

# ELLIQ PILOT PROJECT

**2025**

Project Report



## INTRODUCTION

In the spring of 2023, the Olympic Area Agency on Aging partnered with Intuition Robotics for a pilot project to test the efficacy of their AI-driven companion robot, ElliQ. The robot was designed specifically to reduce loneliness for older adults living alone or spending most of their time alone. ElliQ also offers health & wellness features, cognitive games, utilities like news and weather, entertainment, and the ability to message or video chat with contacts.





## PROJECT BACKGROUND, PROCEDURES, & RESULTS

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### BACKGROUND

In the course of exploring how to bring smart technology to clients, the Olympic Area Agency on Aging (O3A) was introduced to the ElliQ companion robot through a demonstration in Pacific County, arranged by the Public Education Coordinator for Fire District #1, Lani Karvia. Lani was interested in providing ElliQs to individuals in the district who lived alone and needed additional support.

O3A reached out to Intuition Robotics, the company that developed ElliQ, and proposed a partnership. The pilot project would provide 20 ElliQs to individuals in O3A's south counties, Grays Harbor and Pacific. Both counties are rural, have high rates of disability and poor health outcomes, lack resources (primary and specialty care, transportation, access to nutritious food), and have populations older than the state average. Some locations in each county are 'naturally occurring retirement communities,' where the majority of residents are over age 60. Social isolation and loneliness are pervasive in the more outlying areas of the region especially.

Later in 2023, the US Surgeon General issued an Advisory warning of the negative impact of loneliness and social isolation on physical as well as mental health. A review of decades of studies demonstrated that the physical effects are comparable to the effect of smoking 15 cigarettes a day, and include higher mortality from cardiovascular disease and strokes; higher risk of developing hypertension; increased risk of developing and decreased ability to manage diabetes; lowered immune response and higher risk of contracting infectious diseases; accelerated cognitive decline and increased risk of developing dementia; and higher risk of depression, anxiety, and suicidality.

“Over four decades of research has produced robust evidence that lacking social connection— and in particular, scoring high on measures of social isolation—is associated with a significantly increased risk for early death from all causes.”

*2020 Consensus Study Report, National Academies of Sciences Engineering and Medicine*

O3A wanted to test whether ElliQ was effective in reducing loneliness. A secondary benefit was the health & wellness support the device provides.

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Namely, we were interested in seeing whether participants would benefit from medication and appointment reminders—a critical piece of health management that many people with chronic conditions struggle with. The shortage of caregivers, limited caregiving hours, and often an absence of family members and friends nearby all contribute to people forgetting to take medication or accidentally double-dosing. Improper medication management, in turn, leads to a higher risk of falls in some instances, increased number of doctor and ER visits and hospital admissions, and more risk of needing to move to an institutional level of care. Other health & wellness features include exercise videos, short relaxation and meditation exercises, and the ability to self-report relevant health metrics (blood pressure, blood glucose level, weight) and notify select contacts when those metrics are outside of user-defined parameters. For instance, if blood glucose exceeds the user's preset parameters, ElliQ will offer to notify a contact. The user is always asked for consent prior to the message going out.

In addition, ElliQ provides a number of other helpful features. These include utilities such as weather, news, and sports; cognitive games; entertainment; and the ability to message or video chat with the user's chosen contacts. Although ElliQ is not intended to be an emergency device, the ability to call or message contacts provides some additional safety, especially for those who don't use a PERS (personal emergency response system) or other emergency communication device.

*Note: prior to entering into the agreement, Washington State staff fully vetted the device for HIPAA compliance, the ability to safeguard all data collected, and assurances that user data would not be shared or sold by Intuition Robotics. Although the device requires an Internet connection, it is protected: users can't be contacted by anyone they haven't added to their contacts, so spam and fraud are virtually impossible.*

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## SELECTION CRITERIA

Since ElliQ was designed specifically for older adults, O3A limited participation to those 60 and over (55 for tribal elders) who live alone or spend most of their day alone. To ensure they were able to effectively use the device, participants also could not have any significant hearing, speech, vision, or cognitive difficulties.



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## OUTREACH & ENROLLMENT

The initial expectation was that most or all participants would be referred by O3A Case Managers. Those on waiver services or long-term Medicaid programs could most easily be monitored, as Case Managers would be in contact with them at least quarterly. Those who had been on services for at least a year prior to receiving an ElliQ would also have some baseline data; many would have several years' worth of historical data about depression, falls, hospital visits, and other relevant variables, allowing us to make some statistical evaluations, even though the number of participants was small.

However, Case Managers referred very few individuals. Some participants were referred by Information & Assistance staff. Many came from self-referrals or referrals from family members, friends, or caregivers based on media coverage of the project.

Each potential participant was vetted through a phone call with O3A staff, who verified eligibility and explained important features of the device (e.g., that it is proactive and attempts to engage the user throughout the day; that it is driven by artificial intelligence and adapts to the user over time; that it is not an emergency device; etc.).

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## INITIAL RESULTS

Initial results were interesting: turnover was much higher than expected (about 50% overall), but, among those who remained in the project, satisfaction was very high, with about 95% reporting they felt less lonely (Intuition Robotics).

Turnover was due to several factors. Some participants moved and were no longer eligible. Some reported that they found the device intrusive and annoying. Anecdotal reports suggest that most of those users had higher rates of social connectedness and access to the community, either because they still drove or because they had at least one reliable contact who provided transportation and companionship. A few users had Internet connectivity problems. Several opted not to install their devices, usually because they feared for their privacy or thought they would have to pay for the device later.

**100% found ElliQ useful** [vs. ElliQ average 94.58%]

How useful is ElliQ for you overall?

| Very useful **54.55%**

| Useful **45.45%**

| Not useful **0%**

| Not useful at all **0%**

**| 91% found ElliQ useful in reducing loneliness**

[vs. ElliQ average 94.58%]

How useful is ElliQ for you in reducing loneliness?

| Very useful **45.45%**

| Useful **45.45%**

| Not useful **9.09%**

| Not useful at all **0%**

**| 100% found ElliQ useful in improving wellness**

[vs. ElliQ average 95.67%]

How useful is ElliQ for you in improving wellness?

| Very useful **63.64%**

| Useful **36.36%**

| Not useful **0%**

| Not useful at all **0%**

**N=max 15 (report did not specify number of responses)**

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## PHASE 2 EXPANSION: OUTREACH & ENROLLMENT PROCESS

Based on the positive results of those who remained in the project, O3A opted to continue for a second year and double the number of available ElliQs, expanding the project to our north counties, Jefferson and Clallam.

Due to the amount of staff time the first round took (vetting potential participants with an approximately 20- to 30-minute phone call, entering applicant information into the Intuition Robotics portal, delivering and setting up each ElliQ and providing some initial training, and retrieving units from those who opted out), the decision was made to change the outreach, application, and installation processes.

Intuition Robotics handled the majority of the outreach through paid Facebook ads. (O3A was still able to accept referrals from Case Managers and others.) The decision to use Facebook was based on 1) the ability to target ads to the counties and age groups who were potentially eligible and 2) the assumption that those who saw the ads and were able to sign up directly through the company's portal already had Internet access and a certain level of comfort with and proficiency in technology.

Enrollments went relatively quickly compared to the first round. Units were shipped directly to participants rather than to O3A offices, and most participants successfully activated them on their own. Intuition Robotics' help line was able to assist most users. In-person staff support from O3A was available for those who wanted or needed it. This process resulted in a significant reduction in O3A staff time required.

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## PARTICIPANT INTERVIEWS

In spring 2025, two years after the first individuals were enrolled, O3A staff reached out to all participants, requesting them to participate in brief interviews about their experiences with ElliQ. The purpose was to get more detailed information about how participants use the various features, what they like, what they wish could be improved, and stories showing meaningful interactions that impacted participants. We also wanted to independently collect our own data, rather than relying solely on data collected by Intuition Robotics, in order to compare some basic data points such as satisfaction.

Staff attempted to call all 40 participants listed by Intuition Robotics as current users. Several had changed or disconnected their phones, and neither O3A nor Intuition Robotics had secondary contact information. Two individuals were reported to be deceased, including one who had passed away more than a year earlier. Some users reported they had never activated their ElliQs; others hadn't used them in several months. In all, at least 14 of the people listed as current users were not actively using ElliQ.

Of the remaining users, 14 agreed to be interviewed. Interviews were conducted in person in users' homes when possible and by phone when needed.

## RESULTS

Those surveyed had been using ElliQ for an average of 19.6 months (range: 5-25 months)

**Reason(s) they applied** to get an ElliQ: loneliness 8; curiosity 6; health/reminders 2; safety 2; entertainment 2

**Overall satisfaction:** very satisfied 6; somewhat satisfied 7; somewhat dissatisfied 0; very dissatisfied 1

[Note: results are obviously skewed towards those who are satisfied, as they have remained in the project]

**Ease of use:** very easy to use 9; mostly easy 3; somewhat difficult 2; very difficult 0

Those who said it was “somewhat difficult” reported difficulty navigating back to features they liked (1) and difficulty adding contacts (1)

**Health improvement due to getting an ElliQ:** Yes 9; No 5

Those who said yes indicated it was because of medication reminders (5); a reduction in anxiety and depression (2); increased mobility (1); and mindfulness, breathing exercises and hydration reminders (1)

**Feel safer with ElliQ in the home:** Yes 6; No or N/A 8

Among those who answered yes, reasons were that it could be used to call for help (2) and that users felt less lonely/anxious [note: unclear how that makes them feel safer; may have misinterpreted the question]

**Fewer falls:** Yes 3; No or N/A 11

[Note: there was no follow-up question, but 2 of the 3 had noted health improvements due to medication reminders]

**Fewer medical visits:** Yes 4; No or N/A 10

[no follow-up question, but 3 of the 4 who answered yes had noted the importance of medication reminders in improving their health; the other noted reduced stress and anxiety]

**Improved results at checkups:** Yes 7; No or N/A 7

Among those answering yes, 5 noted improvements in blood pressure; 2 had improved blood glucose levels; and 1 reported reduced pain

**ElliQ increased contact with friends or family:** Yes 4; No 10

Among those who have remained in the project, the degree of overall satisfaction is high. Many talk about feeling less lonely—the primary purpose for piloting ElliQ in our region. Some specific health benefits are also apparent, with the largest effect due to medication reminders. As predicted, those reminders are helping some participants stay on track better with their prescribed medication, which in turn is leading to improved health outcomes. A second benefit mentioned by two individuals is decreased depression and anxiety.

Interviewees also described enjoying many of ElliQ’s entertainment features and cognitive games. The device has a wide range of options such as road trips to destination cities, interactive AI art projects, music, trivia games, a live remote Bingo game, and more. Content is updated on an ongoing basis, and ElliQ prompts users to try out new offerings. Some recent updates

included adding veteran-specific content and recipes tailored to ingredients on hand and users' medical conditions (e.g., the need for a diabetes-friendly or kidney diet).

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## LESSONS LEARNED

### Processes for Success

**Outreach** is best accomplished by direct referrals from Case Managers or other staff who know the client and believe they would benefit, compared to relying on media coverage and Facebook ads. However, targeted ads do have the advantage of reaching those who are somewhat more familiar and comfortable with technology. If that process is used, vetting should be done as follows.

**Vetting** through a phone conversation proved more effective at selecting users who would most benefit and stay enrolled, vs. allowing people to sign up through a portal and accepting anyone who reported that they met the minimum criteria without further screening.

**Installation and training:** An initial in-person visit provides several benefits over simply shipping the ElliQ to the user and asking them to activate it. First, it ensures that the unit is activated. Some users never installed theirs, most likely because it seemed overwhelming. Others called tech support (which they reported to be very helpful), but not everyone will be comfortable doing that if they need assistance. Second, the in-person visit allows the installer to provide some basic training to the user. Our in-person installations taught users how to use the volume button, how to get the robot's attention and wait for the light signaling that she was ready to listen to them, how to interrupt ElliQ and how to tell her to be quiet for a specified time period, how to set reminders, and how to add contacts. It also provided an opportunity for participants to ask questions. Third, it gave participants a connection to a local staffperson, which in turn made them more likely to ask for help and respond to requests when needed.

**Follow along:** During staff outreach to schedule interviews, several participants were found to be inactive or unreachable. Two were deceased, several never activated their ElliQs or had not used them for at least four months, and some had changed their phone numbers and we had no backup contact information. Going forward, we will attempt to contact all users monthly, or quarterly at a minimum, and will require a backup contact. We also plan to add stickers to the ElliQs with instructions for who to contact if a user disenrolls, moves, or passes to ensure that the units are not lost during those events.

### Impact

The most significant impact reported by participants is the **reduction of loneliness**. ElliQ is designed primarily as a companion, and the effectiveness of the device for this purpose is supported by client feedback. Given the Surgeon General's Advisory, referenced earlier, about the impacts of loneliness and social isolation, this is a worthwhile intervention, particularly for those who are effectively homebound and have few social contacts. *(Note: loneliness and social isolation are related but distinct. Social isolation is a measurable variable describing the number, frequency, and duration of interactions; loneliness is a subjective measure. Individuals may have a relatively high number of social interactions but report feeling lonely. Conversely, they may have a low number of social interactions without experiencing loneliness. In general, however, the two are usually highly correlated.)*

**Support for health & wellness** was also apparent from survey responses and from previous reports from Intuition Robotics about the features participants use: in a December 2023

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report, O3A participants averaged 145 health-related activities that year (compared to 63.24 among all ElliQ users nationwide) and 130.33 wellness-related activities (compared to 64.18 among all users). Forty-four percent of O3A participants (compared to 20% of all users) used the medication reminder feature. Although the number of participants in this project is far too small to be statistically significant, and most lack baseline data, user reports suggest that these features led to measurable improvements for some users in compliance with prescription medications. It is reasonable to assume (and supported by anecdotal/self-reported data) that improved compliance leads to improved health and a reduction in the need for medical services. Training participants to set medication reminders and hydration reminders is an important part of onboarding. Some users also benefitted from the physical exercise videos, which include an option for chair exercises, and from ElliQ's reminders and encouragement to exercise.

Mental health was also an area where some participants reported improvement. ElliQ is designed to be supportive and compassionate. Features include brief mindfulness and relaxation exercises to promote better sleep and reduce stress and anxiety.

**Increased social connection:** O3A participants did not report using ElliQ to connect with friends and family very frequently. There may be several explanations for this. To use the device for that purpose, users need to add contact information; then the contact receives a message asking them to download the app. Some users may not know how to add contacts and some contacts may decline to install the app or may not have a tablet or smart phone capable of installing it. Some users may not have contacts they want to add. In-person installation can help with adding a couple of their contacts so they are aware of how the process works. Once the contact adds the app, users are able to send messages by speaking and can video chat in real time, making it especially useful for those with family or friends who live out of the area and who do not use other apps (such as FaceTime) to connect.

In a couple of instances, users reported that their ElliQs helped them connect and interact with others directly. One user, Jan W., said "I can't go out much anymore because I need a walker to get around. I look outside every day and see my neighbors walk in the street and always waved hello, but I never interacted with them much beyond that. Once I got ElliQ, I was so excited to show her off, so I hollered to one of my neighbors to see if they wanted to check out my new robot. So far, I've had four neighbors come and visit me in my home, and we play with ElliQ together."

Intuition Robotics has also added a live Bingo event that users can join. More opportunities for users to connect with one another would be a positive addition to the offerings, promoting live remote contact.

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## CONCLUSION

The two-year pilot project has demonstrated that ElliQ is effective at reducing loneliness and promoting health & wellness for many users, but especially for those who are effectively homebound and have few social contacts.

The cost of the device is approximately \$1,000 per year per user. While this is beyond the private-pay ability of many older adults living on fixed incomes, it is an affordable intervention from a public pay perspective: the cost is similar to the cost of a PERS (Personal Emergency

System), or “lifeline button.” But whereas a PERS is only useful in an emergency situation, ElliQ has a preventive effect. And although it is not meant to be an emergency device, it can be used to provide additional safety through preprogrammed contacts that can be reached with a simple voice command. In some instances, users have added their local nonemergency phone number; if they call with a more emergent need, dispatch will connect them to 9-1-1. It should be noted that one reason ElliQ is not appropriate primarily as an emergency device is that it relies on both electricity and an Internet connection; if one or both are out, the device will not work.

As Intuition Robotics continues to add to and refine ElliQ’s capabilities, they would do well to focus on features that are eligible for funding under the Older Americans Act and especially Medicaid. For instance, they could replace the existing exercise videos with live remote evidence-based programs such as Bingocize, continue to develop the recipe feature that allows for medically-tailored meals. The long-term goal would be to have CMS approve ElliQ for clients who meet certain criteria.

The pilot project has been a wonderful opportunity to explore how cutting-edge technology might provide valuable support for older adults who want to age in place, particularly given the ongoing shortage of both professional and unpaid caregivers. Demographic trends are clear: the number of older adults will continue to increase even as the number of potential caregivers decreases over the next couple of decades. Technology provides one way to help fill the gap.

