Reducing Social Isolation in Affordable Senior Housing using Voice Assistant Technology

**Categories**

- Prolonging Independence/Aging in Place
- Functional/Health Outcomes
- Staff Efficiencies
- Reduce feelings of loneliness
- Increase social networks

**Organization Name**

AARP Foundation

**Organization Type**

Non-profit organization, focused on senior poverty

**Other Partners**

Providers of affordable senior housing, experiential learning program developers, and voice-activated software developers.

**Organization Description**

AARP Foundation works to end senior poverty by helping vulnerable older adults build economic opportunity and social connections. As AARP’s charitable affiliate, we serve AARP members and nonmembers alike. Bolstered by vigorous legal advocacy, we spark bold, innovative solutions that foster resilience, strengthen communities and restore hope.

**Project Description**

A growing body of research indicates that older adults experience significant stress and risk for isolation and loneliness as they transition to senior housing—and that isolation prevalence rates in senior housing are around 1 in 4 residents (26%). AARP Foundation initiated a pilot program to investigate the viability of using hands-free, voice-activated technology to maintain sustained social connectedness for low-income older adults, age 50+, living in independent housing or federally subsidized rental properties.
System Embodiment

Voice-activated devices, voice-activated skills, and training through a train-the-trainer model.

Business Model

Software as a service model

Implementation Approach

AARP Foundation collaborated with three senior housing providers to implement the pilot across five communities in Baltimore, Maryland and Washington, D.C. Implementation included six key components:

1. Program guidance for implementation & installation of voice-activated technology
2. Facilitated bulk purchasing of devices
3. Staff & volunteer training
4. Basic training curriculum and educational resources
5. A suite of specialized voice-activated skills for social connectedness and resident engagement
6. A web-based community management platform for resident services staff.

Outcomes

To assess outcomes, pilot participants completed baseline and post surveys that included the 10-item Duke Social Support Index (DSSI), three questions from the UCLA Loneliness Index, and questions about participants’ experiences, internet and device usage, self-efficacy using voice-activated technology, and Net Promoter Score (NPS).

The sample size for this survey was 189. Of those, 59 participants were “true matches,” meaning they completed both the baseline and follow-up surveys.

Key Findings

The focus is on the change in DSSI scores from baseline to follow-up among true matches.

- Social interaction score: The social interaction subscale contained questions about social engagement with other people.
  - More than half of participants who completed both surveys scored higher or equal to their baseline at follow-up.

- Subjective social support score: The social interaction subscale contained questions concerning perceived availability of support.
  - More than half of participants who completed both surveys scored higher or equal to their baseline at follow-up.

- Loneliness score: The loneliness score was determined using the UCLA Loneliness Scale.
  - Overwhelmingly, participants who completed both surveys showed decreased feelings of loneliness at follow-up.

Testimonials

“Initially, it was a program that really pulled some neighbors together around just the excitement of bringing a new technology to the building, and we have found that those that were our early adopters to sign onto the program had such a good time with learning the new technology and felt really good about adopting something new. Then, they were able to talk about it with their neighbors. Just having a project like that that felt so new and fresh, but was also designed really for them, and to make their lives better was just a really positive thing for the residents to rally around.”

—Lisa Budlow, Chief Executive Officer, Comprehensive Housing Assistance, Inc.

“I have heard a lot recently about the affects of social isolation and I know that people in affordable housing are at higher risk, and I wanted to do something for our residents. I felt that this would be a great way to do it.”

—Tiffany Nicolette, Vice President of Aging in Community, Comprehensive Housing Assistance, Inc.

“Right now we’re going out and delivering notices in each apartment and that’s time consuming. So it’s made my job a lot easier, because now we can use technology in ways that we were not able to use before, for the purpose of communicating to this population. It has freed up time for me personally to do other things because the residents who have the Echo Dots are more self-sufficient, so they’re not coming to me as much because they’re doing things on their own. They now have an interest in learning more about technology”

—Carolyn Peoples, Resident Services Coordinator, Comprehensive Housing Assistance, Inc.
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“I like the idea of teaching my neighbors and helping them use this incredible technology. From a senior’s standpoint, it is one of the best things that a senior can have.”

—Ms. Shirley, 71; Community Resident and Volunteer Facilitator, Weinberg Place

Challenges and Pitfalls to Avoid

Lack of connectivity:
Wi-Fi access is an essential prerequisite to the implementation of voice-activated technology and not all senior housing communities are Wi-Fi enabled. Among those communities where access is available, service fees may be unaffordable for low-income seniors and could pose a barrier to participation.

Technophobia:
While tech adoption among older adults continues to rise, misperceptions about seniors’ interest or ability to adopt new technology is widespread. Inaccurate notions and perceived technophobia can contribute to a reluctance to embrace this approach.

Perceived complexity of implementation:
Capacity among resident services staff to introduce new programming within a community can be limited. The program design takes this into account and contains features that build staff capacity, however, there was some initial concern among housing providers that establishing the pilot would be too complex and/or time-consuming.

Lessons Learned/Advice to Share with Others

Value of the shared journey of learning:
Hands-on experiential learning creates a fun and engaging way for residents to increase their comfort with and knowledge of devices, apps and skills. This shared journey of learning also creates a powerful point of connection for community residents.

During the pilot, residents that did not previously interact with one another were able to form new relationships and connections. We found that after the training was complete, participants continued to gather to play games, share music, and collectively discover new skills that enhanced their everyday lives.

Importance of training:
Older adults benefit from robust training and wraparound education resources in order to fully adopt and use voice-activated technology. With this approach, even residents that were initially wary of their abilities soon became engaged and eager to learn more. Connected Communities developed a train-the-trainer model that allows organizations to implement voice-activated technology in a sustainable, cost-effective way that also builds technical support capacity right where people live.

Merits of pilot design and delivery:
The pilot was intentional about creating and delivering curriculum developed at a pace and with language that was accessible and relevant to seniors. Multimodal support and wraparound services available to both providers and participants throughout the pilot helped ease administrative burden and foster smooth implementation within communities.