Social Isolation to Social Connection

FINAL REPORT TO AGE-FRIENDLY PETERBOROUGH
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Executive Summary

Introduction

Social isolation is a public health crisis that affects approximately 12% of Canadian seniors. Researchers have even declared an epidemic of loneliness and social isolation (Wood, 2013). Seniors who are socially isolated are at a higher risk of high blood pressure, depression, cognitive decline, premature mortality, and overall lower quality of life (Johnson et al., 2017, Smith et al., 2020). The COVID-19 pandemic has undoubtedly created more barriers to social connection and exacerbated the effects of isolation among the marginalized and chronically isolated seniors (Smith et al., 2020). Seniors over the age of 70 with pre-existing conditions are considered a high-risk group for severe complications if they contract COVID-19 (Public Health Agency of Canada, 2020). Therefore, early in the first wave of the pandemic, seniors were advised to self-isolate and practice social distancing. Thus, social isolation, particularly among frail community-dwelling seniors and their caregivers, was a concern of Age-friendly Peterborough (AFP) prior to the COVID-19 pandemic but addressing it became urgent during the pandemic.

The *Social Isolation to Social Connection* project aligns with the Age-friendly Peterborough (AFP) Building Relationships Working Group's (WG) strategic direction to ensure that outreach and engagement programs can support older adults to re-engage in their communities and mitigate the negative effects of isolation. This was a three-part project, comprised of the Health and Housing Navigation component that explored the current state of seniors' health and housing services in the Peterborough region and presented promising practices to meet the needs of this population. The second component focused on improving communication to seniors to enhance their access to supportive services. The third component was a research study that aimed to prevent and mitigate the negative impacts of social isolation of community-dwelling frail seniors, their family, and formal caregivers during and post-pandemic. Knowledge exchange was integrated throughout all phases of each of the three project components.

Methodology

Three different methods were used to meet the objectives for each of the project components. For component one, secondary data analysis was conducted to create the

demographic profile of Peterborough to identify projected needs. A literature review was completed for the second component of the project to create promising practices and to support the use of different communication tools. Lastly, a PAR approach was used to explore the social isolation and other health experiences of seniors and their caregivers during the pandemic.

Key Project Findings

1. Peterborough has the largest proportion of seniors (22.2%) in any major city in Ontario and the second largest in any major city in Canada (Government of Canada, 2016). This proportion is projected to increase to 29.1% by 2040 with 50,791 residents in Peterborough being aged 65 and older (Government of Ontario, 2019).
2. The availability, affordability, and accessibility of holistic health supports, and housing options need to be addressed to ensure that seniors can maintain their health and well-being in the Peterborough region, especially as the proportion of seniors increases.
3. Thirty-nine individual promising practices were identified and evaluated as potential strategies to recommend to stakeholders to prevent and mitigate social isolation among seniors including home-sharing models, physical infrastructure, and programs that build social networks and access to health and social services.
4. Altered social relationships and mental strain were the dominant health experiences among seniors, family, and formal caregivers during the pandemic.

Recommendations

A set of ten recommendations were developed based on data from each component of the project and through collaboration with community members.

1. **Facilitate** respectful, two-way collaborative communication across the full spectrum of care among seniors, caregivers, and health and social service providers.
2. **Promote** emerging technology support and technology-based resources for

seniors and caregivers to maintain their social, mental, and physical health in the community (e.g., 211, virtual visiting programs, virtual care options, volunteer opportunities, technology distribution programs, access to medical and care records, and training sessions).

3. **Promote** available services, programs, and policies to support the well-being of seniors and their caregivers (e.g., social prescribing, navigator roles, 211, vulnerable seniors outreach, Senior Connectors, Neighbours for Neighbours)
4. **Promote** public health guidelines (e.g., PPE, Infection Prevention and Control (IPAC), physical distancing, virtual visiting).
5. **Advocate for** enhanced financial and physical resources (e.g., PPE, training for family caregivers, volunteers, and paid staff who support community-dwelling seniors).
6. **Advocate for** incentives to work in the home care sector (e.g., increased wages, paid benefits).
7. **Advocate for** enhanced accessibility to supports and services required by seniors as they age at home.
8. **Promote** rural transportation busing and volunteer driver enhancements (e.g., Community Care driver program and The Link).
9. **Advocate for** expanding safe opportunities for social and physical health activities (e.g., Seniors Centre Without Walls, Community Care and Alzheimer's Society Zoom programs, Walking Groups, Telephone check-ins).
10. **Advocate for** affordable, supportive, communal housing options to meet the needs of vulnerable seniors and mitigate caregiver strain (e.g., Kawartha Commons Cohousing, HomeShare, Abbeyfield, Trent Seniors Village, LHIN supported and Peterborough Housing Corp congregate living - Spruce Corners – Apsley, Bonaccord Collaborative Transition Facility).

The next steps in knowledge exchange are to further engage stakeholders who are most affected by the recommendations and those with the authority to influence decisions. Action is needed now to address the current needs of frail seniors, their caregivers, and the increased needs in the next 10 to 20 years.

Literature Review

Before the pandemic, an estimated 12% of Canadian seniors reported feeling socially isolated (Gilmour & Ramage-Morin, 2020). Social isolation refers to a lack of high quantity and quality social contacts (Cotterell et al., 2018; Freedman & Nicolle, 2020; Nicholson, 2012). Social isolation can be experienced by people of all ages, but the risk of becoming isolated increases with age (Cacioppo & Cacioppo, 2018). Frailty, as indicated by multi-morbidities, significant weight loss, declining mobility, and cognitive impairment often triggers social isolation among seniors (Coker et al., 2019; Gobbens et al., 2010). Aging can also be accompanied by major role changes including retirement and becoming a family caregiver which increases older adults' susceptibility to social isolation (Smith et al., 2020). Additional risk factors for senior social isolation include living alone or in rural and Indigenous areas, low-income, and being a widow(er), separated or divorced (Employment and Social Development Canada, 2018; Kobayashi et al., 2009; Murphy, 2006). Seniors who are members of the LGBTQ communities, immigrants, and refugees also face other barriers to social connection due to cultural differences, language barriers, and discrimination (AARP Foundation, 2012; Employment and Social Development Canada, 2018). Social isolation has been recognized as a public health crisis because of the negative health effects including, but not limited to high blood pressure, depression, cognitive decline, premature mortality, and overall lower quality of life (Johnson et al., 2017; MacCourt, 2007; Murphy, 2006; Smith et al., 2020). Previous researchers have declared an epidemic of loneliness and social isolation, particularly among the senior population (Wood, 2013). Unfortunately, the COVID-19 pandemic has created more barriers to social connection and participation among seniors.

Seniors who are at higher risk of social isolation are also considered a high-risk group during the COVID-19 pandemic (Public Health Agency of Canada, 2020). In December 2020, the majority (77.6%) of COVID-19 cases in Canada are among younger age groups (0-59), however, hospitalizations remain highest among those over the age of 60 (70.8%) (Canada, 2020). Specifically, seniors aged 70 and older, with chronic conditions are at a higher risk of severe health impacts including death if they contract the COVID-19 virus (CDC, 2020; Peterborough Public Health, 2020).

Therefore, vulnerable seniors have been advised to practice social distancing and self-isolation for extended periods of time. The need to simply survive the COVID-19 pandemic has neglected the fact that social interactions are fundamental to the health, well-being, and quality of life of seniors. This is reflected in the increase in reported social isolation among seniors during the pandemic. For example, a survey of over 500 seniors aged 70 or older determined that 1 in 3 seniors reported feeling more socially isolated since the pandemic began (Day et al., 2020). Likewise, over 1500 community-dwelling seniors aged 65-102 were interviewed in 2019 and again in 2020. Their responses indicated that they were less socially and more emotionally lonely in 2020 during the pandemic than in 2019 pre-pandemic (van Tilburg et al., 2020). Seniors' mental and social health has undoubtedly been affected during the pandemic.

The health and well-being of the family and formal caregivers have also been affected both before and during the pandemic because of their caregiving responsibilities. Before the COVID-19 pandemic, 20-50% of family caregivers stated that their support needs were unmet and 40% of caregivers wanted additional home care supports (Government of Canada, 2020a, 2020b). Overwhelmingly, the most requested type of support was financial (Government of Canada, 2020b). Many family caregivers may be unaware of existing supports which presents another barrier to accessing them (Cooper et al., 2020; Government of Canada, 2020b). For caregivers to seniors in rural areas, transportation, geographic isolation, and scarcity of resources outside city boundaries are additional barriers they face when providing care (Henner, 2018). Family caregivers also commonly report having to leave their paid jobs to take care of their elderly family members creating financial, physical, and psychological stress (Cooper et al., 2020; Monahan, 2013). The COVID-19 pandemic has strained healthcare systems around the world (Chan et al., 2020). Healthcare institutions and individual care providers pivoted the way they delivered care to reduce potential virus exposure to vulnerable populations including seniors. Meanwhile, there has been a greater reliance on family to provide care in the home to increase the capacity of the community healthcare system during this public health emergency (Chan et al., 2020). In the first wave of the pandemic, approximately 25% of the general public took up home care responsibilities many of whom had to balance their paid work with their new

caregiving role (Chan et al., 2020). These family caregivers reported increases in psychological stress because they had inadequate knowledge to meet the needs of their family members (Chan et al., 2020). This trend of neglecting home care providers amid the pandemic was also seen among formal home care providers. Interviews with home care providers revealed that even though they were on the front lines of the pandemic they felt invisible and inadequately supported by their organizations (Sterling et al., 2020). These healthcare workers continued to provide care to high-risk patients despite physical distancing policies which meant they were doing more work to take precautions during their care visits (Sterling et al., 2020). Significant psychological stress was reported because they felt they were exposed to a higher risk of contracting the COVID-19 virus and transmitting it to other patients (Sterling et al., 2020). Evidently, the physical, mental, and social health of seniors and their family and formal caregivers was significantly affected by the COVID-19 pandemic.

Interventions to prevent social isolation among seniors existed before the pandemic but the development of new interventions in the age of physical distancing has become a priority for many governments and organizations. Examples of interventions used before the pandemic include community gardens, recreation, arts, pet visitation, computer literacy programs, internet, and social networking sites, potlucks, and other in-person individual and group social gatherings (Baker et al., 2018; Poscia et al., 2018; Tonkin et al., 2018). Other age-friendly initiatives have attempted to address the social determinants of health to combat social isolation. This includes developing a system of social prescribing, creating supportive seniors' housing options, expanding accessible transportation in both urban and rural areas, increasing existing government transfers for seniors (Old Age Security, Canadian Pension Plan, and Guaranteed Income Supplement), and expanding the criteria for these financial supports (Canadian Nurses Association, 2017; Hsiung, 2020; Jantzen, 2020; Savage et al., 2020; World Health Organization, 2007). New strategies to address this issue during the pandemic include the development of support hotlines, Neighbour to Neighbour campaigns that use apps and websites to connect seniors and their neighbours, and the distribution of robotic pets and tablets to seniors (National Governors Association, 2020). Intergenerational projects were also created between seniors and students

where students would connect with their senior partners every week (Joosten-Hagye et al., 2020; Levesque & Wickens, 2020). Even with these new approaches, certain groups of seniors remain unable to maintain social connections during the pandemic.

Finally, there is a lack of federal, provincial, and municipal policies to directly address both social isolation and caregiving issues. While policy implications may be included in academic and grey literature on social isolation there is still a significant gap between research and policy (Martin-Matthews et al., 2009). A prominent challenge in the translation of social isolation and caregiving research into policy is related to jurisdictional issues (Martin-Matthews et al., 2009). Policies that dictate the delivery of health and social services are located at the provincial/territorial level whereas policy domains for income security and labour are shared by both the federal and provincial/territorial governments (Martin-Matthews et al., 2009). It is difficult for all parties including researchers, service providers, and policymakers to agree on where to place evidence-informed policies (Martin-Matthews et al., 2009). Meanwhile, tax policies that dissuade “isolative behaviour” have also been suggested (Hodge et al., 2020). Hodge, White, and Reeves (2020) suggested the creation of solitude tax policies to reward people who are not living in single-resident homes similar to taxes created to reduce tobacco consumption (Hodge et al., 2020). This type of policy overlooks other factors that may influence seniors’ decisions to live alone including the recent loss of a partner, financial limitations, and familiarity/comfort living in that community. While a solitude tax may combat social isolation, it could create challenges in other aspects of seniors’ lives. The Ontario Human Rights Commission published a policy to prevent discrimination because of age in social domains like employment and housing (Ontario Human Rights Commission, 2009). Seniors should have the autonomy to age in place, with affordable services that are easily accessed to support dignity. However, it is up to governments, corporations, institutions, clubs, etc… to embed social inclusion policies into their own operations, to address barriers of employment, income, racism, transportation, volunteering, housing, and health care which can significantly impact social inclusion and participation. Overall, more can be done to create programs, practices, and policies that facilitate social inclusion among vulnerable, community-dwelling seniors.

The programs, practices, and policies that are related to maintaining physical, social, and mental health and housing, need to be addressed to facilitate social inclusion. Housing is recognized as a social determinant of health by the World Health Organization (World Health Organization, 2019). Therefore, when access to adequate and affordable housing is impeded by current programs, practices, or policies this directly impacts seniors' social, physical, and mental health. The next section of this report will identify major challenges for seniors to meet their health and housing needs in the City and County of Peterborough. A list of practices that could be used to mitigate these challenges is also detailed in this section.

Component 1: Health and Housing Navigation – Current State and Future Recommendations

The Health and Housing Navigation was the first component of the project. Access to adequate, affordable housing, health, and social services was indicated as a major priority in the Age-friendly Peterborough (AFP) Community Action Plan (referred to as the Plan from hereon) (Peterborough Council on Aging, 2017). It was noted amongst the AFP network, that the pandemic exacerbated the needs of seniors and the importance of reducing barriers to access appropriate options for housing, health, and social services.

Objectives

The first objective for this component of the project was to create a demographic profile of Peterborough City and County. This profile was used to identify the health and housing needs among older adults in Peterborough at present, and in 5 and 10 years. The second objective was to identify promising practices that could be used to meet the needs of seniors highlighted in the demographic profile. The focus was primarily on practices that have been used in other communities. Practices that currently exist in Peterborough were also evaluated to determine ways that AFP could support or enhance these practices.

Methods

Secondary data analysis was used to create the demographic profile. Peterborough specific data was collected and synthesized primarily from Statistics Canada, the Government of Ontario, the Central East Local Health Integration Network (LHIN), and the Canadian Mortgage and Housing Corporation (Canadian Mortgage and Housing Corporation, 2020; Central East Local Health Integration Network, 2020; Government of Canada, 2012, 2016; Government of Ontario, 2019). A literature review in conjunction with environmental scanning was performed to gather information on promising practices to mitigate social isolation among community-dwelling seniors. A SWOT analysis was used to evaluate the strengths, weaknesses, opportunities, and threats of each practice to inform recommendations based on the greater Peterborough region. Contextual relevance was reviewed by the task force comprised of community members.

Findings

Demographic Profile

Present and Future Population:

In 2016, 22.2% of the City of Peterborough's population were aged 65 or older and 6.4% were aged 80 or older (Government of Canada, 2016). This translates to a total of 27,040 residents in the City of Peterborough being 65 or older and 7,780 being 80 or older (Government of Canada, 2016). This was the second-highest proportion of seniors in any major city across Canada and the highest proportion across all cities in Ontario ("CENSUS," 2017; Government of Canada, 2016). A composition of Peterborough's population in 2016 by age groups can be found in Figure A1. The proportion of seniors in many of the rural townships in the County (see Table A1) was higher than the proportion in the City with 30.2% in Trent Lakes and 27.8% in North Kawartha. The township with the lowest proportion of seniors is Curve Lake First Nation with 17.46% of their population being 65 or older. The percentage of seniors aged 65 and over in Peterborough's population is projected to increase to 23.6% in 2020, and then to 25.9% in 2025, to 28.2% in 2030, and up to 29% in 2040 (Figure A2).

Health

Older adults in Peterborough experienced higher rates of hospitalizations compared to any other age group for chronic conditions including arthritis, cancer, congestive heart failure, COPD, and diabetes (Figure A3). This reflects the fact that 4 out of 5 Canadian seniors over the age of 65 suffer from one chronic condition while almost 70% have at least 2 chronic conditions (e.g., heart disease, cancer, stroke, diabetes) (Canadian Nurses Association, 2011). The management of chronic conditions is a significant driver for health care utilization in Canada (Canadian Nurses Association, 2011). Therefore, it is unsurprising that as many seniors continue to live longer with multiple chronic conditions the highest demand for home, community, and acute care services is seen among this population (Canadian Nurses Association, 2011). This trend was observed in the Peterborough region with the highest rates of home care service utilization from the Central East LHIN being among seniors 65 and older (Central East Local Health Integration Network, 2020). While physical health care conditions are a major concern for seniors in Peterborough, social isolation, and lack of opportunities for social participation also cause significant impacts on seniors' health. As mentioned above, seniors with lower incomes and who live alone or in rural or Indigenous areas are at higher risk of social isolation (Employment and Social Development Canada, 2017; Freedman & Nicolle, 2020). Therefore, certain groups of seniors including the 10.7% of seniors who were designated as low-income and those living in the Hiawatha or Curve Lake First Nation regions are at a higher risk of social isolation (Government of Canada, 2016). Moreover,13.3% of the residents in the greater Peterborough reported living alone and 43% of these residents were 65 or older and 19% were 80 or older (Government of Canada, 2012).

Availability of Health Supports

The likelihood that seniors require health care services to meet their physical health needs is relatively high given that physical health supports represented 34.5% of available health services in Peterborough (Figure A4). However, finding services to address seniors' and caregivers' mental, emotional, and social health needs is especially challenging. This is because supports for these health concerns each

represent less than 20% of all available health services (Figure A4). Access to adequate health services is also impacted by transportation and income and these types of support are also scarce in Peterborough. Specifically, only 10.4% of health care services in Peterborough were related to transportation and 6% were financial support (included under “other” in Figure A4). More can be done to ensure that Peterborough’s senior population has access to the necessary resources to meet all of their health needs (physical, social, and mental).

Housing:

Seniors and other residents in the City and County of Peterborough are faced with two main challenges in finding adequate housing: affordability and availability. These challenges stem from a lack of housing stock and unaffordable new developments, high competition for rental units, high housing costs, low incomes, low apartment turnover, and high costs of homeownership (City of Peterborough, 2019). According to the Canadian Mortgage and Housing Corporation, in 2019 the average cost of a bachelor apartment in Peterborough was $785, for a 1 bedroom $942, for a 2 bedroom $1104, and for a 3 bedroom $1347 (Table A2) (Canadian Mortgage and Housing Corporation, 2020; United Way Peterborough, 2020). Affordable housing is defined as housing that costs up to 30% of a person’s income (United Way Peterborough, 2019). Therefore, seniors would need to earn a yearly income of $31,400 for a bachelor, $37,680 for a 1 bedroom, $44,160 for a 2 bedroom, and $53,880 for a 3 bedroom to afford housing in Peterborough in 2019 (Table A2). The median income of seniors 55-64 and 65 or older in Ontario was $41,900 and $29,200 respectively, which would be enough to afford a bachelor or 1 bedroom in Peterborough (Government of Canada, 2019). Given that 10.7% of seniors are considered low-income in Peterborough their yearly income may only be a combination of the Guaranteed Income Supplement (GIS) and Old Age Security (OAS). For example, to receive the GIS a single senior’s income would need to be less than $18,648 (Employment and Social Development Canada, 2020b). If a senior in Peterborough had an annual income of 18,647.99 (excluding OAS and GIS) their combined monthly OAS and GIS payments would be $616.13 translating to a combined total income of $26,041. A senior whose

income solely comes from OAS and GIS would receive a combined monthly OAS and GIS payment of $1534.49 which translates to a total income of $18,413 (Employment and Social Development Canada, 2020a). Thus, low-income seniors living in bachelor apartments ($785/month) could be spending between 36-52% of their incomes on housing alone. Likewise, a low-income senior living in a one-bedroom apartment would be spending between 43-62% of their income on rent alone. Every apartment type is then considered unaffordable to low-income seniors. Unfortunately, rent prices in Peterborough increased by 21.7% from 2005-2015 while income in that period increased by 1.7% (Figure A5). Either housing costs need to decrease, or seniors' incomes need to increase to ensure that they have adequate, affordable housing in Peterborough.

In terms of homeownership in Peterborough, the average cost to buy a home in 2018 was $430,000 (City of Peterborough, 2019). This marks an increase of nearly $150,000 from average resale prices in 2014. Property taxes in Peterborough were also among the highest in Ontario (Zoocasa Realty, 2019). Residents in Peterborough could expect to pay a property tax rate of 1.41%. This translates to residents paying just over $3,500 on a home valued at $250,000 and just over $7,000 for a home valued at $500,000. Meanwhile, average weekly income decreased by 0.9% from 2014 to 2018 (City of Peterborough, 2019). Ultimately, only approximately 25% of people living in Peterborough can afford to buy a home. Retired seniors in Peterborough face an even greater challenge when it comes to housing affordability because they have less opportunity to increase their incomes.

Furthermore, if seniors in Peterborough have a minimum income of $31,400 to afford the least costly rental option (bachelor) they are faced with the second challenge of housing availability. Bachelor apartments made up 0.3% of the private dwellings in Peterborough in 2016. Similarly, 1-bedroom dwellings made up 10.4% of private dwellings in Peterborough while the least affordable housing options were more prevalent in Peterborough (Government of Canada, 2016). Other affordable housing options are accessible through Housing Access Peterborough. This includes rent-geared-to-income (RGI) housing, however, wait times for RGI units can extend up to 11

years in some cases (United Way Peterborough, 2019). This is due to the lack of RGI units available to the 1544 applicants on the RGI waitlist, 576 of which were seniors (United Way Peterborough, 2019). Unfortunately, the number of applicants for RGI (1544) almost outpaces the total number of RGI units (1586) available in Peterborough. In September 2020, there were no vacancies available in affordable housing or market rent housing through Peterborough Housing Corporation (Peterborough Housing Corporation, n.d.). From 2015 to 2019 only 12 vacancies in the Marycrest at Inglewood Seniors Residence had been filled, meanwhile 10 vacancies at Millbrook Manor were filled during the same period (*Housing Access Peterborough MAAR Report*, 2019). There were no vacancies at Otonabee Non-profit in Keene in the past 5 years (Figure A6). To meet all housing needs in the City and County of Peterborough, an additional 2,680 affordable rental housing, 580 RGI units, and 796 affordable ownership options are needed (City of Peterborough, 2019).

Based on the information described above it is clear that the type of housing available to seniors plays a major role financially in their lives. Also, the connection between housing and social isolation is reflected in the different types of supportive housing for seniors that have been developed around the world. These housing models will be described in more depth below, but one example is the cohousing community that originated in Europe and was eventually brought to North America by Charles Durrett and Katie McCamant (*The Cohousing Company*, 2020). Kawartha Commons is a sustainable cohousing community led by seniors who are aiming to build the cohousing neighbourhood by 2030 in Peterborough (*Kawartha Commons*, 2020). Other socially supportive housing models that exist in the Peterborough region include the Abbeyfield House, Aztec Co-living, and Senior Ladies Living Together. The Abbeyfield House provides affordable accommodation and companionship to local seniors. A new home is built, or an existing building is converted so that a small group of residents can live together and share ownership of the asset. Each resident gets a private room, share a common living area, and receive housekeeping and meals from volunteer staff. Likewise, the Senior Ladies Living Together is a form of home-sharing that was started on Facebook by a senior after her husband passed away. This group helps single senior women connect with others who are interested in co-sharing a house.

Promising Practices Review

A total of 39 practices were identified across six different countries and more than 20 cities (Table A3). These practices were organized into seven different categories related to the type of need they addressed (e.g., housing, transportation, social isolation). The categories and examples of each practice are as follows:

Table 1

Current Promising Practices to Mitigate Social Isolation

Categories of Practices	Definition	Examples of Promising Practices
Home share	Two or more unrelated people share a dwelling within which each retains a private space and shares common areas such as kitchen, living room, and outdoor space (one or more members own the dwelling)	1. Abbeyfield Housing 2. Toronto HomeShare Pilot Project 3. Aztec Co-living 4. Senior Ladies Living Together 5. McMaster Symbiosis
Supportive housing	Living environments that provide supportive care (health, social, environmental care services) to help meet the needs of those living there. Some of these supports can include medical, personal, and/or rehabilitation. Supports can be offered by community agencies in naturally occurring retirement communities (NORC) clusters of care more efficiently	1. Hogeweyk Village 2. Les Centres d'Accueil Héritage - Place Saint Laurent 3. The Green House Project 4. Newbridge on the Charles – Hebrew SeniorLife 5. Aegis Gardens 6. Harbour Landing Village 7. Spruce Corners Apsley Model
Cohousing	A form of intentional community for older adults or intergenerational living where people decide to create a neighbourhood that combines the autonomy of privately-owned individual dwellings with the advantages of shared resources and community living	1. Takoma Village Cohousing 2. Beacon Hill Village 3. Affordable Housing for Seniors 4. Life-Lease Retirement Communities 5. Naturally Occurring Retirement Communities (NORCs) 6. Harbourside Cohousing 7. Babayaga's House

Non-traditional Housing	More affordable housing due to the small size and alternate building materials used.	1. Modular Housing Initiative 2. Tiny Homes
Transitional Housing	A supportive – yet temporary – type of accommodation that is meant to bridge the gap from homelessness to permanent housing by offering structure, supervision, support (for addictions and mental health, alternative level of care, rehabilitation for instance), life skills, and in some cases, education and training	1. Bonaccord Supportive Seniors' Housing
Transportation Supports	Mobilizing service organized by various sectors to support seniors (e.g., attend medical appointments, grocery shopping, etc.) move from one place to another	1. Community Care Volunteer Drivers 2. Curve Lake First Nation Medical Transportation for Seniors (for Residents) 3. Hiawatha First Nation Medical Transportation (for Residents) 4. Hamilton Let's Get Moving Transit Training 5. The Link Rural Transportation
Social Isolation Initiatives	Enhancing the social health of older adults through programs to build social networks, interaction, and access to resource programs	1. Pets for The Elderly 2. Therapeutic Paws of Canada 3. Seniors with Skills 4. Senior Peer Connector program 5. The Community Training and Development Centre - Older adult Housing Solution Lab 6. Social Prescribing
Infrastructure	Initiatives that support (particularly marginalized people) getting around easily, whereby health and lives are improved	1. Heated Sidewalks 2. Walkable Complete Communities 3. AFP Walk and Roll Assessment

Examples of the home share practice are the McMaster Symbiosis program and the Toronto HomeShare Pilot project. A strength found across many of the practices was the ability to enhance seniors' capacity to meet their social, mental, and physical health needs. For example, existing cohousing communities have been developed so that residents have private units, but the design of the community enables more social

interaction via shared common areas. Residents in cohousing communities may also share expenses (e.g., energy, food, maintenance) which makes it more affordable for seniors to age at home. Likewise, transportation practices include the Community Care Volunteer Driver Program provided to seniors in rural areas. Similarly, the Curve Lake First Nation Medical Transportation program provides affordable and accessible transportation to medical appointments for Indigenous community members. Common threats identified in many of the practices were the lack of financial and human resources to design, implement, and sustain each practice. For example, the Senior Peer Connector program, and the Abbeyfield Housing model are dependent upon volunteers to offer and run these practices. Without adequate volunteers, and paid staff to support volunteers, these practices cannot be implemented or sustained long-term. The other major threat particularly identified in many of the housing practices was that they require support and engagement with City Councils because zoning and by-laws need to be addressed to implement practices like Tiny Homes or cohousing developments.

The results of this review were shared at a joint meeting of the Building Relationships and Basic Needs Working Groups (WG) from AFP. Attendees at this meeting helped to refine the results of this review by identifying organizations and groups that have developed or are developing these practices in Peterborough. For example, it was noted that social prescribing through the Peterborough Family Health Team where practitioners refer seniors to their community partners is a promising practice that could be expanded. The next steps for AFP concerning this practice would not be to recommend the creation of a social prescribing system in Peterborough, but rather to promote this resource to seniors, health care providers, and other community organizations. The input from all attendees provided local context, challenges, and opportunities to consider.

Component 2: Improved Communication to Access Supportive Services

The AFP Plan (Peterborough Council on Aging, 2017) also noted that seniors, caregivers, and health and social services providers were unaware of many of the region's supportive services and how to access them. The pandemic restrictions and

need for health and social service organizations that support seniors to shift the delivery of their services to honour government restrictions prompted them to collaborate on communication strategies to meet the needs of seniors, especially those most vulnerable.

Objectives

The main objective for this second component was to ensure that seniors and service providers were aware of key services that promote healthy aging and social inclusion within the greater Peterborough area. To reach seniors with diverse skills and interests, it is best to create information utilizing multiple communication channels such as in print, by telephone, on an easy to navigate website, traditional media, and through peer, family, or community interaction. This objective was to be achieved by developing multiple communication tools outlined below thereby increasing local seniors' awareness of the importance of healthy aging and social inclusion.

Methods

A literature review of academic and grey literature helped to inform the development and planning of different communication tools. Improved communication to seniors about available services was approached through the development of a virtual service directory, Living and Aging Well virtual workshops, YouTube channel, Seniors' Centre Without Walls telephone programs, Neighbours for Neighbours campaign, and tip sheets.

Findings

It should be noted that the implementation and evaluation of the communication tools in this component of the project are ongoing. Microsoft Teams is the official communication platform for the City of Peterborough. As such, "how-to" sheets were created to assist participants to record an interview using Microsoft Teams. Senior sector service providers were identified and contacted to record an interview to explain specific services available to seniors and how they can access them during and after the COVID-19 pandemic. The edited interviews were posted on an AFP YouTube channel and once completed will be posted on the City of Peterborough, AFP web

page.

A list of topics for the Living and Aging Well virtual workshops were created based on relevant literature and through consultation with the Living and Aging Well Task Force (seniors, community businesses, agencies, and municipal staff). A survey will be developed in the future to be sent to seniors to determine their interest in the selected topics for the workshops and receive their input about additional topics of interest. Senior sector service providers were asked to identify the topics they could provide information about. The next step will be to record their presentation and post it to the AFP YouTube channel.

Seniors Centre Without Walls (SCWW) is a program where seniors call in using their telephone to participate in activities. Seniors who are isolated at home can stay connected with other seniors, learn about a service, and engage in physical and mental health activities. Participating local organizations help seniors achieve aspects of social health that they may not receive otherwise. During this project, the SCWW Task Force, including Fleming/Trent Nursing students, developed marketing tools for organizations and participants, how-to facilitate an activity guide and piloted an activity with a focus group.

The Neighbours for Neighbours (N4N) concept was introduced at the onset of COVID-19 to appeal to the community to assist the seniors in their neighbourhood. A Ready to Care card was developed and posted on the AFP web page encouraging neighbours to offer services such as grocery delivery or social support. A N4N event will be organized in the future.

For seniors who prefer to receive information through print, an AFP Tip Sheet template was created. Information received from the Living and Aging Well workshops will provide content. The tip sheets will be available on the AFP web page and will be printed.

Component 3: Social Isolation to Social Connection: Community-Based Participatory Research Action with Community-Dwelling Seniors and their Family and Formal Caregivers - Response to COVID-19

The Age-friendly Peterborough network and public health practitioners came together at the beginning of the pandemic and recognized not only the importance of

improved collaboration and communication, but also to understand first-hand from seniors, their family caregivers, and front-line paid/volunteer caregivers what their experiences were related to maintaining their physical, mental, and social well-being. A Participatory Action Research (PAR) study was the third component of the Social Isolation to Social Connection project.

Objectives

The research team, with support from community organizations through their long-standing relationships with AFP, aimed to understand how the protective measures and service changes implemented during the pandemic affected the health and well-being of seniors and their family and formal caregivers. Specifically, the three main study objectives were to:

1) Critically examine the holistic health impact of COVID-19 and related social isolation experienced by seniors and their family and formal (paid or volunteer) caregivers;
2) Identify promising practices, programs, and policies that will address social isolation among seniors and their caregivers;
3) Collaboratively develop effective knowledge exchange approaches that will foster multi-stakeholder engagement in preventing and mitigating the negative impacts of social isolation during and post-COVID-19.

Methodology

To meet the objectives of this study a community-based PAR approach was utilized. PAR is based on the following principles: 1) ensuring collaborative, equitable partnership in all phases of the research project, 2) facilitating an empowering process, 3) facilitating co-learning among all partners, 4) capacity building and systems change, 5) creating a balance of research and action, and 6) ensuring long-term involvement in the community with a commitment to sustainability (Israel et al., 2008). PAR exists on a continuum where community participation can be minimal where community members respond to the researchers' questions or the research can be completely community-led and controlled. For this study, residents and organizations affiliated with AFP in the Peterborough region helped identify the research questions, had input into the design,

assisted with the recruitment of participants, provided responses to the researchers' questions, and helped refine recommendations based on the research findings. The community will also retain ownership of the research findings and have control over further stakeholder involvement, the development and implementation of action plans to carry out the recommendations, and lastly provide input into further knowledge exchange stemming from this study.

Methods

Recruitment/Sampling

One of the strengths of this study was the use of a purposive sampling approach to ensure that marginalized and vulnerable seniors and their caregivers could voice their experiences. Leveraging long-standing relationships with AFP, local organizations that served seniors and senior individuals came together virtually to respond to the COVID-19 pandemic. From this group, key stakeholders were collaborators on the research team and served as the key informants who identified potential participants that met the eligibility criteria to ensure the collection of in-depth rich data. Eligible seniors were those frail, community-dwelling adults aged 70 years and over and their formal and family caregivers living within the City or County of Peterborough or Hiawatha or Curve Lake First Nations. Other inclusion criteria for key informants and collaborators to identify frail senior participants included: having multi-morbidities, difficulty walking and performing basic activities of daily living, weight loss and fatigue; social attributes such as reports of loneliness, and fewer than desired social contacts, and psychological changes such as cognitive challenges and increased anxiety. The participants may also have experienced challenges resulting from living alone, in rural or Indigenous communities. The participants were then directed to contact the research assistant who would then contact them for consent and to schedule a virtual interview. A total of 31 participants were recruited for interviews, which is considered an appropriate sample size to ensure data adequacy (Morse, 2000).

Purposive sampling was also used to select and retrieve relevant documents. Documents that provided context to the direct or indirect influences on the health experiences of seniors, family, and formal caregivers were selected. This included

documents from international, national, provincial, regional, and organizational levels to ensure there was representation of different levels of authority/decision-making that could impact seniors and caregivers. The key informants also explained which federal and provincial documents were directing organizational and regional pandemic responses and documents which directed the retrieval of additional documents. Documents that specifically targeted vulnerable seniors, their family, and friends who assumed caregiving roles and formal caregivers were selected for analysis. A total of 10 documents were retrieved for data analysis (Table B1).

Ethical Considerations

Trent University Research Ethics Board approved the research project and stipulated that all aspects of the research needed to be done virtually. The research team trained research assistants regarding ethical research, qualitative telephone interviewing techniques, data management, community services offered by key informants, and signed confidentiality agreements. A letter of information was distributed to key stakeholders who passed it on to seniors and caregivers who met the eligibility criteria. These potential participants then provided permission to the key informant to share their contact information with the research assistant or the participants reached out directly to the research assistant. The decision was made to exclude seniors with significant cognitive impairments (e.g., advanced dementia) given the ethical concerns around informed consent and the challenges of conducting interviews via telephone with persons with advanced dementia documented in previous research (Beuscher & Grando, 2009; Lepore et al., 2017). The interview as a research method has been used successfully by a few researchers trying to find ways of ensuring that the views of seniors with dementia are included in research (McKillop & Wilkinson, 2004). Therefore, seniors with self-disclosed mild or early-stage dementia were included in the study and were asked for their consent and a family member also provided consent on their behalf. The family members were present for the interviews with seniors who had mild cognitive impairments to assist with technology (Zoom) used to record the interview. In addition, a minimum of 24 hours was given to participants after each step in the recruitment process (e.g., letter of information, consent, and interview).

The participants were contacted first to go over the letter of information then after 24 hours they were contacted again for consent, and 24 hours were given before their interview was conducted. This enabled the participants to have time to reflect on the information given to them and withdraw consent if necessary. Participants were also asked to provide verbal consent for a second time at the beginning of the interview. Finally, steps were taken to ensure that participants did not feel coerced to participate in this study. Since the participants were recruited by organizations from which they receive services there was a concern that they might feel they needed to participate to continue receiving services. It was made clear that participating or choosing not to participate would not affect any of the services they received from the organization that recruited them. All participants were free to withdraw at any time without any consequences.

Data Collection

Two sources of data were collected: Interviews and Documents. In terms of the interview data collection, two research assistants conducted semi-structured interviews either on Zoom or by telephone. The duration of each interview was between 30 minutes and 1 hour and 45 minutes. Field notes were documented immediately after each interview. The interviews were then transcribed verbatim and cleaned by separate research assistants. A live transcription software (Otter AI) was used to facilitate the transcription process. The collection of relevant documents began before the interviews and continued concurrently as interviews were conducted. Documents were primarily retrieved through grey literature searching as well as through contact with key informants who shared organizational and governmental documents when possible. After data were extracted from each document individual summaries and a chart presenting data from all 10 documents were created, a condensed version of this chart is included in Table B1.

Data Analysis

Interviews

Interviews were conducted with 31 participants. A total of 13 seniors, 9 family caregivers, and 9 formal (paid or volunteer) caregivers were interviewed. There were 23

(74%) female and 8 (26%) male participants ranging from ages 39 to 97. Over half (52%) of the participants were in the City of Peterborough and other participants were in the County; Selwyn (19%), Trent Lakes (6.5%), Hiawatha First Nation (6.5%), Cavan-Monaghan (10%), Otonabee-South Monaghan (3%) and Douro-Dummer (3%). A complete overview of participant demographics is available in (Table B2).

The analysis of four interview transcripts began with initial coding by four researchers. Each researcher coded the same transcript line-by-line. The researchers then developed a list of over a dozen focused codes that were applied to the same transcript by each researcher (Lofland et al., 1995) The research team then created a coding scheme from these focused codes. The coding scheme included the following eight main codes: Communication, Restrictions/Barriers, Supports/Facilitators, Collaboration, Family Caregiving Experiences, Formal Caregiving Experiences, Health Experiences, and Recommendations. Within each main code were 28 subcodes (e.g., method of communication, intrapersonal support, etc.). This coding scheme was applied and refined until the research team reached a consensus, on 8 transcripts. The remaining transcripts were divided amongst the research assistants for coding. NVivo, a qualitative data analysis software was used to code and organize the interview transcripts (Yeager, 2020). Participant demographics were also documented in NVivo. As the transcripts were coded the research team began to identify potential patterns in the data. Using NVivo helped the team visualize patterns by looking at the frequency of each code and the transcript quotes that fit under every code.

Subsequent analysis involved diagramming, a process that facilitated an understanding of how the focused codes related to each other in order to conceptualize the larger picture (Lofland et al., 1995). Diagramming was used to organize the patterns observed in the data (Verdinelli & Scagnoli, 2013). Initially, three separate Venn diagrams were created for the interview data. One represented the individual health experiences of seniors, family caregivers, and formal caregivers. The second represented the examples of things that helped and hindered the participants in coping during the pandemic. The third diagram represented the recommendations proposed by participants at the individual, organizational, and governmental levels. The health experiences diagram was further refined, and the health experiences of all participants

were organized into four health domains: mental, social, spiritual, and physical (Figure B1

Lastly, three focus groups with study participants (seniors, family, and formal caregivers) were held to refine our analysis and provide opportunities for participants to add any new insights. The focus groups were held between November 10th and November 20th, 2020 with one focus group assigned to each participant population. A total of 12 participants (3 seniors, 6 family caregivers, and 3 formal caregivers) attended the virtual focus groups while three other participants provided feedback via email. The health experiences and proposed supports that were emphasized during these focus groups are bolded and highlighted in the diagrams (Figure B1 & B2).

Documents

Document analysis involved the application of a framework by three research team members. The Chouliaraki and Fairclough structured framework for critical document analysis was used to examine federal, provincial, municipal, and organizational policies and to better understand how they are enacted through practice (Chouliaraki & Fairclough, 2004). The five main stages of critical analysis according to Chouliaraki and Fairclough are: 1) identify the problem/issue; 2) determine the practices that enable the problem; 3) illuminate the implications of the problem within practice; 4) shed light on the opportunities that exist for the problem to be overcome; 5) reflect on the analysis process (Chouliaraki & Fairclough, 2004). These five stages assisted to make comparisons between and among the insights outlined for each participant. This information also helped to highlight the principles guiding each individual document. The date of publication for each document was also noted because this influenced the priorities, principles, and problems addressed by each document.

Findings:

Interviews:

An overview of the four categories of health experiences (physical, mental, social, and spiritual) among all three populations are compiled in Figure B1. The health experiences in this diagram that were unique to seniors included a decline in mobility, the inability to attend regular doctor's appointments, and feeling strengthened by faith.

In comparison, physical fatigue and food acquisition were two health experiences unique to family caregivers. Interestingly, very few seniors described challenges with food acquisition as their family members, friends and neighbours often stepped in to help them during the pandemic. The health experience unique to formal caregivers was primarily mental fatigue which fits under the broad category of mental strain.

The most common experience heard from all participants was altered social relationships. Many participants had little to no social contacts or connections because of the pandemic. In some cases, this was because family and friends lived in different cities/countries and did not want to risk traveling. A few participants also described a positive change in their social relationships because they had more time to spend with close family. However, overwhelmingly, participants described feelings of loneliness and loss because their social relationships were severely limited. All participant groups noted that their regular social activities (e.g., fitness class, book/craft club, support group) were cancelled because of the pandemic thereby decreasing social participation. Certain family caregivers also explained that they moved in with their parents during the pandemic because they did not have enough support to meet their needs from formal care organizations. These dramatic lifestyle changes severely impacted their ability to maintain social connections.

The other common health experience shared by all participants was mental strain. This category included things like heightened levels of stress and anxiety. Sources of stress and anxiety came from the uncertainty around the pandemic and virus itself, negative and abundant media reports about the pandemic, and miscommunication or no communication about safety measures to adhere to. In addition, distrust and worry were felt by both family caregivers and seniors. Family caregivers and seniors were both worried about having other people come into their homes (e.g., caregivers, friends, family). Family caregivers, usually seniors themselves, were also worried about not having an alternative care plan for their family member(s) if they became ill. Seniors on the other hand tended to describe heightened feelings of worry like fear of becoming infected by the COVID-19 virus, as well as distrust of actions of other people. This fear stemmed from the fact that they were at higher risk for negative consequences if they contracted the virus. A list of exemplary quotes for each

health domain is included in Table B3.

These shared health experiences translated to the proposed supports highlighted in Figure B2. Supports that could be carried out at the organizational level included safely providing lifestyle programs (e.g., fitness, cooking) and offering telephone check-ins. Many seniors and family caregivers expressed the desire to have someone call to make sure they had everything they needed. At the government level, the main support that was needed was additional funding to support seniors and family and formal caregivers. This funding could be directed into financial assistance for family caregivers or used to develop additional programs for the health and well-being of seniors, family, and formal caregivers or financially compensating paid care providers adequately. The most common supports that could be carried out by individuals, organizations, and governments were providing technology and caregiver support and ensuring respectful, clear two-way collaborative communication. All participant groups expressed the need to have technology distributed to seniors and to have educational resources for seniors to learn how to use technology. Training and education for family caregivers was heavily emphasized as many family caregivers felt that they were stepping into a new career without any preparation. The other proposed supports that were commonly described could be carried out by organizations and governments including providing incentives to work in-home care (wage increases and paid benefits), identifying, and supporting vulnerable seniors, and providing support to age at home if that was the individual choice. Many seniors felt that they did not have adequate financial, transportation, or home maintenance resources to age at home if they wished. A list of exemplary quotes related to the proposed supports from participants is included in Table B4 using fictional names.

Focus Groups:

The health experiences that dominated the discussions in all three focus groups were within the social and mental health domains. However, participants reiterated that experiences from all four health domains are interconnected therefore dashed lines as opposed to solid lines are used to divide the health domains (Figure B1) to represent this fluidity. The supports that were important to participants at the focus groups included: prioritize self-care, offer telephone check-ins, provide technology support,

provide caregiver support, ensure respectful, clear, two-way communication, provide incentives to work in-home care, provide support to age at home and provide funding to support seniors and their caregivers (Figure B2).

Documents:

Two of the ten documents were created before the COVID-19 pandemic and eight were created in response to the pandemic (see Table B1). Five of these documents responded to problems that directly affected older adults. The other five documents responded to problems that may indirectly affect seniors and their caregivers. Diagramming was used to organize the information extracted from each document. The document analysis diagram (Figure B3) represents the eight principles common across the 10 documents. The final draft of this diagram demonstrates that ***health*** (primarily physical health) is at the core of all the documents and that ***safety***, ***protection*****,** ***communication*****,** and ***collaboration*** are the dominant guiding principles. Meanwhile, ***responsibility, support, inclusion*****,** and ***equity*** are important principles that are often not deeply embedded in the documents. The concept of ***health***, while undefined in many of the documents was central to each document (Figure B3). Each of these documents responded to a specific problem and they frame these problems as threats to peoples' health (physical, social, and mental) and well-being. The emphasis was almost entirely on physical health, with only three documents addressing psychological and social health needs. Given that physical health was the focus, it follows that safety and protection were central principles that guided almost every document in this analysis. Many of the recommendations in each individual document were centered around preventing community spread of the COVID-19 virus, thus protecting the physical health of all populations.

The principles of ***collaboration*** and ***communication*** were also extracted from many of the documents. There was an emphasis on communication between organizations and individuals (caregivers and patients) to disseminate the most up to date information about their operations during the COVID-19 pandemic. Collaboration was mentioned in seven of the documents, but steps to enable collaboration in its truest sense in terms of coordinated responsibility to promote the health of seniors and their

caregivers are missing. For example, the document from Ontario Health recommended that regions, organizations, and health care workers work collaboratively to ensure that health care services along the continuum of care are available to patients. However, the document did not explain if/how regions will receive financial and human resources to facilitate this collaboration. Overall, clear strategies to ensure collaborative, two-way communication between organizations and individuals were not provided in many of these documents.

The other notable principles identified in this analysis were ***responsibility*** and ***support.*** Many documents implicitly emphasized the shared responsibility of organizations, caregivers, and patients to prevent the transmission of the virus. Governments often downloaded responsibility onto the community, while organizations often downloaded responsibility onto the individuals or family units. Resources for communities and individuals to uphold the responsibility to prevent the spread of the virus were rarely mentioned. For example, in the document from VON Canada, VON staff, clients, and their family members were expected to follow all provincial directives (social distancing and face coverings) prior to the care appointment. This was to increase the safety of all parties during the care appointment. VON Canada was asking staff and clients to assume responsibility beyond what is traditionally expected of VON staff and clients.

Lastly, the principles of ***inclusion*** and ***equity*** were identified predominantly as pre-pandemic values that view seniors as a resource, not as a problem. In the document from Age-friendly Peterborough, this organization recognized that no two seniors are the same which necessitates a diverse set of strategies to meet all their needs. Therefore, recommendations in this document included the need to address many social determinants of health such as housing, transportation, geographic location, and income. In contrast, the principles of inclusion, diversity, and equity were "invisible" in all but one of the pandemic documents that framed the problem mostly a physical health emergency. The document from Ontario Health was the only pandemic document that considered inequities that could create disadvantages for vulnerable populations leading to disproportionately negative health consequences in these populations.

Within the ten documents analyzed, there were five main solutions presented to address the problems identified in each document:

1) Follow public health guidelines;
2) Provide adequate Personal Protective Equipment (PPE) and Infection Prevention and Control (IPAC) training;
3) Expand virtual care;
4) Promote virtual visiting programs and
5) Collaborate across the full spectrum of care

Many of the documents created during the pandemic recommended that people follow public health guidelines which complements solution 2 above. For example, the Ontario Health document recommended that all organizations take a comprehensive approach to IPAC. This approach should have included providing PPE to frontline and administrative staff. Other public health guidelines were outlined in the VON document including screening staff and clients and asking all parties to wear masks during care visits, remain six feet apart when possible, and limit social gatherings. The document from the Ministry of Health specifically provided new billing codes to enable physicians to charge for virtual care visits. Solution 3 and 4 sound similar, however, the documents that promoted virtual visiting programs attempted to address social and mental physical health needs. Whereas, expanding virtual care primarily addressed and protected physical health. Lastly, collaboration across the full spectrum refers to the involvement of all formal care providers, the care recipient, and their family at all points of care. The document from Behavioural Supports Ontario promoted the involvement of family caregivers and seniors in the development of a care transition plan that would be carried out by physicians/clinicians. The document from Ontario Health emphasized that a change in one part of the healthcare continuum will affect other parts of the continuum of care. Therefore organizations, care providers, and clients need to collaborate and communicate as much as possible. The principles of ***safety*** and ***protection*** dominated the proposed solutions. To a lesser extent, ***collaboration*** and ***communication*** were also reflected in these recommendations. Meanwhile, the principles of ***responsibility, support, inclusion***, and ***equity*** were largely overlooked in the creation of these proposed solutions. Findings from the document analysis certainly provided valuable

insights into the supports that were (un)available and (in)accessible to community-dwelling seniors and caregivers during the COVID-19 pandemic.

Project Recommendations

The eight age-friendly domains defined by the World Health Organization and Age-friendly Peterborough's action words were used to structure the project recommendations that were presented at the Working Together Meeting, December 3, 2020. These age-friendly domains include: Community Support and Health Services, Respect and Social Inclusion, Social Participation, Civic Participation and Employment, Housing, Outdoor Spaces and Buildings, Transportation and Communication and Information. Virtually, through Zoom, 38 people (see Table B5 for a list of participants) participated in guided facilitation, to consider the proposed recommendations from the demographic projections, best practices review, and the research findings. Participants including seniors, health and social service providers, academics, and municipal employees considered the regional contextual challenges, opportunities, and proposed actions relating to the proposed recommendations. The final 10 recommendations address each of the eight WHO age-friendly domains (Table B6). The recommendations within the scope of the Age-friendly Peterborough network are as follows:

1. **Facilitate** respectful, two-way collaborative communication across the full spectrum of care among seniors, caregivers, and health and social service providers.
2. **Promote** emerging technology support and technology-based resources for seniors and caregivers to maintain their social, mental, and physical health in the community (e.g., 211, virtual visiting programs, virtual care options, volunteer opportunities, technology distribution programs, access to medical and care records, and training sessions).
3. **Promote** available services, programs, and policies to support the well-being of seniors and their caregivers (e.g., social prescribing, navigator roles, 211, vulnerable seniors outreach, Senior Connectors, Neighbours for Neighbours)
4. **Promote** public health guidelines (e.g., PPE, Infection Prevention and Control (IPAC), physical distancing, virtual visiting).

5. **Advocate for** enhanced financial and physical resources (e.g., PPE, training for family caregivers, volunteers, and paid staff who support community-dwelling seniors).
6. **Advocate for** incentives to work in the home care sector (e.g., increased wages, paid benefits).
7. **Advocate for** enhanced accessibility to supports and services required by seniors as they age at home.
8. **Promote** rural transportation busing and volunteer driver enhancements (e.g., Community Care driver program and The Link).
9. **Advocate for** expanding safe opportunities for social and physical health activities (e.g., Seniors Centre Without Walls, Community Care and Alzheimer's Society Zoom programs, Walking Groups, Telephone check-ins).
10. **Advocate for** affordable, supportive, communal housing options to meet the needs of vulnerable seniors and mitigate caregiver strain (e.g., Kawartha Commons Cohousing, HomeShare, Abbeyfield, Trent Seniors Village, LHIN supported and Peterborough Housing Corp congregate living - Spruce Corners – Apsley, Bonaccord Collaborative Transition Facility).

The attendees (see Table B6) at the Working Together meeting helped to identify challenges and opportunities to carry out each recommendation as well as stakeholders who should be targeted with each recommendation. Two common challenges identified for many of the recommendations were funding/financial resources and restrictions in place because of the pandemic. Given that a lot of communication and engagement was virtual because of the pandemic there was an added challenge of reaching seniors who do not have technology or are not comfortable with technology. However, the attendees agreed that it was important to find a way to involve seniors and caregivers in the development of resources to meet their needs. The opportunities identified included the fact that Trent University and Fleming are in the community therefore, intergenerational programs/services are viable. Given that seniors are such a large portion of volunteers, it was also mentioned that younger volunteers could also serve as another source of transportation for seniors. The presence of the emerging

Peterborough Health Team, many senior organizations, and AFP in the community creates potential for seniors and organizations to work together. Important stakeholders that should be involved in carrying out these recommendations included seniors, for-profit and non-profit service providers, all levels of government, Indigenous communities and band councils, educational and religious institutes, local businesses, and seniors' organizations (e.g., Probus, Rotary, Retire Teachers Ontario, Peterborough Alumni, Older Women Networking). Attendees were also asked which recommendation fit best with each Working Group (WG). The Basic Needs WG was assigned recommendation 1, 5, 6, and 10, the Building Relationships WG was assigned recommendation 9, the Learn, Grow and Contribute WG was assigned recommendation 2 and 4, and the Staying Mobile WG was assigned recommendation 8 and 9. Recommendation 3 was assigned to all WGs and the attendees felt that organizations, health, and social service providers and local representatives should be responsible for recommendation 7. The respective Working Groups intend to prioritize recommended actions and engage missing stakeholders and decision makers as the next step to actioning the recommendations.

Discussion

New Contributions

The body of research on social isolation among senior populations has been growing steadily over the past few decades, developing the concept, populations at risk, and practices, programs, and policies to mitigate impacts of social isolation (Armitage & Nellums, 2020; Freedman & Nicolle, 2020; Mahmood & Keating, 2012; Mort & Philip, 2014; Nicholson, 2012; Poscia et al., 2018; Wu, 2020). The findings from our research study provided support for the importance of developing high-quality relationships for both seniors and caregivers and sheds light on the factors that help and hinder the development of these relationships, particularly during a pandemic. For some participants in this study, the definition of family was expanded to include the supportive relationships they have with their formal caregivers, friends, and neighbours. Many seniors in rural areas felt supported physically, mentally, and socially by their neighbours and even explained that their relationships with their neighbours were deepened during the pandemic. Other seniors and family caregivers described the

formal caregivers they have had for years as members of their family. The withdrawal of formal caregivers like personal support workers (PSWs) influenced negative physical health experiences due to lack of caregiving support, and negative social and emotional experiences as well. A few formal caregivers described how they visited their long-term clients during the pandemic even when organizational/provincial directives prevented them from providing care. These caregivers felt not only a professional, but an emotional obligation to make sure that their clients were taken care of during the pandemic. Participants whose relationships and connections were limited to their immediate family who lived far away described feeling lonely, worried, stressed, and anxious. These findings suggest that there needs to be more opportunities for seniors and caregivers, especially those who live away from immediate family to form high-quality connections to other people in their community. For seniors, opportunities for involvement in a faith community and other cultural or recreational groups could be very helpful in forming long-term, supportive relationships.

Next, through this research the caregiver (both family and formal) perspective was captured and illuminated the challenges they face. More than one family caregiver had to completely change the structure of their own lives to care for their parents because there were simply not enough resources available to them during the pandemic. Two family caregivers moved in with their parents to provide them with 24-hour care while they waited for beds in long-term care to become available and/or for in-person supports to resume. Another family caregiver removed their mother from long-term care partly because of the risk of contracting COVID-19, but also because the residence could no longer meet their mother's needs since her dementia had progressed significantly. They then spent months waiting for a bed to become available at an organization equipped to meet the needs of people living with dementia. These drastic alterations of their lives to meet the needs of their family members made it very difficult for them to meet their own social and emotional needs translating into feelings of isolation, loss, worry, and stress, etc.

Additionally, relatively little research exists on social isolation in the context of pandemics/epidemics that involved prolonged periods of isolation and a shutdown of non-essential services. Therefore, this project provided valuable information to

understand and address the effects on physical, mental, and social health during a pandemic. What we discovered in this project was that decisions made by organizations and governments restricting physical contact also impacted social interaction which exacerbated the negative impacts of social isolation. A prime example of how these decisions intertwine was described by seniors who live alone. For example, executive leadership at seniors' residences cancelled social activities in their buildings, restricted the movement of residents in hallways/shared spaces, and placed restrictions on visitors. Seniors' organizations also stopped offering social activities and volunteer opportunities. Thus, even seniors who, prior to the pandemic, had decided to volunteer or attend a recreation program to prevent social isolation could no longer make those decisions during the pandemic.

Collaborative communication between governments, organizations, and clients about safe ways to mitigate social isolation was absent. What is more, both seniors who live in apartment complexes and private homes explained that their family members who visited regularly before the pandemic had not visited them in-person for several weeks or months or had changed their living arrangements to meet the senior's needs. The decision not to visit was influenced by the provincial and federal governments' decisions to advise against travel and to stay within your own social circle/bubble. Hiawatha First Nation even created a checkpoint and closed local tourist spots to ensure limited travel in and out of the area. Family and formal caregiver decisions were greatly impacted by the need to balance physical distancing to avoid spreading the virus, with care responsibilities and available, affordable health and social services available to support seniors. Social isolation was therefore not simply a product of a person's individual decisions. Rather, social isolation was heavily impacted by the broader political, social, and economic contexts. This impacted whether people could find employment, maintain an income, access culturally sensitive supports, access safe and affordable health and social services, live alone, and overcome social exclusion from discrimination.

This project also revealed that the strategies promoted in previous research and identified in the promising practices review to prevent and mitigate social isolation were not viable during a pandemic. Even with decades of research evaluating the

effectiveness of interventions like recreation programs, group gardening, and well-developed transportation options, these interventions were simply not available because of pandemic protocols. The promising practices review did consider pandemic protocols in the SWOT analysis thus providing strategies to maintain these practices while following pandemic restrictions. This project also found that some of the promising practices were still being used regardless of a pandemic. Some seniors leaned on their pets for companionship during the pandemic which is the basis of the Pets for the Elderly program.

In addition, this project provided new insights into the challenges accompanying caregiving responsibilities. Based on the data from the demographic profile and the research study, there is a shortage of caregiver supports available in Peterborough. Prior to the pandemic, only 50 (14.8%) of the 336 supports identified in the Health and Housing Navigation study were caregiver supports and the pandemic decreased service levels of many of these. Family caregivers, in particular, emphasized that they felt they were entering into a new career without any training or guidance. Both family and formal caregivers recognized the mental and physical strain that accompanies caring for someone with dementia. Family caregivers reported having little support from their own workplaces, organizations, and the community to care for seniors with dementia both before and during the pandemic. Dementia awareness and educational resources for caregivers and the general public would help create a dementia-friendly community and enable family caregivers to participate in the community rather than being secluded in their homes. Similarly, formal caregivers emphasized the need for mental health support, paid benefits, and adequate compensation. Providing care to vulnerable populations before and during the pandemic was taxing mentally and emotionally and formal caregivers needed more resources to help them cope with this strain, not just during the pandemic, but ongoing.

Finally, formal caregivers highlighted the need for enhanced collaboration and communication between care organizations. Any point of contact with a care organization should aim to address the physical, mental, and social needs of seniors. For example, when a senior comes into the emergency department for a physical health problem the health care provider should also evaluate other factors (social, mental,

financial) that may contribute to the exacerbation of the physical health care need that brought them in that day. If care organizations that provide diverse supports have a well-developed collaboration and communication strategy, then seniors can be referred to necessary resources preventing repeat visits and declining health. Opportunities such as outreach for vaccination to mitigate physical health can be leveraged to connect vulnerable seniors with appropriate services to support their mental and social health needs.

Current State vs Desired State

What we have learned from all parts of this project is that community-dwelling vulnerable seniors and their caregivers in Peterborough were not receiving the support they need to maintain all aspects of their health. The fact that physical health was given primacy by organizations and governments was reflected in the Healthy Aging Directory, the interviews, and document data. More than 30% of health supports respond to the physical health needs of seniors in Peterborough whereas less than 20% respond to their mental and social health needs. Similarly, the documents and participant interviews demonstrated how physical health has been protected during the pandemic to the detriment of social, mental, and spiritual health. These health domains need to be given as much attention as the physical health domain regardless of a pandemic. This can be achieved by carrying out many of the recommendations outlined above in collaboration with seniors, family, and formal caregivers.

Additionally, the communication released by governments and organizations needs to be clear and consistent and empower seniors to make decisions that are best for their health and provide resources to act on those decisions. The messages in the documents and from organizations that were aimed at preventing the spread of the virus produced negative physical health experiences among our participants. Many participants put off going to their doctor because of the information communicated to them causing their health to decline. One formal caregiver also explained that once she started seeing seniors again after several weeks of lockdown restrictions, their conditions were worse and required more resources to treat than if they had come in earlier. The documents also assumed that local organizations had adequate financial

and human resources to follow pandemic protocols and meet the needs of seniors and caregivers. The interviews, focus groups, and AFP meetings revealed that funding has always been a major challenge. There are also not enough home care workers in the Peterborough region to meet the needs of seniors and family caregivers, making it difficult for the recommendations from federal/provincial governments and national organizations to be carried out locally. In both the interviews and focus groups there was consensus that home care workers are not paid fairly for the work they do. Policies and permanent funding opportunities need to be created to support community-dwelling seniors and their caregivers. The current state of seniors' housing already falls short in meeting the needs of this population. Innovative solutions accompanied by federal and provincial policies and funding are desperately needed if progress is to be made over the next few years. The Working Groups are eager to identify stakeholders and decision-makers, discuss the findings, recommendations and respond to the gaps identified in this project.

Age-friendly Peterborough's Working Groups will now move toward developing their 2021 work plans that will be informed by our recommendations. A third knowledge exchange event will also be planned in 2021 and the stakeholders identified at the Working Together meeting will be invited. This event will further facilitate the implementation of our recommendations by disseminating them to a wider audience of decision-makers. This meeting will also be an opportunity for AFP to get more insight into the viability of each recommendation by receiving feedback from people who inform the funding mechanisms, human resources, political agendas, and opportunities for change. Therefore, this project helped AFP move forward towards a multi-sectoral commitment to action through the recommendations developed by the collaborators and research team. The research team will also prepare a manuscript to be submitted for publication in 2021. Opportunities to present our findings at conferences will also be explored. Finally, the communication tools will continue to be developed and disseminated to improve seniors' awareness and access to available supports in the community.

Knowledge Exchange

Knowledge exchange involves interactions between researchers and knowledge users that vary by intensity and complexity (Canadian Institutes of Health Research [CIHR], 2020). Knowledge users may also be engaged to different extents throughout the research process depending on the type of research being conducted and the goals of each specific knowledge user (CIHR, 2020). The CIHR defines a knowledge user as, “an individual who is likely to be able to use research results to make informed decisions about health policies, programs and/or practices,” (CIHR, 2016). As discussed above, the guiding principles of Participatory Action Research (PAR) include translating research into action, committing to co-learning of all partners, and ensuring equitable partnerships throughout the research process. Therefore, knowledge exchange was an integral part of each of the three components in this project.

First, this project was conducted in collaboration with Age-friendly Peterborough, a network that embeds two-way communication among all members into their operations. Age-friendly Peterborough is also structured with Task Forces that inform the four Working Groups which act in an advisory capacity to the City and County of Peterborough. Thus, Age-friendly Peterborough facilitated the exchange of knowledge throughout this project. An example of knowledge exchange was the presentations to participant focus groups. During the focus groups, the participants were asked a series of questions in relation to the health experiences diagram (Figure B1) and the proposed supports diagram.

Second, the findings from the demographic profile, promising practices review, interviews, and documents were presented to Age-friendly Peterborough’s Basic Needs and Building Relationships Working Groups on November 26th, 2020. Based on the personal experiences of some of the attendees, they agreed with the major challenges of availability and affordability of housing highlighted in the demographic profile. More affordable seniors housing with appropriate supports in the community is needed. A few of the working group members pointed out that some of the promising practices discussed in the review already exist in Peterborough (e.g., social prescribing, volunteer drivers). This contradicted the responses we heard in the interviews in that many seniors and family caregivers are unaware of services, and how to access them.

Organizations also needed time developing and switching to virtual services, then communicating this to clients. This feedback was used to refine the final set of recommendations that were taken to the Age-friendly Peterborough Working Together meeting on December 3rd, 2020 (Age-friendly Peterborough, 2020). This temporal lack of preparedness among organizations during the initial wave was somewhat mitigated at the beginning of the second wave. Uncertainty of government funding and restrictions is a challenge to organizations in their program and human resource planning. The dependence on volunteers to implement many of the recommendations is problematic for a number of reasons. Volunteers are aging themselves at high risk for contracting COVID-19, pandemic restrictions make their past roles challenging and there is a lack of paid human resources available to recruit, train and supervise volunteers. Consistent with critical pedagogies, Working Together participants were concerned for those more vulnerable, marginalized seniors and caregivers, proposing recommendations that mitigate physical, mental, and social inequities.

Conclusion

Over the course of nine months, the project team analyzed literature, documents, and interviews that provided a comprehensive picture of social isolation among community-dwelling seniors and their caregivers in Peterborough, in 2020 during the COVID-19 pandemic. In the Health and Housing Navigation component, we determined that the senior population in Peterborough is projected to increase from 22% to 29% by 2040. To meet the needs of this population, more supports are needed that address more than just physical health needs. Supports for social, mental, and emotional health concerns, as well as financial, transportation, nutrition, and caregiver supports are needed to enable seniors to age at home. The analysis of housing data also revealed that there is a significant deficiency of affordable, accessible, and supportive seniors' housing in the City and County. The promising practices review identified potential solutions for the housing challenges including home share programs, non-traditional, transitional, and supportive housing, and cohousing communities. Other interventions for social isolation including a system of social prescribing, pet programs, and age-friendly infrastructure planning to improve active transportation, safe social interactions,

and accessibility were also identified in the promising practices review. The research findings reinforced the need for programs, practices, and policies that facilitate social inclusion and connection for both seniors and their caregivers. Resources to help participants cope with the mental hardships of social isolation and caregiving during and after the pandemic are also needed in the community. A system of collaboration and consistent, clear, two-way communication was promoted in the documents by governments and organizations, but this system is underdeveloped in practice. This created challenges for seniors and their caregivers to receive the information and support they needed to maintain their health during the pandemic.

While this data from this project is comprehensive, some limitations should be considered when evaluating the findings of this project. First, secondary data was used for the Health and Housing Navigation component of this project. A few of these data sets were collected prior to 2020, therefore the statistics at that time may differ slightly from the current state of the population, health, and housing of seniors in Peterborough. Second, the promising practices review was limited by time restriction, therefore other innovative practices to address social isolation may exist that were not identified in the review. Third, documents relevant to our research questions may not have been included in the analysis because many local and organizational documents were not publicly available. Finally, efforts were made to ensure that our participant population included a diverse group of vulnerable and marginalized seniors and caregivers. However, due to pandemic protocols followed in the recruitment process, vulnerable and marginalized participants (e.g., those with dementia, not fluent in English or those without a phone) with valuable stories to share may not have received the opportunity to participate.

A set of 10 recommendations (Table B6) were created with input from the members of AFP. The four AFP Working Groups, Basic Needs, Staying Mobile, Building Relationships, and Learning and Contributing will review and prioritize recommended actions and engage community stakeholders and decision-makers to implement these recommendations. AFP is optimistic to mitigate the negative impacts of social isolation among seniors and their caregivers in the coming year because together we can.

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Appendices

Appendix A

Figure A1

Peterborough's Population by Age Groups

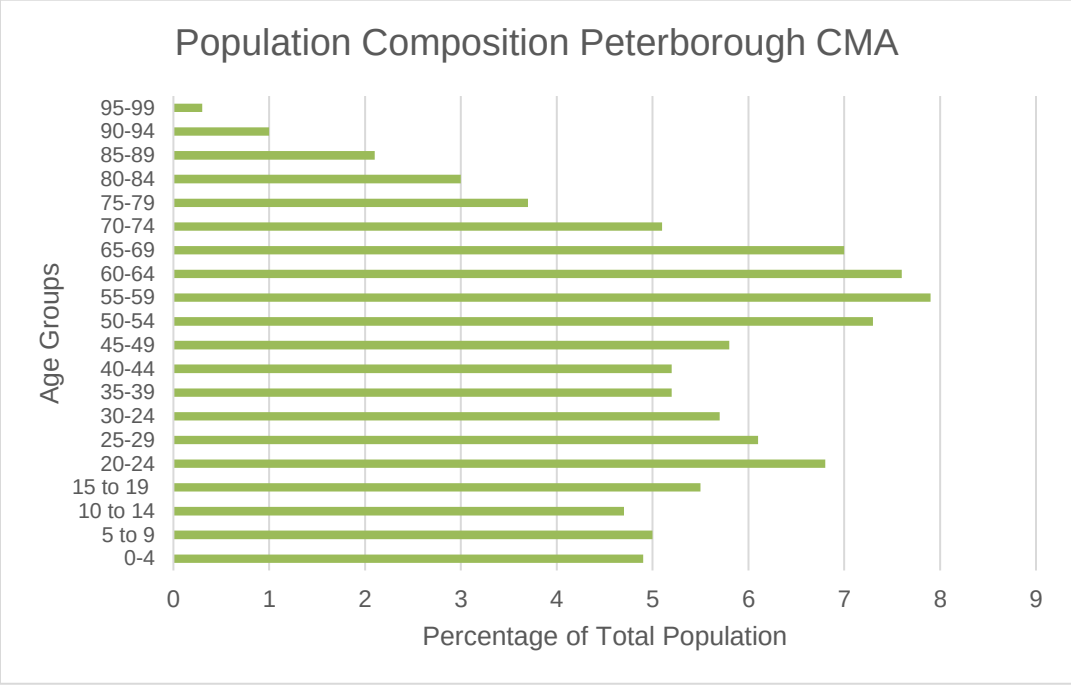

Table A1

Proportion of Seniors 65+ in Each Township

The proportions are relative to each township's population and not the total population of the County of Peterborough which is why they do not add up to 100%. For example, Selwyn has a total of 17060 residents in 2016, and 4205 were 65 and older (4205/17060 = 0.2464 * 100 = 24.6%).
Trent Lakes – 30.2% (Total population: 5397, seniors 65+: 1630) North Kawartha – 27.8% (Total population: 2479, seniors 65+: 690) Selwyn – 24.6% (Total population: 17060, seniors 65+: 4205) Havelock-Belmont-Methuen – 28.0% (Total population: 4530, seniors 65+: 1270) Douro-Dummer – 20.1% (Total population: 6709, seniors 65+: 1350) Asphodel-Norwood – 22.4% (Total population: 4109, seniors 65+: 920)

Otonabee-South-Monaghan – 21.1% (Total population: 6670, seniors 65+: 1410)
Curve Lake FN – 17.46% (Total population: 1059, seniors 65+: 185)
Hiawatha FN – 20.7% (Total population: 362, seniors 65+: 75)
Cavan- Monaghan - 19.3% (Total population: 8829, seniors 65+: 1705)
City of Peterborough – 22.3% (Total population: 81302, seniors 65+: 18110)

Figure A2

Projected Increase in Seniors Compared to Total Population

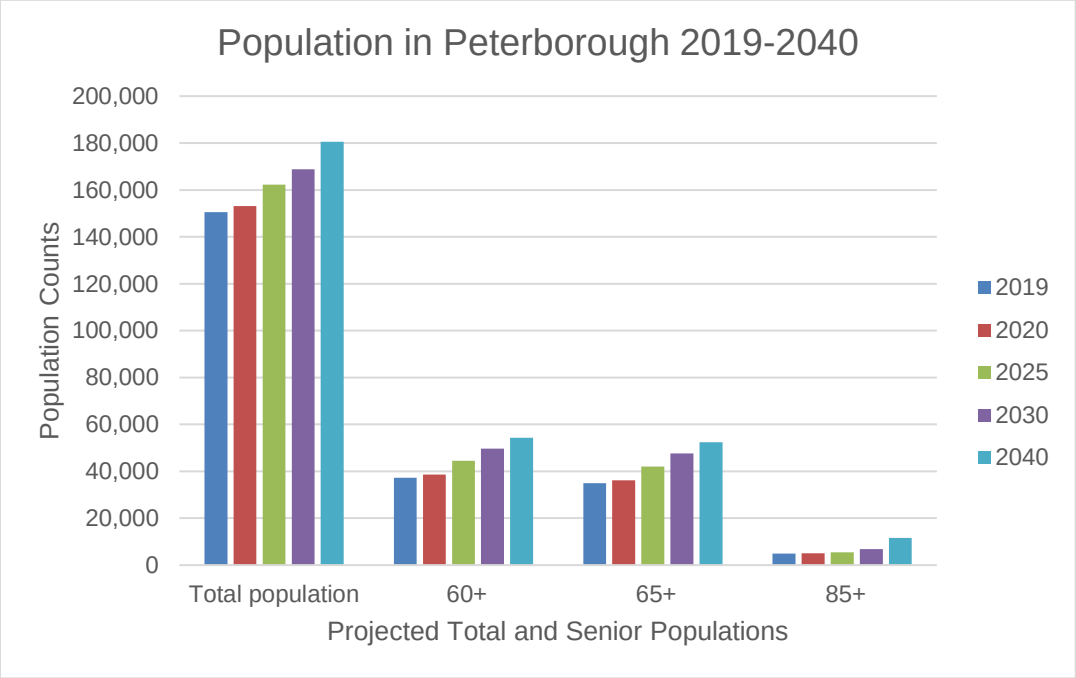

Figure A3:

Hospitalization Rates for Chronic Illnesses

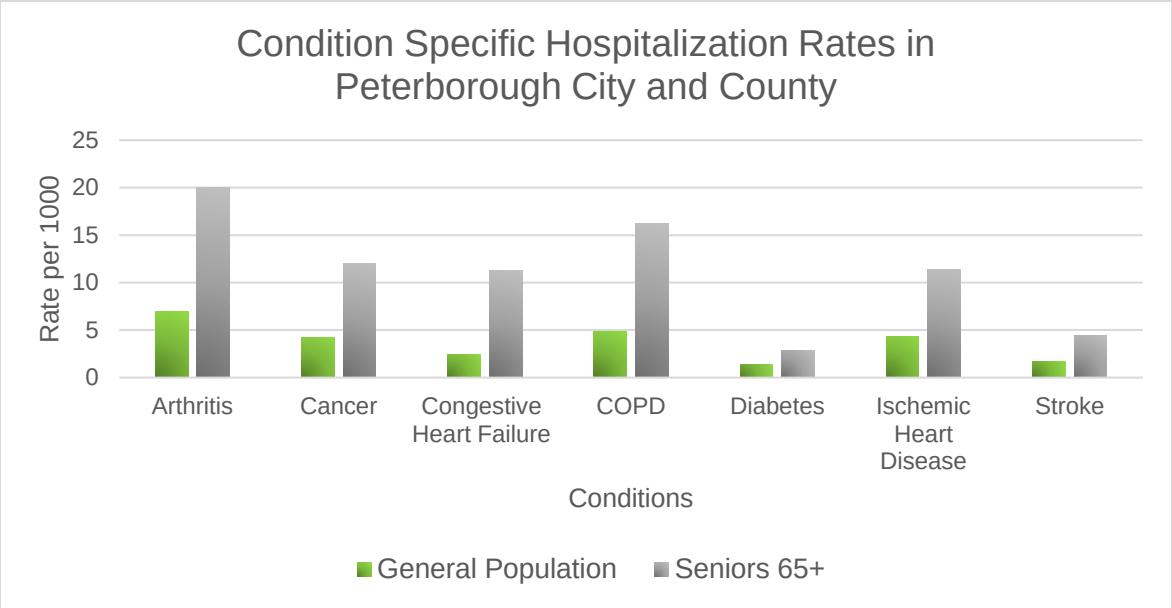

Figure A4

Health supports in Peterborough

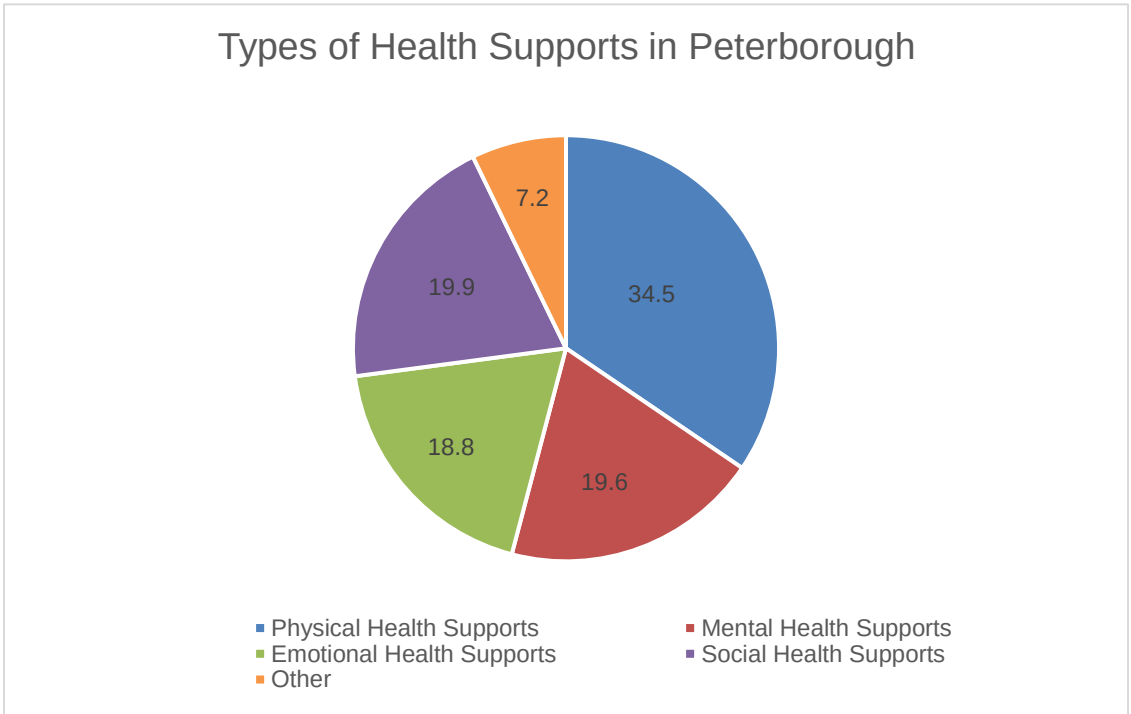

Table A2

Cost of Rent and Annual Income Needed to Afford Apartment Types

2019	Bachelor	1 Bdrm	2 Bdrm	3 Bdrm
Average Monthly Rent	$785	$942	$1,104	$1,347
Average Yearly Rent	$9,420	$11,304	$13,248	$16,164
Income to Afford	$31,400	$37,680	$44,160	$53,880

Figure A5

Increase in Rent vs Increase in Income from 2005-2015 in Peterborough

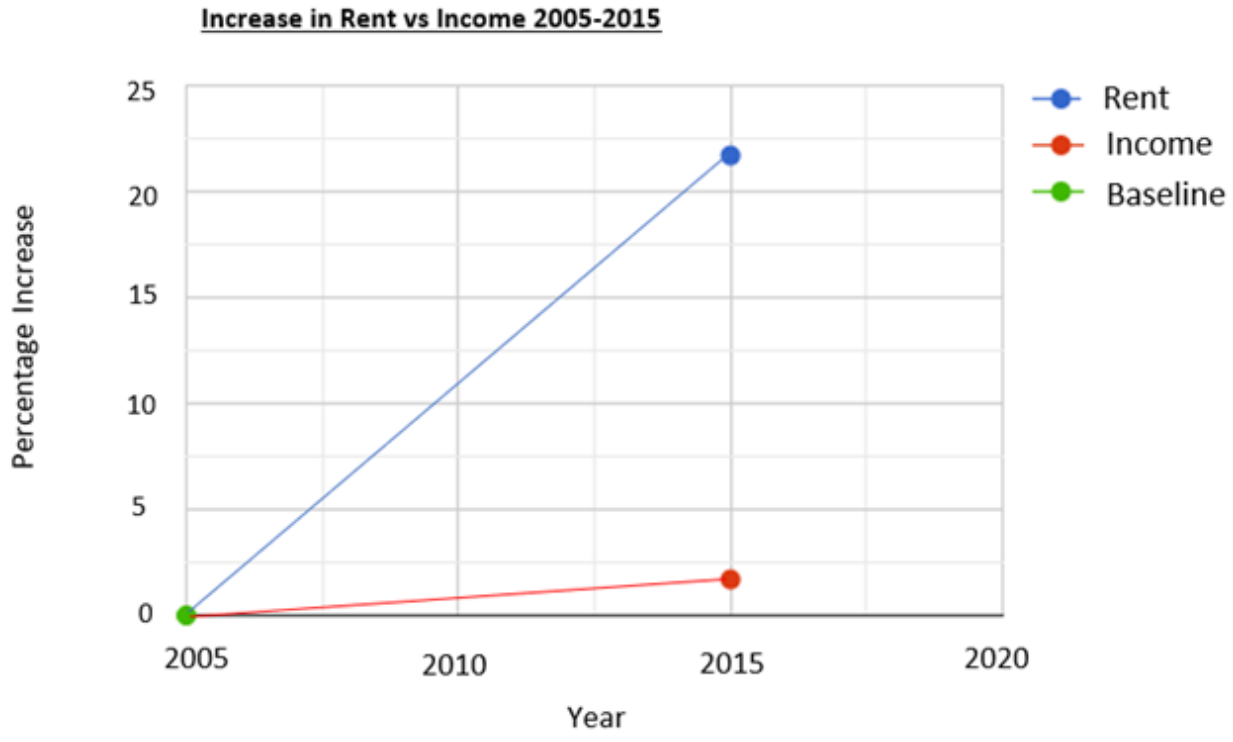

Figure A6

Vacancies Filled in Seniors' Residences From 2015-2019

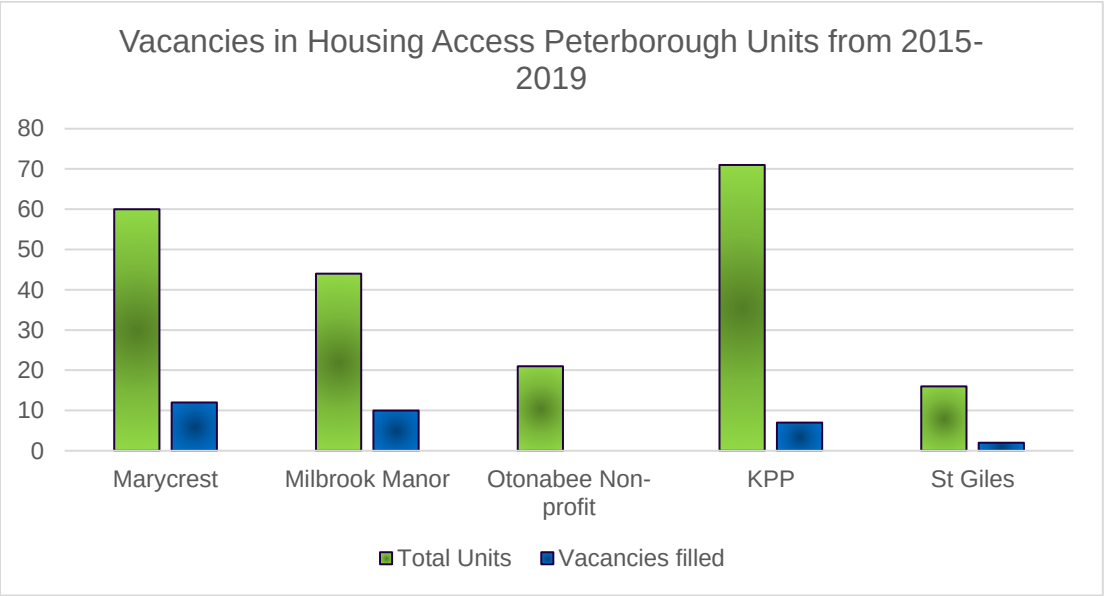

Table A3

Promising Practices Review and SWOT analysis
https://docs.google.com/spreadsheets/d/1d89dcPPbBi50brj9vpSeXXPEmVH4D45m/edit#gid=1945813929

Appendix B

Table B1

Condensed Document Analysis Chart

Document Title	Proposed Solution in Document
D01: The World Health Organization. (2007). *Global age-friendly cities: A guide*. World Health Organization.	Changes to 8 key areas: outdoor spaces, housing, transportation, social participation, respect and inclusion, civic participation and employment, communication and community support and health services
D02: Peterborough Council on Aging. (2017). *Age-friendly Peterborough Community Action Plan*.	4 goals: - Older adults' basic needs are met - Older adults are able to get around the community - Older adults are supported to build and maintain relationships - Older adults have the opportunity to learn, grow, and contribute
D03: Brown, C., & Graham, P. (2020). *Supporting Expansion of Virtual Home Care Delivery*. Ministry of Health.	Professional care providers can bill for virtual services. 2 new billing codes and rates were created: $15 for a wellness or health check-in and $30 for an assessment or monitoring visit. MOH will advise on any changes
D04: Anderson, M. (2020). *Recommendations for Regional Health Care Delivery During the COVID-19 Pandemic: Outpatient Care, Primary Care, and Home and Community Care*. Ontario Health.	Responsibility falls on local regions to develop long-term strategies to expand virtual care, follow and enforce IPAC and PPE procedures, and monitor disease burden in the community. Adequate human resources are required to increase services. Health care providers should collaborate across the full continuum of care
D05: Hiawatha First Nation Council. (2020). *Hiawatha First Nation Stage 2 Reopening—Update #8*.	HFN will remain 2-3 weeks behind the province's Stage 2 reopening guidelines. Services and businesses can start to resume activity if they follow proper safety measures. Residents have a responsibility to follow safety measures and report violations

D06: The Alzheimer Society of Canada. (2020). *Coronavirus (COVID-19): Tips for people with dementia, caregivers and families*.	Maintain daily routines of people with dementia Plan for the event of sickness of caregiver and care recipient
D-07: VON Canada. (2020). *Fact Sheet: Update About VON Safety Measures During COVID-19*.	VON staff and clients limit their social interactions and screen themselves and family members. PPE training and equipment provided to VON staff
D-08: Peterborough Public Heath. (2020). *COVID-19 – Information for Seniors*.	Follow public health guidelines (good hygiene, wear masks, limit time outside home, limit social interactions to 1 social circle). Make use of all resources supplied in the document
D-09: Peterborough Regional Health Centre. (2020). *Family presence/visitor restrictions.*	Limits are placed on which units can accept visitors. Visiting policies and protocols have been changed and enforced upon arrival. Virtual visiting is suggested as an alternative
D-10: Behavioural Supports Ontario. (2020). *My Transitional Care Plan During the COVID-19 Pandemic*.	Family members to seniors with dementia and formal health care providers should complete the transitional care plan and share to all relevant parties

Table B2

Research Participant Demographics

	Seniors	Family Caregivers	Formal Caregivers
Total	13	9	9
Gender	Female **(8)** Male **(5)**	Female **(6)** Male **(3)**	Female **(9)**
Age Groups	< 49 50-59 60-69 **(1)** 70-79 **(3)** 80-89 **(5)** 90+ **(4)**	< 49 50-59 **(2)** 60-69 **(5)** 70-79 **(2)** 80-89 90+	< 49 **(4)** 50-59 **(2)** 60-69 70-79 **(3)** 80-89 90+
Income Group	< 25,000 **(4)**	< 25,000	< 25,000 **(1)**

	25,000 – 50, 000 **(3)** 50,000 – 100,000 **(3)** 100,000 – 200,000 **(1)** 200,000+ N/A **(2)**	25,000 – 50, 000 **(5)** 50,000 – 100,000 **(2)** 100,000 – 200,000 200,000+ N/A **(2)**	25,000 – 50, 000 50,000 – 100,000 **(1)** 100,000 – 200,000 **(5)** 200,000+ **(1)** N/A **(1)**
Municipalities	City of Peterborough **(7)** Hiawatha First Nation **(1)** Selwyn **(3)** Cavan-Monaghan **(1)** Douro-Dummer Trent Lakes **(1)** Otonabee South-Monaghan	City of Peterborough **(5)** Hiawatha First Nation Selwyn **(2)** Cavan-Monaghan Douro-Dummer **(1)** Trent Lakes **(1)** Otonabee South-Monaghan	City of Peterborough **(4)** Hiawatha First Nation **(1)** Selwyn **(1)** Cavan-Monaghan **(2)** Douro-Dummer Trent Lakes Otonabee South-Monaghan **(1)**

Figure B1

Senior, Family Caregiver and Formal Caregiver Health Experiences

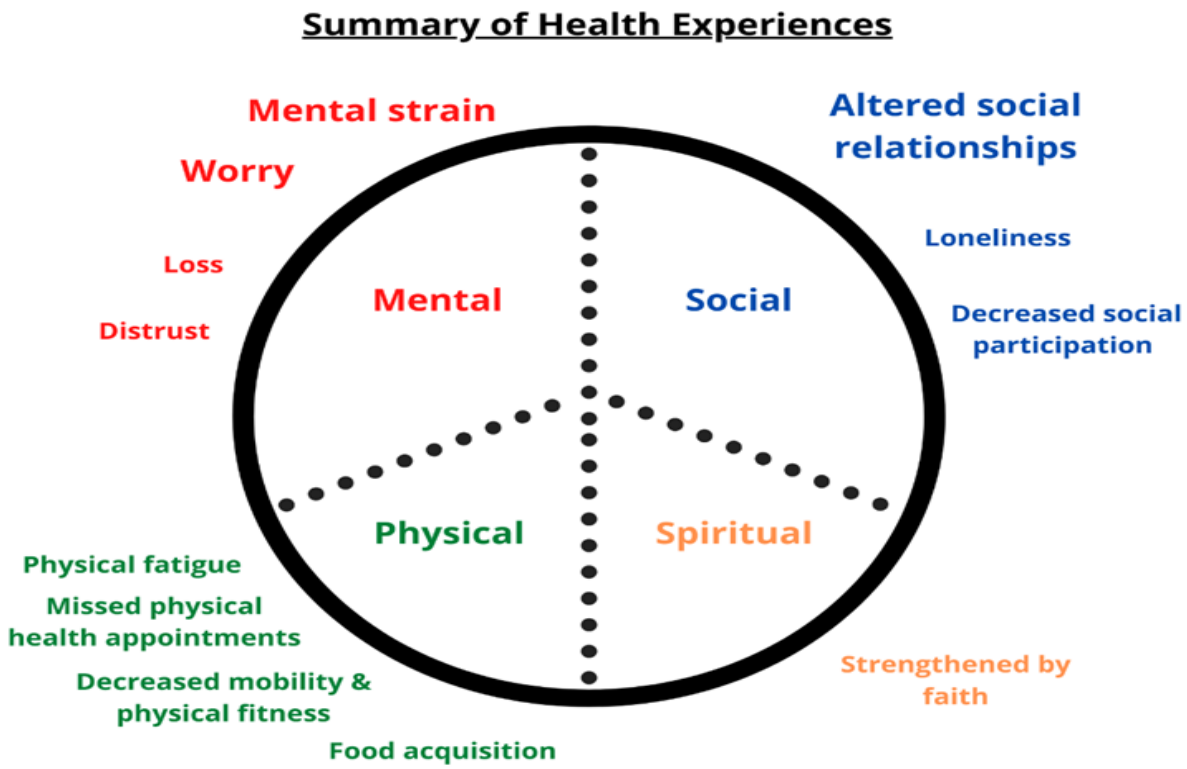

Table B3

Exemplary quotes for health experiences

Health Domains	Participant Quotes (Fictitious Names)
Mental Health	"I was just in a panic because I was so, so scared and I mean scared. I just thought oh my god people are dying of this. And it can happen anywhere at any time." – Amy (Senior) "I would feel overwhelmed like I thought I just can't do this." – Betty (Family Caregiver) "It's often emotionally draining when you take care of vulnerable people, especially if you're involved long term with people, which I am. You have connections with them, and it's difficult when they're having struggles and maybe you're not able to resolve the issues for them." – Carol (Formal Caregiver)
Social Health	"Well, I think what it's done to me is you're kind of isolated. You're away from your friends and your family. And, you know, it's a lonely life really, when you're all by yourself." – Diane (Senior) "Your own social schedule and time schedule goes out the window and it becomes tiring." – Eric (Family Caregiver) "During the pandemic of course you can't go anywhere, even though I've got transportation, where can I go? I can't go for a tea or a coffee with a friend. You're not supposed to go into their house. At that point when we had the shutdown, you couldn't really go anywhere or do anything, so I was really isolated. – Fiona (Formal Caregiver)
Spiritual Health	"My spiritual life is the one that helps me the most. All of the others are tied up with that…I feel if I am really following my religious convictions and my faith journey faithfully, I will be able to handle all this [pandemic]." – Grace (Senior)
Physical Health	"I'll get home at the end of the day driving home in the dark and I say to my husband, I don't know how much more I can do this. I

	can't physically lift her. She's too heavy for me, you know I come home and my back's killing me. – Hailey (Family Caregiver) “I've been told I needed another hip replacement, but I don't want to deal with any of that right now. I'm not kidding. I’m putting all of that on the back burner. It’s just too much to deal with right now that I just let all these health things sort of kind of go because I'd like to settle everything else first.” – Iris (Formal Caregiver)

Figure B2:

Proposed Supports for Seniors, Family Caregivers and Formal Caregivers

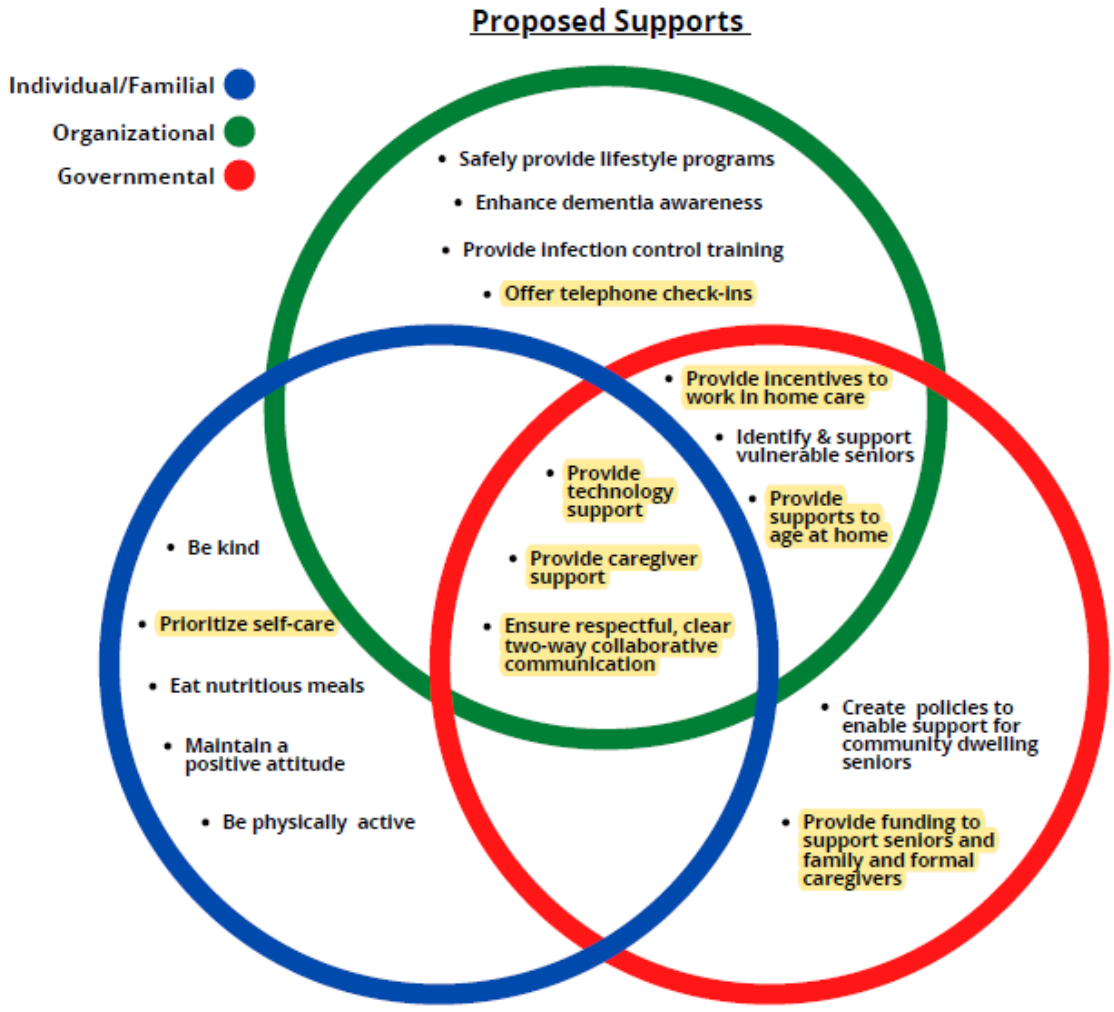

Table B4

Exemplary quotes for proposed supports

Proposed Support	Participant Quotes
Provide technology support	“I think the challenge for the seniors that are not technically inclined, they either don't have internet access or don't know how to use the technology. Maybe if there was some assistance in that regard…” – Jake (Family Caregiver)
Provide caregiver support	“I'm being pushed into an area that I've never done before. It's like jumping into a new career and without much help.” – Kris (Family Caregiver)
Ensure respectful, clear, two-way collaborative communication	“What I found really hard was there was no communication or no contact for months with our community nurse or social service administrator, or between the health administrator and the client. The client had no clue what was going on. They weren't given any information. They weren't kept in the loop.” – Laura (Formal Caregiver)
Provide supports to age at home	“I am looking forward to as I age… that I can age at home if that is what I wish and that I will have the support to do that.” – Natasha (Senior)
Provide funding to support seniors, family and formal caregivers	“I wouldn’t say that we don't get the right kind of support, but I think maybe it would be better to attach money to an elder and let them figure out how they want to proceed. You know, if they want to be in their home or if they want to be in care.” – Olivia (Family Caregiver)
Provide incentives to work in home care	“They aren’t paying us for what is reflective of what we are doing in the community, while we are also keeping people in their own homes and out of institutions as per individual preferences.” – Molly (Formal Caregiver)

Figure B3

Guiding Principles Identified in Documents

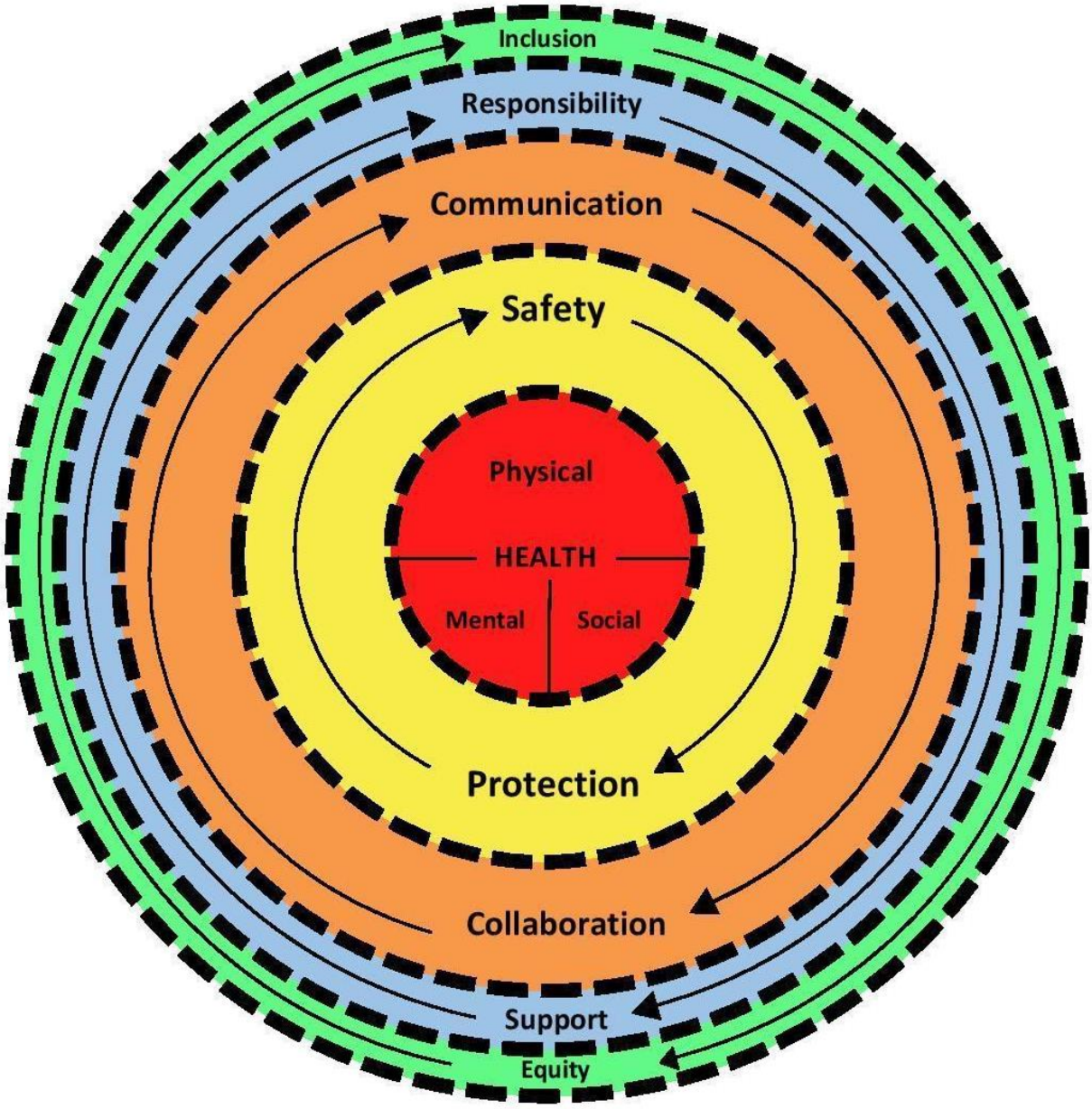

Table B5
Attendees at the Working Together Meeting

Working Together Attendees
Adrienne Harrop, Strexer-Harrop
Anne Driscoll;
Lisa Smith, Peterborough Housing Corp.
Anita Wong, and Deanna VanderBroek, Peterborough Public Health
Amber Brown, Peterborough Family Health Team
Kelli Lackey, Hiawatha First Nation
Brooke Galonski, Chartwell - Jackson Creek;
Abby Jarret, Jayah Setka, and Julia Crump students from Trent/Fleming;
Catherine Pink, Danielle Belair, and Darci Maude, Community Care Peterborough;
Karen Morton, Community Care Millbrook;
Jill Jones, Older Women Networking;
Karen Carter-Edward, Newcomers Alumni;
Cathy Berges;
Ginny Walsh, Kawartha Centre;
Janet Buchanan, Activity Haven;
Karen Bisschop, Peterborough Library;
Karl Moher, County of Peterborough Council;
Keith Riel, City of Peterborough Council;
Laurie Stratton and Robin St, Pierre, City of Peterborough – Transit;
Shelley King, Artful Connections;
Lily Chumbley, Facilitator from Trent University;
Kathleen Gordon, Peterborough Retirement Residence;
Martin Higgs, RTO/ERO;
Nick Stone, Fleming College;
Pat Dunn, Senior Ladies Living Together;
Stephanie Bolton, Spinal Injury Ontario;
Susan Dunkley, Suzi Home Maker; and
Vicki King (admin) City of Peterborough.

Table B6

Project Recommendations

WHO Age-friendly Domains	Recommendations
Communication & Information; Community Support & Health Services, Respect & Social Inclusion	1. **Facilitate** respectful, two-way collaborative communication across the full spectrum of care among seniors, caregivers, and health and social service providers. 2. **Promote** emerging technology support and technology-based resources for seniors and caregivers to maintain their social, mental, and physical health in the community (e.g., 211, virtual visiting programs, virtual care options, volunteer opportunities, technology distribution programs, access to medical and care records, and training sessions). 3. **Promote** available services, programs, and policies to support the well-being of seniors and their caregivers (e.g., social prescribing, navigator roles, 211, vulnerable seniors outreach, Senior Connectors, Neighbours for Neighbours) 4. **Promote** public health guidelines (e.g., PPE, Infection Prevention and Control (IPAC), physical distancing, virtual visiting).
Civic Participation & Employment; Community Support & Health Services	5. **Advocate for** enhanced financial and physical resources (e.g., PPE, training for family caregivers, volunteers, and paid staff who support community-dwelling seniors). 6. **Advocate for** incentives to work in the home care sector (e.g., increased wages, paid benefits).
Transportation; Social Participation; and Outdoor Spaces & Buildings	7. **Advocate for** enhanced accessibility to supports and services required by seniors as they age at home. 8. **Promote** rural transportation busing and volunteer driver enhancements (e.g., Community Care driver program and The Link). 9. **Advocate for** expanding safe opportunities for social and physical health activities (e.g, Seniors Centre Without Walls, Community Care and Alzheimer's Society Zoom programs, Walking Groups, Telephone check-ins).
Housing; Respect & Social Inclusion	10. **Advocate for** affordable, supportive, communal housing options to meet the needs of vulnerable seniors and mitigate caregiver strain (e.g., Kawartha Commons Cohousing, HomeShare, Abbeyfield, Trent Seniors Village, LHIN supported and Peterborough Housing Corp congregate living - Spruce Corners – Apsley, Bonaccord Collaborative Transition Facility).