



**AGING IN PLACE – CREATING A LIFE-SPACE MOBILITY TOOL**

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*“What does ‘Aging in Place’ mean to you?”*

*“Whether I can live comfortable and safely in my own home but also be able to go places.”*

*“Being able to stay in your home, not going to a care facility... I would not want to do that, I would prefer staying here as long as I can. As long as I can keep the house.”*

*“Staying in my own home.”*

*“It’s hard, it’s a challenge, when you’re young, you don’t ever dream all these things are going to happen to you, you just learn as you go.”*

*“Aging in your home... I’m not leaving, so at this point I wouldn’t move.”*

*“Being able to stay in my own home for as long as I can.”*

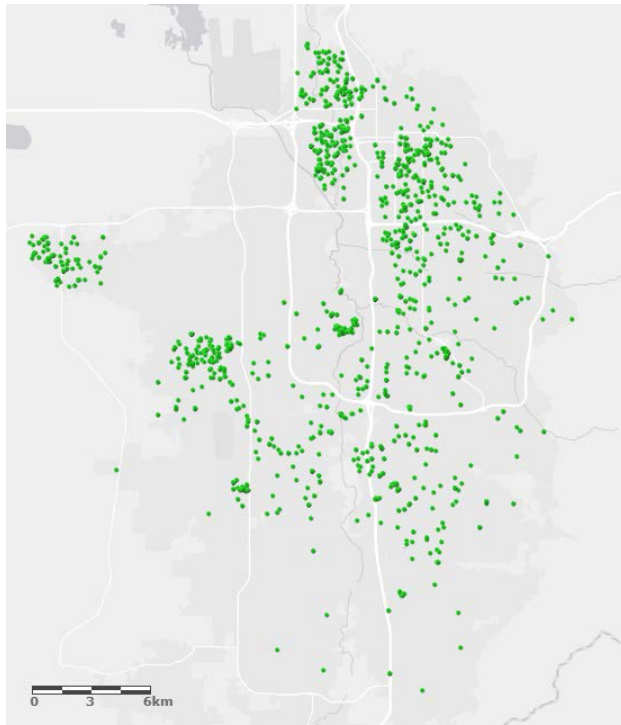
When asked what it means to “age in place,” interview participants gave several definitions (above). There was a consensus found among all participants that independently living in their own home was essential to aging in place. But what exactly goes into aging in place and how is it successfully achieved? By determining key factors in the home, neighborhood, and region that are necessary to aging in place, we can then create a life-space mobility assessment tool that will benefit those individuals seeking to remain in their homes for as long as they can. Our research looks at individuals and families who are dealing with disabilities or aging and who have made attempts to modify their homes to allow them greater mobility inside their own homes and to help them connect with their community and the surrounding built environment. By understanding the barriers and challenges of these individuals to comfortably remain in their homes, we can know how to help them have the independence they need with maximum mobility.

**Literature Review**

Our society is undergoing mass change as the general population ages, shifting the population pyramid, therefore financial and other support networks must change in kind to maintain economic efficiency while at the same time encouraging healthy aging. The CDC (2006) defines healthy aging as, “the development and maintenance of optimal physical, mental and social well-being and function in older adults.” The environment is becoming a major determinant of health as practice and research in public health progress. About the environment as a factor of health, Satariano and associates (2012a: 328) wrote, “Place’ in all of its various forms, represents a

spatial entrée for promoting and preserving health, mobility and longevity... environmental interventions represent effective and efficient ways of ‘moving upstream’ to promote health and well-being in populations.”

Mobility plays an essential role in preserving and maintaining well-being. Mobility can be defined as, “relative ease and freedom of movement in all of its forms” (Satariano et al. 2012b: 1). It is much more than simply one’s ability to walk from place to place, mobility is motivated by purpose, which depending on the barriers existing in the environment like proximity to destinations and sidewalk connectivity, that makes up the full extent of the mobility of the individual. How the environment effects one’s mobility is complex, consisting of factors such as: transportation, neighborhood boundaries, housing quality, and pedestrian walk-ability, to name only a few. Living in homes and neighborhoods where support can be received is necessary when considering the quality of life of the growing older adult population.



### Research Methods

Initial collection of data was provided in partnership with Assist Inc., a local, non-profit, community design center of Salt Lake City, that has specialized in emergency home repairs and accessibility retrofits for low-income house-holds since its founding in 1969. For this research, the University of Utah contracted with Assist Inc., granting access to their client database of past repairs and accessibility projects. After organizing the data by municipality and date of modification, it was found that out of the 11,997 projects completed by ASSIST from 1999 to 2016, 5,071 were funded by Salt Lake City, 4,076 by Salt Lake County, 543 by Sandy, 742 by Taylorsville, and 933 by West Jordan. These projects and their locations were then mapped using GIS.

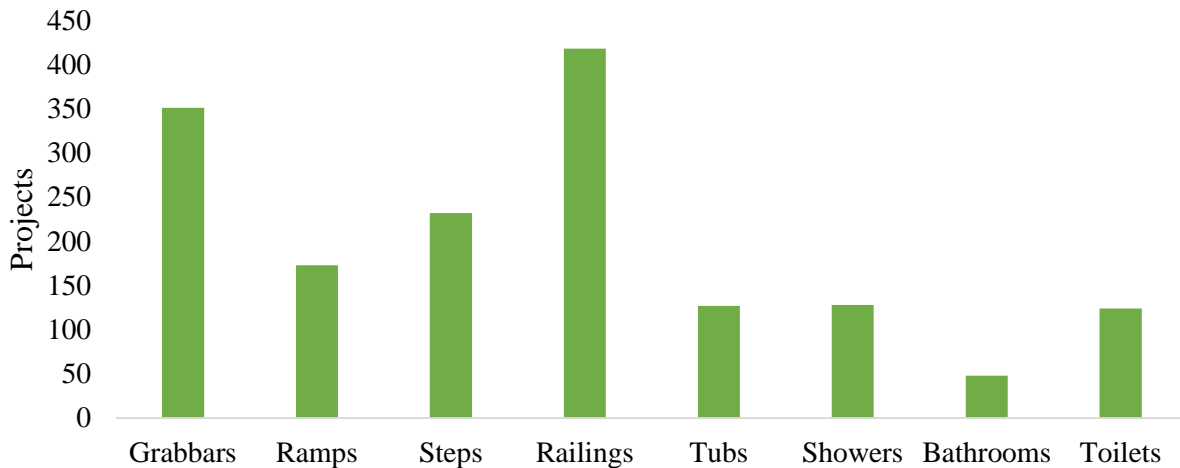
*Photo- Map of Accessibility repairs in SLC, UT*



*Photos- Ramp installations designed by Assist Inc.*

Plumbing repairs were the most recurring of the project types with 5,143 repairs. Additional projects include 2,680 roof repairs, 1,397 accessibility modifications, 943 electrical repairs, 880 furnace repairs or replacements, 625 projects involving structure or extermination, and 303 projects to repair windows. Other interesting findings included the distribution of sex, ethnicity and race of the clients with 71% of the individuals receiving home modifications being female with 29% male, 80% identified as Non-Hispanic with 19% Hispanic, 87% identified as White, 3% as Black, 2% as Asian, 2% as Pacific Islander, 1% as American Indian, and the remaining 5% as Non-White, mix/other or not recorded.

### Accessibility Modifications Since 1999



*Chart- Accessibility modifications completed by Assist Inc.*

By focusing solely on the 1,397 accessibility projects completed by Assist between 1999 and 2016, we were able to target our research towards those individuals specifically benefitted in terms of mobility. The break-down of those projects included 351 grab bars installed, 173 ramps, 232 low-rise steps, 127 accessible tubs, 128 walk-in or curbed showers, 48 bathroom retrofits, 124 high-rise toilets, and 418 railings, with each of these modifications having some level of benefit to individuals of low-income who struggle with disability or aging difficulties. GIS was used to map the locations of the home modifications to find walkability and transit scores and to examine the distinct geographies that set the stage for the mobility of the residents across Salt Lake County. We wanted to know 1) how these accessibility retrofits by Assist and other modifications (self-funded or otherwise) have helped them in terms of mobility or to stay in their home and 2) what was their perspective and experience of their home, neighborhood or surrounding built-environment and what challenges or barriers exist to their mobility in this context.

For this purpose, a survey was created with the aid of Alan DeLaTorre, Ph.D. Research Associate Coordinator of the Senior Adult Learning Center, Institute on Aging in the College of Urban and Public Affairs at Portland State University, who is also conducting this survey in partnership with Unlimited Choices Inc. To achieve our set goal to interview a minimum of 25 individuals, a sampling method was developed to refine the list of possible interviewees. Only those who received home modifications within the last 10 years and who are currently between the age of 65-100 were considered for interviews, this way we were able to find only the most recent and relevant participants. Before asked to answer any questions, every participant is asked to fill out a consent form, of which they are given a copy. The survey is

broken down into three sections: interview questions, survey questions, and a brief demographic survey. The interview questions are in a more free-response format allowing the participant to speak about their experiences and opinions of their home and neighborhood while being video or audio recorded, if consent is given. One of the questions, “What does ‘Aging in Place’ mean to you?”, is shown above. Other questions in this section include: “How would you describe your life before and after the modifications?”, “Tell us about your mobility in your neighborhood on a typical day.”, “What kinds of changes in the built environment will maximize your mobility?”, and “Tell us what would be the key challenges and opportunities to age in place.”.

The next section of survey questions attempts to pinpoint the level of independence and mobility of the individual and what things in the built environment either inhibit or promote their mobility in their home, neighborhood, and region. Included are questions regarding transit use, daily activities, proximity or access to services like stores, libraries, healthcare, etc., and traffic hazards, among other things. Also included in this section is the Neighborhood Environment Walkability Scale (Saelens, 2003), the Life-Space Assessment (Peel, 2005) and the Instrumental Activities of Daily Living Scale (Lawton, 1969). The NEWS, LSA and the IADL were all created to assess levels of mobility in individuals within their home and neighborhood.

### **Preliminary Findings**

Early findings suggest that only 16% of participants are within walking distance to a grocery store, 40% are within walking distance to a transit stop, and only 25% of the participants live within walking distance to a park. Being within reasonable distance to places from the residence is a large part of mobility, but only 40% of individuals interviewed have a walk score over 50. This means that in the lives of the other 60% of individuals, distance becomes an extreme barrier to their mobility by decreasing purpose. If there is no where to walk to, eventually walking outside the home will cease altogether.

When asked what they liked most about their current home, participants generally stated that housing affordability, housing quality, and personal safety and security were the most desired attributes in a home. What was found lacking across the board was a sense of personal safety and security, accessible design of home, and aesthetics. It does not matter so much if the home is affordable to live in so long as there is high crime in the neighborhood, busy or unsafe street traffic, and if the home itself does not support an aging lifestyle and limited mobility. It was found that the majority of individuals interviewed get from place to place by having a family or friend drive them and by walking or sometimes driving to their destination. Very few participants stated that they are inclined take various forms of available public transportation. In response to what would make them ride public transportation more often, the majority of comments were “If transit stops were easier to get to from my house,” and “If transit had more comfortable waiting places.”

Nearly 75% of all individuals interviewed have lived in their homes for over 20+ years. The ability of an aging individual to remain in their home is an extremely important factor for creating an environment that will encourage healthy aging. After all interviews are completed and responses recorded, we will have more definitive data regarding crucial influences on the mobility of individuals who are experiencing aging.

### **Conclusion**

Data compiled from these interviews will aid us in developing a Life-Space Mobility Tool which will look at the situation of the resident and the context of their built environment to determine the best possible interventions to be made in their home or neighborhood that will allow them to

achieve maximum mobility thus giving them the tools necessary to healthily age in place. Dr. Ivis Garcia Zambrana has said about making housing and spaces for elderly accessible, “providing affordable housing to older adults should not be the endgame...more must be done to expand the parameters of aging in place to include amenities that encourage human activity and meaningful engagement among all residents, young and old.” (Zambrana, 2017). It is not enough to consider modifying the home as a solution to this issue, This research and the amazing work of Assist Inc. has benefitted many home owners’ lives and has incredible potential to redefine how we view independent aging.

Salt Lake County has already made steps to follow the example of Assist and has used this research as a springboard to organize an initiative of their own, Aging in Place Salt Lake, which will specialize in providing low-income residents with accessibility modifications in their homes. It is hoped that this research will allow us to better understand the difficulties and challenges that we each face or will face to staying in our homes because of disability or aging and will help us determine future solutions that can be more readily available to all individuals in this regard to Aging in Place.

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