



Lighthouse

Lighthouse: Advancing Digital Health Literacy and Broadband for Affordable Housing and other Residential Settings

> Presentation to LeadingAge California March 8, 2022



UNIVERSITY OF CALIFORNIA BERKELEY DAVIS MERCED SANTA CRUZ



CENTER FOR INNOVATION AND WELLBEING







- Introductions
- Digital Inclusion of Older Adults: Our Call to Action
- Project Overview
- Connectivity
- Infrastructure and Business Services
- Implementation Approach
- Outcomes Lessons Learned
- Resources

Today's Presenters





David Lindeman

Director of CITRIS Health and Director of Lighthouse for Older Adults



Sheri Peifer Chief Strategy Officer of Eskaton



Kari Olson

Chief Innovation and Technology Officer for Front Porch and President of the Front Porch Center For Innovation and Wellbeing

CITRIS: Transferring Research &







CITRIS People and Robots



CITRIS Policy Lab EDGE in Tech

Interdisciplinary work:

- Healthy Aging
- Telehealth
- Digital Health & Robotic Surgery
- Data Science
- Artificial Intelligence (AI) & Machine Learning
- Agricultural Technology
- Mitigating Climate Change
- Robotics
- Aviation and Drones
- Infrastructure Monitoring & Sensing
- Smart Cities (grids, buildings, mobility)
- Expanding Diversity & Gender Equity

Visit us at http://citris-uc.org

Creating information technology solutions for society's most pressing challenges







Mission

To enhance the quality of life of seniors through innovative health, housing and social services.

Vision

Transforming the Aging Experience

Brand Values

- Ethical We believe in doing the right thing.
- Transparent We act responsibly and develop trusting relationships.
- Inclusive We welcome people of all backgrounds, abilities and faiths.
- · Innovative We believe in exploring new ideas and solutions.
- Purpose-Driven We believe in making a positive difference in the lives of those we serve each day.

• 34 Communities

- Affordable housing
- Residential Living
- Rehab and Skilled Nursing
- Home-based Services

www.eskaton.org

Vision

To empower individuals to live connected and fulfilled lives through community and innovation.



Our actions inspire trust and

other with respect and fairness.

We are open, inclusive, honest

confidence. We treat each

and keep our promises.

Leaders unlock potential,

responsibility for strategy

empower others, and share

initiative to do what is right

and achieve high standards.

and results. Together, we take

Everything is changing, from needs

to expectations to the world around

us. To succeed, we must constantly

service excellence and achieving

outstanding customer satisfaction.

adapt and improve, delivering

Build

Trust

Lead

Responsibly

Embrace

Change

Values

Connect Re

We welcome everyone's contributions. Our greatest resource is our people. The relationships we share build community and strengthen us.

Collaborate

Our best performance happens when we learn and grow together. Through listening and communication, we seek input, share ideas, and work as one team to accomplish our goals.

Inspire Creativity We

We do everything Humanly Possible® to create our future. As a team, we take risks and learn from success and failure. We are courageous, open-minded and encourage fresh ideas.

Mission

To inspire and build community, cultivating meaningful relationships and experiences that respond creatively to changing needs.







CENTER FOR INNOVATION AND WELLBEING Exploring innovative uses of technology to empower individuals to live well, especially in their later years



www.fpciw.org



The Elderly are Disproportionately Unconnected. *American older adults aged 65+ are the* **second largest** *demographic group of Americans left behind.*

Older adult demographic by the numbers:

\bigcirc	22
Ŷ	MILLION
ഥ	Without
	broadband
	access



10x MORE LIKELY



with low-

income



40%

Who died from COVID-19 lacked tech resources

AGINGconnected: Exposing the Hidden Connectivity Crisis for Older Adults. https://agingconnected.org/report/



Affordable Housing Providers on Broadband for Residents.

Results from the most recent LeadingAge quarterly survey of affordable housing members sheds light on how providers are faring and key issues they see on the horizon.



Housing Survey Results: Vaccinations, Internet, and Resident Mental Health. LeadingAge. https://leadingage.org/legislation/housing-survey-results-vaccinations-internet-and-resident-mental-health

Project Overview



Technology-enabled health and well-being for low-income California seniors during the COVID-19 crisis and beyond



- A rapidly deployable and scalable digital inclusion pilot program that provides internet accessibility and digital literacy training to improve access to health care services and communication
- Improved health, engagement, information, safety and well-being
- 6 affordable housing communities
- 600 older adult residents

Connectivity



Property-wide Wi-Fi with the initial broadband connectivity preference for fiber, secondarily for high speed coax



- Four completed property-wide resident
 Wi-Fi installations: 3 in Sacramento Valley
 region, 1 in Los Angeles
- Two Wi-Fi installations in progress in Los Angeles and Pasadena

Infrastructure and Business Services



Construction and installation of broadband infrastructure funded through multiple resources



- Grant funding, community HUD budgets, developer fees, organizational commitments and investments
- Average capital investment across 6-communities: \$520
 to \$2,400/unit
- Costs depend on location (urban/rural), building construction, multi-structure layout
- Standard of service as a utility
- ISP/ongoing services from operating budgets



A user-centered approach to identify the perspectives of older adults regarding technology

- Broadband Access for internet connectivity (Wi-Fi, cellular, ethernet, etc.), access devices (laptops, tablets, smartphones, etc.).
- Broadband Affordability to support a building's internet infrastructure needs on an ongoing basis.
- Broadband Adoption through curriculum design and deployment, outreach strategies, and a community-based model that socializes technology learning and support
- Broadband Content is the user's digital destination: meaningful, valuable, relevant, and in-language content to support the health and well-being of older adult users

Implementation Approach: Empathy/Research



To obtain demographic information, self-reported rankings on perceived health and digital literacy



- Over 500 residents across six communities completed an initial survey in 12 languages, which informed the project design at each community.
- Focus group meetings and interviews with residents and staff



Community surveys, focus groups, and interviews with residents and staff, the project's empathy process to help identify the appropriate technology devices



- Larger screens for residents living with low vision
- Good quality speakers or extra headset devices for people with low hearing
- Video chat and voice first capabilities
- Styluses to help with fine motor skills
- Multi-lingual accommodations



Community surveys, focus groups, and interviews with residents and staff, the project's empathy process was critical to helping to identify the appropriate technology devices for the community



- Google Hub Max screen-based devices (Volara)
- Lenovo Yoga Android tablets (CDW, Parker grant)
- Samsung TabA Android tablets
- Amazon Alexa Echo Shows (Amazon)
- Consumer-based vs. Mobile device management (MDM)

Implementation Approach: Peer- and Community-based Learning and Support



To sustain adoption and learning, support the project developed "pods" and small learning groups



- Staff are initially establishing weekly office hours in multiple languages to offer additional technology and social support.
- Resident Ambassadors are identified by service coordinators for their social and technical skills, are first to receive their devices and training 1 to 2 weeks prior to deployment to the full community.



Researchers from UC Davis School of Medicine used data from pre- and postintervention surveys, focus groups, and key informant interviews with participants, staff and project volunteers

Rapid Pilot Deployment (RPD) (n=20)

- Social connectivity increased. Of 100% reported feeling more socially connected, and 95% said their devices helped them stay connected with family and friends; 90% reported feeling less lonely.
- Participants continued using their devices. 90% of participants reported feeling "somewhat" or "very confident" using their devices; 55% used their devices at least once per day. Video calls were the most popular feature.



Jefferson Manor (30- and 90-day marks)

- Depression scores (as measured using PHQ-2) declined over time.
- Use Frequency. 82% of participants reported using their Yoga tablet at least 2X/week.
 Entertainment (watching TV, sports, movies or news, weather), video chat or taking photos, and using Google Translate
- **Challenges learning to use their new devices.** Over half said it was somewhat or very difficult to learn to use their Yoga Tablet. Slight increase in apprehension, confusion, and fear of making mistakes when using their tablets, and their comfort decreased.
- The Lighthouse Training and Resident Ambassador tech support model was well received. 90% were somewhat or very satisfied with tech support. Over 90% found the training classes helpful for learning to use their Yoga tablets, ~85% found the tablet handbook helpful, ~70% received help from a family or friend, and about 50% received help from a neighbor.





Technology encourages in-person engagement and communication. Beyond digital connections with the outside world, in-person communication and engagement also increased in learning more about using their devices, try out apps and translation features, and/or take advantage of office hours and peer learning groups.





- Tailor approaches to meet residents' needs,
 including exploring what those needs are at the
 outset (e.g., language translation, device type). Be
 open to using different devices.
- Support staff within communities to ensure project success. Resident success was boosted by staff roles in encouraging participation and engagement, troubleshooting, and offering insights during planning phases.





- Involve others in supporting residents' learning.
 Resident Ambassadors can build engagement and
 trust while reducing staff burden. Language-matched
 student interns and family members/caregivers also
 have roles to play.
- Language translators are most successful if they can offer support in person and are tech-savvy, with knowledge of the project goals.





- Support residents new to the world of technology by providing intensive, one-on-one, in-language support up front, ideally from a familiar, trusted source.
- Build in time for tech adoption. Tech adoption
 cannot be rushed; it takes time and reinforcement
 (e.g., "booster" classes or a resident-led social
 club to practice using tablets and trying out new
 apps over time).

Resources: State Digital Inclusion Opportunities for Affordable Housing



Infrastructure Investment and Jobs Act (IIJA)

- \$100M (minimum for California)
- Broadband Equity, Access and Deployment (BEAD) Program, \$5M (min)
- Planning, building state office capacity, and to fund outreach and coordination activities with local communities and stakeholders

Resources: Where To Start



- Survey the needs of your residents and staff
- Assess technology readiness
- Build awareness on importance of digital inclusivity with all key stakeholders
- Plan for infrastructure, devices, training and support and ongoing costs
- Tap ALL available resources!
- Be prepared to adapt





LeadingAge Broadband in Affordable Housing: A Guide For Providers Funding for High Speed Internet for Congregate Living SAHF Bridging the Digital Divide in Affordable Housing Communities California All: Broadband for All

And more to come from Lighthouse!

Q/A: Please share any questions for our panelists in the Q&A chat.





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