

W.B. MORTENSON, F. ROUTHIER, L. DEMERS, A. WISTER, C. AUGER, J. FAST, P. RUSHTON, R. DALLE, M. BEAUDOIN, J. LETTRE, D. MALLETTE. **Needs and preferences for innovative technology for family caregivers.** *Gerontechnology* 2016;15(suppl):132s; doi:10.4017/gt.2016.15.s.866.00

Purpose Family caregivers (e.g., relatives and friends) provide 75% of the assistance needed for individuals with disabilities to remain in their communities¹. In Canada, the replacement value of their unpaid economic contributions was estimated to be \$25 billion in 2009². Given our rapidly ageing population and issues associated with caregiver burnout, finding ways to reduce caregiver burden is critical. However, little research has identified the specific aspects of care provision (e.g., assistance with basic and instrumental activities of daily living) that family caregivers find most challenging or attempted to identify novel ways to address these needs. Therefore, we are conducting a study with the following objectives: (i) to identify the specific needs of caregivers in terms of aspects of caregiving and situations that caregivers find most burdensome or would like improved; and (ii) to identify preferences and priorities of caregivers for the development of technological solutions to address these areas. The aim of this presentation will be to present preliminary results of this project. **Method** We are conducting a national three-phase, mixed-methods study. In phases 1 and 2, we are identifying caregiver needs and identifying existing or novel technologies they use or would be interested in using through a series of quasi-experimental qualitative interviews and administering self-report questionnaires (Hospital Anxiety and Depression Scale³, Caregiver Assistive Technology Outcome Measure⁴, Caregiver Inventory⁵, World Health Organization Quality of Life-BREF⁶) with a purposeful selection of caregivers of older adults. In the first round of interviews, we identify caregiving needs and technologies they currently use; in the second, we review technological solutions to address these needs. The last phase, not reported here, will involve a cross-sectional caregiver questionnaire to obtain more representative feedback about novel solutions. **Results & Discussion** We have data from 43 family caregivers (average age: 61; 27 female), with an anticipated sample size of 60. We have identified three classes of technologies: (i) those that are working well for caregivers (e.g., a web-based calendar where caregivers can communicate and update with appointments), (ii) existing technologies that could be improved (e.g., powered wheelchair that can be easily stowed), and (iii) novel technologies that could be developed (e.g., a smart-walker that prevents users from falling). To our knowledge, this is one of the few projects to link specific caregiving activities with perceived burden, and to involve family caregivers as active partners in identifying their priorities and potential solutions. In the next phase of the project, we will be working with technology developers to improve these existing technologies and create novel solutions to reduce caregiver burden and improve quality of life.

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Address: University of British Columbia, Vancouver, Canada;

E: ben.mortenson@ubc.ca