HIGHLIGHTS FROM THE LINKAGES COMMUNITY EVALUATION   2016

Sutter Health
Palo Alto Medical Foundation

linkAges™

Building healthy communities beyond your doctor's office

Contents

WE BELIEVE

Health is more than health care.

Everyone in a community has something to contribute to each other's health.

Health systems must partner with communities to support each community's unique needs.

linkAges: A Pilot Intervention to Promote Social Health

Sutter Health: Palo Alto Medical Foundation's Druker Center for Health Systems Innovation (IC) developed linkAges, a pilot program that aimed to create a network to connect people of all ages to support individual and community health. The effort was rooted in the belief that the health of a community depends on a variety of factors, many of which happen beyond a doctor's office.

Context

America faces an unprecedented demographic shift that is forcing the health care industry to rethink how to address the needs of older adults. Between 2010 and 2050, the number of Americans over 65 is expected to double to 89 million. From now until 2030, approximately 10,000 adults will turn 65 every day. In 2030, as the last Baby Boomer turns 65, 20% of the population will be considered an older adult. Older adults are much more likely to have multiple chronic diseases, and as such they incur health care expenses three to five times higher than adults younger than 65. Due in part to aging, health care spending is projected to increase by 25% between now and 2030. Meanwhile, Medicare spending is expected to increase to $903 billion in the next ten years. Across the country, health systems and communities are preparing for the shift, studying what models will most effectively keep older adults healthy so that they can successfully "age in place."

Social connectedness is significant for older adults who rely on family, friends or organizations to assist them with daily activities, provide companionship, and care of their wellbeing. Supportive social ties have been shown to: reduce all-cause mortality risk, improve physical health, improve mental health, and decrease health care utilization and associated costs. In a longitudinal cohort study of US adults, loneliness was found to be a predictor of functional decline and death among participants who were 60 years or older.

In this context, two primary factors inspired the linkAges effort:

1) The increasing recognition of the role of social determinants of health, including loneliness, in determining health outcomes.

2) The desire of older adults to avoid institutionalization and "age in place." Older adults need innovative systems and improved support networks to successfully age in their communities.

The linkAges pilot was conceptualized as a multigenerational network to improve the health and wellbeing of older adults by addressing social isolation, loneliness and barriers to aging in community. As the program developed, linkAges also incorporated a focus on healthcare utilization as a proxy for health outcomes. Its overarching approach is to provide opportunities for meaningful connections and empower individuals to improve each other's health.

There were originally four modules that were developed as prototypes in the linkAges network:

linkAges Profile™

linkAges Profile was designed to capture information about an individual's holistic health, including personal goals, social health and interests so each person and their doctors understand the factors impacting their health and wellbeing.

linkAges Home™

A Robert Wood Johnson Foundation funded project, linkAges Home explored options to leverage utilities data from smart meters to inform families and caregivers about the well-being of their loved ones by looking for shifts in their daily routines at home.

linkAges List™

linkAges List is a community resource database that helps members, families and care teams find local, personally relevant listings of community resources and services.

linkAges Community™

Connecting generations to build healthy communities

Pilot Intervention

linkAges Community was the module that developed into a consumer-facing product and was launched as a pilot intervention over a three year period. linkAges Community is an online network that helps members form meaningful connections with people of all ages through rewarding exchanges of abilities and interests. Communities are strengthened as members connect with one another to share and learn skills or to give and receive help.

Given a commitment to the core principles of design thinking, the IC implementation team prioritized ongoing learning and continuous refinement to improve the linkAges experience for its users. To this end, IC hired an external consultant to evaluate linkAges Community.

Evaluating linkAges Community

IC partnered with John Snow, Inc. (JSI), to evaluate the linkAges pilot program and capture insights into the journey of implementing linkages, lessons learned, and changes in outcomes of interest.

The evaluation focused primarily on linkAges Community and was designed to address two overarching questions:

1) What was the process of implementing linkAges Community?

2) To what extent was there a relationship between participation in linkAges Community and desired outcomes of interest?

A mixed-method, participatory evaluation design was used. Data collection efforts focused on documenting outputs, shorter-term outcomes, and trends towards improved longer-term outcomes. Additionally, lessons learned in the development and implementation of Community were actively sought out and documented systematically by the IC implementation team with support from JSI. Preliminary outcomes data about perceived benefits of participation and changes in the social health of seniors and their caregivers were also collected and analyzed.

The findings are organized in two broad categories:

1) Lessons learned pertaining to the implementation of the pilot.

2) Key findings regarding changes in self-reported outcomes of interest among users, including their perceptions about Community, its value, and appeal.

Community Connections & Emotional Wellbeing

The linkAges Community pilot program represented an ambitious and novel venture and explored a unique role for Sutter Health as an active supporter of health and wellbeing for community members between episodes of clinical care. IC staff applied principles of design thinking and continually refined linkAges Community in response to emerging needs and learnings.

Members seemed particularly drawn to the sharing and community-building aspects of Community. One of the most appealing aspects was the opportunity it created to *"give and take."* One respondent, a senior, praised how a member could *"discover how you can contribute and … be relevant to other people."* Consistent with the pre/post survey findings, responses from qualitative data also indicated that providing a service to others was more motivating for many Community members than the ability to receive a service. Community's potential to foster social interaction was another salient theme in the qualitative responses. For example, one participant expressed the belief that Community had the potential to extend social networks for seniors, whose inner circle of friends may have become less capable as they aged. The respondent had recently taken an elderly neighbor to an appointment when her transportation plans fell through. Citing this example, the respondent stated, *"That's what linkAges Community is trying to do – extend the neighborhood [for members]."* As community member growth and engagement evolved, the pilot revealed valuable lessons about this network model as a means to promote social connectedness.

1.
The linkAges Community concept held appeal for members.

IC designed linkAges Community as an online platform that allows members to connect with one another to share and learn skills or to give and receive help. Members earn hours by providing services to other members, and then use those hours to receive services in return. Despite the 'growing pains' typical of pilot programs, many individuals signed up for linkAges Community. Members' reasons for joining linkAges Community aligned in many ways with IC's vision for developing the program. The primary motivations for joining and engaging with Community appeared to be making a contribution and engaging in social interaction. Being the recipient of services appeared to be less of a motivating factor.

"I enjoy using my skills to help others, and I've been reminded that I have an assortment of them that I take for granted. It's lovely to recognize linkAges members at non-linkAges events in the community. I feel as though I have more (and deeper, in some cases) connections to my community. The one time I requested help, it was even better than I anticipated. I enjoy the variety of exchanges and events that appear in the linkAges community."

Highlights

Since its launch in summer of 2013 – Sept. 2016, 1027 new users joined Community and 41% (421 users) are seniors.

In qualitative responses, interviewees consistently expressed support for the concept of Community. One of the most appealing aspects was the opportunity it created to "give and take." Community's potential to foster social interaction was another salient theme in the qualitative responses.
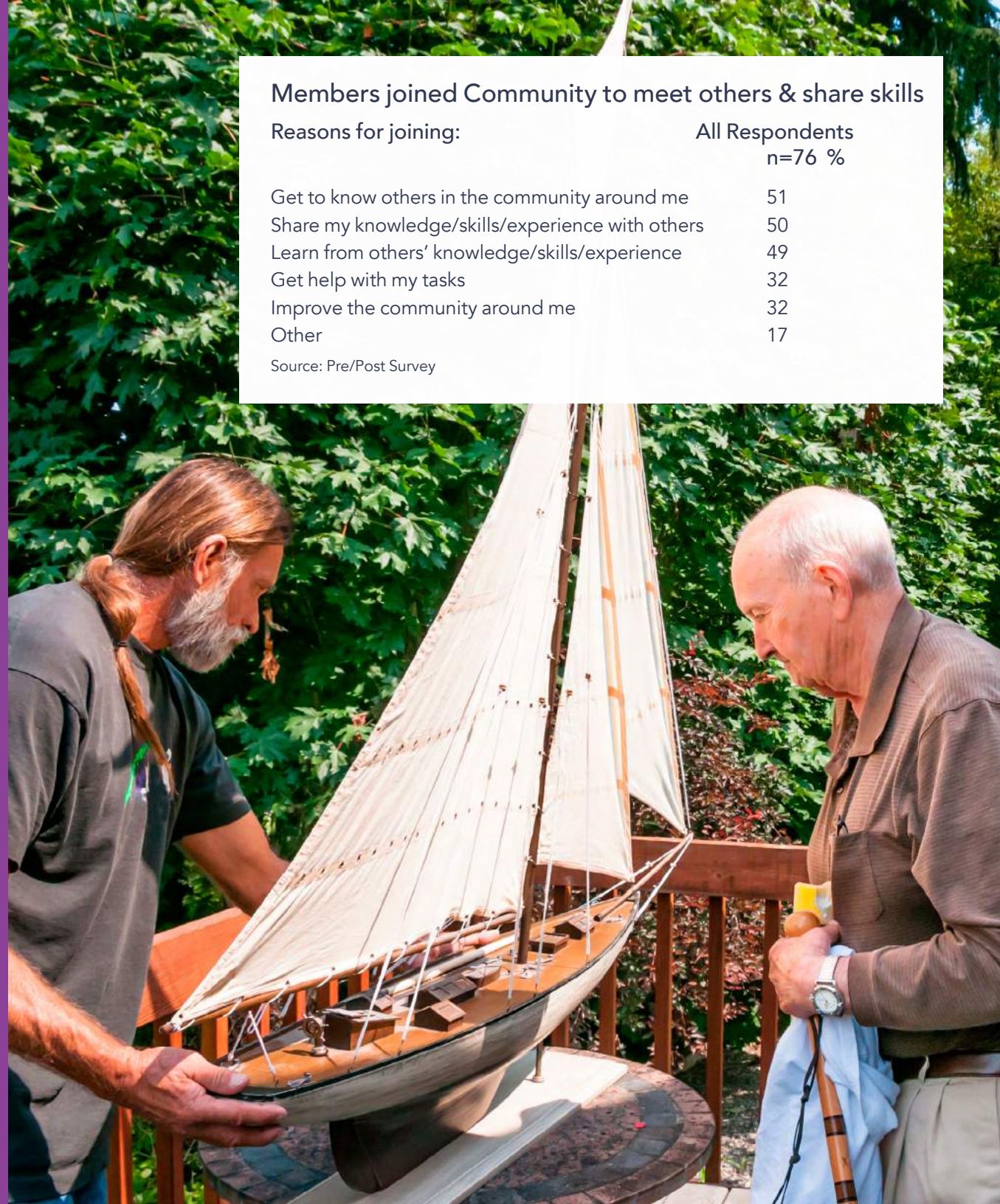
Members joined Community to meet others & share skills

Reasons for joining:	All Respondents n=76 %
Get to know others in the community around me	51
Share my knowledge/skills/experience with others	50
Learn from others' knowledge/skills/experience	49
Get help with my tasks	32
Improve the community around me	32
Other	17

Source: Pre/Post Survey

2.
linkAges Community facilitated opportunities for meaningful engagement for some users.

Data analyzed across multiple sources suggests that linkAges Community appears to have facilitated opportunities for meaningful engagement for at least a third of its members. Small but favorable changes over time in outcomes of interest relating to social connectedness and quality of life were also observed among members who completed the pre/post evaluation survey (primarily seniors and family caregivers). Further, a feedback survey of all community members found increased connections among respondents. For example, members reported being able to meet new people, and share their skills. CBO (Community-based organizations) partners, another key stakeholder, also perceived linkAges as a valuable partnership that provided an opportunity to offer higher value to their communities and enable their clients to better connect with their broader community and "give back" to the community.

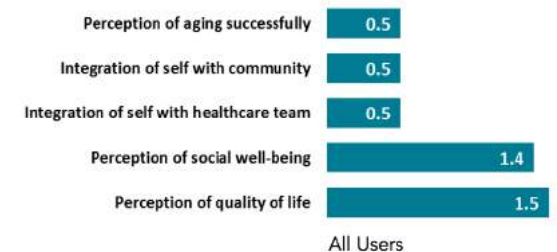*"I feel it's always there if I need it, which definitely reduces my feeling of isolation."*

"I am able to directly help and learn from people in my community that I would not have otherwise met. I get satisfaction from helping others."

"I've met people that I would not have met otherwise. I've received help with tasks that I'm not able to do and can't afford to pay for. I've enjoyed sharing my skills and helping others. Also, have enjoyed the monthly events."
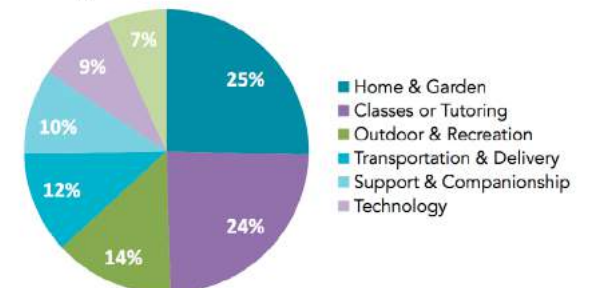
Highlights

- The proportion of seniors reporting loneliness at registration was 55% which is higher than rates found in the literature of 43% for a comparable population. One possible interpretation is that Community may have attracted a group that has higher social needs and thus the potential to benefit more from this type of a program.

- Since April 2013, a total of 3,091 exchanges were completed through Community and a total of 7,400 hours were exchanged. A third of all members (30%) had made one or more listings, while 36% had completed at least one exchange.

- Those who engaged with Community were very satisfied with their experience. Eighty-two percent of members who completed a satisfaction survey rated the experience at a 5 or highly satisfied.

- In a feedback survey, members indicated that participation in Community had increased opportunities to use personal skills and knowledge to support others (39%), increased opportunities to make friends in the community (33%), improved their awareness of community resources and services (32%) and increased access to these resources (34%).

- Members cited benefits including meeting new people, being exposed to new activities, and setting up continued relationships. Another recurring theme was the ability to feel gratification and increased self-confidence from helping others.

- Community members who participated in the pre/post evaluation survey reported small, but favorable, changes over time in key outcomes of interest including perceptions of aging, integration with community and healthcare teams, quality of life, and social well-being. For example, pre/post survey respondents' mean scores for perception of social well-being went up by 1.4 units from 38.1 at baseline to 39.5 at follow-up (range: 7 to 49). Results indicate that even though members began with high perceptions on these key outcomes of interest, one year after participating in Community, their scores had improved.

Positive changes in outcomes of interest for Cohort 1

Outcome	Value
Perception of aging successfully	0.5
Integration of self with community	0.5
Integration of self with healthcare team	0.5
Perception of social well-being	1.4
Perception of quality of life	1.5

All Users

Exchanges initiated by members involved home improvements and sharing skills.

Category	Value
Home & Garden	25%
Classes or Tutoring	24%
Outdoor & Recreation	14%
Transportation & Delivery	12%
Support & Companionship	10%
Technology	9%
	7%

About

Anna is a woman in her late 60s who has been a long-time Santa Cruz resident with her husband. Before retiring eight years ago, Anna worked in the technology industry. Anna and her husband, who is twelve years older than her, do not have any children together and most of their family lives outside of Santa Cruz. They have lived in the same house for the past 35 years and do not plan on ever moving. She is very involved in her community's events, including block parties and public holiday festivities.

linkAges Experience

Anna first heard about Community through a HealthNet email. She had previously heard about the program in Mountain View and *"had been looking for it"* in Santa Cruz. She liked the concept of Community because *"it feels better to exchange"* than to ask a neighbor for help, even when she knows they would help.

- Anna joined a different organization that did similar work as Community and *"ended up not really liking"* it; by contrast, she *"really likes using Community."*
- She had some initial difficulty navigating the website, but found it to be *"perfectly clear"* once she emailed for support. She now checks the website once or twice a week.
- She has posted a number of listings in Community for which she received responses; she feels the exchanges were successful.
- She found Community especially helpful when she hurt her back and got an immediate response from a member willing to help.
- She has used almost all of her hours and has now become more cautious about the offers she takes, as she's *"nervous about spending it all."*

Reflections on linkAges

Anna views linkAges as a resource to build connections and *"get out there in her community,"* which she has found more valuable as she gets older.

- Anna felt that the process of joining "*was really easy*" and *"seemed like it went really fast,"* but observed that it might have brought others frustration.
- She appreciates the vetting process of Community's background checks, acknowledging a *"comfort level"* because of it.
- Anna shared that her initial success with Community was encouraging and she doesn't know whether she would have remained as engaged if her early posting had not received responses
- Anna would prefer to give rather than take, but finds it *"hard to know what to offer."*

In the future, Anna hopes for:

- More Community events, preferable during the day, when she feels more comfortable driving herself.
- A routine check-in email that alerts members to upcoming events and offers technical support for those who have difficulty asking.

"One of the main reasons I joined was because I'm getting older and it would probably be a good idea to get out there now. I think for anybody having more connections in a community is good"

3.
The recruitment and engagement approach became increasingly intentional as program activities were refined.

Since the linkAges pilot was guided by principles of design thinking, IC incorporated emerging findings to become more intentional in recruiting and engaging users. IC also refined the Community website in an effort to improve functionality and user experience. The process of building the size of Community revealed a need for engaged staff to facilitate the engagement of less active and older, more vulnerable seniors.

Highlights

- In creating Community, IC drew from the examples of other timebank-networks around the United States and UK. IC recognized a need to build a 'critical mass' of members in order to support a thriving Community network with frequent and diverse activity. To this end, IC prioritized recruitment activities to build the size of Community.

- As time passed, IC adopted a more "hands on" approach to engage Community members with additional 'human' touchpoints. The pace of membership growth accelerated over time, with increased uptake in the summer/fall of 2014 as IC implemented higher-touch, higher-intensity strategies.

- Development of a sophisticated platform in 2015 led to a significant increase in enrollment as well as engagement.

- IC developed an Advocates college internship program to promote intergenerational connections and engage the most isolated and vulnerable seniors facing challenges in accessing Community (e.g., those facing isolation due to mobility issues, language or income barriers and those with limited access to technology).

Impact on Healthcare Utilization

Outpatient health care utilization and costs were lower among more active Community members than inactive members.

An analysis conducted by IC that linked Community engagement data with health care utilization and costs data revealed that members who were actively engaged in Community had significantly lower relative rates of office visits and lower average annual healthcare costs as compared to inactive Community members, after controlling for gender, age at health care encounter, and reason for visit (chronic vs. non-chronic condition visit). Cost rates were reduced to 80% of rates before joining linkAges Community for active Community members.

Highlights

- On average, patients who became active Community members had a significantly lower rate of office visits as well as lower yearly outpatient costs, after controlling for gender, age, and chronic disease status for each visit. In particular, active members had on average a 26% lower office visit rate and 20% lower yearly outpatient costs. In contrast, patients who joined Community but remained inactive did not show a statistically significant reduction in utilization or costs.

- Cost data analysis revealed that cost rates were reduced upon becoming a linkAges Community member if the patient actively engaged with the website. The cost rate for a patient after becoming an active Community member was reduced to only 80% of his or her cost rate prior to joining as compared to inactive members.

- In contrast, patients who became Community members but were inactive—in other words, who did not post a listing or participate in an exchange at least twice a year—did not show any statistically significant reduction in either average office visit rate or cost rate.

- The figure shows the estimated yearly costs for a typical 60 year old female patient with an average baseline cost rate before and after becoming an active linkAges Community member.

Figure: Estimated yearly outpatient costs for a typical 60 year old female patient with chronic or non-chronic disease-related visits before and after becoming an active linkAges Community member.

Average Yearly Outpatient Costs

	Chronic	Non-Chronic
Non-Member	$2,913	$2,564
Active Member	$2,318	$2,041

Dollars/Year
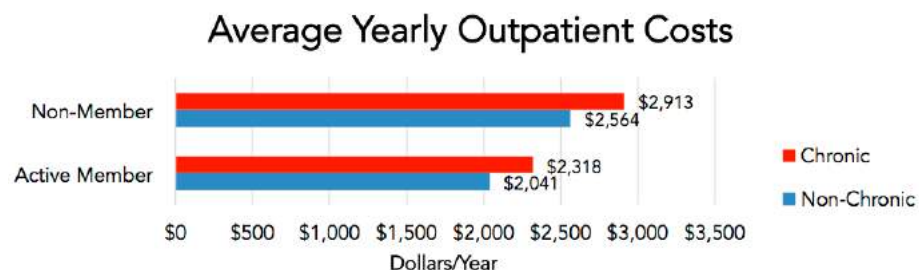
About

John is an 81 year-old man living by himself in the Peninsula. He has some family in the South Bay Area, but describes them as *"distant"*. He has served in a diverse range of professions throughout his life, including as a Jesuit priest, clinical psychologist, and teacher. He now volunteers weekly at a local jail where he teaches mindfulness-based stress reduction practices. He enjoys traveling and *"moves around a lot"*. He states that he easily makes friends and "mixes well".

linkAges Experience

John learned about Community through his PAMF physician and then decided to join after discussing it with an IC staff member. John was drawn to Community because he liked the idea of *"bringing together seniors and young people to the mutual benefit of both"*. John exclusively participates with the Advocates program and finds it *"deeply satisfying"*. He has met with two Advocates, both of whom visit him frequently and assist him with organizational tasks around the house and his technological needs.

- John highlights a *"rich inter-generational experience"* with his first intern. She and her friends even came to his house one night and together enjoyed pizza and conversation.

Reflections on linkAges

John feels that the Advocates program has been very helpful in assisting him to deal with difficult tasks as he accommodates to aging.

- John believes linkAges would benefit individuals who are trusting, ask questions, and who are *"willing to face fears"* and be searchers.

- While John uses other resources for his technology issues, he appreciates the support that his interns provide him as well.

In the future, John hopes for:

- A *"greener"* approach to exchanges that minimizes distances travelled by participants.

- Improvement on the platform's senior-friendliness in order to assist seniors as they accommodate to the new obstacles they face as a result of their older ages.
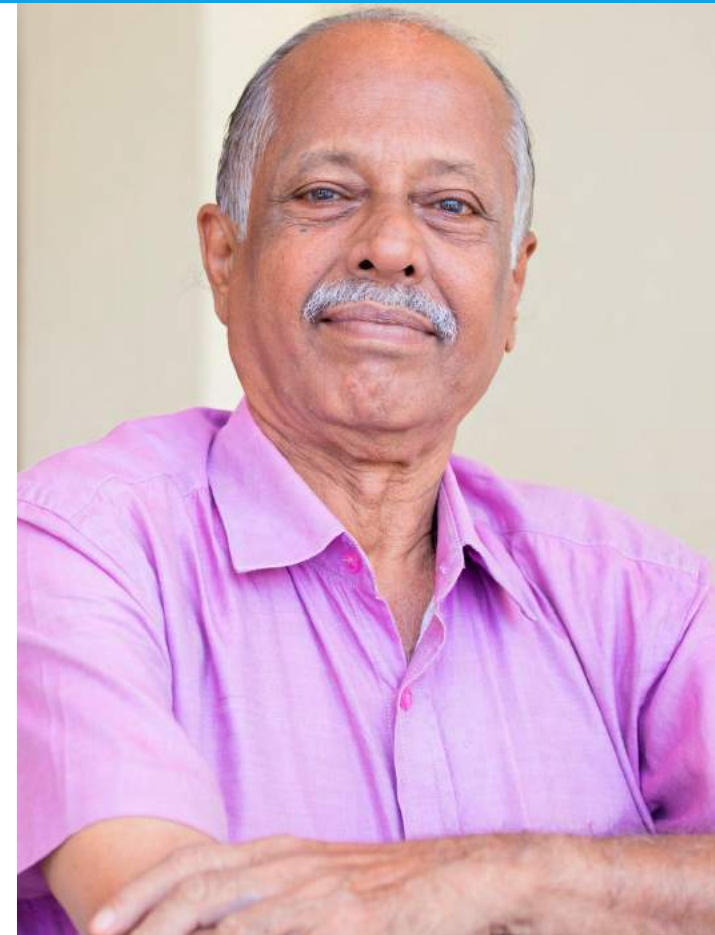
"It's great to get this from my healthcare plan. I get the word out there, yeah linkAges gets big press from me."

Brand Perceptions

Data suggests brand recognition and favorable perceptions of linkAges Community and Sutter Health: Palo Alto Medical Foundation among members.

The Sutter Health: Palo Alto Medical Foundation's Druker Center for Innovation developed linkAges to build healthy communities outside of the doctor's office. It represented a novel approach for the health system in terms of the use of technology and interface with the local community. Survey and qualitative data revealed many members had favorable perceptions of Community as a program and as a health system endeavor.

> *"One of the key things was that it was Palo Alto Medical Foundation, which is a very reputable organization within our community. Many of our residents are very familiar with the organization and trust the organization. And they trust us... So in that sense, for two organizations to work together, I thought it was a good fit."*

> *"It feels very professional, very safe. It's a trusted name. People have faith in the organization behind it."*
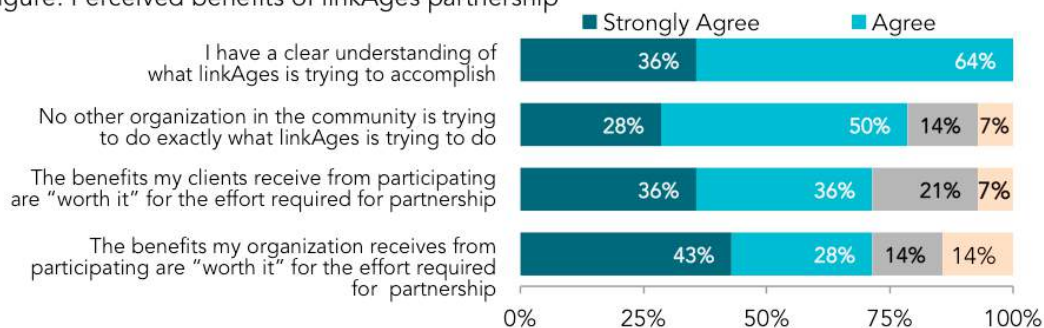
> *"I love that [the IC team] is willing to hand-hold seniors who need more support – whether it's emotional support in terms of the security, not knowing their talent, or help signing up."*
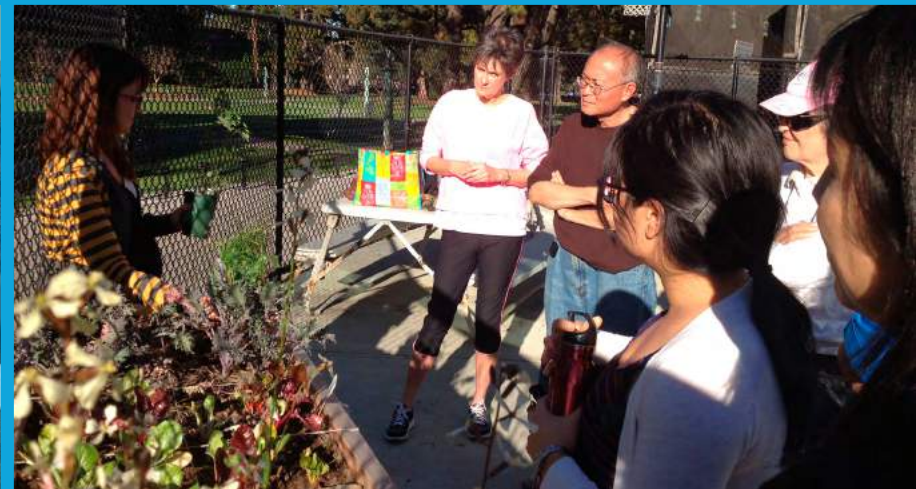
Highlights

- There appeared to be a high degree of brand recognition among Community members. In the feedback survey of Community members, the vast majority (80%) correctly identified Sutter Health: PAMF as the organization responsible for linkAges.

- Three in four respondents (74%) indicated that knowing Community was a Sutter Health: PAMF program favorably influenced their opinions of the health system.

- Net Promoter Score is a commonly used measure of customer experience. Among member respondents, Community received a Net Promoter Score of +21. Among community partner survey respondents, Community received a Net Promoter Score of +36. By way of reference, Net Promoter Scores can range from -100 to 100, with the average NPS being +10. The average NPS for health plans is +18 and the average NPS for software/web applications is +28.

- Qualitatively, both Community members and partners reported being attracted by the credibility of Sutter Health: PAMF as linkAges' sponsor. There was also high praise for the linkAges implementation team and the commitment to community wellbeing.

- All CBO survey respondents (100%) 'strongly agreed' or 'agreed' that they had a clear understanding of what linkAges was trying to accomplish. Further, the majority indicated that the benefits received from participating for both the organization and its clients were worth the level of effort required to establish and maintain the partnership. Respondents saw linkAges' place as unique, strongly agreeing/agreeing that no other organization in the community is trying to do what linkAges is trying to do.

Figure: Perceived benefits of linkAges partnership

	Strongly Agree	Agree		
I have a clear understanding of what linkAges is trying to accomplish	36%	64%		
No other organization in the community is trying to do exactly what linkAges is trying to do	28%	50%	14%	7%
The benefits my clients receive from participating are "worth it" for the effort required for partnership	36%	36%	21%	7%
The benefits my organization receives from participating are "worth it" for the effort required for partnership	43%	28%	14%	14%

CONCLUSION

linkAges Community helps people of all ages form meaningful social connections, give back and feel relevant. The benefits of intergenerational engagement extend to all members, as they see themselves as both contributors and receivers through a series of unique interactions. linkAges creates opportunities for host organizations to convene uncommon partnerships to develop infrastructures to support older adults, family caregivers and their extended communities. It is our hope that learnings from across the San Francisco Bay Area will support broader efforts to address social isolation and loneliness across diverse communities.

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xvi Perissinotto 2012.

xvii Analysis methodology available from IC upon request.

xviii The Net Promoter Score (range from -100 to 100) is a measure to determine a score for customer or user experience. On a 10-point scale, respondents answering 0-6 are considered detractors, those answering 7-8 (likely) are considered passive, and those answering 9-10 (very likely) are considered promoters. The net promoter score is calculated by taking the percentage promoters and subconstracting the percentage of detractors. (Source: https://www.netpromoter.com/know/)

xix Source: https://www.netpromoter.com/compare/.

Sutter Health
Palo Alto Medical Foundation

Sutter Health provides comprehensive medical services in more than 100 Northern California communities. Sutter Health doctors, not-for-profit hospitals and other health care service providers share resources and expertise to advance health care quality and access. The Sutter Medical Network includes many of California's top performing, highest-quality physician organizations. Sutter-affiliated hospitals are regional leaders in cardiac care, women's & children's services, cancer care, orthopedics and advanced patient-safety technology. Sutter Health's mission focuses beyond the walls of our care facilities and out into the community. Community-based services, mobile clinics, transportation services, and prevention & wellness programs are among the ways Sutter Health seeks to put its "mission into action."

The Palo Alto Medical Foundation (PAMF) is a not-for-profit health care organization established with a mission to enhance the wellbeing of the people in the communities it serves through compassion, excellence, and innovation in health care services, research, and education. Part of the not-for-profit Sutter Health network since 1993, PAMF provides high-quality primary and specialty care for over 700,000 patients throughout Santa Clara, San Mateo, Santa Cruz, San Francisco and Alameda Counties.