

## ORAL SESSION 7: TECHNOLOGICAL NEEDS AND BARRIERS

### Understanding Healthcare Challenges and Needs for Older Adults with and without Mobility and Sensory Disabilities Q. Nie, E.T. Remillard, W.A. Rogers

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**Purpose** Managing health can be challenging for older adults, especially for individuals with mobility and sensory disabilities (Mitzner, McBride, Barg-Walkow & Rogers, 2013). Although there are many interventions to support the healthcare needs of these individuals, such as exercising (Mitzner, McBride, Barg-Walkow & Rogers, 2013), the needs of older adults with mobility and sensory disabilities have received little attention. The goals of this study are to (i) understand challenges of older adults with and without disabilities to manage healthcare activities, (ii) identify potential support solutions and provide guidance for technology interventions to overcome these challenges. **Method** Data from the eighth round (2018) of the National Health and Aging Trends Study (NHATS), a nationally representative sample of Medicare beneficiaries age 65 and older in the US, were used. We included participants who completed the surveys themselves (N=4,679) and categorized them into four disability sub-groups, including those who reported disabilities in mobility (N=1,675), hearing (N=563) and vision (N=403) as well as a non-disability group (N=2,562). We identified specific questions related to six healthcare activities (managing medication, going to medical appointment, handling medical plans, accessing health information, exercise and sleeping). In the current analysis, we describe trends in health self-management activity participation and challenges across and between disability-subgroups. **Results and Discussion** Across the six healthcare activities, older adults most commonly reported participating in managing medication and going to medical appointments (See Figure 1). In comparison to the non-disability group, disability subgroups had relatively higher participation in managing medications and seeing doctors, but were less active in activities of exercising and accessing health information online. Disability subgroups also reported having more trouble sleeping, taking medicine to help sleeping more frequently, and more difficulty with tracking medications (2, all  $p < .05$ ). 38%-54% of participants reported getting assistance from others in making decisions for handling medical plans. In comparison to the non-disability group, people in the disability subgroups were more likely to report getting assistance when getting to healthcare appointments, getting medicine from local stores, and communicating with physicians during medical appointments (2, all  $p < .05$ ). Getting assistance from family and friends was a strategy they used to cope with these challenges. Tools such as reminders were commonly used by all participants to track medicines (65% used), especially among disability subgroups. Findings demonstrate that older adults with disabilities participated relatively less in wellness management activities and are more likely to need assistance with healthcare activities (e.g., going to medical appointments), which indicate potential needs and challenges for them and represent opportunity areas for technology to help increase autonomy. For example, exercise equipment with multi-modal cues (audio, visual display, raised buttons) could help improve access to people with vision and hearing disabilities. Similarly, presenting medical information in different formats (verbal, paper handouts, visual displays, via remote interpreting systems) can help improve communication challenges during appointments. Transportation, which directly impacts going to medical appointments and picking up prescriptions, was particularly challenging for disability subgroups. Telehealth visits via videoconferencing technologies as well as online prescription delivery systems hold great potential to overcome this barrier.

### References

Mitzner, T.L., McBride, S.E., Barg-Walkow, L.H. & Rogers, W.A. (2013). Self-management of wellness and illness for an aging population. *Reviews of human factors and ergonomics*, 8(1), 278-333. doi:10.1177/1557234X13492979

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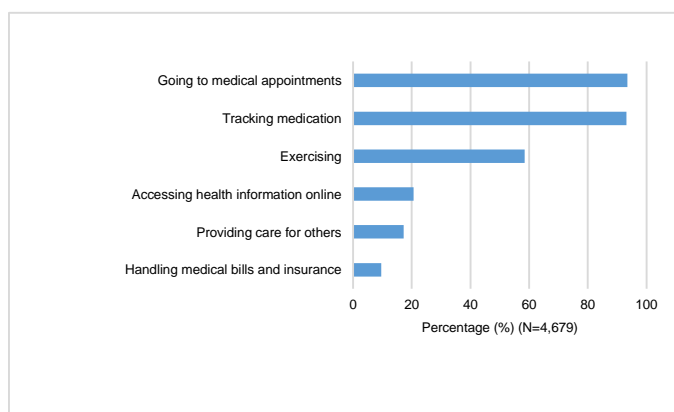


Figure 1. Participation of Health Self-management Activities