



Improving Mobility and Quality of Life for Older Adults

Kate Hyun, Ph.D., Caroline Krejci, Ph.D., Kathy Lee, Ph.D.

As we get older, transportation provides a vital link between home and community. Without reliable and easy ways to get around, many older adults (especially those who live alone) have limited access to essentials like groceries and medicine, let alone social interaction. A new report from the University of Texas at Arlington (UTA), *Developing Strategies To Enhance Mobility And Accessibility For Community-Dwelling Older Adults*, looked at the mobility challenges, barriers, and gaps that older adults experience, with an eye toward developing forms of assistance or educational strategies to fill those gaps.

SURVEYS, INTERVIEWS AND MODELING

The research team surveyed 146 low-income older adults in both urban and suburban areas of Dallas, Texas to characterize their overall transportation behaviors:

- All participants were 55 or older.
- Participants had an average income of less than \$15,000 per year and most (79%) did not live with a partner.
- More than half of the respondents were African American (62%), followed by white (20%), Asian American (9%) and other (9%).
- In general, they reported good physical and mental health; only 15% described their health as fair or poor.

The surveys asked how participants normally use existing transportation options, and what perceived barriers and concerns they had around using personal vehicles, public transit, paratransit, ride-hailing, rides from family/friends, and walking or biking. Surveys also asked how likely they would be to use additional modes or mobility services in the future. In addition to the surveys, researchers conducted in-depth phone interviews with 18 respondents to learn more about their daily activities specifically during the COVID-19 pandemic. Using the combined data, researchers developed

two mathematical models (a latent class cluster analysis and an agent-based model) and conducted content analysis to understand low-income older adults' mode choice decisions, adoption likelihoods based on their barriers to existing mobility options, and socioeconomic characteristics.

MOBILITY DURING THE COVID-19 PANDEMIC

Through the interviews during the pandemic, the research team found that both drivers and non-driver older adults **reduced their trip frequency and depended on family and friends for essential needs.**

In particular during the pandemic lockdowns, **older adults developed their fear of using public transit and paratransit because they were concerned about other passengers not maintaining social distance.** One of the noticeable differences is that more older adults started to use ride-hailing services and some even preferred it to public transit.

Two themes emerged when talking about the pandemic: (1) sedentary behaviors, and (2) the negative impact on mental health and social well-being. Many participants said restrictions against congregating, gatherings, and group exercise at senior centers affected their overall health.

"I can't volunteer anymore. That was something to do every day. COVID-19 is scary. I am not able to move around like I used to do. I am walking less. Oh, I might get a little stiff from sitting. I have arthritis, so sitting don't help that much. Sometimes I just get up and walk from the front to the back [of the house]."

COVID-19 influenced not only physical health but also the mental health of older adults. Although many participants

stayed in touch with their family and friends, they mentioned that they felt lonely because of the limited physical contact with others.

“Lonely... You can’t go uncovered, but [family members] they’re trying to stay safe as well. And I only have one son here. My kids call and check often, but it’s not like looking in their face and getting a hug and all that.”

However, the study participants showed resilience to adversity:

- First, technology served as an individual-level protective factor against this novel disease.
- Second, their social environment, including both informal support from family members and neighbors and formal support from community organizations, created a buffer against loneliness and social isolation.
- Lastly, living in a walkable built environment was identified as a protective factor to keep older adults active and healthy.

STRATEGIES TO IMPROVE OVERALL MOBILITY

Based on the survey and modeling findings, the final report offers recommendations for agencies and practitioners to promote safe, affordable, and efficient mobility for low-income older adults:

Through planners and policymakers, promote and design transportation alternatives for older adults so that they’re able to maintain their level of independence and health even after they are unable to drive themselves. Car-dependent groups have a high dependence on driving and little to no interest in using other mobility options. Such high dependence results in a mobility gap when they no longer drive.

Develop policy strategies to inform older adults about transportation options via their employment or child-care systems. Results showed that having a child and being employed were both negatively associated with public transit usage. Expanding their knowledge and reducing social barriers through familiar systems can mitigate that.

Develop person-centered strategies that would serve

different needs and gaps among older adults, since financial and technological barriers may vary between individuals. Collaboration between transportation professionals and social workers is important to capture diverse perspectives.

Provide education and training through public assistance programs for low-income seniors. Findings showed that lower-income older adults’ knowledge of available transportation resources were low, and the surveys highlighted that most of the participants did not use technology or internet resources to obtain transportation information.

Expand affordable door-to-door mobility options, like community-driven ride-hailing and vanpooling. Results from the agent-based modeling suggest that riding with familiar people from the community via a volunteer driver program offers social connection. Therefore, starting volunteer driver programs in urban areas could add tremendous value to the lives and well-being of older adults.

ABOUT THE AUTHORS

The research team consisted of Kate Hyun, Caroline Krejci, Kathy Lee, Nilufer Oran Gibson and Troyee Saha of the University of Texas at Arlington.


ABOUT THE FUNDERS

This research was funded by the National Institute for Transportation and Communities, with additional support from The Senior Source and the University of Texas at Arlington.

THE REPORT and RESOURCES

For more details about the study, download the full report *Developing Strategies To Enhance Mobility And Accessibility For Community-Dwelling Older Adults* at nitc.trec.pdx.edu/research/project/1304

Photo by bee32/iStock

 The National Institute for Transportation and Communities (NITC) is one of seven U.S. Department of Transportation national university transportation centers. NITC is a program of the Transportation Research and Education Center (TREC) at Portland State University. This PSU-led research partnership also includes the Oregon Institute of Technology, University of Arizona, University of Oregon, University of Texas at Arlington and University of Utah.