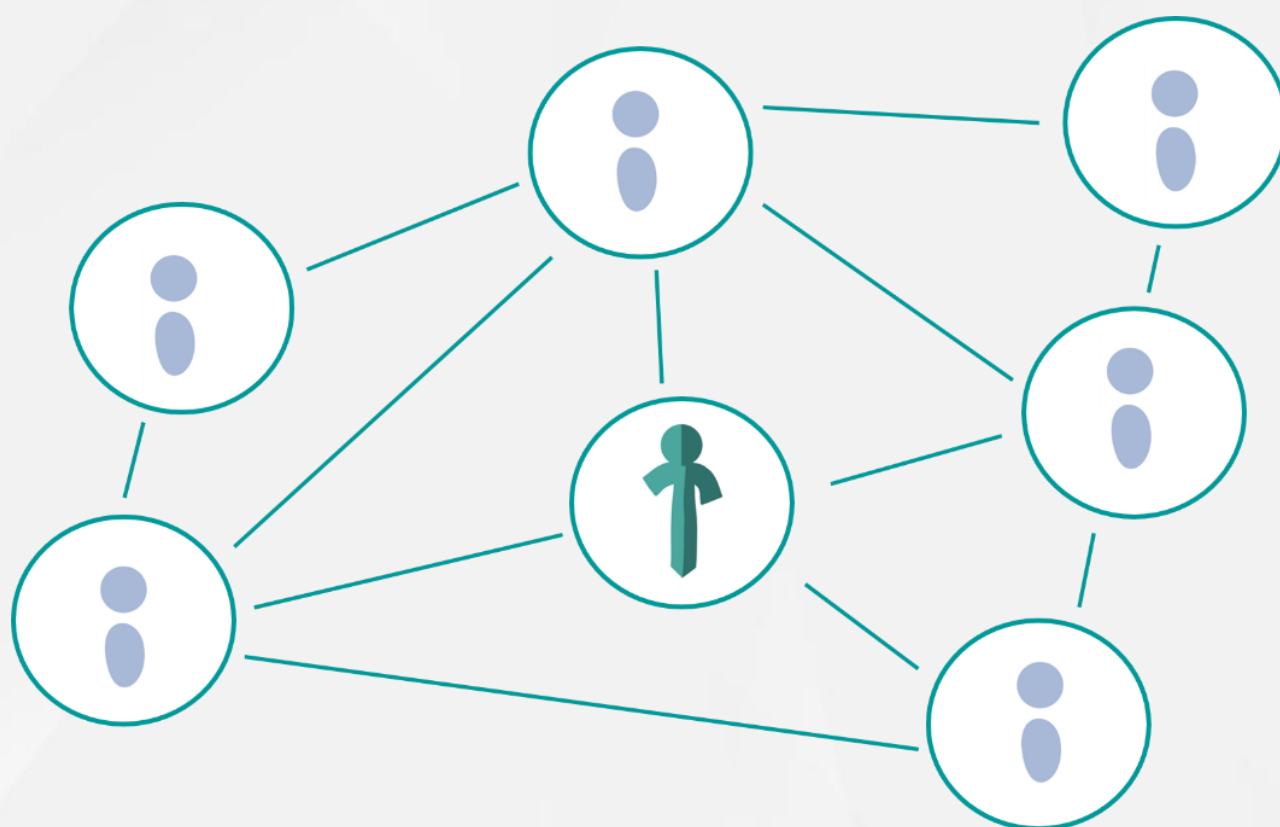


PREVENTION AND INTERVENTION OF SOCIAL ISOLATION AND
LONELINESS IN OLDER ADULTS

MEASURING SOCIAL CONNECTION AND SOCIAL ISOLATION



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ABOUT TARGETING ISOLATION

Targeting Isolation is led by Drs. Verena Menec and Nancy Newall as part of the **Aging Well Together** coalition of organizations working together to facilitate the social engagement of adults aged 55+ in Winnipeg, Manitoba. The coalition, which includes A & O: Support Services for Older Adults Inc., Active Aging in Manitoba, Manitoba Association of Senior Communities, and Transportation Option Network for Seniors, is funded by the Government of Canada's New Horizons for Seniors Program.

Targeting Isolation seeks to:

- Help people identify and better understand social isolation and loneliness
- Train Community Connectors to connect socially isolated older individuals to community resources; and
- Work with organizations that help reduce older people's social isolation and loneliness

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WHAT THIS REPORT IS ABOUT

Preventing loneliness and social isolation means safeguarding and fostering social connection. But what do we mean by social connection? And how do we define and measure related concepts like social isolation and loneliness?

Having a shared understanding of definitions is important because it allows older individuals, families, healthcare providers, and service providers to be on the same page and talk about the same thing. Awareness, a key aspect of prevention and intervention (Buz et al., 2021; Holt-Lunstad, 2021; Newall & Menec, 2022), includes a shared understanding of how we can define and assess social connection. As no two people are alike and every person's social situation is different, measurement tools can help reveal each person's social situation. Ideally, measurement tools can help bring to light people's social strengths and limitations that, in turn, can guide efforts to support the person. Regular check-ins and assessment can also help show whether and how somebody's social situation is changing over time.

In sum, it is important to have:

- a shared understanding of concepts
- shared measurements
- an ability to track people's changes in social connection over time

This report is about how we can define and measure social connection and social isolation. In this document we discuss indicators of social connection, including social isolation, and loneliness. We also include common measurement tools that can be used with older adults.

The report is divided into 2 parts and 1 appendix:

- A. Defining social connection and social isolation
- B. Measuring social connection and social isolation

Appendix A. Assessment tools

STRENGTHS-BASED APPROACH TO ASSESSMENT

In this report, we take a 'strengths-based' approach to assessment to underscore the social strengths that people can draw on. Older adults carry a wealth of knowledge and experience in navigating social relationships. Focusing on social connection 'strengths', and not just gaps or deficits, can highlight important areas to recognize, value, and 'safeguard' or maintain.

WHO THIS REPORT IS FOR

This report is for:

- Healthcare and social service professionals
- Community organizations
- Researchers; and
- Older individuals, families

Healthcare and social service professionals can use this information and associated measurement tools to better understand people's social situation and support people in maintaining and enhancing social connection. Community organizations can use this information to assess how well their programs are enhancing older adults' social connection. Researchers can use this information to select measurement tools for studies. Finally, this information can be used by older individuals to help understand their own and others' social connection limitations and strengths.

LIMITATIONS OF REPORT

This report is not meant to include an exhaustive list of social connection measures. Rather, we have included only two well-established research measures along with a measure we have created as part of Targeting Isolation's Community Connector program to be used in the community to identify and refer socially isolated or lonely older individuals to local resources. For a comprehensive listing of social relationship measures, we refer the interested reader to Valtorta et al. (2016).

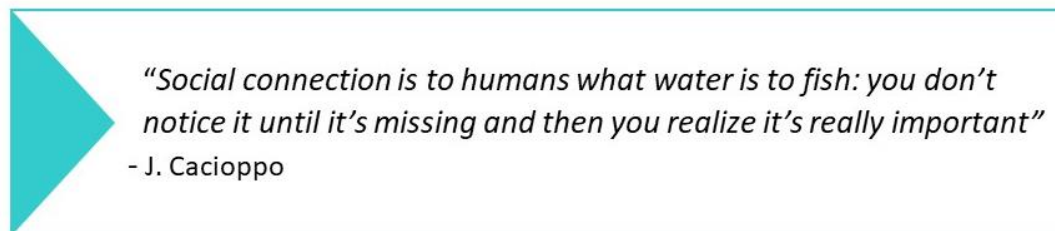
We have focused on measurement tools that assess common individual-level factors in this report. However, we recognize that people may feel a sense of connection from other sources. And it is important to note that many of the facilitators of social connection (or conversely, the causes of social isolation and loneliness) go beyond the individual. It is critical to emphasize the central role that community, cultural, and societal factors play in supporting (or impeding) older individuals' social connection. For example, an older adult who lives alone in an apartment building within a community that has frequent and accessible social activities and multiple transportation options nearby has greater opportunity and choice for social connection than someone who lives alone in a community without these features. We discuss how to assess some of the social/community barriers (risk factors) that may prevent people from connecting in a companion report (Targeting Isolation Tools: A Guide).

PART A: DEFINING SOCIAL CONNECTION AND SOCIAL ISOLATION

Human beings are social beings and there are many ways to describe social connection. Social connection can be described subjectively as a feeling of connection. It can also be described objectively by people's social interactions and activities. Basically, social connection is **feeling** connected and **being** connected.



Social connection lies on a continuum; people can be more or less socially connected. A common way to understand and describe 'feeling' and 'being' connected is through examining *the lack* of social connection: **loneliness and social isolation**. J. Cacioppo put this emphasis on *lack* very clearly in an interview for the Globe and Mail (2010):



Studying a lack of social connection has highlighted how important social connection is. While it is normal to be alone and not interact with people at times or to feel lonely once in a while, an extensive body of research on loneliness and social isolation has revealed the importance of social connection to older adults' physical health, mental health, and well-being (e.g., Boss et al., 2015; Harasemiw et al., 2019; Holt-Lunstad et al., 2010; Valtorta et al., 2016). Social connection has therefore increasingly been recognized as a key social determinant of health and an important public health issue, as exemplified most recently by the U.S. Surgeon General's advisory on social isolation and loneliness (May 2023) and the World Health Organization's launch of the Commission on Social Connection (November 2023).

Here we further provide definitions of some key concepts related to social connection:

- 1) Social isolation (social network, social participation, living arrangements)
- 2) Social support
- 3) Loneliness

Of note, although we argue for conceptually distinguishing key concepts (Harasemiw et al., 2018; Newall & Menec, 2020), we also recognize the advantages of incorporating multiple features of social connection into scales for community assessment purposes to form a more complete picture of someone's social world and to aid with prevention and intervention. That is, if we measure only social isolation, we may miss recognizing those who may not be socially

isolated, but lonely. Similarly, assessing loneliness only might mean that we miss those who may not be lonely, but are isolated. In this vein, we argue for the assessment of multiple indicators of social connection, together, so that interventions can be tailored to people's multi-faceted social situation (Newall & Menec, 2019).

Social Isolation

The term social isolation signifies *being disconnected* and is typically described as having deficits in **social networks** (including whether a person lives alone) and **social participation**. A **social network** can be thought of as the circle of people around a person that are important to them (see Fig. 1). A person's social network can consist of a partner/spouse, family, friends, neighbours, as well as other people they may live with or interact with when participating in activities, such as when volunteering or working, or when involved in wider community activities. Whether a person **lives alone** or lives with others is often considered a key aspect of someone's social network. Indeed, in some cases, living alone is used a main indicator of social isolation (see **Box 1** insert). **Social participation** is typically defined as the extent to which an individual engages in social activities or the broader community such as visiting friends, volunteering, participating in cultural events, attending/playing sports, or participating in social groups (e.g., Gilmour, 2012).

Notably, social networks, social participation, and living arrangements (living alone) have been described as **structural** features of social relationships (i.e., frequency/types of social contact); in comparison, as we will see later, social support has been described as a **functional** feature (i.e., what functions relationships serve). As people in our network and social activities provide the *possibility* of having support and feeling connected, in a way, being socially connected to others is the bedrock of social support and feeling connected (not being lonely).

But what is social isolation? Social isolation can be defined as having *limited* interaction with social network members and *limited* social participation in the wider community (see Menec et al., 2019; Newall & Menec, 2020). Extremely isolated individuals may not have a social network to interact with at all (Newall, 2015). Social isolation has been described as the opposite of social participation (de Jong Gierveld & van Tilburg, 2006).

Being **socially isolated** reflects:

- Limited social network and/or limited interactions with social network
- Limited social participation

Examples of two social networks are shown in Fig. 1. In contrast to the person in the left panel who has many people in their social network, the person in the right panel has a limited social network; and so that person may be socially isolated. To further understand their social situations we could examine how often they interact with their network and whether they participate in any social activities that are meaningful to them.

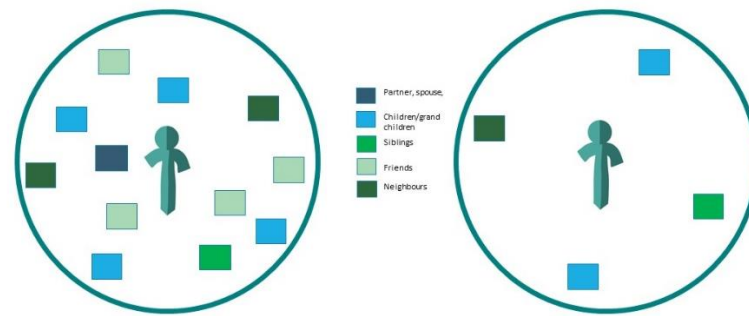


Fig. 1: Two Examples of Social Networks

Also important to note is that social isolation is different from solitude or choosing to be alone for a while, which can be experienced as restorative. Some people can be socially isolated over a long period of time, and so can be described as lifelong isolates. These individuals, who may not be as open to receiving help, can pose a puzzle for service providers or healthcare frontline who see them as vulnerable due to their extremely isolated social situation (e.g., Newall, 2015). Examining how individuals with a very small (or non-existent) social network respond to the other indicators of social connection described in this report is particularly important, as it can reveal, for example, if they are also lonely (Newall & Menec, 2019). We will see in Part B that all three scales include an assessment of social networks; and the Structural Social Isolation Scale and CARED Assessment Tool assesses, in addition, social participation.

Box 1: LIVING ALONE = LACK OF SOCIAL CONNECTION?

Living alone vs. living with others (e.g., partner, family, friend) may be the most simple way to measure social connection. It is commonly asked by social service or healthcare providers at intake. Whether people live alone is also commonly assessed in any census, survey, or study, as part of a socio-demographic battery, making the measure highly accessible by practitioners, researchers, and policy makers. This indicator is tracked with interest because the proportion of people living alone is increasing in many parts of the world.

Notably, as a stand-alone indicator of a lack of social connection, living alone over-estimates levels of social isolation (Newall & Menec, 2020). The majority of people living alone are highly engaged with people in their social networks and participate in social activities and this social contact can 'compensate' for not living with somebody. Newall and Menec (2020) found that 28.5% of older adults aged 65+ were socially isolated based only on living alone; however, when other social connection indicators were added, this percentage greatly diminished.

Nonetheless, living alone is often included in social connection measurement scales. Living alone consistently predicts loneliness (de Jong Gierveld, 1987; Newall et al., 2014) and can be an important indicator of vulnerability in emergency situations such as heat waves (BC Government, n.d.; Vancouver Sun, 2021).

Social support

Social support can be defined as the assistance that people in a person's social network provide, such as help when sick or emotional support (e.g., Sherbourne & Stewart, 1991). In distinguishing social networks from social support, Lubben (1988) noted that people can have numerous social network members; however, only certain members would be relied on to provide support in times of need. Social support has been conceptualized as a **functional** aspect of social relationships, as it describes what members of a social network **do** (Wenger, 1991; Valtorta et al., 2016).

A focus on social support recognizes that we have different types of relationships (e.g., sibling; friend) and the roles they play in our life are unique: Some of our social relationships are close

Social support can be described as a **functional aspect** of social relationships, as differentiated from **structural aspects** like social networks or participation.

confidants; others are people we would want to call in an emergency; and yet others are people with whom we simply have fun with. Certain relationships may provide multiple types of support. Research shows that having a diverse social network composed of a variety of people provides older adults with the most benefits in terms of social support (e.g., Harasemiw et al., 2018). However, social relationships are complex and our social relationships may or may not provide

different sorts of support. For example, even though spouses or partners may typically provide the most social support, this is not always the case and other social network members (e.g., a friend or sibling) may provide more social support. Examining Fig. 1, both individuals have different people in their lives that can provide different types of support, depending on a variety of factors (e.g., geographical proximity, emotional closeness).

We will see in Part B that the Lubben scale (1988) assesses instrumental and emotional support derived from two sources of support: family and friends. The CARE Assessment tool assesses instrumental support via the presence of an emergency contact.

Loneliness

Loneliness is commonly defined as a **subjective** feeling of dissatisfaction with our social relationships and interactions, both in terms of quality or quantity (de Jong Gierveld et al., 2006). Although interrelated, the structural (social networks) and functional (social support) aspects of someone's social relationships do not necessarily reveal whether the person is lonely or not, rather we need to understand their feelings and perceptions. Loneliness reflects a perceived *mismatch* between the relationships we have (types, quantity, quality) and the relationships that we want. It is this mismatch that results in the negative unpleasant feeling of loneliness (de Jong Gierveld, 1987; Perlman, 2004).

Because loneliness is subjective, we can *feel* connected whether we are objectively connected to people or not. Returning to Fig. 1, although the person in the right hand side panel has fewer

Feeling lonely or socially dis-connected is not the same as being 'objectively' disconnected from others. A person can feel lonely even in the context of a large social network if that person is dissatisfied with that network.

social network members, they may feel highly connected. On the other hand, the person on the left hand side panel, who has a larger social network, may feel lonely if they are not satisfied with the quantity or quality of their relationships. This underscores the importance of considering multiple aspects of social connection (Newall & Menec, 2019). We will see in

Part B that the CARED Assessment Tool includes a 1-item assessment of loneliness.

Summary: What Social Connection Means

In this section, we have discussed common indicators of social connection: social networks, social participation, social support, and loneliness. The first two indicators (social networks and social participation) can be used to describe social isolation. Social support describes different types of support roles, and loneliness relates to feeling connected.

That is, social connection reflects (Fig. 2):

- Interacting with social network members (social networks)
- Participating in social activities and wider community (social participation)
- Having people who support us in different ways (social support)
- Feeling connected and satisfied with relationships (being rarely or not lonely)

Fostering/Maintaining Social Connection means...
❖ Interacting with social network
❖ Participating in social activities and wider community
❖ Having people who support us in different ways
❖ Feeling Connected (being rarely or not lonely)

Fig. 2 Defining Social Connection

Based on these indicators, it becomes apparent how to foster and maintain social connection (Table 1). The next section describes measurement tools tapping into some or all of these aspects of social connection.

Table 1 Fostering and Maintaining Social Connection

Fostering/Maintaining Social Connections Means Going...	
From...	To...
Lacking contact with social network	Regularly interacting with social network
Lacking social participation	Regularly participating in social activities
Lacking social support	Having people who provide support in different ways
Feeling lonely	Feeling connected

PART B: MEASURING SOCIAL CONNECTION AND SOCIAL ISOLATION

“...Assessment and promotion of social connection should be part of the standard care for every patient from pediatrics to geriatrics.”
(Holt-Lunstad, 2021, p. 570)

Here we present assessment tools to measure social connection and social isolation. We present these scales from what we see as a *strengths based approach* to highlight that the purpose in using these assessment tools can be not only to look for deficits but to foster/maintain **social connection strengths** as well. If we view prevention of loneliness and isolation (i.e., enhancement of social connection) from this strengths-based approach we can see from the above discussion that it is critical to help people foster and maintain all of the building blocks that make up social connection (see Fig 2; Table 1):

- Regularly interacting with social network members (social networks)
- Participating in social activities and wider community (social participation)
- Having people who support us in different ways (social support)
- Feeling connected (being rarely or not lonely)

Finding common ways to measure concepts is important to ensure that ‘apples can be compared to apples.’ Although there might be general agreement on how concepts are broadly defined, finding common ways to specifically measure them can be challenging. We refer the interested reader to Valtorta et al. (2016) who compiled and compared a comprehensive listing of social relationship measures. Moreover, we refer the reader to the UK Campaign’s (2015) report on loneliness measures for those interested in assessing loneliness only.

For the purposes of this report, we have chosen to include the following three measurement tools:

- Structural Social Isolation Scale (SSIS, 5 items)
- Lubben Social Networks Scale (6 items)
- CARED assessment tool (5 items)

We have selected these scales for the following reasons:

- They each tap into different aspects of social connection and build on one another: the SSIS only includes structural features; the Lubben scale also includes functional features; and the CARED Assessment tool also includes loneliness
- They are all multi-dimensional; that is, they all include several of the indicators of social connection described above;

- They have cut-offs that can be used to classify people as being socially isolated (lacking social connection) or not, which is important as it identifies individuals who could be connected with resources; and,
- They are either commonly used in the literature with an older population or draw directly from measures that are commonly used (CARED assessment tool).

Quick Summary of Assessment Tools

For each measure we next show a quick summary (see Fig. 3) and a more detailed account of the development of the scales including what dimensions they assess. Each scale is included as an appendix with instructions on how to score and use the measures.

Fig. 3 Summary of 3 Measures

Structural Social Isolation Scale	Lubben Social Network Scale – 6 item	CARED Assessment Tool
Number of questions: 5	Number of questions: 6	Number of questions: 5
Developed for: Researchers	Developed for: Researchers	Developed for: Community Connectors
Structural/functional items: Structural only	Structural/functional items: Both	Structural/functional items: Both
Does it include loneliness: No	Does it include loneliness: No	Does it include loneliness: Yes
Main use: To determine if someone is isolated or not	Main use: To determine if someone is isolated or not	Main use: To help community connectors identify signs of social isolation and loneliness for referral

Structural Social Isolation Scale (SSIS)

Development of SSIS

The 5-item structural social isolation scale (SSIS) was originally developed to identify socially isolated older adults within the context of the Canadian Longitudinal Study on Aging (CLSA) (Menec et al., 2019, 2020; Newall & Menec, 2020). It is similar to other indices using counts of social contact and participation (see Steptoe et al., 2013; Valtorta et al., 2016) which can trace their roots to Berkman and Syme's (1979) emphasis on important sources of support provided by different social relationships, specifically: partner (marriage/common law), close friends and family, and informal/formal group association.

For the purposes of this report, we provide a version of the Menec/Newall 5-item structural social isolation scale (SSIS) that has been modified from the original questions and responses

included in the CLSA so that it can be more easily administered and scored in the context of community assessment.

Dimensions of SSIS

As the name suggests, this scale taps into structural dimensions of social relationships including: frequency of contact with social networks (partner, friends, relatives, etc.) and frequency of social participation in a variety of activities (group associations; volunteering; cultural activities). As such, the structural social isolation scale conceptualizes social isolation as limited contact with social network members and limited social participation (see Table 2). Appendix A contains the scale items as well as information on how to score and calculate cut-offs.

Prevalence of Social Isolation using SSIS

Drawing on the CLSA to examine social isolation in Canadians aged 45-85, and using a cut-off score of 3 out of 5, Menec et al. (2019) and Newall and Menec (2020) found prevalence rates of approx. 5% (pre-COVID-19). For those aged 65+, the prevalence rate was approx. 8% (pre-COVID) (Newall & Menec, 2020). Notably, because a cut-off of 3 out of 5 was arguably capturing very or extremely socially isolated adults, a cut-off of 2 out of 5 was used in later studies to include those moderately isolated or at risk of isolation (Menec et al., 2020). Using this less conservative cut-off of 2 out of 5 showed a prevalence rate among Canadians aged 45-85 of 22.5% (pre-COVID) (Newall & Menec, 2020). Using this same cut-off, Menec et al. (2024) reported a similar prevalence rate of 18% in Manitobans aged 55+ (pre-COVID in 2018); and, unsurprisingly, a substantially higher prevalence rate of 37% during the pandemic (2021). In sum, we can estimate that pre-COVID-19 5-8% of older adults were extremely socially isolated and 18-22.5% were socially isolated. The proportion of socially isolated adults increased substantially during the pandemic, upwards of 37% (more than 1 in 3) among Manitobans aged 55+ in 2021.

Lubben Social Networks Scale 6-item version (LSNS-6)

Development of LSNS-6

The Lubben Social Network Scale (LSNS) (Lubben, 1988; Lubben et al., 2006) was developed as a more user-friendly version of the Berkman-Syme Social Networks Index to be used for an older population (Lubben, 1988; see also Newall & Menec, 2019). The LSNS-6-item scale asks about 2 important sources of support: family (including spouse) and friends. It also explicitly assesses 2 types of social support that family and friends may (or may not) provide: instrumental and emotional.

Dimensions of LSNS-6

The 6-item version of the Lubben Social Networks Scale (LSNS-6) taps into: social networks and social support (Table 2). The LSNS-6 specifically focuses on friends and family relationships.

Three questions ask about number of friends who provide: 1) monthly contact; 2) emotional support (someone to talk to about private matters); and 3) instrumental support (someone to call on for help if needed). These same three questions are also asked in the context of relatives (which includes a person's spouse, if applicable). This scale provides a quick and easy way to learn about a person's social network and their perceptions of the social support roles that network members fulfill. In this way, social isolation is conceptualized as having limited contact with family or friends and limited emotional and instrumental support (Table 2). An established cut-off can be used to determine whether someone is socially isolated or not (Lubben et al., 2006). Appendix A contains the scale items as well as information on how to score and calculate cut-offs.

Prevalence of Social Isolation using LSNS-6

There have been a range of social isolation prevalence rates among those aged 65+ (pre-COVID-19) using the LSNS-6 scale. Two studies examining older adults aged 65+ living in BC and using the LSNS-6 (Kobayashi et al., 2009) and a modified (shorter) version (Cloutier-Fisher and Kobayashi, 2009) found prevalence rates of 17% and 17.5%, respectively. A study out of Japan (Shimada et al., 2014) showed a prevalence rate of 25.7% for people 65+, with a further breakdown of 31% for those living alone and 24% for those living with family. Lubben and colleagues (Lubben et al., 2006; Blozik et al., 2008) reported prevalence rates of community-dwelling older adults (ages 65+) out of London, UK (15%), Hamburg, Germany (20%) and Solothurn, Switzerland (11%). Based on these studies, therefore, a range of between 11-26% of older adults aged 65+ were socially isolated pre COVID-19, depending on country and other factors.

CARED Assessment Tool

Development of CARED Assessment Tool

The CARED tool was developed by Targeting Isolation as an easy and quick way for people who come in contact with older adults to identify potentially at-risk individuals and refer them to appropriate services. The CARED tool was developed in the context of Targeting Isolation's Community Connector program. Community Connectors include healthcare and social service professionals, community volunteers, bank tellers, etc., who come in regular contact with older adults. The Community Connector program trains Manitoba-based Community Connectors to identify risk factors and signs of social isolation and loneliness and to refer adults to local resources. The inclusion of indicators of social isolation, social support, *and* loneliness reflects the development of the tool for Community Connectors who can broadly identify adults who are at-risk based on any or all of these indicators, rather than only focusing on identifying socially isolated adults, for example, while missing those who may not be socially isolated, but lonely (Menec et al., 2020; Newall & Menec, 2019).

The CARED Tool was designed to be an easy-to-recall list of 5 important signs to look for. The CARED mnemonic is presented along with a reference guide on when to refer people to

resources. For example, the guide recommends referral in cases in which an older adult has 3+ signs; and potential referral in cases of 1-2 signs. The CARED Tool has been incorporated into a 1-pager PDF poster, conversation starter prompts, a pamphlet, educational videos, as well as training e-modules (see Newall et al., under review; and www.targetingisolation.com). A pilot study of the Community Connector training e-module for healthcare professionals indicated that Community Connectors found the CARED tool to be useful in recalling signs of social isolation and loneliness (Newall et al., 2023).

For the purposes of the present report, we include a modified version of the tool which we call the CARED Assessment Tool (Appendix A). This version goes beyond a mnemonic and includes 5 questions that can be more formally asked of older adults for assessment purposes. All 5 questions are derived from established items or scales tapping into loneliness, social isolation, and social support. The 1 question asking about frequency of loneliness in the past week (C = connection) derives from the loneliness question contained in the CES-D (see Radloff, 1977) and commonly used as a 1-item measure of loneliness (see UK Campaign, 2015). The 1 question asking about emergency contact (E = emergency contact) or help when sick comes from a Medical Outcomes Study (MOS) item (Sherbourne & Stewart, 1991) included in the CLSA (Newall & Menec, 2020). The remaining 3 questions about contact with social network (R = relationships), living arrangements (D = dwelling), and participation in social activities (A = activities) come from the SSIS (e.g., Menec et al., 2019; Newall & Menec, 2020). Appendix A contains the assessment items as well as information on what scores mean in terms of risk of social isolation and loneliness.

Dimensions of CARED Assessment Tool

The CARED Assessment tool captures all main indicators of social connection discussed in previous sections: social networks (including living alone), social participation, social support, and loneliness (see Table 2). As described above, the assessment scale version of the CARED Tool draws from established scales assessing social isolation, loneliness, and social support.

Prevalence of Social Isolation using CARED Assessment Tool

As the original CARED Tool was not developed for research purposes but rather to aid Community Connectors in identifying signs of social isolation and loneliness, there are no published prevalence rates using the tool. However, as explained above, all items of the CARED Assessment Tool are based on concepts of social isolation, loneliness, and social support that appear in established scales (e.g., SSIS, CES-D, MOS).

Table 2 A Comparison of 3 Different Measurement Tools

Concepts	Definitions	SSIS	LSNS-6	CARED Assessment Tool
Social Networks	Structural characteristics of network members (contact frequency; number)	✓	✓	✓
Social participation	Participation in social activities/wider community	✓		✓
Living alone	Living alone	✓		✓
Social support	Functional characteristics of network members (types of support)		✓	✓
Loneliness	Feeling of dissatisfaction with actual vs. desired social relationships (quality; quantity; types)			✓

SUMMARY/CONCLUSIONS

In this report we first discussed social connection and social isolation and some of the factors that can be fostered to maintain/enhance social connection including:

- Interacting with social network members (social networks)
- Participating in social activities and wider community (social participation)
- Having people who support us in different ways (social support)
- Feeling connected and satisfied with relationships (being rarely or not lonely)

Next, we presented three measurement scales of social connection and social isolation. Each scale is multidimensional and taps into different dimensions as follows:

- Structural Social Isolation Scale (5 items) (social networks and social participation)
- Lubben Social Networks Scale (6 items) (social networks and social support)

- CARED Assessment Tool (5 items) (social networks, social participation, social support, and loneliness)

To address and prevent social disconnection among older adults it is important to have a shared understanding of definitions and measures. It is hoped that this report and the accompanying assessment tools can be used by those working with older adults as well as older adults and family/friends to further understand social connection and social isolation as well as to be able to work to address and prevent social disconnection. Future work includes testing of these measures to be used for clinical and/or community practice to help identify older adults who may benefit from being connected to community resources.

References

- BC Government. (n.d.) Extreme Heat Preparedness Guide. Retrieved from:
https://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/emergency-preparedness-response-recovery/embc/preparedbc/preparedbc-guides/preparedbc_extreme_heat_guide.pdf
- Berkman, L. F., & Syme, F. L. (1979). Social networks, host resistance, and mortality: a nine-year follow-up study of Alameda County residents. *American Journal of Epidemiology*, *185*, 1070–1088.
- Blozik, E., Wagner, J. T., Gillmann, G., Iliffe, S., von Renteln-Kruse, W., Lubben, J., Beck, J. C., Stuck, A. E., & Clough-Gorr, K. M. (2008). Social network assessment in community-dwelling older persons: Results from a study of three European populations. *Aging Clinical and Experimental Research*, *21*, 150-157. <https://doi.org/10.1007/bf03325223>
- Boss, L., Kang, D., & Branson, S. (2015). Loneliness and cognitive function in the older adult: a systematic review. *International Psychogeriatrics*, *27*(4), 541-553. <https://doi.org/10.1017/S1041610214002749>
- Cloutier-Fisher, D., & Kobayashi, K. M. (2009). Examining social isolation by gender and geography: Conceptual and operational challenges using population health data in Canada. *Gender, Place, & Culture*, *16*, 181-199. <http://dx.doi.org/10.1080/09663690902795787>
- Buz, J., de Jong Gierveld, J., & Perlman, D. (2021). Preventing Loneliness. In F. Rojo-Perez, & G. Fernandez-Moyoralas (Eds), *Handbook of Active Ageing and Quality of Life*. Springer.
- de Jong Gierveld, J., & Fokkema, T. (2015). Strategies to prevent loneliness. In A. Sha'ked & A. Rokach (Eds.), *Addressing Loneliness: Coping, Prevention and Clinical Interventions*. Routledge/Taylor & Francis Group.
- De Jong Gierveld, J., & Van Tilburg, T. (2006). A six-item scale for overall, emotional, and social loneliness. *Research on Aging*, *28*, 582-598. <https://doi.org/10.1177/0164027506289723>
- de Jong Gierveld, J. (1987). Developing and testing a model of loneliness. *Journal of Personality and Social Psychology*, *53*, 119-128. <https://doi.org/10.1037//0022-3514.53.1.119>
- Gilmour, H. (2012). Social participation and the health and well-being of Canadian seniors. Statistics Canada Health Reports. Catalogue no. 82-003-X.
- Globe and Mail. (2010, July 27). Good relationships have direct health benefits: Study.
- Harasemiw, O., Newall, N., Shoostra, S., Mackenzie, C., & Menec, V. (2018). From social integration to social isolation: The relationship between social network types and perceived availability of social support in a national sample of older Canadians. *Research on Aging*, *40*(8), 715-739. <https://doi.org/10.1177/0164027517734587>
- Harasemiw, O., Newall, N., Mackenzie, C., Shoostari S., & Menec, V. (2019) Is the association between social network types, depressive symptoms and life satisfaction mediated by

- the perceived availability of social support? A cross-sectional analysis using the Canadian Longitudinal Study on Aging. *Aging & Mental Health*, 23(10), 1413-1422.
<https://doi.org/10.1080/13607863.2018.1495176>
- Holt-Lunstad, J., Smith, T. B., & Layton, J. B. (2010). Social relationships and mortality: A meta-analytic review. *PLOS Medicine*, 7, 1-20. <https://doi.org/10.1371/journal.pmed.1000316>
- Holt-Lunstad, J. (2021). Loneliness and social isolation as risk factors: The power of social connection in prevention. *American Journal of Lifestyle Medicine*, 15(5), 567-573.
<https://doi.org/10.1177/15598276211009454>
- Kobayashi, K. M., Cloutier-Fisher, D., & Roth, M. (2009). Making meaningful connections: A profile of social isolation and health among older adults in small town and small city, British Columbia. *Journal of Aging and Health*, 21, 374-397.
<https://doi.org/10.1177/0898264308329022>
- Lubben, J. E. (1988). Assessing social networks among elderly populations. *Family & Community Health*, 11, 42-52.
- Lubben, J., Blozik, E., Gillman, G., Iliffe, S., Wolfgang von Rentln Kruse, Beck, J. C., & Stuck, A. E. (2006). Performance of an abbreviated version of the Lubben Social Network Scale among three European community-dwelling older adult populations. *Gerontologist*, 46, 503-513. <https://doi.org/10.1093/geront/46.4.503>
- Menec, V.H., Newall, N.E., Mackenzie, C.S., Shooshtari, S., Nowicki, S. (2019) Examining individual and geographic factors associated with social isolation and loneliness using Canadian Longitudinal Study on Aging (CLSA) data. *PLoS ONE*, 14(2): e0211143.
<https://doi.org/10.1371/journal.pone.0211143>
- Menec, V. H., Newall, N.E., Mackenzie, C.S., Shooshtari, S., Nowicki, S. (2020). Examining social isolation and loneliness in combination in relation to social support and psychological distress using Canadian Longitudinal Study of Aging (CLSA) data. *PLoS ONE*, 15(3): e0230673. <https://doi.org/10.1371/journal.pone.0230673>
- Menec, V., Newall, N., & Rose, A. (2023). Social isolation and loneliness among older adults: Perspectives of pharmacists, primary care providers, and bank tellers. Report prepared for Targeting Isolation: Manitoba. Retrieved from:
<https://www.targetingisolation.com/all-reports>
- Menec, V., Newall, N., & Rose, A. (2024). Profile of older Manitobans: Canadian Longitudinal Study on Aging Data, 2018-2021. Report prepared for Targeting Isolation: Manitoba. Retrieved from: <https://www.targetingisolation.com/all-reports>
- Newall, N. (2015). Who's At My Door Project: How organizations find and assist socially isolated older adults. Centre on Aging: Winnipeg, Manitoba. Retrieved from:
<https://umanitoba.ca/centre-on-aging/sites/centre-on-aging/files/2021-02/centre-aging-research-publications-report-who%27s-at-my-door-project.pdf>
- Newall, N. E. G., Chipperfield, J. G., & Bailis, D. S. (2014). Predicting stability and change in loneliness in later life. *Journal of Social and Personal Relationships*, 31(3), 335-351.
<https://doi.org/10.1177%2F0265407513494951>

- Newall, N., & Menec, V. (2019). Loneliness and social isolation of older adults. Why it is important to examine these social aspects together. *Journal of Social and Emotional Relationships*, 36(3), 925–939. <https://doi.org/10.1177/0265407517749045>
- Newall, N., & Menec, V. (2020). A comparison of different definitions of social isolation using Canadian Longitudinal Study on Aging (CLSA) data. *Ageing & Society*, 40(12), 2671-2694. <https://doi.org/10.1017/S0144686X19000801>
- Newall, N. & Menec, V. (2022, conference). Presenting a model of loneliness and social isolation prevention and intervention. Canadian Association on Gerontology Annual Meeting, Regina, SK, October 2022.
- Newall, N, Menec, V., & Rose, A. (2023). Training case finders to identify and refer socially isolated adults to services: Piloting an e-module for pharmacists and other healthcare professionals. Presented at the Canadian Association on Gerontology Annual Meeting, Toronto, Ontario, Canada, October, 2023.
- Newall, N., Menec, V., & Rose, A. (under review). Case Finder Training: Developing tools and resources for Case Finders to recognize the signs and risk factors of social isolation and loneliness in older adults. *Health and Social Care in the Community*.
- Perlman, D. (2004). European and Canadian studies of loneliness among seniors. *Canadian Journal on Aging*, 23, 181–188. <https://doi.org/10.1353/cja.2004.0025>
- Radloff, L. S. (1977). The CES-D Scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement*, 1, 385–401.
doi:10.1177/014662167700100306
- Sherbourne, C. D., & Stewart, A. L. (1991). The MOS social support survey. *Social Science & Medicine* 32, 705–714. [https://doi.org/10.1016/0277-9536\(91\)90150-b](https://doi.org/10.1016/0277-9536(91)90150-b)
- Shimada, K., Yamakazi, S., Nakano, K., Ngoma, A. N., Takahashi, R., & Yasumura, S. (2014). Prevalence of social isolation in community dwelling elderly by differences in household composition and related factors: From a social network perspective in urban Japan. *Journal of Aging and Health*, 26, 807-823. <https://DOI.org/10.1177/0898264314531616>
- Steptoe A., Shankar A., Demakakos, P, & Wardle, J. (2013). Social isolation, loneliness, and all-cause mortality in older men and women. *PNAS*, 110, 5797–5801.
<https://doi.org/10.1073/pnas.1219686110>
- UK Campaign to End Loneliness. (2015). Measuring your impact in later life. Retrieved from: <https://www.campaigntoendloneliness.org/wp-content/uploads/Loneliness-Measurement-Guidance1.pdf>
- Valtorta, N. K., Kanaan, M., Gilbody, S., & Hanratty, B. (2016). Loneliness, social isolation, and social relationships: What are we measuring? A novel framework for classifying and comparing tools. *BMJ Open Access*. <http://dx.doi.org/10.1136/bmjopen-2015-010799>
- Vancouver Sun. (2021, July). Hundreds who died from heat exposure in B.C. were mostly seniors found alone in unventilated suites, says coroner. Retrieved from: <https://vancouver.sun.com/news/local-news/hundreds-who-died-from-heat-exposure-in-b-c-were-mostly-seniors-found-alone-in-unventilated-suites-says-coroner>

Wenger, G. C. (1991). A network typology: From theory to practice. *Journal of Aging Studies*, 5, 147-162. [https://doi.org/10.1016/0890-4065\(91\)90003-B](https://doi.org/10.1016/0890-4065(91)90003-B)

APPENDIX A: ASSESSMENT TOOLS

STRUCTURAL SOCIAL ISOLATION SCALE (SSIS)

	STRENGTHS	LIMITS
1. LIVING SITUATION Are you living with other people?	Yes 0	No 1
SOCIAL NETWORKS In past 6 months, how often have you <u>gotten together</u> with...		
2. ...children?	Monthly or more contact 0	Less than monthly contact (or N/A) 1
3. ...other family/relatives?	Monthly or more contact 0	Less than monthly contact (or N/A) 1
4. ...friends or neighbours?	Monthly or more contact 0	Less than monthly contact (or N/A) 1
SOCIAL PARTICIPATION		
5. In past 6 months, how often have you <u>participated in social activities</u> (e.g., with friends/family, volunteering, wider community) Do you work? (part- or full-time)	Participates 2+ times per month and/or works 0	Participates 0-1 times per month and does not work 1
TOTAL		/5 (2+ = socially isolated)

Scoring: Sum the columns, giving one point for each. Scores range from 0 to 5.

Total right hand column: 0-1= not isolated; 2+ = socially isolated.

Adapted from Sources: Menec, V.H., Newall, N.E., Mackenzie, C.S., Shooshtari, S., Nowicki, S. (2019) Examining individual and geographic factors associated with social isolation and loneliness using Canadian Longitudinal Study on Aging (CLSA) data. PLoS ONE, 14(2): e0211143. <https://doi.org/10.1371/journal.pone.0211143>. Newall, N., & Menec, V. (2020). A comparison of different definitions of social isolation using Canadian Longitudinal Study on Aging (CLSA) data. Ageing & Society, 40(12), 2671-2694. <https://doi.org/10.1017/S0144686X19000801>

LUBBEN SOCIAL NETWORKS SCALE (LSNS-6)

0 None	1 One	2 Two	3 Three or four	4 Five through eight	5 Nine or more
STRENGTHS ----->					

Family/Relatives		Friends/Neighbours	
How many relatives (including partner) do you <u>see or hear</u> from at least once a month?		How many friends do you <u>see or hear</u> from at least once a month?	
How many relatives (including partner) do you feel close to such that you could <u>call on them for help</u> ?		How many friends do you feel close to such that you could <u>call on them for help</u> ?	
How many relatives (including partner) do you <u>feel at ease with</u> that you can talk about private matters?		How many friends do you <u>feel at ease with</u> that you can talk about private matters?	
Relatives total /15	<u> </u> 15	Friends total /15	<u> </u> 15
		Relatives + Friends total /30 0-11= socially isolated	<u> </u> 30

Scoring: Sum total of these six items. Scores range from 0 to 30. 0-11 = socially isolated; 12+ = not socially isolated. Friend and Relative subscales: 0-5 = isolated; 6+ = not isolated.

Adapted from Source: Lubben, J., Blozik, E., Gillman, G., Iliffe, S., Wolfgang von Rentln Kruse, Beck, J. C., & Stuck, A. E. (2006). Performance of an abbreviated version of the Lubben Social Network Scale among three European community-dwelling older adult populations. *Gerontologist*, 46, 503-513. <https://doi.org/10.1093/geront/46.4.503>

CARED ASSESSMENT TOOL

SHOW SOMEBODY YOU CARED ASSESSMENT TOOL

The **CARED Assessment Tool** can help Community Connectors identify the signs of social isolation and loneliness and decide if somebody should be referred to appropriate community resources. Ask the following CARED questions:

CARED criteria	Questions	Strengths	Limitations
C onnections	In the <u>past week</u> , how often did you feel lonely? Never or rarely (less than 1 day)___ Sometimes (1-2 days) ___ Often (3-4 days) ___ Almost Always (5-7 days)___	Never or rarely lonely 0	Lonely sometimes+ 1
A ctivities	Do you participate in 2 or more social activities <u>per month</u> ? <i>AND/OR</i> Do you work? Yes ___ No ___	Yes 0	No 1
R elationships	In <u>past month</u> , have you gotten together with any one of the following, at least once? Friends ___ Neighbours ___ Children ___ Relatives ___	Yes 0	No 1
E mergency contact	Do you have someone that you could <u>ask for help</u> (e.g., if you were sick)? <i>AND/OR</i> Do you have an emergency contact? Yes ___ No ___	Yes 0	No 1
D welling	Do you live with other people? <i>AND/OR</i> Do you feel safe in your dwelling? Yes ___ No ___	Yes 0	No 1
Total ___/5			(3+=disconnected)

Scoring: Add up the number in the far right column, giving one point for each the five criteria. The total score ranges from 0-5. A score of 3-5 means the person is socially isolated or socially disconnected (i.e., lacks social contact, support, and/or is lonely) and should be referred to appropriate community resources. A score of 1 or 2 means the person is at risk; referral may still be useful – keep the conversation going. A score of 0 means the person is not socially isolated or socially disconnected, but watch for possible changes.