends do you feel close to such that you could call on them for help?

0 = none | 1 = one | 2 = two

3 = three or four | 4 = five thru eight

5 = nine or more

11. When one of your friends has an important decision to make, how often do they talk to you about it?

0 = never | 1 = seldom | 2 = sometimes

3 = often | 4 = very often | 5 = always

12. How often is one of your friends available for you to talk to when you have an important decision to make?

0 = never | 1 = seldom | 2= sometimes

3 = often | 4 = very often | 5 = always

DUKE SOCIAL SUPPORT INDEX[1]

TABLE 1. Original 35 Items Comprising the Duke Social Support Index

Social Network Subscale

1. Number of parents and grandparents who live within 1 hour's travel.
2. Number of brothers and sisters who live within 1 hours travel.
3. Number of children who live within 1 hour's travel.
4. Amount of time spent taking with other people at work or school.
34. Household size

Social Interaction Subscale

4. Number of family members within 1 hour that subject can depend or feel close to.
5. Number of times past week spent time with someone not living with.
6. Number of times past week talked with friends/relatives on telephone.
7. Number of times past week attended meetings of clubs, religious groups, or other groups that yo belong to (other than at work).

Subjective Support Subscale

10. How often do you feel lonely?
11. Do family and friends understand you?
13. Do you feel useful to family and friends?
14. Do you know what's happening with family and friends?
15. Do you feel listened to by family and friends?
16. Do you feel you have a definite role in family and among friends?
17. Can you count on family and friends in times of trouble?
18. Can you talk about your deepest problem?
19. How satisfied are you with relationships with family and friends?
31. Do you need additional help?

Instrumental Support Subscale

Does family or friends ever help in any of the following ways:

20. Help out when you are sick?
21. Shop or run errands for you?
22. Give you gifts (presents)?
23. Help you out with money?
24. Fix things around your house?
25. Keep house for you or do household chores?
26. Give you advice on business or financial matters?
27. Provide companionship to you?
28. Listen to your problems?
29. Give you advice on dealing with life's problems?
30. Provide transportation for you?
31. Prepare or provide meals for you?
32. Help take care of small children?

Other Items

9. Are you satisfied with how often you see your friends and relatives?
12. Is there at least one person with whom you have a close, lasting relationship?
35. Are you presently married or currently living with someone as though married?

Note: Duke social Support Index taken from Landeman R, George LK, Campbell RT, et al: Alternative models of the stress buffering hypothesis. Am J Community Psychology 1989; 17:625-642

[1]The Duke Social Support Scale numbers outlined above are out of order due to the questions being categorized into different domains.

TABLE 6. Abbreviated Duke Social Support Index (23-Item and 11-Item Versions)

Social Interaction Subscale

4. Number of family members within 1 hour that subject can depend on or feel close to.
5. Number of times past week spent time with someone not living with.
6. Number of times past week talked with friends/relatives on telephone/
7. Number of times past week attended meetings of clubs, religious groups, or other groups that you belong to (other than at work).

Subjective support Subscale

11. Do family and friends understand you?
13. Do you feel useful to family and friends?
14. Do you know what's happening with family and friends?
15. Do you feel listened to by family and friends?
16. Do you feel you have a definite role in family and among friends?
18. Can you talk about your deepest problem?
19. How satisfied are you with relationships with family and friends?

Instrumental Support Subscale (dropped in 11-item scale)

Does family or friends ever help in any of the following ways:

20. Help out when yo barre sick?
21. Shop or run errands for you?
22. Give you gifts (presents)?
23. Help you out with money?
24. Fix things around your house?
25. Keep house for you or do household chores?
26. Give you advice on business or financial matters?
27. Provide companionship to you?
28. Listen to your problems?
29. Give you advice on dealing with life's problems?
30. Provide transportation for you?
31. Prepare or provide meals for you?
32. Do you need help with small children? (not included)

APPENDIX II

	Strategies, Policy Plans and Programs	Grants Available for Individuals/	Provincial/ Territorial Response (specific to COVID-19)	Government Ministry/Agency Responsible	Seniors Guides and Information
BC	- In 2017, the Government helped to support the development of, Raising the Profile of the Community-Based Seniors' Services Sector in B.C.: A Review of the Literature , a research report that focuses on social connections as one of the most important determinants of good health for seniors. While this is not officially a government strategy, policy, or plan, the conclusions in the report have driven planning efforts for community-based seniors services offered within the province since its publication. Additionally, BC Healthy Communities Society's PlanH program has an Action Guide on Social Connectedness that is aimed at local governments and health authorities:	- As part of the 2020 age-friendly program, $500,000 is available to BC communities supporting seniors in this goal. In 2019, 37 communities throughout BC received age-friendly grants, up from 33 in 2018 and 18 in 2017. For more information about Age-friendly BC please visit: https://www2.gov.bc.ca/gov/content/family-social-supports/seniors/about-seniorsbc/seniors-related-initiatives/age-friendly-bc. - In addition to supporting delivery of Better at Home in the province, the United Way of the Lower Mainland has awarded grants to a number of community-based organizations across BC to pilot new approaches to reducing social isolation for seniors at risk for frailty. The 2020 PlanH Healthy	- In March of this year, as part of BC's emergency response to COVID-19, $50 million was provided to the United Way of the Lower Mainland to improve seniors' access to local supports during this crucial time. To help support seniors, the Province partnered with the United Way and bc211 to launch the Safe Seniors, Strong Communities (SSSC) program, a province-wide service to match seniors whose support network has been affected by the COVID-19 outbreak with volunteers. Upon registering with bc211, under the SSSC program, seniors are matched with local volunteers who provide services such as virtual wellness checks, grocery shopping/delivery, meal prep (pre-made drop-offs or	- The Ministry, regional health authorities, and the Office of the Seniors Advocate work collaboratively to monitor and support the health and well being of seniors across the province. More broadly, other ministries, such as the Ministry of Mental Health and Addictions and the Ministry of Social Development and Poverty Reduction, may also contribute to supporting seniors. *(From the Government of BC)*	- SeniorsBC – website about government programs and services for older adults, also available in French, Punjabi, and Chinese Elder abuse - BC Seniors' Guide: https://www2.gov.bc.ca/assets/gov/people/seniors/about-seniorsbc/guide/bc-seniors-guide-11th-edition.pdf

	https://planh.ca/socialconnectionguide. - The Better at Home Program is a community-based program funded by the provincial government and managed by the United Way of the Lower Mainland. Services are provided by local non-profit organizations and delivered by a mix of volunteers, contractors, and paid staff. Services may include light housekeeping, light yard work, snow shoveling, grocery shopping, minor home repairs, transportation, and friendly visiting. Seniors are charged a fee-for-service on a sliding scale based on income, and eligible low-income seniors are not charged for services. For more information please see their website at: http://betterathome.ca/. *(From the Government of BC)*	Communities grants focus on reducing isolation with a grant stream called Community Connectedness. Grants of up to $5,000 plus in-kind supports are awarded to 15 local governments working with health authorities and other partners to better understand priority areas and local needs and to take action to improve connection in their community or region. - Last year, funding was provided in support of several seniors' community engagement initiatives. A $150,000 grant was awarded to the Delta Gymnastics Society's Seniors Can Move program to keep seniors active and healthy by getting them on the gymnastics floor. Developed by the Delta Gymnastics Society in 2018, the Seniors Can Move program enables seniors to take part in physical activity in a gymnastics setting. The Delta Gymnastics Society will also create a course based on the program that can be taught and replicated at other gymnastics facilities.	in-home support), and prescription drop-off/medication pick up. For more information please visit: www.bc211.ca. The Ministry of Mental Health and Addiction has also committed $5 million for virtual mental health supports for targeted populations, including isolated seniors. Programs include skill building tools, virtual counselling services, peer support and system navigation for managing stress during COVID-19. In March 20, 2020, long-term care and assisted living facilities in BC were advised to restrict visitors to essential visits only. On June 30, 2020, visitor guidelines were amended for long-term care and assisted living to allow residents to visit with a single designated visitor, such as a family member or friend. All long-term care and assisted living sites in the province now have safety plans in place and are offering social visits in accordance with provincial guidelines, with the exception of those		

		- The Ministry is also supporting improved transportation for seniors to help them maintain meaningful social connections and independence in their local communities. The Province is providing approximately $1.23 million through regional health authorities to 13 community organizations throughout British Columbia for projects that improve transportation services for seniors. Community groups will purchase 12 buses and vans and make other improvements to existing transportation services for seniors to help them age in place, stay physically active and socially engaged. *(From the Government of BC)*	experiencing active outbreaks. On August 26, 2020, the Office of the Seniors Advocate launched the "Staying Apart to Stay Safe: The Impact of Visitor Restrictions on Long Term Care and Assisted Living" survey to collect data on residents and family members experiences on the impact of COVID-19 and changes in the visitation policies. This survey, which ends September 30, 2020, will offer a better understanding of the overall impact of the COVID-19 pandemic on residents living in long-term care and assisted living, and their loved ones. *(From the Government of BC)*		
AB	- The Federal, Provincial and Territorial Ministers Responsible for Seniors Forum • Co-chaired by Hon. Josephine Pon (Albera Minister of Seniors and Housing) and Hon. Deb Schulte (Federal Minister	- Alberta Culture, Multiculturalism, and Status of Women offers grant funding to facilitate and encourage inclusive communities - Alberta Seniors and Housing administered the the Aging	- March 2020 - provided $30 million in funding to charities, non-profit organizations, food banks and civil society organizations across the province to address the social well-being of those most affected by COVID-19.	- No one ministry/agency responsible, shared between Alberta Health, Alberta Seniors and Housing	- FPT Ministers Responsible for Seniors Forum social isolation toolkits - Elder abuse -For businesses/

	of Seniors) • 2018 - created social isolation toolkits, also updated supplement specific focuses on 3 groups: Indigenous, 2SLGBTQIA+, new immigrant and refugee older adults - Leads Age-Friendly Alberta initiative • Provides information and resources to assist communities in becoming age-friendly • Examples of age-friendly municipal plans: (e.g. Edmonton, Calgary) - Alternate transportation of older adults • Through an Alberta Seniors and Housing grant agreement with the Medically At-Risk Drivers Centre at the University of Alberta, several projects have been completed to assist communities in developing transportation options for seniors (e.g., Transportation Toolkit and Transportation Needs Assessment) - 2019 toolkits for older adults	Well in Community Grant (AWIC) grant program (now closed). Funded total of 28 projects, 9 of 28 focused on social inclusion of diverse seniors populations.	- April 2020 - provided Caregivers Alberta with $3 million in funding to expand its services to support caregivers during the pandemic and into the future -May 2020 – Launched CORE Alberta Collaborative Online Resources and Education knowledge hub to help community-based seniors-serving (CBSS) organizations across Alberta coordinate efforts to address the needs of seniors during the pandemic and beyond. Live discussions are hosted to share information and collaborate on issues, including social connection and wellness		organizations: Aging with pride: a guide to creating inclusive services for LGBTQ2S+ older adults -Alberta Seniors Guide: https://open.alberta.ca/dataset/266d93c8-8a72-4161-9f7d-750eef4c9b56/resource/7c826a6a-e06c-4b05-abf5-4e1925ff3582/download/sh-seniors-programs-and-services-information-guide-2020-07.pdf

	on elder abuse • Poster, rack card, and fact sheet to help seniors know they are not alone, explain how to ask for help, and explain the relationship between social isolation, loneliness and elder abuse. These resources support Alberta's larger coordinated community response to address elder abuse				
SK 	- The Government of Saskatchewan has funded a provincial seniors' umbrella association to address mental health issues of older adults through focused efforts to reduce social isolation, ageism and lack of opportunities to participate in community life. The objective of this work is to reduce social isolation, loneliness and feelings of loneliness and feelings of being unwanted by developing and sharing resources to support and encourage social activities and recreational opportunities. In addition to developing resources, they will empower seniors		-In collaboration with the Ministry of Health, the Saskatchewan Health Authority developed and implemented visitation guidelines for visitors to residents of special-care homes and private personal care homes. Visitation guidelines provide guidance to support both indoor and outdoor visitation. Many also purchased ipads or had technology donated to them for use by residents to stay in touch with their family and friends. *(From the Government of Saskatchewan)*	Ministry of Health	- Programs and Services of Interest to Seniors booklet

	and members of seniors' organizations to identify and address social isolation and ageism by delivering educational consultations for their member organizations, workshops to introduce resources to promote social inclusion of older adults and raise awareness of mental health challenges for older adults, and pilot use of virtual technology for sharing information and real time responding to questions or concerns. *(From the Government of Saskatchewan)*				
MB 	- Seniors Community Resource Councils • non-profit community based organizations throughout Manitoba that offer a variety of programs (e.g. congregate meals, transportation, health and wellness), some coordinate volunteer driving programs - Age-Friendly Manitoba Initiative • Supports communities to become age-friendly, provides a list of Age-Friendly Communities	- In January 2020, the federal government announced as $1.5M investment to support 100 projects in Manitoba to, "improve the quality of life of seniors and foster social inclusion," through the New Horizons Seniors Program.	The estimated $45 million Seniors Economic Recovery Credit provides a $200 one-time, refundable tax credit to Manitoba seniors facing additional costs due to the COVID-19 pandemic such as grocery deliveries and technology purchases to stay connected to loved ones. Source: https://manitoba.ca/covid19/protection/seniors.html	Ministry of Health, Seniors and Active Living	- Resources for seniors portal, select "I am a seniors" - Manitoba Senior Centres - Medically At-Risk Driver Centre – provincial listing of organizations providing alternate transportation for seniors

ON 	- Seniors Active Living Centres • Network of centres that offers social, cultural, learning and recreational programs for seniors - Exercise and falls prevention programs • Free programs with physiotherapists or other health professionals to provide information on falls prevention	- Seniors Community Grant Program – established 2014, annual grant to help non-profit organizations, local services boards, or Indigenous groups to develop programs combatting social isolation, promote safety & well-being, improve financial security, and make communities age-friendly	- Increased funding for Seniors Community Grant Program to $4 million in 2020 ($3 in 2019) - Partnered with the Ontario Community Support Association (OCSA) to launch Ontario Community Support Program - $11 million for isolated, low-income seniors and people with disabilities and chronic medical conditions to receive essentials	- Ontario Ministry of Seniors and Accessibility	- Guide to programs and services for seniors, available in 16 languages - Seniors Active Living Centres - Exercise and falls prevention program - 211 Ontario - Ontario Community Support Program - Meals on Wheels Ontario -Seniors INFOline - 1-888-910-1999, 1-800-387-5559
QC 	- On June 4, 2018, the Quebec government released its second five-year action plan to support active aging in the province. Under the theme Un Québec pour tous les âges, the government intends to invest more than $12.3 billion between now	- To combat the isolation of senior Quebecers, Premier François Legault's government announced $500,000 in funding for Les Petits Frères in December, 2019.		- Ministry of Health and Social Services - There is a Minister Responsible for Seniors and Caregivers under	Seniors Guide: https://cdn-contenu.quebec.ca/cdn-contenu/services_quebec/Aines_EN_2020-3.pdf?1580850270

	and 2023 to facilitate the participation and social inclusion of seniors and to provide safe environments and options for access to care that they may need. - The action plan provides 85 measures that will be carried out by 20 departments and public organizations. This plan also considers the concerns that were shared by the general public during the provincial consultations that studied the living conditions of seniors in 2017. - The action plan focuses on five priority areas to assist seniors to live independently and continue to contribute actively to society. The priorities are as follows: • to increase assistance to municipalities as they adapt to an aging population; • to enhance the support provided to organizations that facilitate active social participation of seniors and contribute to improving the quality of life of seniors; • to support initiatives that recognize, accompany and support caregivers who	Source: https://montrealgazette.com/news/local-news/quebec-announces-funding-to-combat-the-isolation-of-seniors - In April, 2019, the federal Government announced an investment of more than $8.1 million in funding through the Government of Canada's New Horizons for Seniors Program (NSHP) for 540 community-based projects across Quebec that will improve the well-being of seniors. The goal of these projects is to reduce social isolation among seniors by keeping them active, engaged and informed. Source: https://www.canada.ca/en/employment-social-development/news/2019/04/minister-duclos-announces-funding-for-community-based-projects-that-support-seniors-in-quebec.html		this Ministry – Marguerite Blais	

	care for seniors; • to increase the number of individuals who receive support services at home and develop services that best address the needs of seniors; • to create environments that encourage everyone affected by the challenges associated with the aging population to engage in the necessary thinking and to ensure that all viewpoints are properly considered. Source: https://www.demandaplan.ca/post/quebec-government-intoduces-5-year-action-plan-for-seniors				
NB 	- The Healthy Seniors Pilot Project is a $75 million three year agreement between the Government of New Brunswick and the Public Health Agency of Canada jointly led by the Government of New Brunswick's Department of Social Development and the Department of Health through the Aging Secretariat.	The Health Seniors Pilot Project puts out calls for projects combatting social isolation. Second round of process is currently closed: https://www2.gnb.ca/content/gnb/en/departments/social_development/seniors/content/healthy_seniors/projects.html		Seniors and Healthy Ageing Secretariat	Seniors' Guide to Services and Programs Social Supports NB Elder abuse

	- In May, 2019 New Brunswick's Minister of Social Development, announced the first successful applicant as part of New Brunswick's three-year Healthy Seniors Pilot Project. - The Nursing Home Without Walls project is being led by the Université de Moncton, in collaboration with local nursing homes, to test innovative methods of providing seniors and their families, friends, and neighbours with access to appropriate services and information related to aging in place. This includes initiatives to help address social isolation and loneliness, and involves working with the local community to help respond to the needs of their aging population.				
NS 	- 2017 - launched Shift: Nova Scotia's Action Plan for an Aging Population • 3 year plan to reframe discussion about aging, 18 month progress report published • A main goal is to	Age-Friendly Communities grant – annual	- Partnered with Telus to distribute 100 phones to "vulnerable populations", distributed 800 Ipads to LTC homes - Emergency funding of $230,000 for Senior Safety	- No one ministry/agency responsible, shared between Department of Seniors, The Department of Health and	- Positive Aging Directory – updated annually - 211 – Toll-Free service to help seniors stay

	"support aging in place, connected to community life", which include initiatives in transportation, housing, and other domains to support aging in place - 2005 Elder Abuse Strategy		Programs and Community Links to help vulnerable older adults	Wellness, Department of Communities, Culture and Heritage, and many other Departments	connected and connect them to help with needs such as groceries and medical appointments - Senior abuse
PEI 	- Seniors Independence Initiative: application-based initiative which provides financial assistance for practical services making it easier for seniors to remain in their own homes and communities.	-Seniors' Secretariat Grant – offers funding for priority areas, including reducing social isolation		- Department of Social Development and House	- Seniors Guide - Elder abuse
NL 	- Newfoundland and Labrador Seniors' Social Inclusion Initiative - Age-Friendly Newfoundland and Laborador Communitie Program - Collaboration with SeniorsNL (provincial, non-profit organization with toll-free information and referral line)	- Age-Friendly Newfoundland and Labrador Communities Program - offers funding up to $10,000 to support incorporated municipalities, regions, and Indigenous governments and communities in planning for changing demographics - Newfoundland and Labrador Seniors' Social Inclusion Initiative - available to 50+ clubs to support the delivery of programs or participation in	- Established a Vulnerable Populations Task Group which included a group focused on seniors (Seniors' Working Group) where social isolation was a recurring theme identified	- Department of Children, Seniors, and Social Development	- Seniors Guide to Services and Programs

		community events that promote social inclusion. Up to $2000 each club.			
YT 	No provincial strategies/ initiatives programs, only programs launched through federal government's New Horizons for Seniors Program				- A Guide to Programs and Services - Seniors' Services/Adult Protection Unit (867) 456-3946 Toll-free 1-800-661-0408 (ext. 3946)
NWT 	No provincial strategies/ initiatives/programs, only programs launched through federal government's New Horizons for Seniors Program	- From NWT Senior Society: Collaborating for Inclusion of Older Adults funding	- For seniors on income assistance- provided a one-time emergency allowance for IA clients registered in March to help with a 14-day supply of food and cleaning products as the stores have them available. Individuals received $500 and families received $1,000.	- Department of Health and Social Services	- Help Directory 2019 -Seniors Information Line Handbook 2017 - Senior's Information Line: : 867-920-7444 or toll free 1-800-661-0878
NU 	No provincial strategies/ initiatives/programs, only programs launched through federal government's New Horizons for Seniors Program				

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