

AVOID FRAILTY-TAKE CONTROL



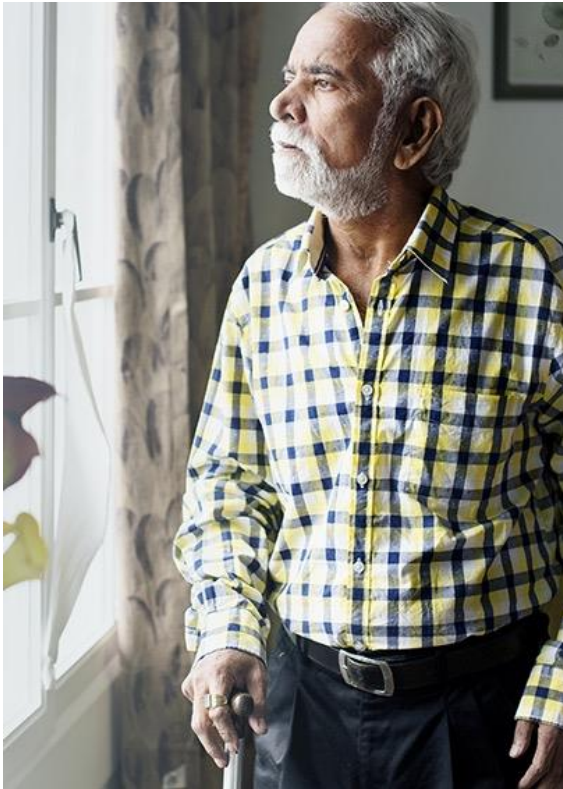
ÉVITER LA FRAGILISATION

Session Objectives

By the end of this session, you will:

- ❑ be aware of risk factors and possible negative outcomes of social isolation and loneliness
- ❑ appreciate the potential for a range of technologies supporting communication and independence to reduce risk of social isolation and loneliness
- ❑ be able to identify some new strategies to improve your interactions

Lack of Interactions - Social Isolation & Loneliness



- ❑ **Social Isolation** is an objective state, based on the number of contacts with family, friends, neighbours, and community.
- ❑ **Loneliness** is a subjective sense of being alone or wanting more connection.
- ❑ Someone can have little social contact and not feel lonely, or have many social resources but feel lonely

Rates of Social isolation and Loneliness

- ❑ Studies between 2008-2018 suggested that about 12-30% of Canadian seniors reporting feeling socially isolated and 12-20% feelings of loneliness.
- ❑ During Pandemic rates increased with initial surveys suggesting rates of 29-40% feeling socially isolated and 31-51% lonely
- ❑ Data drawn from the Canadian Longitudinal Study on Aging (CLSA) suggested there was a 67% increase in the rate of loneliness for women aged 65 to 74, and 37% for those aged 75 to 84

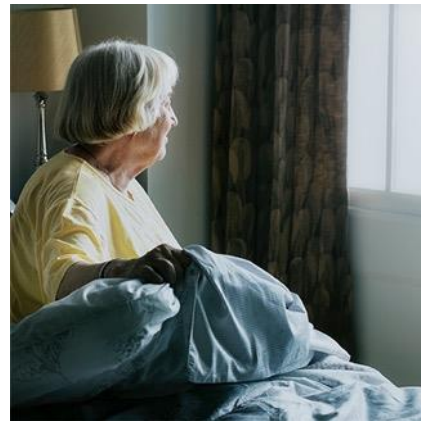
Risk Factors for Social Isolation and Loneliness

SOCIODEMOGRAPHIC RISK FACTORS	MEDICAL RISK FACTORS	SOCIAL RISK FACTORS
Increased age	Multi-morbidity	Living alone
Female sex	Hearing or vision loss	Living far from family
Low income	Cognitive impairment	Lack of transportation
Living in long-term care	Functional impairment	Few friends
Living in isolated rural areas	Frailty	Caregiver of an elderly relative
Living in low-income urban areas		Life changes: change of residence, loss of a spouse, and declining health and/or functional capacity

Adverse outcomes associated with loneliness and social isolation

PHYSICAL HEALTH	MENTAL HEALTH	HEALTH SERVICE USE
Increased mortality	Increased depression	Increased emergency department visits
Increased falls	Increased dementia	Increased physician visits
Increased cardiovascular disease	Decreased life satisfaction	Increased hospital readmissions
Increased serious illness	Increased elder abuse	Increased long-term care admissions
Increased functional decline		
Increased malnutrition		

Impact of Social Isolation and Loneliness



Having weak social connections carries a health risk that is:

- ◆ Equivalent to smoking 15 cigarettes a day
- ◆ Equivalent to being alcoholic
- ◆ More harmful than not exercising
- ◆ Twice as harmful as obesity

Linking Frailty and Loneliness



- ❑ Lonely and socially isolated older adults have a 45% increased risk of becoming physically frail and at risk of death.
- ❑ 15-30% of frail older adults have social isolation present

COVID-19 Pandemic Increased the Risk of Social Isolation and Loneliness



- ❑ Public Health measures were implemented (e.g. lockdowns, physical distancing) to minimize spread of the virus
- ❑ Many services, clubs, and volunteer organizations shutdown.
- ❑ Feelings of potential ageism emerged (social exclusion, internalized feeling of being devalued and a burden)
- ❑ Bereavement processes were altered due to loss of normal grieving outlets and without usual support systems

Under Recognition of Isolation and Loneliness

- ❑ Loneliness is a hidden epidemic, that is particularly acute in Canada in older adults, people with disabilities, new immigrants, refugees, and poor people
- ❑ Many Canadians lose connections with family, friends, neighbours, and community groups
- ❑ We need to be proactive and ask ourselves what is my or my family member's situation like?

Prevent and Reduce Social Isolation



- ❑ Older adults with strong social relationships enjoy a better quality of life and often live longer.
- ❑ Maintaining levels of social engagement that you are comfortable with as you age, is very important.

Building Connections

This Promising Practices Summary was produced by the Centre for Studies in Aging and Health at Providence Care in 2021 in response to unmet need during the COVID-19 pandemic.
(www.agefriendlyontario.ca)

Building Connections: Promising Practices to Reduce Older Adult Social Isolation for Age-Friendly Community Initiatives



The Ontario Age-Friendly Communities Outreach Program

2021

Building Connections

Five types of programs effective in mitigating social isolation were identified: Arts, Social Interaction, Technology, Education, Physical Activity.

Programs that incorporate multiple types were found to be most effective in mitigating social isolation.

There was no significant difference in effectiveness between programs designed for individuals and groups.



Arts



Social Interaction



Technology



Education



Physical activity

Take A-STEP: Types of Effective Programs

Name of Initiative	Arts	Social Interaction	Technology	Education	Physical Activity
Activation At-Home Kits	■				
Adopt a Grandparent		■			
Adult Recreation Therapy Centre	■			■	■
Better At Home		■			
Buddy Services for Seniors		■			
Buzz Me		■			
Connected Canadians			■	■	
Coping with Loneliness: A resource for Older Adults				■	
COVID-19 Seniors Support Task Force		■			
CSARN Mentorship Program	■	■		■	
CSARN Video resources and seminars	■			■	
Cyber Seniors		■	■	■	
ENRICHES Engagement		■		■	
Facebook Group - Do You Know Your Neighbour		■			
Friendly Neighbour Hotline		■			
Friendly Voice		■			
Gluu Essentials			■	■	
Good Neighbour Printable Note Card		■			
Home Share		■			
Immigrant Seniors go Digital			■	■	
Inclusive Programs with Sunshine Centres for Seniors		■			■
Life Enrichment Programming	■	■	■	■	■
Links 2 Care		■		■	
Meals on Wheels		■			
Mentoring Plus		■			
ParticipACTION				■	
Phone Buddy		■			
Rx: Community Social Prescribing		■	■	■	
SAFE ZONE Brant				■	■
Safety Webinars			■		
Seniors Can Connect			■	■	
Seniors' Centre Without Walls		■		■	
Seniors Quality of Life Outreach	■	■		■	■
Spark Ontario	■	■	■		■
Student-Senior Isolation Prevention Project		■	■	■	
Sunshine Call Project		■			
TelePALS		■	■	■	
The Bright Spot	■	■	■	■	■
The Village C.A.R.E.S. Initiative		■			
Timiskaming Connections Volunteer Line		■			
Virtual Social Recreation		■	■	■	■
Virtual Visits Toolkit		■			
Virtual YMCA				■	
Volunteer Grandparents		■			
Youth Teaching Adults			■	■	

Technology tools to monitor and enhance social engagement

- ❑ Information and Communications Technology (ICT) is defined as “a diverse set of technological tools and resources used to transmit, store, create, share or exchange information”
 - ◆ those that act as a socialization tool to facilitate and enhance social interactions and connections among and between individuals (Social ICT)
 - ◆ those that can collect and transmit information for monitoring and feedback (Physical ICT).

ICT impact on Social isolation and Loneliness

- ❑ Strategies for increasing social communication and social participation (social networks, video chat, messaging services and games) can help reduce the social isolation problem whereas those fulfilling emotional relationships (virtual coaching, robotics, and virtual companion) can offer support in tackling loneliness.
- ❑ Use of both Social and Physical ICT is associated with reduced loneliness by supplementing existing social connections, enabling reconnection, and supporting the formation of new relationships.
- ❑ Physical ICT reported as method of detecting and monitoring loneliness
- ❑ Engaging seniors themselves in co-design, building upon existing social support systems and provision of training and ongoing support, were identified as facilitators of effective use of ICT

Technology tools to monitor and enhance social engagement

- ❑ Information and Communications Technology (ICT) is defined as “a diverse set of technological tools and resources used to transmit, store, create, share or exchange information”
- ❑ Includes
 - ◆ Digital Communication Tools
 - ◆ Online Learning and Hobbies
 - ◆ Virtual Reality (VR) and Augmented Reality (AR)
 - ◆ Social Robots and Artificial Intelligence
 - ◆ Smart Homes, Assistive Devices and Wearables

Digital Communication Tools: Bridging Distances and Connecting Hearts

- ❑ Video Calls: Platforms like Zoom, Skype, and FaceTime. Real-time face-to-face interaction.
- ❑ Social Media: Facebook, Instagram, and specialized platforms catered to older adults (SeniorChatters or Stitch).
- ❑ Instant Messaging & Emails: Immediate communication or meaningful long-form letters.
- ❑ Forums and Interest-based Groups

Digital Communication Tools: Video Calls – making distance irrelevant

- ❑ Plethora of platforms and devices available: Zoom, Skype, FaceTime, Microsoft Teams and more.



Digital Communication Tools:

Video Calls – making distance irrelevant

- ❑ Plethora of platforms available: Zoom, Skype, FaceTime, Microsoft Teams, and more.
- ❑ Benefits
 - ◆ Emotional Connect: Seeing loved ones, watching grandchildren grow, or just sharing a moment visually can immensely enhance the quality of communication.
 - ◆ Versatility: Apart from personal conversations, these tools can be used for virtual doctors' appointments, group classes, or community gatherings.
 - ◆ Accessibility: Many modern smart phones, tablets and smart TV devices come with built-in cameras and microphones. Ensuring older adults have the necessary equipment and internet connection is essential.

Digital Communication Tools:

Social Media - Building and Nurturing Communities

- ❑ Social Media: Facebook, Instagram, and specialized platforms catered to older adults (SeniorChatters or Stitch).



Digital Communication Tools:

Social Media - Building and Nurturing Communities

- ❑ Social Media: Facebook, Instagram, and specialized platforms catered to older adults (SeniorChatters or Stitch).
 - ◆ Benefits: Many have found old friends or extended family members through platforms like Facebook.
 - ◆ Share and Receive: Whether it's pictures, stories, or life updates, social media allows for bi-directional communication.
 - ◆ Safety and Navigation: Ensuring older adults understand privacy settings, spotting misinformation, and avoiding potential online scams is crucial.

Digital Communication Tools:

Instant Messaging & Emails- Immediate and Thoughtful Communication

- ❑ Instant Messaging & Emails: Immediate communication or meaningful long-form letters.
- ❑ Platforms: WhatsApp, Telegram, Viber for instant messages, and providers like Gmail, Yahoo, and Outlook for emails.
- ❑ Benefits:
 - ◆ Instant Gratification: Instant messaging allows for real-time text-based conversations, mimicking the immediacy of a real-life chat.
 - ◆ Long-form Communication: Emails provide an avenue for more detailed, thoughtful, and long-form communication, somewhat reminiscent of the handwritten letters of the past.
 - ◆ Flexibility: Users can choose between quick check-ins or lengthy updates based on their comfort and the nature of the relationship.

Digital Communication Tools: Forums and Interest-based Groups

- ❑ Forums e.g. Seniors Forum Canada and Interest-based Groups
- ❑ Platforms: Websites like Reddit, Quora, or specialized forums around hobbies and interests.
- ❑ Benefits:
 - ◆ Common Interests: These platforms allow older adults to connect over shared hobbies, be it gardening, reading, or any other interest.
 - ◆ Learning: They serve as a wealth of knowledge and experience, where older adults can both learn and impart wisdom.

Digital Communication Tools: Challenges

❑ Technological Learning Curve:

- ◆ For some, the sheer variety and pace of digital tools can be daunting.
- ◆ Solution: Peer and intergenerational led workshops or one on one instruction

❑ Privacy Concerns:

- ◆ Older adults and others can be targets for online scams.
- ◆ Solution:
 - Education on privacy settings,
 - High level of suspicion, and
 - Ensuring strong, unique passwords.

Online Learning and Hobbies

Examples of Online Platforms

- ❑ MOOCs (Massive Open Online Courses): Websites like Coursera, Udemy, and edX offer courses from universities and institutions around the world on myriad topics. Participants can take anything from history lectures to photography classes.
- ❑ Skill-based Platforms: Websites like **Skillshare** focus on specific skills, be it painting, writing, or even digital tools. Perfect for hobbyists!
- ❑ Dedicated Senior Learning Platforms: Websites like **GetSetUp** or **Senior Planet** offer courses specifically designed for older adults, taking into consideration their pace, interests, and learning style.



Online Learning and Hobbies

- ❑ Arts and Crafts: Platforms like YouTube have countless tutorials for knitting, painting, sculpting, and other craft activities. Sites like **Etsy** can even turn hobbies into a source of income.
- ❑ Music: Websites like **Yousician** or **Simply Piano** can guide learners through instrument lessons. Older adults can also join online choirs or music appreciation groups.
- ❑ Gardening: Online forums like **GardenWeb** or instructional videos can offer tips, while apps can help track plant watering or growth schedules.
- ❑ Literature and Writing: Older adults can join online book clubs, participate in virtual writing workshops, or explore platforms like **Medium** to share their stories.

Virtual Reality (VR) and Augmented Reality (AR)

- ❑ Virtual Reality (VR):
Immerses users in a fully artificial digital environment. With specialized equipment like VR headsets, users can experience 360-degree simulations of alternate worlds, games, or recreated real-life settings.



Virtual Reality (VR) and Augmented Reality (AR)

- ❑ Augmented Reality (AR):
Overlays digital content on the real world through devices like smartphones, tablets, or specialized AR glasses. It doesn't replace the real world but enhances it with additional information or visuals.



Virtual Reality (VR) Experiences Tailored for Older adults

- ❑ **Virtual Travel:** With mobility becoming an issue for many older adults, VR can transport them to distant places they've always wanted to visit or revisit places from their memories.
- ❑ Imagine experiencing the streets of Paris or the beaches of Bali without leaving the living room.



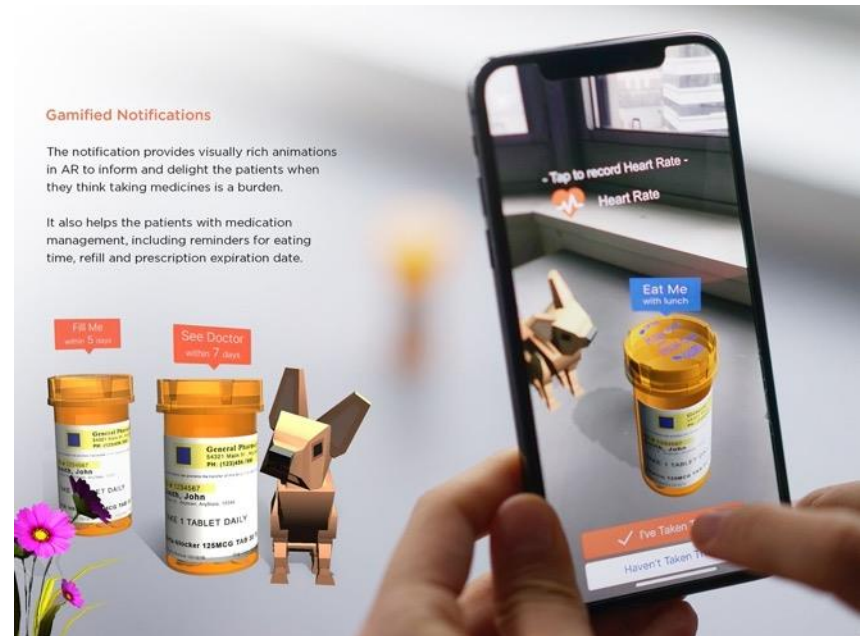
Virtual Reality (VR) Experiences Tailored for Older adults

- ❑ **Recreating Memories:** Companies are working on creating customized VR environments based on personal photos or videos. This can allow older adults to virtually relive precious moments, like a past family gathering.
- ❑ **Interactive VR Social Platforms:** Spaces where older adults can engage with family or make new friends in a virtual setting, attend group activities, or simply enjoy a digital environment together.



The Promise of AR for Daily Activities

- ❑ Medication Management: AR apps can recognize medicine bottles and provide real-time information about dosage, timing, and side effects, ensuring better adherence to medication regimens.



The Promise of AR for Daily Activities

- ❑ Navigation and Mobility: AR can help older adults navigate unfamiliar environments by providing real-time directions, highlighting obstacles, or even providing public transportation information.



The Promise of AR for Daily Activities

- ❑ Assistance with Daily Tasks: AR can provide visual cues for everyday chores.
- ❑ For instance, AR glasses could display a recipe while someone cooks, showing step-by-step instructions directly overlaying the cooking process.



Health and Therapy Applications of VR and AR

- ❑ **Physical Therapy:** VR can make exercise and physical rehabilitation more engaging by integrating exercises into interactive games or scenarios.
- ❑ **Cognitive Therapy:** Both VR and AR can offer applications designed to stimulate cognitive functions, memory recall, and even combat symptoms of dementia or Alzheimer's by engaging patients in problem-solving, memory games, or simulated experiences.
- ❑ **Emotional Well-being:** Relaxing VR environments, like a peaceful beach or serene forest, can help reduce stress, anxiety, and even symptoms of depression.

Social (Assistive) Robots and AI Assistants

- ❑ Social Robots: These are robots designed to help people with their daily activities, ensuring safety, comfort, and sometimes companionship. They can be particularly beneficial for older adults by enhancing their independence and providing mental and emotional support.
- ❑ AI (Artificial Intelligence): Refers to machines, software, or systems that can perform tasks that typically require human intelligence, like understanding speech, making decisions, or recognizing patterns. AI can power many of today's technological tools, including assistive robots.

Social (Assistive) Robots

- ❑ Robotic Pets: Devices like 'Paro,' a therapeutic robot seal, are designed to interact with older adults and provide comfort, especially in care settings or for those with dementia.
- ❑ These robots can respond to touch, sound, and light, providing a semblance of real interaction without the needs and challenges of a live pet.



Social (Assistive) Robots

- ❑ Humanoid Robots:
'Pepper' is a humanoid robot designed to recognize and respond to human emotions, making conversations more natural.
- ❑ Such robots can remind older adults of appointments, answer questions, or simply chat to reduce feelings of loneliness.



Smart Homes, Assistive Devices and Wearables

A smart home is a residence equipped with a variety of interconnected devices that can be controlled remotely through smartphones or computers.

- ❑ **Voice Assistants:** Devices like Amazon Echo (with Alexa) or Google Home can help seniors make calls, set reminders for medications, Control home lighting, and even provide entertainment or information, all through voice commands.
- ❑ **Smart Lighting:** Motion-activated or voice-Controlled lighting can ensure that seniors don't have to navigate dark spaces, reducing the risk of falls.
- ❑ **Temperature and Climate Control:** Smart thermostats can adjust the room temperature to desired settings automatically or be adjusted remotely, ensuring seniors always remain comfortable without manual adjustments.
- ❑ **Security Systems:** Video doorbells, smart locks, and surveillance cameras can allow seniors to verify visitors or seek help in emergencies without physical strain.

Smart Homes, Assistive Devices and Wearables

Ambient Assistive Devices and Wearables

These devices are designed to exist in the background or environment, continuously monitoring and assisting. Examples are:

- ❑ **Health Monitoring:** Wearable devices or bed sensors can track vital signs, sleep patterns, or even detect falls. The data can be sent to caregivers or medical professionals, allowing timely interventions.
- ❑ **Motion Sensors:** These can be installed around the home to track activity. If there's unusual inactivity (like no motion detected in the kitchen during usual mealtimes), it can signal potential problems, and help can be dispatched.
- ❑ **Smart Appliances:** Refrigerators that remind seniors when they're out of essential items, or stoves that automatically turn off after periods of inactivity, are examples.
- ❑ **Medication Dispensers:** Automated dispensers can ensure that medications are taken at the right dosage at the right times. These can pair with reminders or alerts to caregivers if doses are missed.

Smart Homes, Assistive Devices and Wearables

Benefits

- ❑ Increased Independence: With automated tasks and ambient monitoring
- ❑ Safety and Security: The risk of accidents can be greatly reduced. Additionally, immediate family or caregivers can be alerted promptly in case of emergencies.
- ❑ Peace of Mind for Families:
- ❑ Data-Driven Health Insights

Challenges/Concerns

- ❑ Privacy Concerns: Continuous monitoring can raise privacy issues
- ❑ Technological Overwhelm: Transitioning to a high-tech home might be daunting. Gradual introduction, accompanied by training and user-friendly interfaces, can ease this transition.
- ❑ Cost: Setting up a fully integrated smart home can be expensive. While long-term benefits may justify the cost, initial investment might be a barrier for some.

Technology Gap (Digital Divide)

- Between 2007-2016 internet rose from 32% to 68%.
- Home broadband was accessed by 83% in 2020, with 65% owning a smart phone and 72% confident in using technology.



Technology Gap (Digital Divide)

- ❑ Despite these increases a gap or digital divide still exists especially for vulnerable groups – very old, new older immigrant, low income, indigenous and remote rural communities.
- ❑ Several studies identified barriers to tech adoption during the pandemic, including uncertainty about tech benefits, cost, tech literacy, physical and cognitive challenges, privacy concerns, and potential fraud risks.



Bridging the Gap

- **Tailored Digital Literacy Programs:** Offer courses designed for seniors, considering their pace and unique challenges.
 - [Cyber Seniors](#) provides seniors with tech-training using an intergenerational, volunteer model. High school and university/college students are trained to act as digital mentors and seniors gain access to effective technology training and intergenerational communities that keep them socially connected and engaged.
 - [Connected Canadians](#) is a non-profit organization that promotes digital literacy among seniors by providing technology training and support

Bridging the Gap

- **Affordable Tech for Seniors:** Subsidies or discounts on tech devices and services can make adoption more feasible.
- **Inclusive Design:** Devices and software tailored to the needs and preferences of seniors, with larger fonts, simpler interfaces, and clear instructions.
- **Community Tech Hubs:** Spaces where seniors can access technology, get hands-on assistance, and learn in a community setting.

Bridging the Gap

- **Family and Caregiver Support:** Encourage younger family members or caregivers to introduce and guide seniors in the digital realm.



Any Questions?



Dr John Puxty

puxtyj@providencecare.ca

www.sagelink.ca