

Application Fields and Innovative Technologies

AgeTech Discussions: Exploring Perspectives on Tech – Bridging the AgeTech gap for older adults in northern and rural communities E. Rossnagel, R. McAloney, & S. Freeman. *Gerontechnology* 25(s)

Purpose Canada's population is aging at an unprecedented rate, creating significant implications for healthcare, social services, and the economy [1]. In response, AgeTech - a subset of the health technology industry - has emerged to support healthy aging through innovative technologies that enhance and adapt alternative care approaches [2]. However, for many older adults, particularly those living in northern and rural communities, a disconnect persists that prevents these emerging solutions from getting to those who need them most. To address these challenges, the ADEPT (AgeTech Discussions: Exploring Perspectives on Technology) study was developed to examine the applicability, usability, and feasibility of featured AgeTech solutions from perspectives of end-users in northern and rural communities. **Method** This study used a mixed method, concurrent design to carry out ADEPT workshops with a featured age technology. ADEPT workshops took approximately 2.5 hrs and include a pre-survey, a presentation of a featured AgeTech followed by a question & answer period with the AgeTech company representative present, a facilitated semi-structured group discussion without the AgeTech company representatives present, and post-workshop survey. Eligible participants were individuals 19+ who were interested in age technology and included older adults, care partners, families, and health care professionals. Quantitative data from the surveys were summarized using descriptive statistics, while workshop transcripts were analysed guided by Braun and Clarke's (2006) thematic analysis. An inductive approach to code and develop themes was undertaken and a summary report for each AgeTech created. **Results & Discussion** ADEPT workshops have featured 13 Age Technologies and engaged 190 participants from northern, rural, and remote communities. Participants were aged 21-85 years (M=47years, SD=14years), mostly female (n=156, 82%), and came from diverse backgrounds, professions, and roles in older adult care, including older adults themselves. Just over a third of participants worked in management and/or administration (n=68, 36%), 26% (n=51) were allied healthcare professionals, 12% (n=23) were nurses, and 11% (n=20) were older adults or older adult caregivers. Remaining participants were in academia (n=16, 8%), held leadership roles (n=10, 5%), or were volunteers (n=3, 2%). Reports for each technology provided insights and recommendations addressing unique challenges faced by older adults, care partners, and healthcare providers in northern and rural BC. Common themes across technologies emphasized: 1) Empowerment of older adults to age safely and well, 2) Enhanced care and service accessibility, 3) Consideration of northern, remote, and rural contexts in design, usability, and sustainability, 4) Alignment of design with function, prioritizing simplicity, and 5) Providing opportunities for meaningful engagement. A widely cited usability issue was technology reliance on Wi-Fi for functionality, which proved challenging with the lack of connectivity infrastructure across rural and northern regions. A key recommendation was for developers to provide offline capabilities for use in no/low connectivity areas. Learnings from these workshops have provided a more nuanced understanding of the contextual complexities in accessing and using AgeTech in rural and northern settings. These insights have informed design improvements, usability adjustments, and strategies for sustainable implementation, for AgeTech companies to meet the needs of older adults, their care partners, and the health systems that support them.

References

1. Public Health Agency of Canada. Aging and chronic diseases: a profile of Canadian seniors [Internet]. Ottawa (ON): Public Health Agency of Canada; 2020 [cited 2025 Jan 12]. Available from: https://www.canada.ca/content/dam/hc-sc/documents/services/publications/diseases-and-conditions/aging-chronic-diseases/canadian-seniors-report_2021-eng.pdf
2. Genge C, McNeil H, Debergue P, Freeman S. Technology to support aging in place: key messages for policymakers and funders. *Front Psych*. 2023 Nov 16;14:1287486. <https://doi.org/10.3389/fpsyg.2023.1287486>

Keywords: AgeTech, Northern & Rural Communities, Qualitative

Affiliation: School of Nursing, University of Northern British Columbia, Canada

Email: emma.rossnagel@unbc.ca; **ORCID ID:** 0000-0002-8371-1056