



CENTRE FOR AGING
+ BRAIN HEALTH
INNOVATION
Powered by Baycrest

AgeTech Insights

Building Communities for Healthy Aging: The Role of Mobility, Transportation, and Technology

Report | October 2026



About AgeTech Insights

AgeTech Insights is a market intelligence initiative supporting end users, researchers, entrepreneurs, innovators, investors, ecosystem leaders, and policymakers working at the intersection of aging, brain health, and technology. It serves as a national and global knowledge hub that centres the lived experiences of older persons and care partners while identifying opportunities within the rapidly growing agetech market.

Grounded in lived experience through the Centre for Aging + Brain Health Innovation's (CABHI, powered by Baycrest) [Leap service](#), alongside market research, user insights, and demographic trends, AgeTech Insights generates actionable intelligence to:

- Influence innovation design, uptake, investment, and policy
- Support the development of technologies, services, and business models that reflect the real needs of older persons and care partners
- Ensure lived experience remains central to how agetech priorities are identified and advanced

This report is a collaborative effort between CABHI and partners across Canada and Japan, including the Ontario Ministry of Economic Development, Job Creation and Trade (MEDJCT); the Japan Research Institute (JRI); the National Center for Geriatrics and Gerontology (NCGG); and the Japan Agency for Medical Research and Development (AMED) Brain/MINDS 2.0. Alongside these partners, we would also like to thank the Ministry of Economy, Trade and Industry (METI) of Japan for its support in disseminating the report.

Who is the target audience for this report?

This report is designed for end users, researchers, entrepreneurs, innovators, investors, non-governmental organizations, and policymakers seeking to better understand the aging and brain health market.

How to cite this report

The Centre for Aging + Brain Health Innovation (2026). AgeTech Insights | Building Communities for Healthy Aging: The Role of Mobility, Transportation, and Technology.

Continue Exploring AgeTech Insights

This report is part of CABHI's [AgeTech Insights initiative](#), which examines emerging trends, market opportunities, and lived experiences at the intersection of aging, brain health, and technology.

Previous reports in the series include:

- The Canadian 50+ Tech Market: Trends and Opportunities
- Designing Inclusive Innovation for the 50+ Market
- Supporting Brain Health During Menopause: Understanding the Role of Technology
- Unlocking Dementia Prevention: The Role of Technology in Supporting Brain Health

Explore AgeTech Insights and additional resources on aging, brain health, and innovation at www.cabhi.com.

Contact us

Are you interested in conducting your own market research or gathering insights about the agetech landscape? Contact the AgeTech Insights team at agetechinsights@cabhi.com to discuss how you can work with our team to build comprehensive market research surveys and reports.

Table of Contents

Foreword	4
Key Definitions	5 / 36
Findings at a Glance	6
Market Context: Why This Matters Now	7
Methodology	10
Market Signals: What We Learned	11
Looking Ahead	33
Conclusion	36
Partners	37
References	38



AgeTech Insights



Foreword

Canada and Japan have many similarities. Both are home to super-aged populations facing similar societal challenges, including growing demand for transportation systems, communities, and technologies that enable older persons to remain active, independent, and connected throughout their later years. At the same time, advances in artificial intelligence (AI), digital technologies, and connected mobility in both regions are creating new opportunities to rethink how people move through their communities and access services that support healthy aging.

As healthspan (the number of years a person can live a healthy, active, and connected life) continues to lag nearly a decade behind the average lifespan, innovative, equitable, and community-grounded solutions are needed to help super-aged populations maintain mobility, connection, and access to essential services. With so many parallels between the two countries, it is no coincidence this report puts Canada and Japan at the centre of its focus.

Capitalizing on this opportunity requires collaboration across the entire innovation ecosystem, connecting academia, emerging technologies, coordinated investment, policymakers, companies, and end users to develop, validate, commercialize, and adopt transformative agetech solutions. Interest in solving aging and brain health challenges is increasingly crossing generational lines, with up-and-coming researchers and innovators rising to the occasion. For their part, colleges and universities are developing some of the most promising technologies and practices, bringing research out of the lab and translating findings into real-world applications.

The acknowledgement that aging-related issues are a collective concern is encouraging and indicative of the need for an “inter-ecosystem” approach. The resulting intellectual property from these collaborations is transforming how older persons move, stay connected, and live healthier for longer, and in many cases, expanding overseas for global impact.

Companies are incorporating critical technologies to support age-friendly communities and aging in place, helping older persons stay mobile and connected, while policy creates the conditions for targeted investments in equitable services and infrastructure that support longer healthspans. Like a thriving community, the ecosystem is coming together to tackle the challenges head-on, but the data shows there is more work to be done.

Our latest AgeTech Insights Report explores these challenges and opportunities through a Canada–Japan lens. Drawing on the perspectives of more than 2,300 older persons, the report examines the evolving mobility needs, the barriers that older persons continue to face, and the opportunities for technology, age-friendly communities, and cross-sector collaboration to support aging in place. It also highlights how Canada and Japan can learn from one another as they develop more connected, accessible, and person-centred mobility ecosystems.

This report is a collaborative effort between CABHI and the Ontario Ministry of Economic Development, Job Creation and Trade (MEDJCT); the Japan Research Institute (JRI); the National Center for Geriatrics and Gerontology (NCGG), and the Japan Agency for Medical Research and Development (AMED) Brain/MINDS 2.0. Alongside these partners, we would also like to thank the Ministry of Economy, Trade and Industry (METI) Japan for its support in disseminating the report.

CABHI and our partners are committed to translating research into innovation, commercialization, and societal impact. The findings presented here are intended to inform policy, inspire entrepreneurship, strengthen cross-sector collaboration, and contribute to the development of mobility solutions that enable older persons to age with independence, dignity, and choice.



Dr. Negar Mazloun-Farzaghi

Lead Writer and Co-Principal Investigator for the AgeTech Insights Reports and Knowledge Broker at the Centre for Aging + Brain Health Innovation



James Mayer

Principal Investigator for the AgeTech Insights Reports and Chief Operating Officer at the Centre for Aging + Brain Health Innovation.



Dr. Allison Sekuler

Co-Principal Investigator for the AgeTech Insights Reports and President and Chief Scientist at the Centre for Aging + Brain Health Innovation

Key Definitions (continued on page 36)

- + Mobility:** An individual's ability to move safely, confidently, and independently within their community and across different environments, with or without assistive devices.
- + Transportation:** Services and technologies that extend personal mobility beyond immediate environments, such as buses, trains, cars, shuttles, taxis, or ride services.
- + Older Persons:** For this report, “older persons” refers to adults aged 50 years and older in Canada and Japan who participated in the survey. This study-specific definition reflects the broad and diverse population experiencing and shaping later life and enables consistent comparison across the two countries. It should not be interpreted as a universal or country-specific definition of older age, which varies across cultural, demographic, policy, and institutional contexts.

This publication has been prepared for general guidance on matters of interest only and does not constitute professional advice. You should not act upon the information contained in this publication without obtaining specific professional advice. No representation or warranty (express or implied) is given as to the accuracy or completeness of the information contained herein. To the extent permitted by law, Canadian Centre for Aging & Brain Health Innovation Development Inc., its affiliates, employees and agents do not accept any liability, responsibility or duty of care for any consequences to you or anyone else acting, or refraining to act, in reliance on the information in this publication or for any decision based on it.

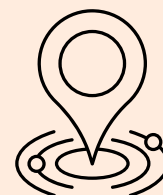
Findings at a Glance

Based on an international survey of **2,300+ respondents aged 50+ in Canada and Japan**, this report examines how older persons navigate daily life in aging societies, including their mobility needs, perceptions of community supports, use of technology, and the role agetech can play in supporting healthier, more connected, and independent lives within their communities.



Mobility is fundamental to healthy aging, enabling older persons to access healthcare, essential services, employment opportunities, exercise facilities, and social opportunities that support independence and well-being: 79% of Canadian respondents and 69% of Japanese respondents reported driving regularly or occasionally to maintain these activities.

Aging in place depends on more than housing. Accessible transportation, walkable communities, and proximity to everyday destinations are essential to helping older persons remain active and connected.



Interest in mobility technology is high, but adoption has room to grow. While technology is widely viewed as a valuable tool for supporting mobility and independence, more than half of respondents reported not using technology for personal mobility, revealing a significant market opportunity to develop solutions that better align with the needs, preferences, and daily routines of older persons.

Ease of use was the highest priority when using transportation technologies, reported by 54% of respondents in Canada and 61% in Japan, followed by reliability and affordability, underscoring the importance of intuitive, dependable design.



Older persons want technology that supports their mobility and decision-making—such as navigation, safety, and driver-assistance tools—rather than technologies that replace human control, like fully autonomous vehicles.

The future of healthy aging depends on connected ecosystems. Supporting independence will require coordinated investments across mobility and transportation systems, age-friendly communities, and technology and innovation.





Market Context



CENTRE FOR AGING
+ BRAIN HEALTH
INNOVATION
Powered by Baycrest

AgeTech Insights

Why This Matters Now



Globally, the proportion of people aged 60 years and older is projected to nearly double from 12% in 2015 to 22% by 2050 (World Health Organization, 2025). At the same time, global life expectancy has increased dramatically over the past century, rising from approximately 32 years in 1900 to more than 71 years today (Dattani et al., 2023). However, increases in lifespan do not necessarily translate into equivalent increases in healthspan, or the number of years lived in good health. Globally, the average lifespan is approximately 73 years, while healthspan is estimated at only 64 years, representing a gap of nearly a decade (Garmany et al., 2021). As longevity increases, older adulthood has become increasingly diverse, encompassing individuals with varying levels of health, functional ability, and support needs. **Together, these demographic shifts are reshaping how societies plan, deliver services, and support healthy aging.**

Population aging is expected to transform labour markets, healthcare and pension systems, housing demand, and patterns of service delivery. It also underscores the importance of creating environments that allow older persons to remain active, connected, and independent. **Mobility is fundamental to achieving this goal.** Older persons' ability to move safely, confidently, and independently enables them to access healthcare, purchase groceries, engage in physical activity, maintain social relationships, volunteer, work, and participate in community life. **By enabling physical activity, social participation, and access to healthcare, mobility supports several modifiable factors associated with healthy cognitive aging and dementia risk, as identified by the Lancet Commission on dementia prevention (Livingston et al., 2024).** Conversely, mobility limitations are associated with social isolation, reduced quality of life, declining physical and cognitive health, and increased healthcare utilization (Chihuri et al., 2016).

Maintaining mobility is also critical to older persons' ability to remain in their homes and communities as they age. Moreover, there are substantial health and economic benefits to enabling older persons to age in or near their own homes (Organisation for Economic Co-operation and Development [OECD], 2025). **As older populations continue to grow, investments in accessible mobility solutions, age-friendly transportation systems, and inclusive community design will not only improve individual well-being but also strengthen community resilience, workforce participation, and long-term economic vitality.**

Technology is increasingly recognized as a key enabler of healthy aging and mobility. Advances in artificial intelligence (AI), digital health, navigation tools, assistive technologies, connected transportation, and smart city infrastructure have created new opportunities to help older persons maintain independence and overcome barriers to community participation as they age. However, access to and comfort with these technologies are not equal. Differences in digital literacy, affordability, connectivity, accessibility, and confidence can create or reinforce barriers for older persons, particularly as more services move online. Addressing this digital divide requires ensuring that technology complements, rather than replaces, accessible non-digital options and human support. Realizing the benefits of technology therefore depends on solutions that are usable, affordable, accessible, trustworthy, and designed around the priorities and lived experiences of older persons.

Canada and Japan provide valuable case studies for exploring how mobility, community design strategies, and technological innovations can support healthy aging in rapidly aging societies. Both are Organisation for Economic Co-operation and Development (OECD) member countries, making them relevant comparators for understanding how advanced economies are responding to population aging through policy, infrastructure, and innovation. Japan is the world's first super-aged society, with approximately 30% of its population aged 65 years and older, while Canada reached super-aged status as of 2026, with older persons (65 years and older) now surpassing 20% of the population (Press, 2026). Although the two

countries differ in geography, culture, transportation systems, and healthcare contexts, both face the common challenge of supporting healthy longevity, maintaining mobility, and enabling older persons to age in place.

This report draws on findings from a cross-national survey of 2,329 adults aged 50 years and older in Canada (n = 1,034) and Japan (n = 1,295), complemented by interviews with older persons that provide additional insight into lived experiences of mobility, transportation, and technology. Together, these complementary case studies illustrate how different demographic, social, and technological contexts shape experiences of aging and provide practical insights into how transportation systems, community design, technology, and public policy can better support healthy aging, independence, and community participation.

Throughout this report, we use the term “older persons” to describe the population at the centre of this research. While definitions and perceptions of older age vary across countries, cultures, and contexts, for the purposes of this study, “older persons” (see “Key Definitions” on page 5) refers to adults aged 50 and older who participated in the research in Canada and Japan. This study-specific terminology reflects the diversity of experiences, needs, and perspectives within this broad and evolving population.



Methodology

What did we do?

CABHI, powered by Baycrest, in collaboration with its partners, surveyed 2,329 older persons in Canada and Japan to better understand how they experience mobility, transportation, technology, and aging in place. The survey explored travel behaviours, community participation, transportation preferences, mobility-related technology use, attitudes toward AI, and factors that influence healthy aging and independence. To complement the survey findings, in-depth interviews were conducted with older persons in Japan to better understand their lived experiences navigating their communities, using transportation systems, and interacting with technologies that support everyday mobility.

This report also integrates market research, academic literature, and CABHI's expertise in aging, brain health, and agotech to situate the findings within the broader demographic, technological, and innovation landscape.

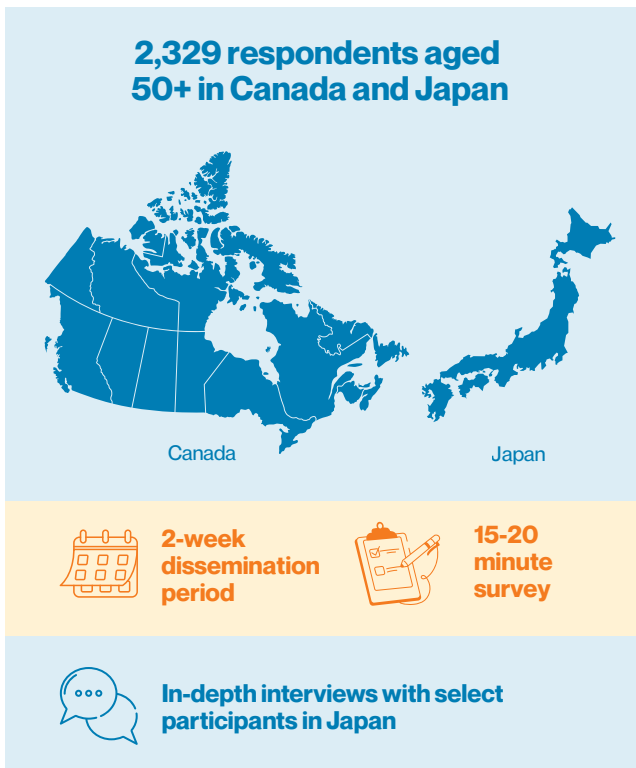
This study received ethics approval from the Baycrest Research Ethics Board, and all participants provided informed consent before participating.

How did we do it?

The survey was administered online to older persons aged 50 years and older in Canada and Japan with survey questions available in English and Japanese. Data collection occurred over a two-week period through CABHI and partner distribution channels, in addition to an online survey panel to ensure broad geographic representation. Respondents completed a 15–20-minute questionnaire covering mobility behaviours, transportation use, aging in place, technology adoption, AI, and perceptions of community accessibility.

In parallel, interviews were conducted with two older persons in Japan to gain a deeper understanding of their experiences with mobility, transportation, technology, and aging in place. These interviews complemented the survey findings by providing qualitative insights into the everyday opportunities and challenges faced by older persons living in a super-aged society.

Who did we survey?



A total of 2,329 older persons participated in the survey, including 1,034 respondents from Canada and 1,295 respondents from Japan. Participants represented diverse geographic regions across both countries and a range of urban, suburban, and rural communities.

Canadian survey respondents ranged in age from 50 to 90 years, with approximately **35%** aged 50–59, **37%** aged 60–69, **24%** aged 70–79, and **4%** aged 80 years and older. Overall, **55%** were assigned female at birth, **72%** lived in a city, **15%** lived in a town or village, and **13%** lived in a rural area. Approximately **37%** of Canadian respondents reported completing a university degree.

Japanese survey respondents ranged in age from 50 to 86 years, with approximately **47%** aged 50–59, **37%** aged 60–69, **14%** aged 70–79, and **2%** aged 80 years and older. Overall, **25%** were assigned female at birth, **68%** lived in a city, **28%** lived in a town or village, and **4%** lived in a rural area. Approximately **52%** of Japanese respondents reported completing a university degree.



Market Signals: What We Learned



CENTRE FOR AGING
+ BRAIN HEALTH
INNOVATION
Powered by Baycrest

AgeTech Insights



Signal 1

Mobility is Essential to Independence, and Driving Remains Central to How Older Persons Stay Connected

Driving plays an important role in supporting independence, accessing essential services, and participating in community life as people age. While reliance on driving varies across communities and transportation systems, it remains a key source of mobility for many older persons in both Canada and Japan.

Canada's transportation system has historically been shaped by low-density suburban development, large geographic distances, and widespread private vehicle ownership. Outside of major urban centres, public transportation options remain limited, making driving the primary means of mobility for many older persons in Canada. The vast majority of older Canadians continue to rely on private vehicles for daily transportation, particularly in suburban and rural communities where public transportation options are often limited. Between 2011 and 2024, **private vehicles accounted for approximately 79% to 85% of commuting trips in Canada** (Canadian Infrastructure Council, 2025). Consequently, driving can be an important enabler of healthy aging, supporting older persons' independence, social participation, and access to healthcare, grocery stores, employment, volunteering, and other community activities. Research demonstrates that driving cessation is associated with reduced social participation, poorer physical and mental health, and lower quality of life among older persons (Chihuri et al., 2016).

Although Japan is internationally recognized for its extensive public transportation network and many of its major metropolitan areas are characterized by compact, transit-oriented development, mobility experiences vary considerably across the country. In suburban, rural, and depopulating communities, driving remains essential for many older persons, as transit services have declined and alternative transportation options have become more limited. According to the Ministry of Land, Infrastructure, Transport and Tourism, between 2008 and 2023, more than 23,000 kilometres of bus routes and nearly 600 kilometres of local rail lines were discontinued, leaving many communities with few alternatives to private vehicles.

As a result, driving continues to serve as a critical link to healthcare, essential services, employment, and community participation for many older persons in Japan. Recognizing the importance of mobility for maintaining independence and inclusion, Japan's Basic Plan for the Promotion of Policies on Dementia, developed under the Basic Act on Dementia to Promote an Inclusive Society, identifies the development of transportation systems that support the mobility and independence of older persons as a key policy priority. This reflects a broader shift toward viewing transportation not only as infrastructure, but as an essential component of dementia-inclusive and age-friendly communities. By enabling people to remain active, connected, and engaged in their communities as they age, accessible transportation can also support healthy longevity and help narrow the gap between lifespan and healthspan.



As an avid driver, I am in control and plan to be independent till the end. Self-driving is still a ways away from full dependability; however, driver aids like lane centering, visual aids, and alerts are the saviour to aging drivers.

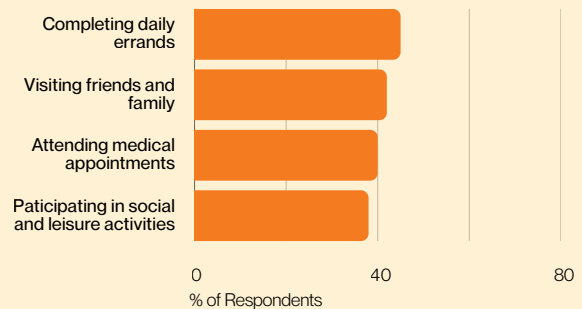


Canadian survey respondent

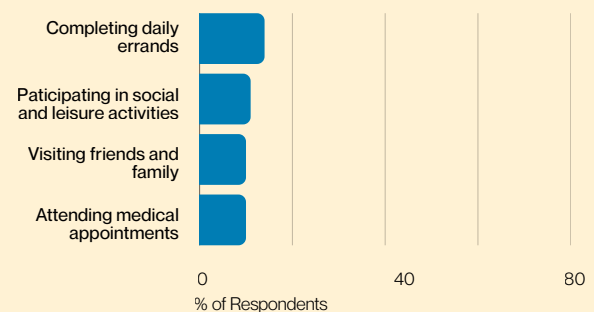
Survey respondents in both Canada and Japan reported similar patterns of community participation. Older persons in both countries travelled regularly for healthcare appointments, grocery shopping, errands, exercise, work, volunteering, and social activities, underscoring that mobility remains fundamental to maintaining independence regardless of how transportation systems are organized, and driving continues to play an important role in both countries. In Canada, **79%** of respondents reported driving regularly or occasionally, while **11%** had stopped driving. Among those who had stopped driving, the greatest challenges were completing daily errands (**45%**), visiting friends and family (**41%**), attending medical appointments (**40%**), and participating in social or leisure activities (**38%**). When asked what would have better supported them after they stopped driving, respondents most frequently identified more frequent public transportation (**28%**), transit routes that better connected them to healthcare, shopping, and other key destinations (**27%**), more affordable transportation options (**25%**), and support from family, friends, or community organizations (**24%**).

A similar pattern was observed in Japan, where **69%** of respondents reported driving regularly or occasionally and **17%** had stopped driving. However, the impacts of driving cessation appeared to differ from those observed in Canada. Nearly two-thirds (**65%**) of former drivers reported that stopping driving had resulted in no major change to their daily lives. This may partly reflect the concentration of respondents in more densely populated urban areas, where transportation alternatives are more readily available, and may not fully reflect the experiences of older persons in rural and regional areas of Japan. Among those who did experience challenges, daily errands (**14%**), participating in social or leisure activities (**11%**), visiting friends and family (**10%**), and attending medical appointments (**10%**) were most affected. The supports identified as most helpful included more frequent public transportation (**34%**), better transit routes to key destinations (**33%**), transit stops closer to home (**31%**), and more affordable transportation options (**26%**).

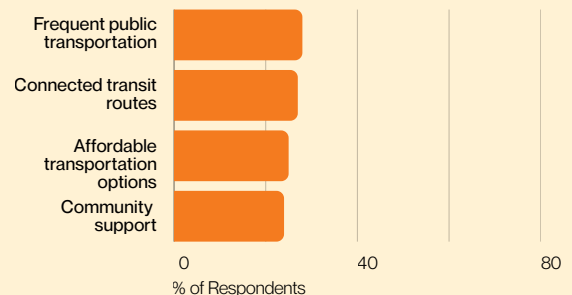
+ FIGURE: Greatest challenges for non-drivers in Canada



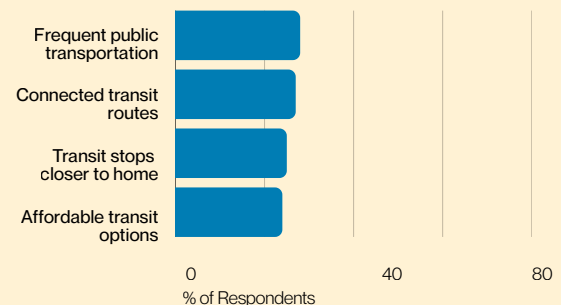
+ FIGURE: Greatest challenges for non-drivers in Japan



+ FIGURE: Necessary support for non-drivers in Canada



+ FIGURE: Necessary support for non-drivers in Japan



Taken together, these findings demonstrate that driving continues to play an important role in supporting mobility and independence in both Canada and Japan, although its relative importance differs across the two countries. In Canada, where private vehicles are often the only practical transportation option, the transition away from driving can substantially affect daily life. In Japan, more extensive public transportation and alternative mobility options appear to reduce many of these impacts, even though driving remains important for many older persons. Across both countries, the findings highlight the need to support older persons throughout the driving continuum—from helping individuals drive safely for as long as possible through vehicle technologies, driver education, and licensing policies, to ensuring accessible, affordable, and well-connected transportation alternatives when driving is no longer an option.

Implications for innovators

The findings highlight opportunities to develop technologies that support older persons throughout the driving journey. This includes advanced driver-assistance systems (e.g., lane-keeping assistance, collision avoidance, blind-spot monitoring, and emergency braking); in-vehicle health and safety monitoring; navigation systems designed for age-related needs (e.g., simplified interfaces and voice guidance); and digital trip-planning tools that integrate driving with public transit, ridesharing, and community transportation. There are also opportunities to develop services that support the transition from driving to multimodal transportation, including on-demand community shuttles, volunteer driver programs, and concierge transportation services. These innovations address a rapidly expanding market: in Ontario alone, the number of licensed drivers aged 80 years and older is projected to increase by **178%**, from approximately **418,000 in 2024 to 1.16 million by 2046** (Rapoport et al., 2025), reflecting growing demand for technologies that support safe driving, facilitate the transition away from driving, and maintain mobility after driving cessation. Older persons also represent a financially significant consumer segment.

Across OECD countries, households headed by older persons aged **55–64** have the **highest average net wealth (USD \$406,012)** of any age group (OECD, 2021), highlighting their substantial purchasing power and making them an important market for mobility and transportation innovations.

Implications for policymakers

The findings reinforce the importance of adopting a lifespan approach to driving and mobility. Alongside policies that support safe driving—such as evidence-based licensing assessments, driver education, and road safety initiatives—governments should continue investing in accessible public transportation, community transportation programs, and age-friendly community design. These investments are increasingly important as populations age. Across OECD countries, the old-age dependency ratio is projected to exceed **50 adults aged 65 years and older** for every **100 working-age adults** by 2060, while spending on health care is expected to grow by at least **2.6% annually through 2040**, and long-term care expenditures are projected to **nearly double by 2050** (OECD, 2025). Age-friendly communities that provide accessible transportation, barrier-free infrastructure, and nearby services can help older persons remain independent, reduce reliance on institutional care, and support healthy aging in place (OECD, 2025). Together, these approaches can help ensure that forfeiting a driver's license does not mean giving up mobility; older persons will still be able to remain socially connected, engage in their communities, and access employment, healthcare, and essential services (World Health Organization, 2007; OECD, 2025).



+ LIVED EXPERIENCE SPOTLIGHT

Adapting Mobility with Age



“

... standing for long periods on trains or other public transport has become a bit difficult. So, I drive to the station, take the Meitetsu line (reserved seat) to Nagoya, and then take the Shinkansen (bullet train) or something similar.

● *Japanese interview respondent*

During the interviews, participants were asked how their mobility and transportation habits had changed as they aged, including whether they had adapted how they travelled to continue participating in everyday activities. One interview participant described gradually adapting their daily routine rather than reducing activity altogether. Walks that were once completed entirely on foot are now kick-started by car, allowing them to continue enjoying local parks and spending time outdoors despite changes in endurance. Another participant explained that driving to the train station before continuing by rail helps reduce walking while still enabling travel to visit family and attend appointments. Together, these experiences illustrate that older persons are motivated to modify how they travel to remain active and independent as their mobility changes.

+ STATE OF THE SCIENCE

Transportation as an Enabler for Brain Health

Transportation is a critical component of older persons' everyday lives. It enables access to essential services and supports the ability to engage socially (Dickerson et al., 2019). As a result, transportation plays an essential role in community participation, which is critical for older persons' physical, mental, and cognitive health. Research has shown that transportation facilitates social participation regardless of geographical location (Desai et al., 2023; Levasseur et al., 2020). Conversely, driving cessation can contribute to age-related health problems (Ang et al., 2019; Maliheh et al., 2023). For instance, older persons who do not drive, are socioeconomically disadvantaged, and reside in communities that lack public transportation are less likely to leave their homes, often leading to reduced social engagement and increased likelihood of social isolation and loneliness (Dabelko-Schoeny et al., 2021; Lamanna et al., 2020; Williams et al., 2024). In turn, social isolation increases the risk of heart disease (Boden-Albala et al., 2005), cognitive decline (Béland et al., 2005), and dementia (Fratiglioni et al., 2000) in older persons.

Along with other major life transitions, such as retirement and bereavement, loneliness in later life is associated with disruptions in social and community participation, particularly following driving cessation and the loss of social networks (Hajek et al., 2025; Tomida et al., 2024). These disruptions can be intensified when older persons face mobility limitations and barriers to transportation, including challenges related to the accessibility, affordability, frequency, and reliability of public transportation.

The World Health Organization has recognized age-friendly communities as an important strategy for promoting healthy aging and enhancing quality of life by reducing social isolation and loneliness (World Health Organization, 2007). Through the World Health Organization's Age-Friendly Cities and Communities framework (2007), municipalities are encouraged to address eight key domains that influence older persons' well-being:



- **Outdoor spaces and buildings**
- **Transportation**
- **Housing**
- **Respect and social inclusion**
- **Social participation**
- **Civic participation and employment**
- **Communication and information**
- **Community support and health services**

By creating environments that support volunteerism, community engagement, and social participation, age-friendly communities help older persons maintain social connections and reduce the risk of isolation (Emlet & Mocerri, 2012). Within this framework, transportation is identified as a foundational component because it enables older persons to access healthcare and participate in social and civic life (World Health Organization, 2007).

Transportation and age-friendly communities are closely interconnected in supporting healthy aging (Lamanna et al., 2020). Despite this close relationship, research examining transportation initiatives within the broader age-friendly communities framework remains limited. In the coming years, understanding older persons' travel behaviours will become increasingly important for future urban planning. Evidence on mobility patterns will help inform government resource allocation, transportation planning, and projections of healthcare needs and costs. A better understanding of these changes will be critical for anticipating the mobility needs of current and future generations of older persons.



Signal 2

Aging in Place Depends on Transportation and Community Design



The design of communities can significantly shape how easily older persons are able to move around, access essential services, and participate in daily life. As populations age, creating environments that support mobility and independence is becoming increasingly important for enabling people to age in place. In Canada, post-war suburban development has resulted in many communities characterized by low-density neighbourhoods, separated land uses, and reliance on private vehicles. While these communities often provide access to essential services, destinations such as healthcare, shopping, and recreation are frequently spread across large geographic areas, making mobility heavily dependent on driving. As the population ages, policymakers and urban planners have emphasized the importance of creating age-friendly communities that support aging in place through accessible housing, walkable neighbourhoods, reliable transportation, and proximity to essential services (World Health Organization, 2007).

In contrast, as one of the world's most rapidly aging societies, Japan has invested extensively in universal design, barrier-free infrastructure, transit-oriented development, and compact city planning to enable older persons to remain active and independent. Despite these investments, challenges remain. Population decline, regional disparities, and the continued aging of rural communities have created unequal access to services, meaning that not all older persons benefit equally from these investments.

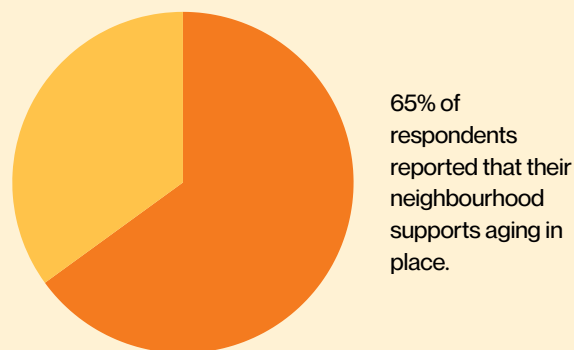
Walkable neighbourhoods, accessible public spaces, nearby essential services, and opportunities for social participation are associated with greater independence, improved physical and mental health, stronger social connectedness, and reduced risk of isolation among older persons (World Health Organization, 2007). Consequently, creating age-friendly communities requires more than transportation infrastructure alone; it also depends on designing neighbourhoods that are safe, inclusive, and responsive to the changing needs of older persons.

Canadian respondents generally reported positive perceptions of their communities. Most indicated that essential destinations were easy to reach from home, including grocery stores **(95%)**, pharmacies **(95%)**, medical centres or hospitals **(83%)**, social or community spaces **(83%)**, and family or friends **(80%)**. While access to public transportation was also relatively high **(77%)**, approximately one in ten respondents reported that transit was not available in their area. Most respondents described their neighbourhood as primarily residential **(63%)**, while **32%** lived in mixed-use neighbourhoods with nearby shops and services. Overall, **65%** reported that their neighbourhood supports aging in place very or somewhat well, and **53%** agreed that their city is designed in a way that makes it easy for older persons to get around.

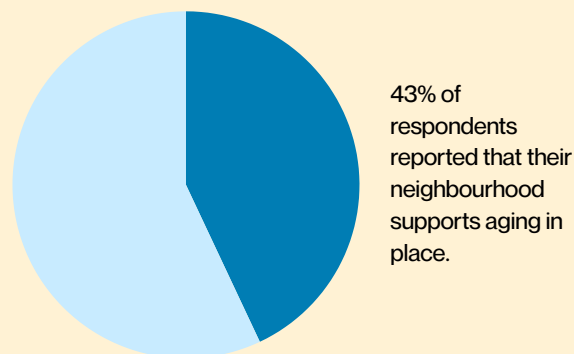
Japanese respondents also reported high levels of access to essential destinations, with **94%** indicating grocery stores, **92%** pharmacies, **87%** medical centres or hospitals, and **89%** reporting that public transportation was easy to reach from home. Access to social or community spaces **(80%)** and family or friends **(71%)** also remained high. Compared with Canada, a larger proportion of respondents lived in mixed-use neighbourhoods that integrated housing, shops, and services **(41% vs. 32%)**, while fewer lived in primarily residential communities **(55% vs. 63%)**. However, only **43%** reported that their neighbourhood supports aging in place, and just **25%** agreed that their city is designed in a way that makes it easy for older persons to get around. These findings suggest that perceptions of age-friendly communities extend beyond physical proximity to services or transit.

Although older persons in Japan generally had good access to essential destinations, many did not believe their neighbourhoods or cities fully support mobility and independence in later life. This contrast suggests that access to destinations alone does not necessarily translate into perceptions that a community supports aging well. Rather, older persons may evaluate their communities based on the quality, safety, and usability of the built environment, as well as whether they feel confident navigating it as their needs change over time.

+ FIGURE: Do Canadian Neighbourhoods Support Aging in Place?



+ FIGURE: Do Japanese Neighbourhoods Support Aging in Place?



I'm not too keen on self-driving vehicles; however, the REM [Montreal's automated light-rail system] is an exception. I would always prefer having a human as a backup. Fortunately, I'm not presently dependent on wearables for aging-related needs, but knowing that such technologies are available is encouraging for today's seniors.



Canadian survey respondent

This aligns with findings from a 2024 Cabinet Office of the Government of Japan survey, in which older persons in Japan identified access to medical facilities and grocery stores as top priorities in their communities, but also placed strong importance on age-friendly design features, such as barrier-free environments with handrails and level surfaces **(37% of men; 45% of women)** and safe, well-maintained roads for walkability **(31% of men; 35% of women)** (Cabinet Office, Government of Japan, 2024).

The above findings suggest that perceptions of age-friendly communities extend beyond physical proximity to essential services or public transportation. For many older persons in Japan, as well as in Canada, mobility independence also depends on whether neighbourhoods are designed to support safe, comfortable, and independent movement within the community.

Taken together, these findings suggest that creating age-friendly communities requires more than ensuring access to destinations. Older persons' experiences are shaped by how transportation, housing, public spaces, and community services work together to support independence, participation, and confidence as they age. **Transportation is not only a service—it is an economic enabler.** Accessible transportation systems, age-friendly neighbourhoods, and supportive mobility technologies enable older persons to remain engaged in the workforce; access healthcare and preventive services; contribute as caregivers and volunteers; and continue participating in local economies through shopping, recreation, and community activities. Investing in accessible and connected communities therefore supports both healthy aging and long-term economic resilience.

Implications for innovators

An important opportunity lies in developing technologies that complement the built environment and make communities easier to navigate as people age. Solutions that improve wayfinding, provide real-time accessibility information (e.g., accessible entrances, elevator outages, and sidewalk conditions), connect older persons with nearby services, and help individuals discover local healthcare, recreation, and community resources can reduce barriers to participation and support independent living.

These innovations also represent a significant market opportunity. Older persons aged 50 years and older contributed an estimated **US\$45 trillion** to the global economy in 2020, reflecting their purchasing power and economic influence (Angelelli et al., 2026).

Implications for policymakers

Investments in accessible housing, universal design, walkable neighbourhoods, safe pedestrian infrastructure, reliable public transportation, and integrated community services are essential to supporting healthy aging. These investments also generate broader economic benefits by enabling older persons to remain employed; continue volunteering and providing unpaid caregiving; access healthcare and preventive services; and participate in local businesses and community life. Despite these benefits, **less than 20% of homes across OECD countries are adapted to the needs of older persons, and fewer than 30% of people with long-term care needs receive formal community care**, highlighting substantial opportunities to strengthen community infrastructure and support aging in place (OECD, 2025).





TREND WATCH: Technology **Supporting Safe Mobility for People** **Living with Dementia**

As the prevalence of dementia continues to rise globally, supporting safe and independent mobility is a growing area for agtech innovation. More than 60% of people living with dementia will experience wandering or become disoriented at some point during the disease, creating significant safety concerns for individuals, families, and communities (Neubauer et al., 2018). If a person who becomes lost is not found within 24 hours, the risk of serious injury or death increases substantially (Alzheimer's Association, 2016). Beyond the personal impact, these events place considerable emotional and economic burdens on care partners, healthcare systems, and emergency response services (Neubauer et al., 2018).

Historically, strategies to manage wandering often relied on restrictive approaches, including physical restraints and medication (Hermans et al., 2007). Technology is now being recognized as a more person-centred approach that can support both safety and autonomy. Innovations such as wearable GPS devices, smartwatches, location-sharing technologies, geofencing, ambient monitoring systems, and AI-enabled navigation tools can help people living with dementia remain active in their communities while reassuring care partners (Liu et al., 2017; Pot et al., 2012). For example, as part of its Dementia-Friendly City Project, Fukuoka City in Japan redesigned bus stops to improve navigation for people living with dementia, using features like high-contrast walkways, pictogram-based signage, and colour-coded wayfinding elements to make transit environments easier to understand and navigate. Moreover, private-sector initiatives are also emerging. Nokkaru Hakuhodo, a Japanese community ride-sharing public transportation system, has developed a model that reconfigures existing transportation resources, including municipally operated buses and privately operated taxi services, into integrated, community-specific mobility systems tailored to local needs.

As these technologies continue to evolve, there is an opportunity to move beyond simple location tracking

toward integrated mobility solutions that support aging in place and community participation. Success will depend on designing technologies that balance safety with independence through intuitive interfaces, privacy-by-design principles, customizable alerts, and seamless integration with care partners, healthcare providers, and community services. By enabling people living with dementia to stay mobile and engaged longer, these innovations have the potential to improve quality of life while reducing caregiver burden and demand on health and emergency services.

+ LIVED EXPERIENCE SPOTLIGHT: **Aging in Place Beyond the Home**

Interview participants were asked to reflect on what enables them to remain independent in their communities, including the role of their neighbourhood environment and access to everyday destinations. Interview participants emphasized that remaining independent depended on more than simply staying in their homes. Access to nearby parks, grocery stores, healthcare services, and everyday destinations all contributed to their ability to remain active. While both participants viewed their neighbourhoods positively, they also acknowledged that maintaining this independence currently relies heavily on access to a private vehicle.



I drive around in my car, going to various places. However, I do sometimes take the bus to places like the library, the history and folklore museum, or other public facilities in the city. If I check the bus schedule, I can go, but when I return there are no buses.

 *Japanese interview respondent*



Signal 3

Technology Supports Independence, but Adoption Remains a Challenge



Technology is increasingly recognized as an important enabler of healthy aging, offering new opportunities to help older persons maintain independence, participate in their communities, and navigate everyday life (Bertolazzi et al., 2024). Advances in AI, digital health, wearable devices, smart home technologies, and navigation systems have expanded the range of tools available to support mobility, safety, and independent living. These technologies can assist with route planning, medication reminders, fall detection, health monitoring, access to transportation services, and communication with healthcare providers, enabling older persons to remain active and engaged in their communities for longer.

Canada and Japan have both identified technology as a key component of healthy aging strategies. In Canada, governments and healthcare organizations have increasingly invested in digital health, virtual care, agtech innovation, and smart community

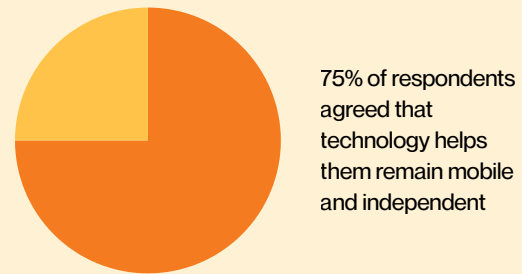
initiatives to improve access to care and support aging in place (CSA Group, 2025). Japan, meanwhile, has become a global leader in developing technologies to address the challenges of population aging, including robotics, AI, smart homes, digital health platforms, and mobility technologies designed to support older persons (Medical Japan, 2024). Despite these investments, technology availability does not guarantee adoption. Factors such as usability, affordability, accessibility, trust, digital literacy, perceived usefulness, and alignment with older persons' priorities all influence whether technologies are incorporated into everyday life (Czaja et al., 2024).

Canadian respondents generally expressed positive attitudes toward technology and reported high levels of confidence using digital mobility tools.

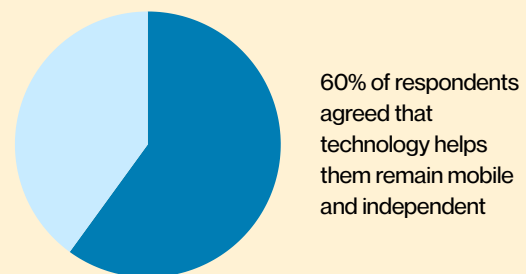
Overall, **76%** felt very or somewhat confident using these technologies, and three-quarters (**75%**) agreed that technology helps them remain mobile and independent. Just over half (**51%**) also agreed that technology helps compensate for limitations in their neighbourhood or city design. Navigation applications (apps) were the most commonly used digital mobility tool (**61%**), followed by public transportation apps (**24%**), ride-hailing services (**16%**), and health or appointment portals (**14%**). However, one-quarter (**26%**) reported using none of these digital services. Similarly, more than half (**54%**) reported using no technologies specifically designed to support their personal mobility. Among those who did, activity-tracking wearables (**26%**), apps and reminders for daily life (**15%**), smart home devices (**15%**), and health-monitoring wearables (**11%**) were the most commonly used.

Japan is often viewed as a global leader in technology and innovation. The Government of Japan allocated **approximately US\$225 million** to advance smart city technologies through national programs, with additional investments from prefectural governments, municipalities, and the private sector (International Trade Administration, n.d.). However, findings from the survey suggest that the availability of technology does not necessarily translate into widespread adoption or confidence in its use. Overall, **62%** of respondents felt very or somewhat confident using digital mobility tools, while **60%** agreed that technology helps them remain mobile and independent. Only **36%** agreed that technology helps compensate for limitations in their neighbourhood or city design. Similar to Canada, navigation apps (**64%**) were the most commonly used digital mobility tool, followed by public transportation apps (**30%**), ride-hailing services (**11%**), and health or appointment portals (**9%**), although nearly one-third (**29%**) reported using none of these digital services whatsoever. More than half (**57%**) also reported using no technologies to support their personal mobility. Among users, activity-tracking wearables (**29%**) were the most common, followed by health-monitoring wearables (**12%**), apps and reminders for daily life (**8%**), and smart home devices (**8%**).

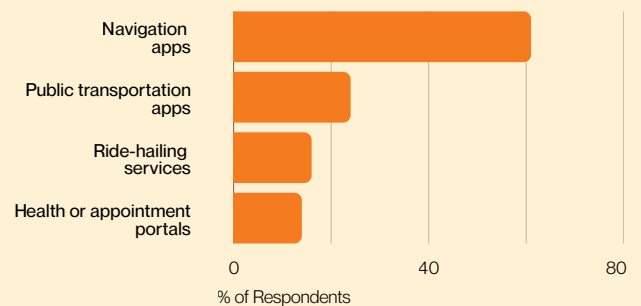
+ FIGURE: Attitudes About Technology in Canada



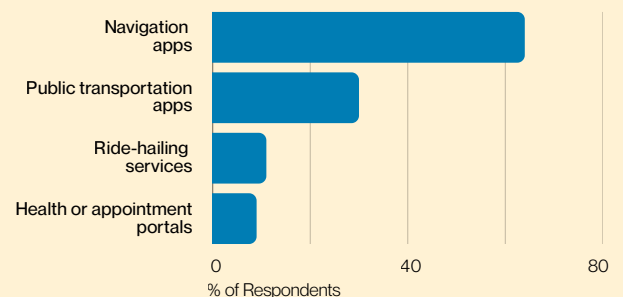
+ FIGURE: Attitudes About Technology in Japan



+ FIGURE: Mobility Tool Usage in Canada



+ FIGURE: Mobility Tool Usage in Japan



Taken together, these findings suggest that awareness of technology is no longer the primary challenge. Instead, the opportunity lies in improving adoption and integrating digital tools into everyday life. While older persons in both Canada and Japan generally recognized the value of technology for supporting mobility and independence, many continued to rely on few or no mobility-specific technologies.

Implications for innovators

There is considerable opportunity to develop technologies that simplify mobility by connecting fragmented transportation, healthcare, and community services into seamless user experiences. Examples include Mobility-as-a-Service (MaaS) platforms that integrate public transit, ride-hailing, community transportation, and payment systems; digital care coordination platforms that automatically arrange transportation to healthcare appointments; and applications that combine trip planning, appointment scheduling, accessibility information, and community resources within a single interface. These integrated solutions can reduce complexity, improve continuity of care, and help older persons navigate daily life more confidently while creating opportunities to serve the rapidly growing longevity economy (Angelelli et al., 2026). Innovators should prioritize interoperability, affordability, and co-design with older persons to ensure technologies work across providers and respond to diverse mobility needs.

Implications for policymakers

Improving mobility requires better coordination across transportation, healthcare, and community services—not simply expanding access to individual technologies. Policymakers should consider supporting policies and investments that promote interoperability, shared data standards, integrated payment systems, affordability, and collaboration across municipalities, healthcare providers, transportation agencies, and community organizations. Creating seamless mobility ecosystems can make it easier for older persons to access healthcare, participate in community life, remain in the workforce, volunteer, and provide unpaid care while reducing inefficiencies created by fragmented service delivery. Technology can make transportation easier to navigate and connect people to a wider range of

mobility options, but these benefits will remain out of reach if the cost of transportation itself is unaffordable. Ensuring equitable mobility therefore requires attention not only to physical and digital access, but also to the financial barriers that can limit transportation choices, particularly for older persons with limited disposable incomes.

As demand for health and long-term care continues to increase with population aging, integrated and affordable mobility systems represent an opportunity to improve access to services while supporting more efficient, sustainable, and person-centred models of care.



+ LIVED EXPERIENCE SPOTLIGHT

Technology That Fits Everyday Life



I hardly ever use them [navigation apps on smartphones]. I use the car's navigation system. Besides, I don't usually go to places where I'd need to use them [navigation apps on smartphones].

 *Japanese interview respondent*

Interview participants were asked about the technologies and tools they use in their daily lives, including those that support mobility, health, and independence. Interview participants described using technologies that addressed immediate needs and fit naturally into their daily routines. Commonly used technologies include hearing aids, canes, pedometers, vehicle navigation systems, and simple exercise equipment. Although both participants own smartphones, they primarily use them for calls, messaging, photographs, or basic step counting rather than more advanced mobility or health apps. These experiences may reinforce the survey findings that older persons value technologies that are familiar and reliable, and directly support everyday activities.



TREND WATCH

Designing Future Communities Through Living Laboratories



In September 2025, Toyota Motor Corporation launched **Woven City** in Japan, a 708,000-square-metre experimental community built on the site of a former factory. Designed as a living laboratory, the city will ultimately house approximately 360 residents who will live, work, and interact with emerging technologies in real-world settings. Woven City provides an environment to test mobility solutions that are difficult to evaluate on public roads, including connected transportation infrastructure, autonomous delivery systems, and robotic waste collection. By integrating these technologies into everyday life, the initiative aims to accelerate the development and implementation of next-generation mobility and urban services.

Woven City is built around **two distinct participant groups**. Organizations developing and testing new technologies in Woven City are known as **Inventors**. These include startups, established companies, entrepreneurs, research institutions, and other innovators working to develop and evaluate new products and services. By combining Toyota's manufacturing expertise and the diverse strengths of participating organizations, Woven City aims to foster collaboration and innovation. This approach is guided by the Japanese concept of Kakezan, or "multiplication," where new ideas and societal value emerge through the convergence of different perspectives, knowledge, and capabilities. The second group, known as Weavers, consists of residents and visitors who experience new products and services firsthand and provide feedback to help refine and improve emerging innovations. Since September 2025, Toyota Group employees and their families have served as the first Weavers, with Phase

1 expected to accommodate approximately 300 residents. Woven City also plans to welcome members of the public beginning in fiscal year 2026, expanding opportunities for real-world testing and user-centred innovation.

A similar living laboratory approach is advancing healthy aging research in Canada. Baycrest's Kimel Family Centre for Brain Health and Wellness is the world's first research-based community centre dedicated to reducing dementia risk and examining the benefits of personalized brain health programming for people aged 50+. The Centre functions as a "living lab," integrating research into a community setting where members participate in personalized, evidence-based programs addressing areas such as physical activity, nutrition, cognitive engagement, mental wellbeing, and social connection. Through ongoing research assessments, researchers can examine how participation in these programs affects cognition and dementia risk factors over time, generating evidence within the setting where programs are actually experienced.

Together, Woven City and the Kimel Family Centre illustrate the potential of living laboratories to bridge the gap between research and real-world application. While operating at different scales and addressing different aspects of healthy aging, both create environments where people can engage with emerging approaches in everyday settings and contribute to the evidence needed to refine them. These models demonstrate how embedding research and innovation within communities can support more responsive, evidence-informed approaches to healthy aging.



Signal 4

Adoption Depends on Technology That is Simple, Reliable, and Designed with Older Persons



As populations age, improving mobility requires more than expanding transportation services or introducing new technologies. Older persons must also be able to navigate these systems safely, confidently, and independently. Complex transportation networks, digital interfaces, and fragmented mobility services can create barriers to community participation, particularly for individuals experiencing age-related changes in vision, hearing, cognition, or physical mobility. Even relatively small challenges—such as understanding route changes, transferring between services, locating accessible entrances, or using unfamiliar digital apps—can reduce confidence and discourage travel.

Recognizing these challenges, governments and transportation agencies are adopting principles of universal design and human-centred innovation to improve accessibility. Rather than designing services for an "average" user, universal design aims to create environments, technologies, and transportation systems that are intuitive, equitable, and usable by people with diverse abilities throughout the lifespan (Salah & Chung, 2013). Similarly, age-friendly transportation policies should emphasize simplicity, reliability, accessibility, and

clear communication as essential components of mobility, recognizing that the usability of transportation systems is just as important as their availability.

Our findings reinforce that many respondents in both Canada and Japan continued to experience practical barriers when navigating their communities. In Canada, the most commonly reported challenges were navigating busy or crowded spaces **(18%)**, making transfers between buses, trains, or other services **(17%)**, understanding routes, schedules, or service changes **(17%)**, knowing where or how to ask for assistance **(13%)**, and getting to appointments on time **(12%)**.

Similar challenges were reported in Japan. Navigating busy or crowded spaces was the most common barrier **(20%)**, followed by making transfers between transportation services **(17%)**, understanding routes, schedules, or service changes **(16%)**, and getting to appointments on time **(12%)**.



My parents struggle with technology. Even when it can help them, they have a hard time using it. Devices for seniors need to be made with them in mind. Super simple and able for family to help remotely.



Canadian survey respondent

Respondents in both countries also questioned whether existing technologies are designed with older persons in mind. In Canada, only **34%** agreed that technologies supporting neighbourhood mobility are designed for older persons, while **47%** were neutral and **19%** disagreed. Perceptions were considerably lower in Japan, where only **13%** agreed and **39%** disagreed, suggesting that many older persons do not feel current technologies adequately reflect their needs, abilities, or preferences.

When asked what matters most when using transportation-related technologies and services, ease of use was the highest priority in both Canada (**54%**) and Japan (**61%**), followed by reliability (**46% and 37%, respectively**) and affordability (**30% and 37%**). Canadian respondents also placed greater importance on short wait times (**22%**) and feeling independent (**15%**), whereas Japanese respondents prioritized service availability and frequency (**31%**).

Taken together, these findings suggest that improving mobility is not simply a matter of introducing new technologies or expanding transportation services. Rather, success depends on designing systems that are intuitive, reliable, accessible, and responsive to the everyday experiences of older persons.

Implications for innovators

The findings highlight the importance of involving older persons throughout the design, development, and evaluation of mobility technologies and services. Co-design approaches can help ensure that navigation apps, trip-planning platforms, ticketing systems, and mobility services reflect real-world needs, preferences, and abilities rather than assumptions about aging. Engaging older persons early and often can improve usability, trust, and adoption while reducing costly post-implementation refinements. Applying universal design principles—including intuitive interfaces, clear instructions, minimal cognitive demands, and accessibility features that accommodate diverse physical, sensory, and cognitive abilities—can further expand the market for these innovations by benefiting not only older persons, but also people with disabilities, care partners, and individuals experiencing temporary or changing mobility needs across the life course.

Implications for policymakers

Policymakers should consider encouraging user-centred design by embedding co-design requirements into the procurement, funding, and evaluation of transportation technologies and public services. Supporting engagement with older persons, people with disabilities, caregivers, and community organizations throughout planning and implementation can help ensure that mobility solutions are accessible, trusted, and responsive to diverse needs. Policymakers should also promote universal design standards, accessible digital services, and digital literacy initiatives to reduce barriers to adoption and ensure transportation systems remain usable across the life course. Embedding co-design into policy and innovation processes can improve service quality, increase technology adoption, and help create age-friendly communities that support safe, independent, and confident mobility.

+ LIVED EXPERIENCE SPOTLIGHT: Familiar Technologies Matter Most

Interview participants were asked what they consider when choosing whether to use a technology, including the importance of ease of use and familiarity. Interview participants consistently chose technologies that required little learning and complemented their existing behaviours. One participant preferred a traditional pedometer and flip phone with built-in step counting rather than newer smartphone apps, while another relied on an in-vehicle navigation system instead of smartphone navigation apps. These examples reinforce the survey finding that ease of use is fundamental to technology adoption among older persons.



I use an old-fashioned cell phone, not a modern smartphone, but an old-fashioned flip phone, one of those with a built-in pedometer, and I put it in my pocket when I walk. I have a sense of how many steps it takes to walk around here.

 *Japanese interview respondent*



TREND WATCH

Co-Designing Innovation with People Living with Dementia



Japan's Orange Innovation Project is a national initiative led by the Ministry of Economy, Trade and Industry (METI) and implemented by the Japan Research Institute (JRI) on behalf of METI. The initiative promotes a co-design model in which people living with dementia work directly with companies to develop products and services that support independence, participation, and quality of life. As of March 2026, **1,318 individuals** had participated in product development activities, including **811 people living with dementia** and **507 family members and supporters**. The initiative also aligns with Japan's Basic Plan for Dementia Policy Promotion (2024), which identifies the participation of people living with dementia and their families in policy development and innovation, as well as corporate engagement in dementia-related initiatives, as key government priorities.

As of 2025, **58 companies and organizations** have participated in the initiative, developing a wide range of dementia-friendly products and services. Examples include **LOOVIC**, a navigation service that supports people with spatial cognitive difficulties using personalized guidance from family members; **TSUGIKOKO**, a wearable navigation device developed by Toyota that provides intuitive walking directions; **yottey**, a simplified digital calendar designed to support daily schedule management; and **KAERU**, a cashless payment system with spending controls and remote card suspension features that promotes both independence and financial safety. Together, these innovations demonstrate how co-design can produce technologies that address real-world challenges experienced by people living with dementia.

The Orange Innovation Project also demonstrates how technology can contribute to age-friendly and dementia-inclusive communities. By integrating user-centred design, digital technologies, and cross-sector collaboration, the initiative supports innovations that help older persons navigate their communities more safely, access services more easily, maintain social connections, and participate more fully in everyday life.

A similar emphasis on lived experience is shaping innovation in Canada. Through CABHI's **Leap** service, innovators can engage directly with older persons and care partners to gather meaningful, actionable feedback on products, services, and solutions for aging and brain health. Through surveys, focus groups, and one-on-one interviews, Leap helps innovators better understand end user needs, preferences, and lived experiences, validate that they are addressing real-world needs, and use those insights to inform and refine their solutions. By embedding lived experience throughout the innovation process, Leap helps ensure that solutions are designed **with, not simply for, older persons and care partners**, increasing their potential to deliver meaningful and lasting impact.

Together, these approaches highlight the value of embedding lived experience throughout the innovation lifecycle. When combined with collaboration across government, industry, research, healthcare, and communities, co-design can help create solutions that respond to real-world needs while strengthening agetech ecosystems and supporting healthier, more inclusive, and age-friendly societies.



Signal 5

Trust in Technologies Depends on Simplicity, Support, and Human Choice



Artificial intelligence (AI) represents the next evolution of connected mobility systems. As transportation networks become increasingly digital and interconnected, AI is enabling services to move beyond static infrastructure and fragmented platforms toward systems that can predict, personalize, and adapt in real time. From optimizing traffic flow and public transit operations to supporting personalized navigation and future autonomous vehicles, AI has the potential to reshape how people move through communities and access essential services. For older persons, these advances may improve accessibility, increase safety, and support independent mobility. They can help users identify accessible routes, adapt journeys based on changing mobility needs, avoid hazards, and access transportation more efficiently through AI-powered navigation, real-time trip planning, automated vehicles, and intelligent transportation systems.

Respondents in both Canada and Japan expressed moderate levels of trust in digital and automated systems to support mobility, but were more comfortable with technologies that assist decision-making than those that replace human control entirely. In Canada, **59%** reported trusting digital or

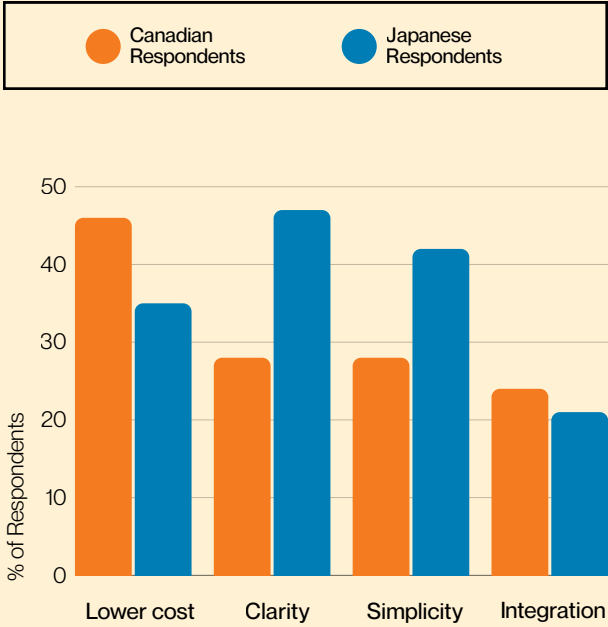
automated systems either "a lot" or "somewhat," while **26%** remained neutral and **15%** expressed little or no trust. Trust was lower in Japan, where **49%** reported trusting these systems, **35%** were neutral, and **16%** expressed little or no trust.

This difference was even more apparent when respondents were asked about specific technologies. In Canada, half (**50%**) reported feeling very or somewhat comfortable using AI-based trip-planning tools that recommend routes based on traffic, accessibility, or personal mobility needs. In contrast, only **24%** felt comfortable using automated or self-driving vehicles, while **56%** reported feeling somewhat or very uncomfortable. In Japan, only **24%** reported feeling comfortable using AI-based trip-planning tools, and just **11%** felt comfortable using automated or self-driving vehicles, compared with **69%** who reported feeling somewhat or very uncomfortable. These findings suggest that building confidence in AI-enabled technology will depend on transparent system design, intuitive and accessible interfaces, clear communication about how AI supports rather than replaces human decision-making, and opportunities for older persons to develop familiarity with these technologies over time.

Respondents also identified clear opportunities to improve transportation technologies. In Canada, the most commonly identified improvements were lower costs **(46%)**, the ability to speak with a real person when needed **(38%)**, clearer instructions **(28%)**, simpler interfaces with fewer steps **(28%)**, and better integration across healthcare, transportation, and city services **(24%)**. In Japan, respondents placed greater emphasis on usability, identifying clearer instructions **(47%)** and simpler interfaces **(42%)** as the highest priorities, followed by lower costs **(35%)**, better accessibility features such as larger text and higher contrast **(27%)**, and better integration across systems **(21%)**.

Taken together, these findings suggest that trust is shaped less by the sophistication of a technology rather than by how well it aligns with older persons' needs and expectations. Respondents in both countries were consistently more receptive to technologies that supported decision-making than those that replaced it, reinforcing the importance of transparency, simplicity, and maintaining human oversight when introducing AI-enabled mobility solutions.

+ FIGURE: Top Opportunities to Improve Transportation Technology



If I could use self-driving taxis at an affordable cost, I would probably get rid of my car. When I retire, the cost of maintaining a car may become too expensive for me, and therefore my mobility will decrease a lot.



Canadian survey respondent

+ LIVED EXPERIENCE SPOTLIGHT:

Preparing for Life After Driving

Interview participants were asked to consider how their transportation needs might change in the future, including how they would maintain their independence if they were no longer able to drive. Although interview participants currently rely on private vehicles, each expressed concern about maintaining independence after they are no longer able to drive. Rather than calling for highly automated transportation systems, they emphasized practical improvements such as more frequent bus service, additional bus stops, community shuttle services, and easier access to hospitals, grocery stores, and other everyday destinations. These perspectives reinforce the survey findings by highlighting that older persons value transportation systems and technologies that enhance, rather than replace, their ability to travel independently.



When I surrendered my driver's license, all my friends and I were worried about this, but there are only one or two buses an hour. And they don't even stop near where I live. So, getting to the stop is a real hassle. I have to walk. I wish they'd consider adding more stops.



Japanese interview respondent

Implications for innovators

As AI becomes more commonly integrated into transportation systems, there are opportunities to develop AI-enabled mobility solutions that enhance rather than replace human decision-making. The findings suggest that older persons may be particularly receptive to AI applications that support, rather than automate, mobility decisions, with up to **50% reporting that they were very or somewhat comfortable using AI-based trip-planning tools**. Innovators may therefore wish to prioritize AI-enabled navigation, trip-planning, and decision-support tools that help users make informed travel decisions while maintaining control over their journeys. To build trust and encourage long-term adoption, AI solutions should be transparent and user-centred, providing clear recommendations that can be easily understood and overridden when desired. Features such as intuitive interfaces, personalized assistance, accessible design, and the ability to connect with a real person when needed can further increase confidence and usability.

Implications for policymakers

The findings reinforce the importance of establishing governance frameworks that promote trustworthy, accessible, and inclusive AI-enabled mobility systems. Policymakers should consider supporting standards for transparency, explainability, accessibility, privacy, and oversight while investing in digital literacy initiatives that help older persons understand and confidently use emerging technologies. Encouraging collaboration between transportation agencies, technology developers, healthcare systems, and community organizations will be critical to ensuring that AI complements human decision-making and supports safe and responsible technology use for aging populations.

Looking Ahead



Canada and Japan are at different stages of population aging, yet both are facing a future where mobility will become increasingly important to supporting independence, participation, and quality of life. Mobility is also fundamental to healthy aging, shaping whether people can access healthcare and essential services, participate in work and volunteering, maintain social connections, and remain engaged in their communities. The goal is therefore not simply to help people remain independent for longer, but to extend the period of life in which they can actively participate in the activities and relationships that matter to them, ultimately supporting a longer healthspan. Central to this future will be a shift toward equitable mobility: recognizing mobility as a fundamental right rather than a privilege and ensuring that safe, reliable, affordable, and accessible

transportation is available to all people, regardless of income, ability, geography, or background. Governments have an important role to play in creating the conditions for universal access to mobility, enabling people to participate fully and equitably in society throughout the life course. Meeting these needs will require a shift from viewing aging solely as a challenge to solve toward recognizing it as one of the defining social, economic, and innovation opportunities of the coming decades.

Over the next 5–10 years, mobility is expected to evolve from a collection of transportation options into a more connected, personalized, and adaptive ecosystem. Advances in AI, connected technologies, smart communities, and emerging

transportation models have the potential to reshape how people plan trips, navigate their communities, access services, and maintain independence as their needs change.

AI, in particular, could become a powerful enabler of more personalized mobility experiences—helping individuals plan journeys, navigate complexity, receive timely support, and access information tailored to their preferences and circumstances.

As mobility becomes more technology- and AI-enabled, ensuring equitable access becomes even more important. Affordability, digital literacy, accessibility, connectivity, and diverse needs and abilities can affect whether people benefit from emerging mobility solutions. Without deliberate efforts to address these barriers, technology- and

AI-enabled mobility could reinforce existing inequities rather than reduce them. Future innovation must therefore ensure that new mobility solutions remain accessible and inclusive, including for people with limited access to or comfort with digital technologies.

However, the future of mobility will not be shaped by technology alone. Realizing this opportunity will require rethinking how transportation systems, communities, and services are designed and connected. Transportation, healthcare, housing, digital services, and community resources are often planned separately, despite being closely linked to supporting mobility and healthy aging. Future solutions will need to create more seamless experiences across these systems—through stronger partnerships, integrated platforms, interoperable technologies, and services that reduce complexity for older persons and their care partners.

Older persons and care partners must also have a greater role in shaping what these future solutions look like. Their perspectives have not yet been consistently embedded in the design, testing, and evaluation of mobility innovations, despite being essential to understanding how solutions function in real-world settings. Meaningful co-design and ongoing engagement can help ensure that future mobility solutions respond to actual needs, preferences, abilities, and lived experiences rather than assumptions alone. The future of mobility will also depend on how communities are designed. Decisions made today by governments, municipalities, and regional planners around transportation infrastructure, housing, public spaces, and digital connectivity will shape whether future generations can remain connected, independent, and engaged. Creating age-friendly communities will require coordinated approaches that consider transportation, housing, infrastructure, and technology together rather than separate systems. These decisions have direct implications for healthspan: communities that make it easier to access healthcare, maintain social relationships, remain physically active, and participate in work and community life can help people remain healthier and engaged longer.





The economic benefits of these investments extend beyond transportation. Older persons represent an important segment of the labour force, helping address workforce shortages while contributing decades of experience, institutional knowledge, and mentorship. Many continue to launch new businesses, support local economies through consumer spending and tourism, and contribute substantial unpaid value through volunteering, caregiving, philanthropy, and civic engagement. Communities that attract and retain older persons through age-friendly planning can therefore strengthen local economic development while stimulating demand for innovative products, services, housing models, and agetech solutions.

Emerging examples from Japan demonstrate what can be possible when governments, industry, researchers, and communities collaborate around a shared vision for the future. Initiatives such as Woven City (pg. 25) and the Orange Innovation Project (pg. 29) illustrate how real-world testing, co-design, and cross-sector partnerships can accelerate innovation while ensuring solutions respond to changing population needs.

Together, the experiences of Canada and Japan highlight that the future of mobility will be shaped not by a single technology or solution, but by collaboration across governments, communities, industries, researchers, and older persons themselves. This creates a significant opportunity to build a new era of mobility innovation—one that supports independence, extends healthspan, strengthens economies, and improves quality of life across the life course.

Mobility solutions are not only about helping people get from one place to another; they enable continued participation in society and the economy. When people can continue accessing workplaces, businesses, healthcare, education, social connections, and community activities as they age, mobility solutions support healthy aging, longer healthspan, workforce participation, local economies, and resilient communities.



Looking ahead, important questions remain:

- How can solutions evolve from reacting to mobility challenges to proactively supporting independence and longer healthspan?
- How can AI and connected technologies enhance mobility while maintaining trust, transparency, and human choice?
- How can barriers related to affordability, digital literacy, accessibility, and connectivity be addressed so that innovation does not leave people behind?
- How can older persons and care partners become more engaged in designing, testing, and evaluating mobility solutions intended for them?
- How can communities ensure that emerging innovations are accessible and beneficial for people with diverse needs and abilities?

Conclusion

The findings from this report demonstrate that supporting healthy aging requires a coordinated approach to mobility that extends across transportation, technology, healthcare, urban planning, and community design. While Canada and Japan differ in their demographic trajectories and transportation systems, older persons in both countries share many of the same priorities: maintaining independence, remaining connected to their communities, and accessing services safely and confidently.

Across both countries, the message is clear: mobility is not simply about getting from one place to another—it is a foundation for participation, well-being, and quality of life. Technologies and services are most valuable when they are intuitive, accessible, affordable, reliable, and designed around the realities of everyday life. Ensuring that older persons are actively involved in shaping these solutions will be essential to creating innovations that are trusted, relevant, and widely adopted.

These insights provide important direction for innovators, policymakers, researchers, and industry leaders. By placing older persons at the centre of design and investing in age-friendly communities, integrated mobility systems, and user-centred technologies, societies have an opportunity to support not only independence and quality of life, but also brain health. Enabling people to remain physically active, socially connected, and engaged in their communities can help address factors associated with dementia risk and healthy aging. As populations age and the prevalence of dementia and other age-related conditions grows, supporting mobility may also help reduce pressure on healthcare and care systems and mitigate the social and economic impacts associated with an aging population.

The need to act is urgent. Canada and Japan are already experiencing the realities of population aging, and the transportation systems, technologies, and communities designed today will shape how millions of people experience aging in the decades ahead. Mobility must therefore be treated as a core

component of healthy aging and brain health, rather than as a standalone transportation issue. Now is the time to build connected, accessible, and age-friendly systems that enable people to remain active, engaged, and independent throughout their lives, while helping communities and health systems prepare for the demands of an aging population.

Key Definitions (Continued)

- + Urban Planning:** The design and governance of physical spaces and systems—including neighbourhoods, streets, buildings, and transportation networks—that shape how mobility and transportation function in cities and communities.
- + Aging in Place:** The choice to live safely, independently, and comfortably in one's home and community for as long as desired, regardless of age, income, or level of ability, with access to the services, supports, housing, transportation, and social connections needed to maintain health, well-being, and quality of life.
- + Technology:** Products, devices, digital tools, and systems that support mobility, health, independence, and daily living. This includes technologies people use directly (e.g., apps, booking systems, navigation tools, assistive devices, and mobility aids) as well as technologies embedded within transportation systems, buildings, vehicles, and communities (e.g., transit displays, smart crossings, electronic ticketing, elevators, and connected infrastructure).

Limitations

The findings in this report should be considered in the context of several limitations. Survey responses are self-reported and reflect participants' experiences and perceptions at a particular point in time. The samples may not fully represent the diversity of older persons across Canada and Japan, particularly across age, geography, socioeconomic circumstances, ability, and digital access. As the survey was conducted online, people with limited digital access or literacy may also be underrepresented. Finally, differences in transportation systems, community design, cultural contexts, and technology adoption should be considered when interpreting comparisons between the two countries.

Partners



This report is made possible by funding from the
Government of Canada and Government of Ontario

References

- Alzheimer's Association. (2016). Wandering and getting lost: Who's at risk and how to be prepared. <https://www.alz.org/getmedia/e4480fd3-e7fe-4bcb-81b3-30066c57de7f/alzheimers-dementia-wandering-behavior-ts.pdf>
- Ang, B. H., Jennifer, O., Chen, W. S., & Lee, S. W. H. (2019). Factors and challenges of driving reduction and cessation: A systematic review and meta-synthesis of qualitative studies on self-regulation. *Journal of Safety Research*, 69, 101-108. <https://doi.org/10.1016/j.jsr.2019.03.007>
- Angelelli, J., Montgomery, A., Johnston, S., & Riemer, D. (2026, April 22). Growing a productive longevity economy. *Generations Journal*. <https://generations.asaging.org/growing-a-productive-longevity-economy/>
- Béland, F., Zunzunegui, M.-V., Alvarado, B., Otero, A., & del Ser, T. (2005). Trajectories of cognitive decline and social relations. *The Journals of Gerontology: Series B, Psychological Sciences and Social Sciences*, 60(6), P320-P330. <https://doi.org/10.1093/geronb/60.6.P320>
- Bertolazzi, A., Quaglia, V., & Bongelli, R. (2024). Barriers and facilitators to health technology adoption by older adults with chronic diseases: An integrative systematic review. *BMC Public Health*, 24, Article 506. <https://doi.org/10.1186/s12889-024-18036-5>
- Boden-Albala, B., Litwak, E., Elkind, M. S., Rundek, T., & Sacco, R. L. (2005). Social isolation and outcomes post stroke. *Neurology*, 64(11), 1888-1892. <https://doi.org/10.1212/01.WNL.0000163510.79351.AF>
- Cabinet Office, Government of Japan. (2024). Annual report on the ageing society: FY2024. <https://www8.cao.go.jp/kourei/english/annualreport/2024/pdf/2024.pdf>
- Canadian Infrastructure Council. (2025). State of community mobility systems in Canada. <https://canadianinfrastructurecouncil.ca/state-of-community-mobility-systems-in-canada>
- Chihuri, S., Mielenz, T. J., DiMaggio, C. J., Betz, M. E., DiGuseppi, C., Jones, V. C., & Li, G. (2016). Driving cessation and health outcomes in older adults. *Journal of the American Geriatrics Society*, 64(2), 332-341. <https://doi.org/10.1111/jgs.13931>
- CSA Group. (2025). AgeTech for aging in place: A standards-based approach to inclusive, secure, and scalable innovation. <https://www.csagroup.org/wp-content/uploads/CSA-Group-Research-AgeTech-for-Aging-in-Place-A-Standards-Based-Approach-to-Inclusive-Secure-and-Scalable-Innovation-new-1.pdf>
- Czaja, S. J., Charness, N., Rogers, W. A., Sharit, J., Moxley, J. H., & Boot, W. R. (2024). The benefits of technology for engaging aging adults: Findings from the PRISM 2.0 trial. *Innovation in Aging*, 8(6), igae042. <https://doi.org/10.1093/geroni/igae042>
- Dabelko-Schoeny, H., Maleku, A., Cao, Q., White, K., & Ozbilen, B. (2021). "We want to go, but there are no options": Exploring barriers and facilitators of transportation among diverse older adults. *Journal of Transport & Health*, 20, 100994. <https://doi.org/10.1016/j.jth.2020.100994>
- Dattani, S., Rodés-Guirao, L., Ritchie, H., Ortiz-Ospina, E., & Roser, M. (2023). Life expectancy. *Our World in Data*. <https://ourworldindata.org/life-expectancy>
- Desai, R. H., Hollingsworth, H., Stark, S., Putnam, M., Eyler, A., Wehmeier, A., & Morgan, K. (2023). Social participation of adults aging with long-term physical disabilities: A cross-sectional study investigating the role of transportation mode and urban versus rural living. *Disability and Health Journal*, 16, 101503. <https://doi.org/10.1016/j.dhjo.2023.101503>
- Dickerson, A. E., Molnar, L. J., Bédard, M., Eby, D. W., Berg-Weger, M., Choi, M., Grigg, J., Horowitz, A., Meuser, T., Myers, A., O'Connor, M., & Silverstein, N. M. (2019). Transportation and aging: An updated research agenda to advance safe mobility among older adults transitioning from driving to non-driving. *The Gerontologist*, 59(2), 215-221. <https://doi.org/10.1093/geront/gnx120>
- Emlet, C. A., & Mocer, J. T. (2012). The importance of social connectedness in building age-friendly communities. *Journal of Aging Research*, 2012, Article 173247. <https://doi.org/10.1155/2012/173247>
- Fratiglioni, L., Wang, H.-X., Ericsson, K., Maytan, M., & Winblad, B. (2000). Influence of social network on occurrence of dementia: A community-based longitudinal study. *The Lancet*, 355(9212), 1315-1319. [https://doi.org/10.1016/S0140-6736\(00\)02113-9](https://doi.org/10.1016/S0140-6736(00)02113-9)
- Garmany, A., Yamada, S., & Terzic, A. (2021). Longevity leap: Mind the healthspan gap. *NPJ Regenerative Medicine*, 6, Article 57. <https://doi.org/10.1038/s41536-021-00169-5>
- Hajek, A., Volkmar, A., & König, H.-H. (2025). Prevalence and correlates of loneliness and social isolation in the oldest old: A systematic review, meta-analysis and meta-regression. *Social Psychiatry and Psychiatric Epidemiology*, 60, 993-1015. <https://doi.org/10.1007/s00127-023-02602-0>
- Hermans, D. G., Htay, U. H., & Cooley, S. J. (2007). Non-pharmacological interventions for wandering of people with dementia in the domestic setting. *Cochrane Database of Systematic Reviews*, 2007(1), CD005994. <https://doi.org/10.1002/14651858.CD005994.pub2>

International Trade Administration. (n.d.). Japan smart cities. U.S. Department of Commerce. <https://www.trade.gov/market-intelligence/japan-smart-cities>

Lamanna, M., Klinger, C. A., Liu, A., & Mirza, R. M. (2020). The association between public transportation and social isolation in older adults: A scoping review of the literature. *Canadian Journal on Aging*, 39(3), 393–405. <https://doi.org/10.1017/S0714980819000345>

Levasseur, M., Routhier, S., Clapperton, I., Doré, C., & Gallagher, F. (2020). Social participation needs of older adults living in a rural regional county municipality: Toward reducing situations of isolation and vulnerability. *BMC Geriatrics*, 20, 456. <https://doi.org/10.1186/s12877-020-01849-5>

Liu, L., Miguel Cruz, A., Ruptash, T., Barnard, S., & Juzwishin, D. (2017). Acceptance of global positioning system (GPS) technology among dementia clients and family caregivers. *Journal of Technology in Human Services*, 35(2), 99–119. <https://doi.org/10.1080/15228835.2016.1266724>

Livingston, G., Huntley, J., Liu, K. Y., Costafreda, S. G., Selbæk, G., Alladi, S., Ames, D., Banerjee, S., Burns, A., Brayne, C., Fox, N. C., Ferri, C. P., Gitlin, L. N., Howard, R., Kales, H. C., Kivimäki, M., Larson, E. B., Nakasujja, N., Rockwood, K., ... Mukadam, N. (2024). Dementia prevention, intervention, and care: 2024 report of the Lancet Standing Commission. *The Lancet*, 404(10452), 572–628. [https://doi.org/10.1016/S0140-6736\(24\)01296-0](https://doi.org/10.1016/S0140-6736(24)01296-0)

Maliheh, A., Nasibeh, Z., Yadollah, A. M., Hossein, K. M., & Ahmad, D. (2023). Non-cognitive factors associated with driving cessation among older adults: An integrative review. *Geriatric Nursing*, 49, 50–56. <https://doi.org/10.1016/j.gerinurse.2022.10.022>

Medical Japan. (2024, August 1). The rising opportunities in Japan's AgeTech sector. <https://www.medical-jpn.jp/hub/eng/blog/elderly/japan-agetech-sector.html>

Neubauer, N. A., Azad-Khaneghah, P., Miguel-Cruz, A., & Liu, L. (2018). What do we know about strategies to manage dementia-related wandering? A scoping review. *Alzheimer's & Dementia: Diagnosis, Assessment & Disease Monitoring*, 10, 615–628. <https://doi.org/10.1016/j.dadm.2018.08.001>

Organisation for Economic Co-operation and Development. (2021). Inheritance taxation in OECD countries (OECD Tax Policy Studies No. 28). OECD Publishing. <https://doi.org/10.1787/e2879a7d-en>

Organisation for Economic Co-operation and Development. (2025). The economic benefit of promoting healthy ageing and community care (OECD Health Policy Studies). OECD Publishing. <https://doi.org/10.1787/0f7bc62b-en>

Pot, A. M., Willemse, B. M., & Horjus, S. (2012). A pilot study on the use of tracking technology: Feasibility, acceptability, and benefits for people in early stages of dementia and their informal caregivers. *Aging & Mental Health*, 16(1), 127–134. <https://doi.org/10.1080/13607863.2011.596810>

Press, K. (2026, May 1). *Retirement plans 'out of whack': Health futurist*. Advisor.ca. <https://www.advisor.ca/industry-news/industry/retirement-plans-out-of-whack-health-futurist/>

Rapoport, M., Byrne, P. A., Pho, K., & Naglie, G. (2025). Drivers with dementia: Forecasting the future. *Journal of Alzheimer's Disease*, 106(2), 756–764. <https://doi.org/10.1177/13872877251344873>

Salah, H., & Chung, H.-D. (2013). *Towards an accessible future: Ontario innovators in accessibility and universal design*. MaRS Discovery District. <https://www.marsdd.com/wp-content/uploads/2014/01/Towards-an-Accessible-Future-Ontario-Innovators-in-Accessibility-and-Universal-Design1.pdf>

Tomida, K., Shimoda, T., Nakajima, C., Kawakami, A., & Shimada, H. (2024). Social isolation/loneliness and mobility disability among older adults. *Current Geriatrics Reports*, 13, 86–92. <https://doi.org/10.1007/s13670-024-00414-x>

Williams, A. J., McHale, C., Chow, C., Van Ry, R., & Cope, A. (2024). Systematic review of the associations between transport and loneliness. In J. S. Mindell & S. J. Watkins (Eds.), *Advances in Transport Policy and Planning* (Vol. 13, pp. 283–342). Academic Press. <https://doi.org/10.1016/bs.atpp.2023.11.005>

World Health Organization. (2007). *Global age-friendly cities: A guide*. World Health Organization. <https://www.who.int/publications/i/item/9789241547307>

World Health Organization. (2025, October 1). *Ageing and health*. <https://www.who.int/news-room/fact-sheets/detail/ageing-and-health>



CENTRE FOR AGING
+ BRAIN HEALTH
INNOVATION
Powered by Baycrest

AgeTech Insights

Follow us

 /company/cabhi

 .cabhi.innovates

 /cabhi_innovates

 @cabhi.innovates

 /cabhiinnovates.bsky.social

www.cabhi.com

