



WPI

Developing Resources to Support Aging Folks and Caregivers

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Authors

Maline Demers, Thomas McDonagh,
Collin Mello, Mo Nguyen

Advisors

Zoe Antoinette Eddy
Francesca Bernardi

Project Director

Lauren Matthews

Sponsor

Amazing Care Network

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Abstract

Given the actively aging population in Honolulu, Hawai‘i, there is a growing necessity to provide education to individuals and their families regarding the available resources as they grow older. Collaborating with the Amazing Care Network, our team delved into a number of issues for aging folks, including end-of-life care communication and the distribution of that pertinent information to individuals. Our group then analyzed Amazing Care Network's event structures, identified key conversations among the elderly, and devised strategies for engaging them through focus groups and individual interviews. Following the analysis of the findings, we recommended the most desired topics to learn about and the most effective means of disseminating that information.

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Executive Summary

Aging in the United States is difficult, and this is particularly true in Hawai‘i. Specific areas of difficulty include challenges regarding healthcare, finance, and social participation. The Amazing Care Network (ACN) helps older people in Hawai‘i successfully age. It also teaches others about how to care for elderly family members and friends. We were tasked with helping the ACN reach its goal by finding topics of interest for its members and identifying the methods best suited to educate them about these topics.

Before we could help the ACN, we researched the intricacies of healthcare, finances, and social participation for older people; simultaneously, we investigated the inner workings of Blue Zones. Only a handful of worldwide locations have tackled aging successfully. These locations are called Blue Zones. Blue Zones have a specific way of life that consistently leads people to live past 100 years old. While on site in O‘ahu, Hawai‘i, we conducted interviews with both members and non-members of the ACN; all interviewees were located in Hawai‘i. We held three inductive focus groups, 22 individual interviews, and one deductive focus group. The purpose of the initial inductive focus groups was to identify core themes and issues associated with aging in Hawai‘i. For the individual interviews, we observed new themes and topics but also clarified and built upon the earlier themes established by the initial focus groups. Lastly, the final deductive focus groups encouraged discussion about opposing themes or further solidified the existing themes we gathered.

We also conducted a survey. Our survey was given to every interview and focus group participant and was used to better understand the ACN’s population; 19 surveys were completed and returned. This survey allowed us to identify the ACN’s main demographic while we

analyzed interview results. The Amazing Care Network's population that we interviewed were Asian (63.2%), female (78.9%), and between the ages of 60-80 (92%).

Our interviews were conducted over approximately one month and were universally used for our recommendations. From our surveys and interviews, we were able to identify around 20 major themes of various sizes. These themes included topics such as correlations in demographics, recommendations for the program, and commonalities between interviewees.

With newspapers and TV accounting for 76% of local island news consumption, it might help to focus on advertising in the local paper or on TV. Additionally, increasing social media presence would help to attract a younger audience (50-60 years old) as they begin to age.

On another note, more interactive workshops will greatly increase participation from members, as many feel that the current afternoon teas follow too much of the same formula. Additionally, by allowing people to interact with each other and the community, there is a much greater opportunity for expansion.

Continuing, we recommend an updated database to allow for ease of access to the ACN's resources. We understand that their website provides this information, however, it does not provide clear guidance on where to find these benefits causing many members to forget they exist. Adding onto this, some hyperlinks on the website no longer work as the resources have become outdated.

When it comes to reaching those aged 50-60 years old, we highly recommend a hybrid model for the afternoon teas. To clarify, a hybrid model is a structure allowing attendees to participate in person or remotely. Various factors, such as not being retired and being homebound result in scheduling and transportation issues effectively decreasing the audience at these events.

While there was pushback about hosting events exclusively remotely, with a hybrid model the ACN will be able to increase engagement by giving people a choice to be at an event either way.

Finally, with the intention of approaching the next generation, we strongly recommend more accessible events. When conducting our interviews, we found that half of the people still working are unable to attend due to scheduling issues. Additionally, a few people mentioned that they enjoyed the focus groups' small, structured conversations and would not mind the idea of a guided "happy hour" discussion. By having accessible events, it would be possible to appeal to a younger audience and allow the ACN to grow even more.

From the data we gathered through our many interviews, we were able to cater to the ACN's initial requests. We put together a deliverable containing many new topics for speakers at the afternoon teas, explained how the members want to learn about these topics, and went further recommending workshops that the ACN can hold. We believe that if the ACN implements these ideas, it will be able to achieve its full potential in being a truly amazing network for its members.

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Introduction

Many will argue that living in America is extremely difficult, and rightfully so. The financial struggles people face can be unbearable for the general population. However, at the same time, what those individuals do not realize is that growing older and dying in the States is a significant burden, not only for the aging individuals but their caregivers as well. This is because we tend to age in a complex way. There is no straight line “path” to aging in life. Even with a strong support system of friends and family, people encounter complicated and challenging medical and insurance battles as they age and confront more health difficulties. Because of this, coordinated support is needed to help families deal with the complexities of aging. When starting to look for it, many seniors and their families soon learn how hard it is to find this kind of support.

Hawai‘i's Honolulu is at the forefront of a demographic transition marked by an aging population. As life expectancy continues to rise and the baby boomer generation moves into its later years, the number of elderly citizens in the city is significantly increasing. This change brings with it special difficulties that affect social services, housing, healthcare, and general well-being, among other facets of communal life. In a recent newspaper article from Honolulu county, researchers say the rate at which people are leaving Hawai‘i much faster than the rate at which people are moving, leaving thirty-thousand less people on the islands in the last few years (StarAdviser, 2024). This is due to the huge disparity in income versus cost-of living. It can be inferred many of these individuals are elderly people that simply cannot afford to survive here. However, Honolulu is actively attempting to adjust to the changing needs of its aging population and develop solutions to meet those needs. The demand for easily accessible healthcare services,

community assistance, and age-friendly infrastructure is growing as the number of people in their senior years rises. To overcome these obstacles and maintain Honolulu as a warm, encouraging location for its older citizens to age with dignity, the entire community must work together.

Centered in Honolulu, The Amazing Care Network stands as an active caring community for aging folks and encourages proactive planning to negotiate insurance, medical systems, and emotional and financial problems. The Amazing Care Network (ACN) seeks to transform the aging experience. Through promoting self-education, care advocacy, and reciprocal support, ACN empowers its members to concentrate on their overall well-being. Members have access to networks, information, and services such as ACN's Member Community, Medication Therapy Management, End of Life Support, and Physician Friends of the Family. Additionally, ACN has a savings plan for building up cash reserves. Those who wish to join must commit to opening a savings account and contributing five dollars per month, which will accrue interest over time. In addition, each member must pay a one-time fee of fifty dollars to participate in the quarterly Afternoon Teas. Encouraging people to age well is the ultimate goal. Currently, they host an event called "Afternoon Teas" for their community members in hopes of providing more information on how to age gracefully. Although these have been valuable, there is a recognized opportunity to enhance the dissemination of information to a wider audience, extending the benefits of ACN's outreach efforts.

Existing strategies do not fully cater to the diverse needs and preferences of both current and potential members, leaving gaps in satisfaction. Our project goal is to dive into a comprehensive exploration of the desires within the aging community, seeking an understanding that goes beyond the current organizational strategies. Simultaneously, there is a need to assess the outreach mechanisms. There are undeniably unmet preferences within the

current audience regarding information delivery formats. Understanding how aging individuals wish to receive information is crucial. This dual focus on both content and delivery methods is intended to optimize the impact of ACN's outreach initiatives, ensuring a more tailored and engaging experience for the members and prospective members alike.

Through a well-rounded and personalized approach, the Amazing Care Network envisions a future where the aging community can proactively plan for their later years with confidence and assurance. This initiative not only enhances the quality of life for seniors but also alleviates the financial burden on both individuals and their caregivers, fostering a community that supports and understands the unique challenges associated with aging in America. If able to do this successfully, the aging community, along with their caregivers, can ease the stress of aging just a little.

Background

Healthcare

Transitioning into the later stages of life, people's bodies begin to change and become more fragile. As a consequence of natural aging, the need for different medicines, treatments, and preventive care skyrockets toward the end of life (Lynn and Adamson, 2003, p. 5). Different health issues affect different people in this stage of life, but one thing universally ties everyone in this age group: the need for strong and reliable healthcare.

Despite this need, however, navigating through the American Healthcare System is a Herculean task. Because privatized healthcare prioritizes profit, the entire system heavily obfuscates key information such that making a clear, informed decision is nearly impossible. One look at the mountain of acronyms and layers upon layers of caveats can immediately overwhelm anyone who is trying to detangle the mess to make sure that they can get the care that they need for a reasonable price. Furthermore, while every other industry tries to cut down on customer confusion, the Healthcare industry does the opposite and continually makes the system more confusing. This confusion allows companies to lure patients into exploitative contracts that provide very little care for maximum profit. Given that America treats its patients as consumers rather than people in need, patients are put in an unforgiving situation where they must decide a critical decision with massive ramifications on their life all while having little to no information. This is such a prevalent phenomenon that patients in America have been termed "flawed consumers" because they are not capable of making informed choices with the resources they have (Harding et al., 2014).

To make informed choices, consumers need to have adequate health literacy to navigate through the complex bureaucracy of healthcare. Health literacy is defined as "the degree to which individuals can obtain, process, and understand basic health information and services necessary to make the appropriate health decisions" (McCormack et al., 2009, p. 226). Unfortunately, health literacy in the US is incredibly low with 47%-51% of US adults having low or limited health literacy skills (McCormack et al., 2009, p. 225). This lack of health literacy skills is accentuated when looking at the older population as they are more than twice as likely to lack the proper health literacy skills as opposed to younger adults (Shahid et al., 2022, p. 4). Additionally, inadequate health literacy skills lead to worse overall treatment as well as a significant upcharge in costs. Evidence indicates that people with inadequate health literacy skills are three times more likely to revisit the ER after a given visit (Shahid et al., 2022, p. 4). Moreover, costs for patients with low health literacy skills are substantially higher because they are more likely to "use an inefficient mix of services" resulting in massive charges for unnecessary treatments and procedures (Howard et al. 371). In one study, the costs for people with low health literacy skills were over 10,000 dollars higher than their peers with adequate health literacy. (Howard et al. 372)

As discussed, the older population is also the most likely to need medical attention as health issues dramatically increase toward the end of life. Furthermore, many of the older population are retired, meaning they lack a substantial stable income to support the heavy costs of healthcare. This combination of a lack of health literacy skills, a lack of stable income, and an increasingly pronounced need for good health care make the older population extremely vulnerable to America's current healthcare system.

To support this vulnerable population, Medicare, a federally funded program designed to provide affordable healthcare to Americans over 65, was introduced in 1965. Although this program was brought on with good intentions, the efficacy of Medicare is incredibly lacking. Although over 95% of Americans over 65 use Medicare, it only covers about half of all needed healthcare services (McCormack et al., 2009, p. 224). In other words, for an overwhelming majority of the older population, their health insurance fails them half of the time. As a vast majority of the older population uses Medicare, this paper will focus on the logistics and ramifications of the American Healthcare system through the lens of Medicare.

Overview of American Healthcare System

Diving into the specifics of why the American healthcare system is so convoluted, one must look at the terminology and fundamentals behind how the system works. Briefly, health insurance is a way for people to mitigate their risk when budgeting for health issues. Instead of spending thousands on an emergency procedure, one can instead pay a consistent premium every month such that when they do have an accident, it is covered by the insurance.

Deductibles, Copay, and Coinsurance

However, the system quickly gets complicated when deductibles, copays, and coinsurance are introduced. Insurance unfortunately is not as simple as paying a premium and being covered, there are different tiers and payment plans with different levels of coverage. These different plans are balanced by varying deductibles, copays, and coinsurance. Simply put, a deductible is an amount the insuree must spend in a given year before getting coverage. The deductible seems simple, but for any given plan, only some procedures and treatments may go toward the deductible while others do not, and it is up to the customer to figure out if the money that they are spending contributes to their yearly deductible. Coinsurance and copays are set

payments one must pay even after the deductible is filled on certain procedures, medicines, or treatments. These quickly get confusing because the amounts that the coinsurance and copays also vary depending on which procedure/treatment one gets, as well as where they are getting it from.

Drug Formularies

In addition, the deductible, copay, and coinsurance are all dependent on the insurer's drug formulary. The drug formulary is an exhaustive list that ranks different drugs into tiers to determine if they are included in an insurance plan and how much coverage the insurer will provide for that given drug. The issue is that drug formularies between different insurance companies are not standardized, and to add to the confusion, the same drug with different quantities or even methods of ingestion can be ranked differently. Similarly, to everything else in health insurance, the responsibility of making sure that the prescription drugs a customer needs is on the right tier of the drug formulary is up to the customer. This can be a massive issue as drug formularies are formatted differently and can be extremely difficult to find.

Switching Healthcare Plans

On top of that, in America, one cannot simply switch health insurance policies at any time. An individual can only switch health insurance during Open Enrollment season or if the respective individual experiences a Qualifying Life Event (QLE). Open Enrollment season is typically from November to January and is the only time everyone can switch health insurance policies. Conversely, a QLE is typically a huge life-altering event in a person's life. This can range from having a baby, moving to a new zip code, or a family member dying. Furthermore, QLEs have a set time before or after (depending on the QLE) to which the person can switch health insurance. This is problematic as it forces someone who may need to change health

insurance due to extenuating circumstances to try to balance the stress from their QLE and the stress from the pressure of making the change in health insurance in time. This time pressure leads many people into bad plans for the year as they simply do not have enough time or energy to navigate the health insurance system.

Overview of Medicare

In Medicare, policies and plans differ significantly. Medicare is a federally funded health insurance program for people 65 and older. It is split into four parts. Part A consists of a simple plan with no premium that just covers inpatient and hospice care. Part B acts like traditional health insurance with a monthly premium to cover outpatient and preventative care. Part C is essentially privatized health insurance with a small amount of it being subsidized by Medicare. Part D essentially just covers prescription drugs.

Conclusion of Healthcare

Even with a strong grasp of the fundamental concepts of healthcare, it is clear that the US healthcare system necessitates a monstrous amount of effort and education if the consumer is to make an informed decision. As a result, many people suffer poor quality treatment and absurd costs. Of those people, the older population is the most vulnerable as they have to interact with this system more often than any other demographic, and they have the lowest health literacy giving them no tools to tackle this issue.

Finances

Finances relevant to end-of-life care are complex. Understanding these complexities is key to living a successful and fulfilling retirement. In this section, we present the Hawaiian

economy as a whole and follow up by exploring some deeper financial topics that are pivotal to retirement.

Overview

It is important to understand the current state of the Hawaiian economy. On September 6th, 2023, the state of Hawai‘i released its “Quarterly Statistical & Economic Report” which gives a well-rounded report of the Hawaiian economy. Beginning with the total annualized nominal GDP of Hawai‘i, the Hawaiian government mentions an increase of \$7.984 billion, marking an 8.4% increase between the first quarter of 2022 and the first quarter of 2023 (*Quarterly Statistical & Economic Report 3rd Quarter 2023*, 2023). This upward trend is continued in the review of Hawaiian major economic indicators for the first half of 2023 where the government states “Hawai‘i’s major economic indicators were mixed in the second quarter of 2023”. Elaborating on this, they mention that “Visitor arrivals, wage and salary jobs, and private building authorizations increased in the quarter compared to the second quarter of 2022. However, government contracts awarded, and State general fund tax revenues decreased.”. Since the Hawaiian economy is generally improving on a statewide basis, it is important to understand the Hawaiian economy on an individual basis and the potential complications of the economy. Putting importance on these two topics will allow for a better understanding of the economic outlook of an aging citizen of Hawai‘i.

To get a better understanding of economics on a personal level in Hawai‘i, further analysis of personal finances in Hawai‘i is needed. In terms of personal income, the total nominal annualized personal income has grown by \$6.1761 billion which equates to 7.2% between the first quarter of 2022 and the first quarter of 2023 (*Quarterly Statistical & Economic Report 3rd Quarter 2023*, 2023). This increase marks a significant upward trend as the year prior

the average personal income increased by \$483.8 million which marks a much smaller 0.6% increase. Continuing with this upward trend in personal finances, during the first quarter of 2023, income per capita increased by 7.6% to \$64,031 when compared to the first quarter of 2022. This increase in income per capita can be seen through many factors. For instance, wages are noted as increasing by \$3.77 billion, marking a 9.1% increase from the previous year. Additionally, wages “consisting of employer payments to retirement plans, private group health insurance plans, private workers compensation plans” have grown by 6.4% when compared to last year's values.

Focusing on government aid, one final area to focus on is government insurance. When it comes to government insurance within this same timeframe, the positive trend of personal finances continues as contributions have increased by \$632.4 million, a 9.1% increase compared to an 8.4% (\$555 million) increase the previous year. Through this brief analysis of personal finances, the Hawaiian economy looks to be continuously improving for the individual citizen.

While these increases in personal income are significant, the economy of Hawai‘i still has its struggles. For example, the price of dividends, interest, and rent combined has increased by 6.6% which is equivalent to \$1.1033 billion (*Quarterly Statistical & Economic Report 3rd Quarter 2023*, 2023). In addition, inflation rates have grown to an average of 3.1% during the first 7 months of 2023. With this statistic, it is important to know that it is lower than the current United States national average of 4.6% but higher than the expected rate in 2019 of 1.8%. Adding onto this, the State general tax fund seems to be struggling where it was reported that tax collections distributed to the fund have fallen by 7.7%. A large factor in this decrease can be seen through the net individual income tax revenue which has decreased by 18.2% (\$261.7 million).

Finally, one of the major concerns of the Hawaiian economy at the moment comes from the Maui wildfire. Economically, this tragic event is responsible for the destruction of over 2,000

homes and 800 businesses employing 7,000 people. Additionally, it was noted to have a drastic impact on visitor arrivals which in July of 2023 were back to almost 96% of what they were in 2019 before the COVID-19 pandemic. As seen by these negative economic impacts, while the general economy is trending upward there is still much more to be done.

Retirement Planning

In addition to the general financial economy of Hawai‘i, the complex process of retirement planning can become a burden if it is not started early. Through the research on financial literacy and managing income, the goal of this section is to understand the importance of having a structured early plan for retirement.

Financial literacy is an essential tool that can resolve many complications when planning for retirement. However, many Americans struggle with financial literacy. A recent study found that the P-Fin Index which is a survey regarded as “an annual barometer of financial literacy among the U.S.” showed that “On average, U.S. adults correctly answered only 50% of the index questions in 2022” ([Yakoboski et al., 2022, p.2](#)). Additionally, they extended this claim by mentioning this correctness of about 50% has been consistent since 2017. This is substantial as a poor understanding of financial literacy could potentially lead to a lot of shortcomings in retirement planning, especially when done alone. Additionally, the study also concluded that “financial literacy tends to be low within each of the five generations comprising the U.S. adult population, but particularly so among those in early adulthood” ([Yakoboski et al., 2022, p.2](#)). This finding is significant as it highlights that while literacy is lower in the younger adult population, poor financial literacy is very much a widespread issue across all generations. Financial literacy is pivotal to successful retirement planning and as seen is something the United States continues to struggle with every day.

In tandem with financial literacy, being able to manage income from various revenue streams is paramount to a healthy retirement plan. When thinking about the ability to manage income, it can often come off as too difficult across various assets. As it turns out, this feeling increases with age. A study conducted at Boston College's Center for Retirement Research found that "Retirees with normal cognitive aging could need assistance if they are financial novices – most likely due to the death or disability of a spouse who handled the household's finances" ([Belbase & Sanzenbacher, 2017, p.2](#)). Taking a deeper look into their findings one can see that even when they excluded "Financial novices" only 82% of people with mild cognitive impairment and 20% with dementia could maintain their finances ([Belbase & Sanzenbacher, 2017](#)). These findings provide great context into beginning retirement and end-of-life care plans early as these plans are complex and usually involve more than just the individual.

Furthering the idea of age playing a factor in the management of income, another area that is critical to identify would be the trends that come with elderly spending. Studies have found a large shift in how people use their money as they age. Notably, older people "engage in higher consumption, invest more savings into easily liquidated financial products, and provide financial assistance to other family members" ([Guido et al., 2020, p.79](#)). Continuing this idea, a focus on special possessions can be seen later in life resulting in more emotional spending where "such factors lead the elderly consumers to re-evaluate their financial resources and to plan different allocation of investments and possessions" ([Guido et al., 2020, p.81](#)). Another form of additional spending can also be seen through charity where "Elderly people are usually more generous towards needy people and organizations that express their solidarity through donations, inheritance bequests, or philanthropic and social entrepreneurial initiatives" ([Guido et al., 2020,](#)

[p.81](#)). Through these three examples, the importance of managing income early is emphasized as similar trends in elderly spending need to be accounted for in a retirement plan.

End-of-life care, while difficult to talk about, is a complex topic that needs to be addressed sooner rather than later. The expenses behind end-of-life care can add up and become overwhelming. A study completed in Ontario, Canada, identified that “The average total societal cost of end-of-life care for all patients (both home and hospital death) was \$34,197.73” in an average of 4 months (Yu et al., 2015, p.1). Continuing into the breakdown of this cost, “Public health system costs comprised 46.72% of total costs; private costs comprised 53.28%” meaning that private costs such as caregivers and other end-of-life services were just as expensive as healthcare. This study also found that it costs over \$8,000 more to pass away at home than in a hospital (Yu et al., 2015, p.2). Concluding research on this study, end of life care costs can be seen as statistically very expensive with healthcare not even being half of the total costs associated. Through the analysis of the cognitive impact of aging on managing income, the trends that come with elderly spending, and the cost of end-of-life care, implementing income management as part of an early retirement plan has become more important than ever.

Pensions in Hawai‘i

With retirement encapsulating various financial topics, one topic that is crucial to emphasize the importance of is pensions. Pensions exist in both the public sector and private sector and are a major financial component that comes with retirement. Public sector pensions can be viewed as pensions offered by government-owned and affiliated programs (Murray, 2022). Examples of these public sector pensions offered in the state of Hawai‘i include a Federal Civil Service pension plan and an Employee Retirement Service pension plan. These differ a fair amount from the private sector pensions which are composed of non-governmental sources such

as households, businesses, and organizations (Murray, 2022). Important examples of private-sector pensions include IRAs and 401k plans. Through the analysis of the aforementioned examples of public and private sector pensions can unlock a lot of financial opportunities for people of increasing age to take advantage of.

To better understand the benefits of public sector pensions, it is necessary to take a look at a couple of examples. One such example is the Federal Civil Service program. Following a change to how the program worked, the University of Hawai'i in 2002 noted 3 important factors that comprise this pension program. The first was that "Federal workers now participate in social security and receive social security benefits". Following this they mention that "Employees contribute 0.8% of their salary and participate in a DB plan which provides 1.0 percent * years * three highest consecutive years. If retiree is 62 or older multiple is 1.1 percent.". Finally, there is a thrift saving plan component which states the "government contributes 1% of pay, matches 1 for 1 up to 3% contribution by the employee, 1 for 2 for the next 2% contributed by the employee. The employee can contribute up to 5% additional (for a max of 10%) with no match from the Feds. Maximum in thrift plan would be 15% with 5% contributed by Feds and 10% contributed by individual."(Mason, 2002, p.27). When breaking down these three factors, it can be seen that not only have they changed the program to be much more accessible but, the government is rewarding workers for saving money. Connecting this back to end-of-life care, through this program, the government incentivizes setting money aside over time for retirement.

In addition to this program, the Employee Retirement Service program is another great example of a public sector pension. Being oriented to the state of Hawai'i, "The maximum benefit, a lifetime pension with no survivor benefits, is calculated as the number of years of service x 0.0125 x average salary for the highest three years of service". To qualify for this

maximum benefit, a Hawaiian citizen has to be at least 62 with 10 or more years of credited service or 55 with 30 years of credited service (Mason, 2002, p.27). This pension is significant as it gives back to the dedicated Hawaiian workforce as well as provides income that is based upon contribution to the workforce.

Along with the public sector programs, private sector programs also provide substantial income for people. Examples of private-sector pensions include IRAs and 401k. IRAs, also known as Individual Retirement Accounts, allow for contributions of \$3,000 per year when under 50 and \$3,500 when 50+ (Mason, 2002). The benefit to these accounts is that based on income, taxes could be deducted based on these contributions. For people with lower incomes, this deductible could be up to the full amount contributed. IRAs also benefited higher incomes as after-tax contributions could be put into this account meaning they would not be taxed again on contributed money but could still use it (Mason, 2002). Thinking about this in more broad terms, these accounts benefit the retiree no matter the income bracket or age making them essential when it comes to planning retirement. In addition to IRAs, 401k plans are also another significant form of a private sector pension. These plans “allow employers to sponsor plans to which employees can make tax-deferred contributions”. In addition, “The most common arrangement is for employers to provide some matching funds.”(Mason, 2002, p.25). Through 401k plans, employees have so much more power when it comes to managing their income.

Summary of Finances

Through this exploration of finances, it becomes clear that a well-structured financial plan is needed after retirement. With the current state of the Hawaiian economy being in a fairly positive state as well as the impact aging and lack of financial literacy have on the individual, understanding finances and planning early have become more crucial than ever to a fulfilling

peaceful retirement. While the costs of end-of-life can add up when left unchecked, various opportunities through investments, pensions, and more revenue streams allow for these costs to be managed when planned.

Social and Personal Networks for Aging People

As American people get older, they tend to retire and generally have a large increase in free time. Typically, having an abundance of free time provides the opportunity to pursue activities and hobbies that bring joy and fulfillment. One would assume that many of these activities would involve some form of social participation. However, research has demonstrated that social participation decreases as people age (Lee et al., 2008). Despite the assumption that more free time would lead to increased social engagement, evidence shows that as people age, factors such as health and changing social circles can contribute to a decrease in social participation. In the year 2020, a study revealed that a significant portion of senior citizens in the United States were living in solitude. It was found that about one-third of women and one-fifth of men aged 65 and older in the United States lived alone (*U.S. Senior Households Living Alone by Gender*, 2020). The study highlights some of the current social concerns that come with age.

Interestingly, further research indicates that the relationship between social participation and health becomes more prominent in older adults in comparison to younger adults (Lee et al., 2008). Therefore, this implies that positive effects on health from social participation are increased in the later stages of life. The common possibility of living alone and its strong effects on health prove the need for people to be educated in social engagement among older adults.

Compared to the rest of the United States, Hawai'i citizens are in a slightly different circumstance. Hawai'i has limited buildable land and therefore faces a continuous rise in already expensive housing costs. Culturally, Hawaiian residents place a large emphasis on family values,

prioritizing the preservation of close family bonds. (Shidaki, 2009). Thus, it is common for Hawai'i citizens to live in multigenerational housing (Shidaki, 2009). Although multigenerational housing can result in fewer elderly people living alone, the topic of social engagement can still be an issue.

Social engagement refers to the various ways that people interact with their social environment through both formal and informal events (Prohaska et al., 2012, p. 206). This can include social activities, relationships with family and friends, community participation, and other forms of social participation. To successfully age well, social engagement takes on a key role. According to the World Health Organization, "active aging" is the desired outcome of getting older ("Active Ageing," 2014). This includes the best possible opportunities for participation in social, economic, cultural, spiritual, and civic affairs. Specifically, social engagement helps maintain physical and mental health for older adults who have functional limitations, loss of social roles in the family and the workplace, and the death of friends and partners (Prohaska et al., 2012, p. 205). Post-relocation and retirement phases often create challenges to persons' established social networks. However, positive influence coming from new social engagement can help fix and expand established social networks (Dupuis-Blanchard et al., 2009). Engaging in new social activities gives people opportunities to make new connections. This idea not only helps counteract the disruption caused by life transitions but also can contribute to the creation of a new supportive social environment (Dupuis-Blanchard et al., 2009). In all, the act of participating in social activities serves as an excellent path to reconstruct and strengthen social networks. This is especially evident after a later-in-life residential relocation and retirement.

An empirical study using a nationally representative sample of community-dwelling adults over the age of 65 years reported participation in various types of activities. The study reported that participation was highest in activities such as preparing meals, shopping, working in the yard, and gardening (Glass et al., 2006). Although these activities may seem mundane, they can contribute to both the maintenance of the people's physical environment and their interaction within the community. Furthermore, over half of the participants in the study reported engaging in more recreational and leisure-oriented activities. These activities included going out to the movie theater, restaurants, and other similar events (Glass et al., 2006). Importantly, these forms of social participation can rebuild a sense of community that can be lost as people age. It is seen that by participating in both these routine and leisure activities, older adults contribute to a better social environment, which in turn supports their mental health by fostering a sense of belonging (Glass et al., 2006).

A great proportion of older men and women are affected by depression which is a risk factor for many negative health issues, including mortality, diminished immune function, and poor recovery from illness (Glass et al., 2006). Depressive symptoms in the general population are at their lowest during middle age and then increase with age until their peak in adults aged 80 years and older (Glass et al., 2006). Unsurprisingly, age alone is not the main direct factor for depressive illness. Several factors increase the risk of depressive illness in the elderly. The biggest factors are social isolation and inadequate social support (Glass et al., 2006). In a study of elderly folks, several people commented on their feelings of loneliness. When given the context of the study, they went about making themselves feel better by talking to people in new surroundings (Glass & Balfour, 2003). One participant even said "It's hard when I get older. I feel lonely. I feel very appreciative that I made some friends. I feel better when I talk with them."

(Glass & Balfour, 2003). While depression can be a significant issue for older individuals, addressing factors such as social isolation and inadequate support can increase mental health among the elderly.

In terms of physical environment, the socioeconomic status of neighborhoods can affect the social participation of older adults (Glass & Balfour, 2003). Older adults who live in disadvantaged neighborhoods encounter more negative interactions and receive less social support than older adults who live in better-maintained neighborhoods (Prohaska et al., 2012, p. 206). However, this effect was changed with the presence of social skills. If older adults have strong social skills, then living in a disadvantaged neighborhood does not affect their social support and interactions (Prohaska et al., 2012, p. 206).

To increase the communication and distribution of information for end-of-life care, it is important to include the necessary information about social engagement and its importance in aging happily and successfully. This entails acknowledging the critical role of social activities, relationships, and community participation. Caregivers, healthcare professionals, and other support networks need to recognize that social engagement is more than just a recreational activity for older people; it is an integral aspect of their mental, physical, and emotional health.

Blue-Zones

Blue Zones are the parts of the world where people live relatively longer lives compared to the average human. Because there are more centenarians in these places and fewer age-related ailments, researchers and health enthusiasts are vastly interested in these areas. That is because all prior research indicated that the best way to live a long life is to surround yourself with youthful people.

Author and National Geographic Fellow Dan Buettner popularized the idea by identifying and analyzing the lifestyle, food, and socioeconomic aspects that contribute to the long and healthy lives of the people living in these locations (Buettner & Skemp, 2016). Following their investigation, he and his colleagues were able to identify nine commonalities—known as the Power 9—that these Blue Zones have in common. These include moving without thinking about it, knowing your "why", finding moments to decompress, stop eating when you are 80% full, eating more plant-based meals, a glass a day with friends or food, surrounding yourself with a healthy social circle, investing time with family, and finding a faith-based community.

Since then, they have spread similar ideas throughout American towns in hopes of molding the settings of the Blue Zones Project. Unfortunately, it has been proven that the attempt to create a healthy environment— in such depth— for an individual does not work. However, the Blue Zones Project Communities have been able to lower obesity rates, extend life expectancies, and make the healthy choice the simple one for millions of Americans by implementing environmental and policy changes.

While working with the Amazing Care Network, our team hopes to provide individuals with greater resources for quality of life. This could entail encouraging social connections, supporting healthy lifestyle choices, and supporting pursuits that enhance wellbeing and a feeling of purpose within the framework of the Blue Zones. Also enhancing the afternoon tea programs that align with the characteristics that have been found to contribute to longevity and quality of life if they are utilizing the Blue Zones concepts. This could involve community-building activities to strengthen social ties, physical activity programs, and educational campaigns on healthy eating.

Okinawa, Japan

Okinawa is a prefecture in Japan made up of several islands. Within those islands are a community of individuals that exceed an average lifespan. But why? After extensive research, Buettner was able to gather a list of factors that led to this. The Okinawan diet is the greatest thing that stands out. It is characterized by little to no intake of dairy or meat and a high intake of vegetables, tofu, and sweet potatoes. The long lifespan of Okinawans is said to be attributed to this nutrient-rich, low-calorie diet. Okinawans have a way of life that prioritizes social interaction, regular physical exercise, and a strong sense of community. Eating till 80% full, or *hara hachi bu*, is a cultural standard that encourages mindful eating and weight control. One well-known study project that looks into the reasons behind Okinawans' extraordinary longevity is the Okinawa Centenarian Study. This study has shed important light on how lifestyle, nutrition, and heredity all contribute to lifespan and good health.

Sardinia, Italy

Whole grains, legumes, vegetables, olive oil, and modest portions of dairy and meat constitute the foundation of the traditional Sardinian diet. Contrary to the general perception that alcohol is unhealthy, it holds a distinctive place in this community. Red wine, rich in antioxidants, is the beverage of choice (Capurso, 2021). Furthermore, the social aspect of wine drinking plays a crucial role in Sardinian culture, reflecting a broader trend in Italy. The conviviality associated with sharing a glass of wine is deeply ingrained in Italian society, fostering a sense of community and bonding. In Sardinia, located on a relatively isolated island, this communal tradition is particularly pronounced. Residents form strong social bonds, and the well-being of the elderly is carefully tended to by these tight family units and active community

participation. These factors collectively contribute to the remarkable longevity observed in Sardinian populations.

Ikaria, Greece

Similar to the Sardinians, Ikarians follow a version of the Mediterranean diet that emphasizes whole grains, fish, fruits, vegetables, olive oil, etc. The emphasis on heart-healthy fats and antioxidants in the Ikarians' diet contributes to their long lifespans. Ikarians also have close-knit social networks and a slow tempo of life (Walker, 2023). Some live up in the mountains, surrounded by the hot springs and trees. They rarely feel the need to journey outside of that environment. This community also has a strong feeling of purpose in life and engages in regular physical activity. Often, spending time outside and being much more able—physically—than most.

Nicoya Peninsula, Costa Rica

The secret of the Nicoyan lifespan circles around all of their self-grown crops. This diet includes corn, beans, and tropical fruits. Fresh food that is high in nutrients is more readily available because of conventional agriculture methods. Because of this, they tend to be taller, thinner, and less disabled (Rosero-Bixby, et.al, 2014); naturally extending their lifespans. After decades of this adapted lifestyle, Nicoyans remain some of the healthiest people on Earth.

Loma Linda, California, United States

Tucked away—in Loma Linda, California—is the only community in the United States that is considered a Blue Zone. Their longevity is thought to be attributed to this food choice as well as other health-conscious habits. Their diets only consist of veggies, rarely eating anything else that is not raw. This comprehensive approach to health is known as the Seventh-day Adventist faith, something that is specific to residents in Loma Linda. It is something that promotes regular

exercise, abstention from alcohol and tobacco, and an emphasis on the well-being of the community. There was a long-term study completed with around ninety-six thousand participants called the Adventist Health Study-2. It looks into how this community prevents sickness and lives long by examining the effects of food, exercise, and other variables. (Orlich et al., 2013) The study concluded that this type of lifestyle is more favorable among males. Nonetheless, it still is something that immensely benefits people and should be considered when determining a healthy lifestyle.

Redefining Healthcare Paradigms: Leveraging Blue Zone Principles for Preventative Strategies

Looking at all of these, many common denominators make each location a Blue Zone. The major ones are plant-based diets, consistent physical activity, and a strong sense of community/relationships. Examining the health profiles of people living in Blue Zones suggests a decreased occurrence of age-related disorders in addition to longer lifespans. In these areas, the prevalence of diseases including diabetes, heart disease, and several types of cancer is much lower. A key factor in preventing the start of chronic diseases is lifestyle choices—a diet high in antioxidants, regular exercise, and strong community links, for example.

These preventive lifestyle choices not only aid in avoiding physical have been proven to help mental health. James Eacott, an endurance coach based in Hawai'i, spent some time doing his own exploration of the Blue Zones. From his findings, he wrote up an article about the six major lessons he learnt. Eacott noted that all six lessons—emphasizing relationships and not stressing much—helps to lower worry; eventually resulting in continuous generations to have no mental health issues (Eacott, 2022). Another in-depth study that surfaced in 2022, reported their 8-week virtual intervention yielded results that proved even small amounts of changes in

lifestyle—like a plant-based diet—will significantly improve mental health (Heath, et.al, 2022). They first used primary background data of Blue Zones and how the vegetarian/vegan diet is mostly found in these areas. During the interventions they did many presentations to educate the fifty-two participants on the Blue Zones, as well as cooking lessons. After the eight weeks, they compared the baseline and final data from their questionnaires. This revealed that it is very possible and beneficial to hold virtual sessions—or any sort of meetings— to educate individuals on improving ways of living, that will extensively better their mental health (Heath, et.al, 2022).

Alongside that, reassessing global healthcare strategy is prompted by the realization that these age-related disorders in Blue Zones are influenced by lifestyle choices. It emphasizes how crucial lifestyle changes and preventative actions are. These teachings go against traditional healthcare paradigms, which frequently push for treatments rather than prevention. After all, if people do not get ill, several industries will lose business.

Methodology

Introduction

For this project, our main goal revolved around finding and sharing information about end-of-life care with people regardless of their current stage in life. To accomplish this goal, we completed the following objectives:

1. Finding the relevant topics and easiest means of communication to help adults ages 30-50 start preparing for end-of-life care
2. Identifying current fiscal issues for aging community members
3. Understanding the social and personal struggles that come with aging

To accomplish these goals and objectives, we conducted a series of interviews in varying formats and decoded the qualitative data.

Focus Groups (Inductive)

Throughout the week of January 15th, we conducted three interviews with focus groups of up to five people. We chose groups of this size to have a wide spread of opinions whilst maintaining a small enough group size for people to comfortably share information about these sensitive topics. The people interviewed were provided by the ACN, and the focus groups contained mostly ACN members with some participants being closely tied to ACN. In these focus groups, we aimed to identify core themes and issues associated with aging in Hawai'i. With these themes, we categorized them within the four main concepts of healthcare-related issues, financial troubles, social/personal issues, and keys to successful aging. In addition, we

found general information like the best means of communication and opinions on the Afternoon Tea program to better help support the ACN.

Within these focus groups, we split up the interview into the four categories and have questions specifically related to those categories. When forming the questions for these interviews, we used open questions to allow the interlocutors to give broad and expansive answers. These open questions allowed us to get the relevant themes associated with aging without influencing the response too heavily. To see the full list of questions, see appendix A. If any recurring themes arose that did not fit into the four categories, we made additional categories as needed.

These were online interviews via Zoom with a designated interviewer and a note-taker. The interviewer also served as a moderator for the entire discussion. The interviews were split into the four categories as previously mentioned, and they were structured to encourage the entire group to have an open discussion about the relevant topics.

During the session, the note-taker kept track of recurring themes within the interview, occasionally highlighting key statements. They also kept note of relevant information about the interlocutors (provided consent) such as age, gender, and affiliation with ACN.

This set of interviews was conducted entirely over Zoom. The entire session was recorded as long as all parties involved consented. These recordings were used to pull key quotes and ideas from the session. The interviews took place on January 16th at 11:00 am HST, January 17th at 11:00 am and 2:00 pm HST.

Individual Interviews (Inductive and Deductive)

After we pulled key ideas and themes from our first set of focus groups, we conducted 22 individual interviews with people provided by ACN. In these sets of interviews, we also looked for new themes, but we mainly focused on building upon the themes previously established by the initial focus group interviews.

During this interview, we asked a mixture of questions still related to the overarching categories, but the questions were refined to focus on the previously established themes. These questions had both open and closed questions that established new themes but also clarified and built upon the earlier themes established by the initial focus groups. To see the full list of the individual interview questions, see appendix B.

These sets of interviews also had a designated interviewer and note-taker. Similar to the focus groups, the note-taker still kept track of any new recurring themes and highlighted key statements, but they also kept a log of the responses to the closed questions for further quantitative coding.

These sessions were either in-person or over Zoom. The interviewees were able to choose what they preferred. These sessions also were recorded given that all parties consented. These recorded sessions also served as a source for key quotes and ideas.

Focus Group (Deductive)

For the final interview, we once again used a focus group. However, for this interview, we focused on confirming any previously established themes. We interviewed one focus group with five people.

With this interview, the questions were more close-ended than the other two sets of interviews. We gathered a semi-large set of quantitative data to support our findings. This interview still had open questions, but they were written in a way to encourage discussion about opposing themes or discussion to further solidify existing themes.

Again, this interview featured an interviewer and note-taker. Once more, the interviewer served as a moderator for these discussions. This was particularly important for this interview due to the nature of potentially discussing opposing viewpoints, and the moderator made sure that the conversation remained civil and productive.

As for the note-takers, they primarily focused on the core themes deduced from coding the previous set of interviews, and the consensus of the group as related to those themes. The note-taker had to be thorough about which opinions were coming from which people and their respective demographics.

Similar to the first set of focus groups, this session was conducted over Zoom. Once again, this interview was recorded, given all parties' consented, and this recorded session not only served to pull key quotes from but also who was expressing which ideas.

Survey

Following each interview, we asked respondents to fill out an optional online survey regarding their demographics, where we received 19 responses. This contained questions pertaining to age range, gender, ethnicity, race, marital status, income range, and retiree status. All questions on this survey were completely optional with an option listing "prefer not to say" under every question. To see the full list of survey questions, see appendix C.

Data Analysis

When analyzing the data, we went through each interview's notes and identified core themes across the interviews. With those themes, we categorized into demographics, recommendations for the program, and commonalities between interviewees. We also ranked the themes by relevance. We did this by making a spreadsheet counting how many times each theme popped up throughout all the interviews. With said spreadsheet, we pulled out any relevant and noteworthy statistics. We also cross-referenced demographic data between the interviewees and survey to make sure the data matched.

Conclusion

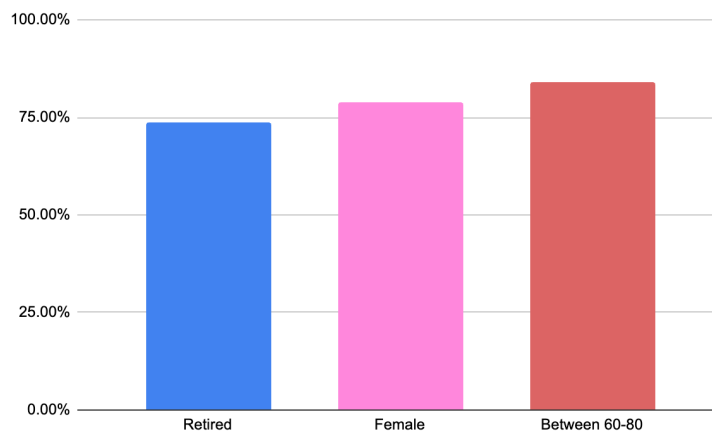
In conclusion, we conducted three sets of interviews. The first set of interviews were three interviews with groups of up to five people structured in a way to identify key themes about the subject. The second set of interviews were 22 individual interviews structured to further develop the previously established themes as well as add any new, relevant themes. The final interview was a focus group of five people. This last interview will serve to support existing themes and clarify any ambiguous points. We also conducted an optional survey to gather demographic information about our interviewees; 19 individuals completed and returned the survey. Through these semi-structured interviews, we found the relevant topics and best means of communication about end-of-life care for any and all relevant parties.

Results

After conducting our survey and interviews, we were able to identify various themes that were applicable to improving the Amazing Care Network (ACN). The anonymous demographic survey was given to every participant of our interviews and was used to better understand the ACN's member population. A majority of the findings from our survey will be highlighted in the demographics portion of our results. The interviews we conducted universally informed both our results and recommendations. From our surveys and interviews, we were able to identify around 20 major themes of various relevance to participants. These themes included correlations in demographics, recommendations for the program, and commonalities between interviewees.

Figure 1

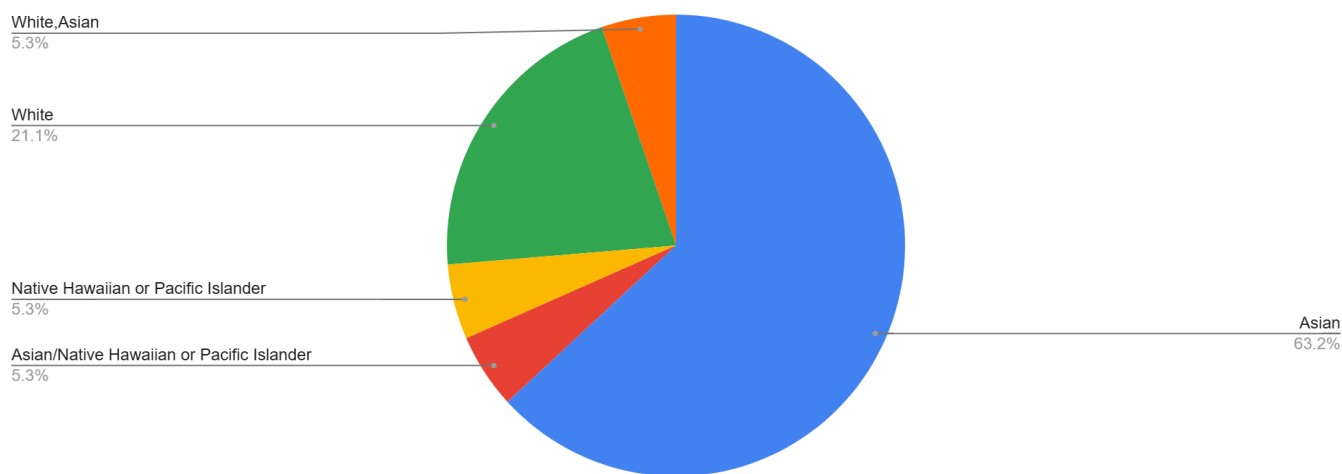
Key Demographic Information



Note. Data gathered from demographic survey.

Figure 2

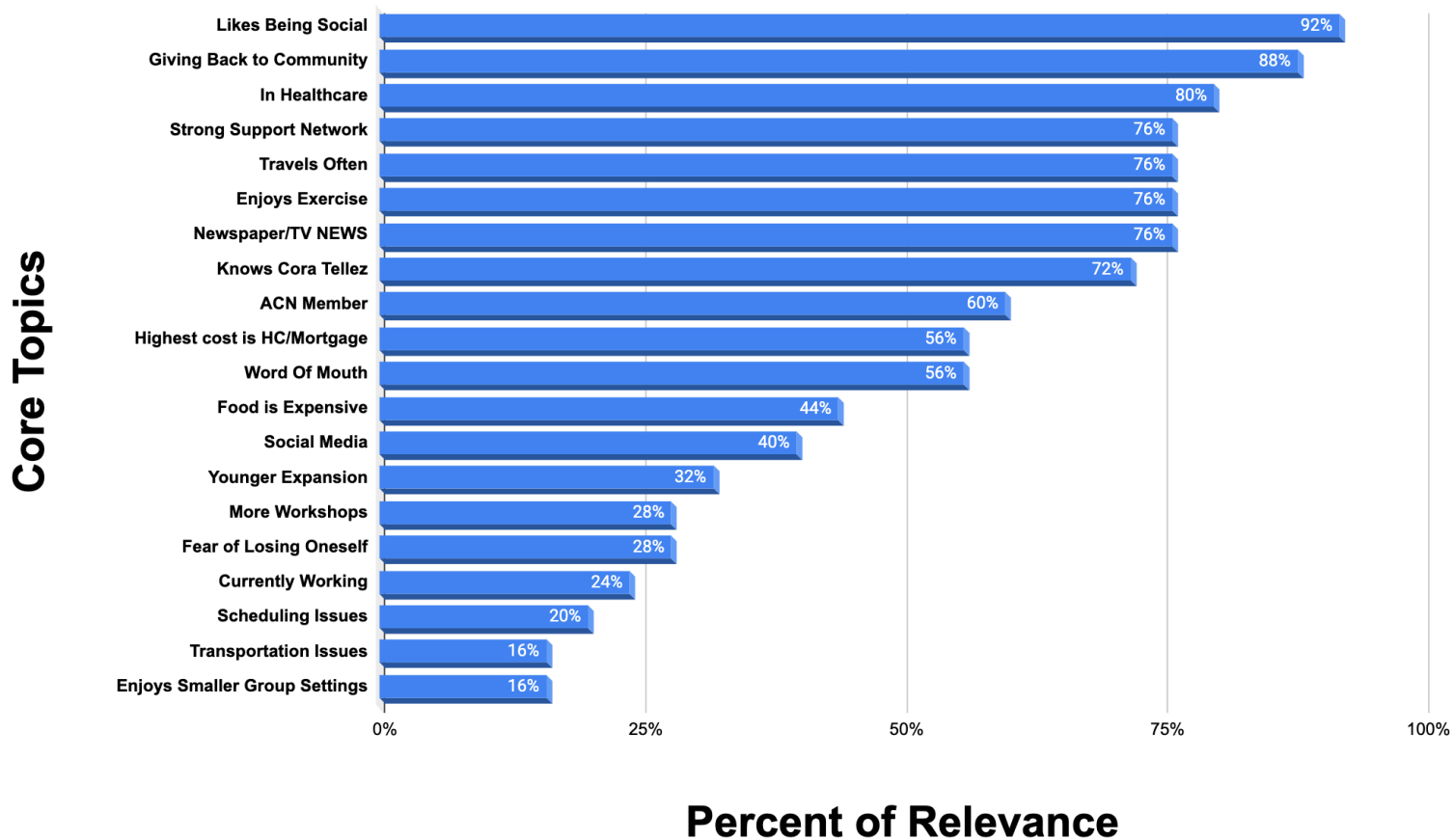
Demographic Survey: Race



Note. Data gathered from demographic survey.

Figure 3

Core Topics vs. Percent of Relevance



Note. In this figure, we have organized the core topics that were brought up by the interview participants. The Percent of Relevance illustrates the amount of people that explicitly talked about the topic.

Demographics

Based on the demographics of the respondents to the survey, 92% of the people we interviewed were between the ages of 60-80 as seen in Figure 1. Most of the 19 members filling out our survey were a part of the Amazing Care Network (ACN). A majority of the interviewees were Asian (63.2%, Figure 2) and female (78.9%, Figure 1). In addition, 74% of the respondents are retired (Figure 1), and 70% of the respondents reported their income being over \$100k a year. Also, 24 out of 25 interviewees were born and raised in Hawai'i. This data indicates that ACN members are mostly upper-middle-class, long-term residents of Hawai'i, who are women, retired, and Asian. These demographics are not fully representative of Hawai'i's demographics; we believe this can be attributed to a couple of factors, namely ACN's primary method of outreach and Hawai'i's demographics.

ACN primarily reaches out to its members through word of mouth with an overwhelming number of ACN members saying that they found out about the program through the CEO, Cora Tellez. In fact, 14 out of 15 ACN members interviewed knew Tellez and were close friends with her. In addition, 100% of the ACN members we spoke with were in the healthcare industry with Tellez, and they often maintained leadership positions. This explains why ACN's members are fairly well off and mostly retired. Many of them worked closely with Tellez at similar stages in their life, and their positions put them in close enough proximity to interact regularly with Tellez. This indicates that the current members of the ACN are fairly specialized and are contained within a niche demographic. ACN clearly has a strong opportunity to expand its demographics and reach out to a wider audience. Additionally, to cater to the current audience, ACN should move away from topics related to healthcare because its members are already well-informed about it.

As ACN's members are primarily in healthcare, the demographics from the healthcare largely overlap and translate to the ACN. According to the State of Hawai'i, its healthcare sector has 69.2% women in Healthcare Practitioners and Technical Occupations, and 86.5% in Healthcare Support Occupations (Kamita, 2023) . This aligns closely with the 79% women we had in our interviews.

In terms of a majority of the responding ACN members being Asian, a part of this can be attributed to Hawai'i's high population of Asian people. In fact, 37.1% of Hawai'i's population consists of Asian people (*U.S. Census Bureau QuickFacts*, n.d.). The next closest race in size are white people, with 25.2% of the population. However, there is still a large disparity between Hawai'i's demographics and the ACN's demographics when it comes to race. We believe this is due to ACN being a tight-knit community whose popularity spreads through word of mouth; this may have led to ACN only reaching a few communities with the Asian community being the most prevalent.

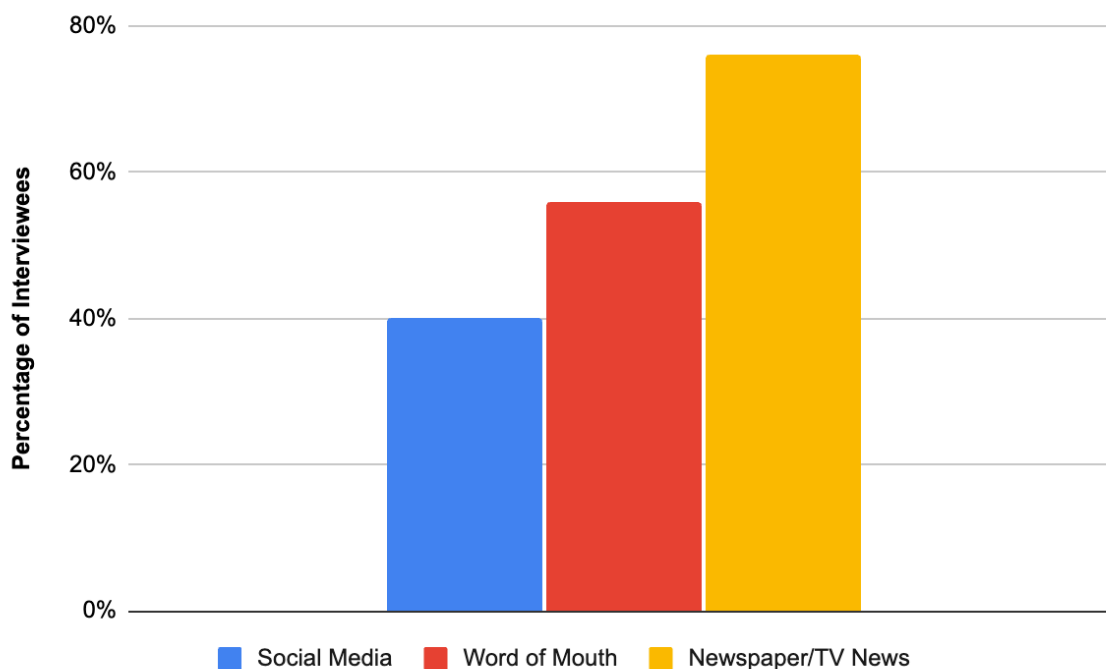
Commonalities between Interviewees

Among interviewees, a handful of trends surfaced. These trends included: healthcare/mortgage being the highest cost, food being expensive, the enjoyment in socializing, the enjoyment of giving back to one's community, the enjoyment of exercise, having a strong support network, methods of staying up to date with events around the island, confusion about ACN's services, and the fear of losing one's mental capacity.

To start, 56% of the people we spoke to brought up that healthcare and mortgage are their highest costs, and 44% of people mentioned that food is incredibly expensive (See Figure 3). A few people stated that this is the most stressful part of their financial management. This aligns with Hawai'i's high cost of living; the state's cost of living index is 179, nearly double the US's

average of 100 (*Cost of Living Index by State 2024*, n.d.). This indicates that it costs almost twice as much to cover the base expenses of food, healthcare, and shelter in Hawai‘i as it does in other parts of the United States. In fact, the cost of housing in Hawai‘i is triple the national average. Many of the citizens in Hawai‘i are struggling with the same high costs of living, so it could be useful to provide services and/or information to help alleviate that struggle.

An overwhelming majority of the interviewees also mentioned that they enjoyed socializing and giving back to their community. 92% of people explicitly stated that they enjoyed actively socializing and that they socialized often, and 88% of people explicitly stated that they enjoyed giving back to the community. This data can all be found in Figure 3. This matches with our previous research asserting that older people are more generous to charity organizations and people in need. However, it does not match with our background findings stating that social participation decreases with age. This is most likely due to the fact that social participation mainly decreases due to health issues preventing people from going out. However, most of the people we spoke with had affordable healthcare with excellent coverage, exercised regularly (76%, Figure 3), and were generally in good health. Following this, 76% of the people we spoke to had strong and wide support networks enabling them to form many deep and lasting connections (Figure 3). This can explain why our set of interviewees still get out of the house and socialize often given how well connected and in excellent shape they are.

Figure 4*Methods of Outreach*

Note. Data gathered from interviews

In a different vein, people had three main ways of staying up to date with the latest events on the islands. The most prominent was through the newspaper/TV news: 76% of people read or watched the news to find events, as shown in Figure 4. The second most prominent way for people to stay connected was word of mouth with 56% of people discovering events through their friends. The third most prominent way of staying informed was social media with 40% of people using it. This matches with the American Association of Retired Persons (AARP) report which asserts that 43% of adults 50+ use social media daily (Kakulla, 2023). The most popular

platforms among our interviewees are Facebook, Youtube, and Instagram. This again matches perfectly with the AARP's results.

Shifting gears, 7 interviewees out of 25 expressed their fears of losing their mental capacity as they age (Figure 3). This fear largely stemmed from seeing their loved ones struggle with memory-loss and cognitive impairment disorders such as Alzheimer's, Parkinsons, and Dementia. They expressed the desire for a support network with similar fears and better ways to prepare in the unlikely event that they and/or a loved one lose their mental capacity.

In conclusion, it can be noted that ACN is a fairly niche community consisting of upper-middle classed retired healthcare workers who know Tellez. They are interested in more interactive events, expanding to a younger demographic, and making the program more logistically accessible. They also explicitly enjoy socializing and community engagement and receive information from a wide range of sources.

Recommendations

Recognizing the various levels of complexity associated with each finding is crucial when evaluating and developing suggestions for enhancing the Amazing Care Network (ACN). While some recommendations could be difficult to put into practice, others provide simple fixes that could be easily implemented. This section looks at several suggestions that are the best sought-out improvements for the ACN to implement. The goal is to give a thorough roadmap for improving the operations of this program. Some of the more low-key recommendations may just help to improve attendance at events. With these improvements that are lower stakes, we can effectively handle both immediate demands and long-term objectives. The more demanding recommendations, if done appropriately, will help improve the knowledge amongst the group and allow members to get the most out of their membership. These will need to be carefully planned, with all resources allocated, and stakeholders engaged to guarantee successful execution. The Amazing Care Network is advised to carefully weigh these proposals, opening the door for a more dynamic program that will continue to benefit elders and their families as they age.

The current overview of the ACN is that to join, folks must agree to begin a savings account and put away five dollars a month that collects interest over time. Along with that, each member pays a one-time fee of fifty dollars to attend Afternoon Teas. Besides those two requirements, the level of involvement is entirely up to each member. There are typically events called Afternoon Teas held four times a year that members can choose to attend. These events usually have a topic, a speaker, and plenty of time to discuss, socialize, and reflect.

Short-term Recommendations to Improve the Amazing Care Network

Savings Account

One of the greatest improvements we believe the Amazing Care Network can make is how to emphasize the extraordinary benefits of the saving account. In interviewing many of the current members, we learned that they often forgot about having set up a savings account. However, this does not undermine the value of the savings account itself. In fact, ACN members often pull funds from their account or use that money to help others. For example, during the COVID-19 pandemic that shut the world down, many well-off ACN members transferred funds into the accounts of other members who needed extra money more. For these reasons, we believe the savings account is an amazing tool to continue to have. Both for the members themselves, and because it can be used to help others when needed. Moving forward, continued emphasis on the advantages and potential for mutual assistance offered by the savings account can further enhance the overall impact and effectiveness of the Amazing Care Network.

Afternoon Tea Topics

Afternoon Tea events are held four times a year and usually have a topic, a speaker, and plenty of time to discuss, socialize, and reflect. Much of our data has revealed that members feel as if the topics being covered at the Afternoon Tea events are not particularly useful to the members. After furthering our discussions with members, we curated a list of potential topics that would significantly increase Afternoon Teas' attendance and purpose, such as dealing with loss of mobility, medically assisted dying, and staying fit with age that would significantly increase Afternoon Tea's attendance and purpose. To see the full list of topics, see Appendix D.

Specifically, addressing the importance of mental health within the program is a significant aspect highlighted in our findings. Many ACN members are elders who do not feel as if anyone truly understands how difficult dealing with the loss of someone is. After meeting

individuals who have recently lost a significant other, parent, or friend, we learned that they are experiencing many financial, emotional, and physical burdens they never expected. More so, our group had the privilege of conversing with someone incredibly remarkable and to hear about their experience with this issue. Their story begins about 20 years ago, when they were diagnosed with Parkinson's disease: a disorder that targets the central nervous system, causing cell damage in the brain, ultimately affecting mobility. For the last two decades, they have managed the disease through exercise and medications that specifically helped with shaking. It was only three to four years ago that they started to use a cane, and last year when they had to fully rely on a walker. Along with these physical impairments, their memory has gotten worse.

As if their own struggles were not enough, our interviewee also had to grieve the loss of their lifetime partner this past year. This has come with many emotional rollercoasters. They have had to relearn how to live; many tasks they never dealt with before, have become their responsibility since the death of their spouse. For example, they have had to learn how to physically get around or out of the house, how to manage their finances, and most importantly, how to socially support these massive changes in their life. Naturally, this has harmed their mental health.

Deterioration in mental health is particularly concerning as good mental health becomes increasingly important as individuals age. Moreover, discussions around mental health and well-being were not common in the generation most of the members, like this specific interviewee grew up in. A study from 2022 reported that a majority of Generation X individuals hold a huge stigma against mental illnesses due to a variety of reasons (Baral, et.al, 2022). Aging folks are only now starting to realize how much they need support with mental health. By

prioritizing mental and emotional well-being and discussions with the members of ACN, the program can begin to aid some deep, valuable impact on each person's life.

Long-term Recommendations to Improve Amazing Care Network

Many of the suggestions made by members to improve this program are extensive projects that would take time and thorough organization. Our team considered the data gathered to strategically recommend how to implement these long-term suggestions most efficiently.

Need For Community Outreach and Opportunities

Based on our interviews, it is evident that the lifestyle of “Aloha” is present in Hawai‘i. As mentioned in our results section, our data reported that a majority of older people enjoy giving back to the community. From this, we highly recommend the ACN offer more community service opportunities to its members. Specifically, because many of the members are in the healthcare industry as listed above, ACN members are specially equipped to help people handle healthcare-related issues. Furthermore, our data also suggested that healthcare was one of the biggest issues in Hawai‘i specifically. With this information, ACN can connect its members to people in need of healthcare related guidance to effectively build good community interactions both within ACN and in the broader Hawaiian community.

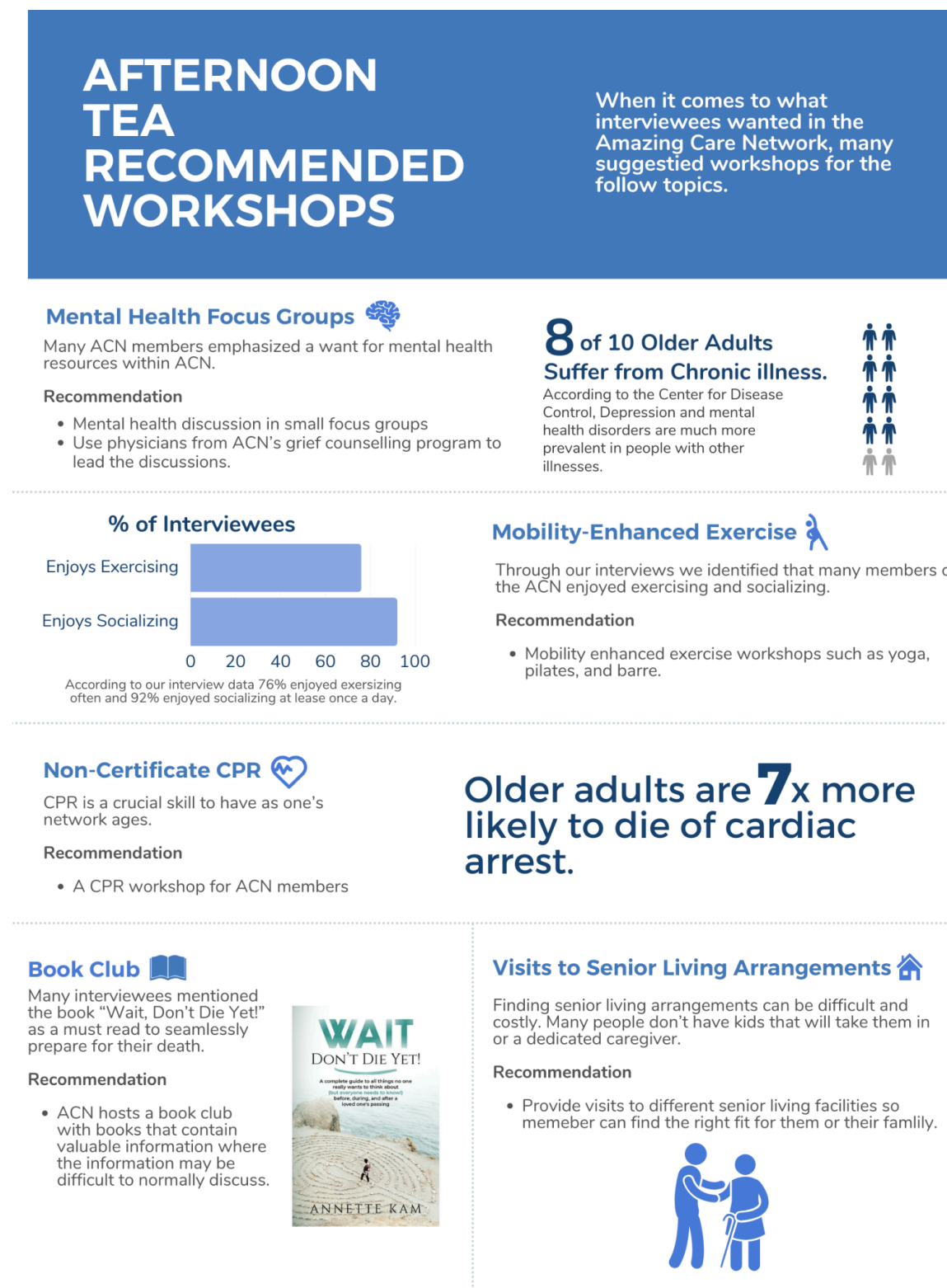
Local Coordinator

Our data shows how many of the requests from members could be resolved by tuning in on one particular recommendation: bringing back the ACN Hawai‘i Representative/local coordinator. Members have expressed that they felt much more informed when there was a coordinator solely focused on local activities. If the ACN hires another coordinator, the coordinator's job could focus on improving member outreach and knowledge—which addresses a significant portion of the other suggestions. This may be as simple as having the coordinator find

someone to improve the website so that elderly members can navigate it better. Or hiring a coordinator could mean establishing someone to be focused on bigger tasks, such as creating a mission statement to make it clear what they want to do, consistently sending out emails about the Teas, and organizing other events such as the highly requested practical workshops: annual check-ins, even visits to senior living homes, etc.

Figure 5

Infographic of Recommended Practical Workshops



Beyond simple conversational topics, ACN members expressed their interest in workshops and more in-depth events. A summary of the practical workshop we suggest can be found in Figure 5. With that, making events more frequent to encourage stronger bonding of the members with ACN would be beneficial.

We focus now on one of the most prevalent topics requested by ACN members: senior living. Eventually, one day the members of ACN, like any elderly person, will have to think about where they may live when they reach the point of no longer being able to care for themselves. While some may have the privilege of their children aiding them, not all members do. So, exploring and touring the local senior living options would be a great use of members' time.

This task is one example of some genuine, useful work that will take time to organize. As mentioned, the Amazing Care Network would significantly benefit from finding and hiring a local coordinator for the organization; and tasking them with implementing these practical workshops.

Resources Database

Similarly, the concept of establishing a comprehensive resource center within Amazing Care Network (ACN) holds significant potential. This centralized approach could streamline the process for elders and their families to find reliable support services. While ACN already has a database accessible through their website, its navigation can be challenging, and the information may not be presented in a clear format for individuals to easily access. This concern was popular amongst the people we spoke to. Specifically, one of our interviewees said they often looked at the website to keep up with the program. But when they began using it, they realized that “a lot of the website is full of obsolete info”. We asked them to expand and they said: “There is so

much information, but when you dig into it, it gets really frustrating when you get the 404 error and so many obsolete paths not found.” This was extremely important to us to note because many of the members say they often turn to the website for healthy lifestyle and exercise information.

In addition, a different respondent informed us of an instance in which the website misrepresented the location of an Afternoon Tea event. Last year, they went to check where the tea would be held. They told us, “On the event page, ACN said it was in Waikiki. Then when I got the actual invite, it said it was going to be at the Oahu Country Club.” This left them very confused. When we went to cross-check this, yet another ACN confirmed: “Yes, the events page on the website is old and wrong.” As expected, this has caused serious concerns for two key reasons: One of the main advantages of the program is that a sizable portion of ACN members regularly utilize the website to look for resources to use. Secondly, anyone interested in joining typically examines the program on the website first. Therefore, the ACN should make sure the website accurately reflects the organization and its events.

Alternatively, ACN could consider directing individuals to the state database, which may offer a more extensive range of resources. Collaborating with property managers specializing in senior care facilities could also be beneficial in creating a directory of trustworthy connections. A related foundation, the Caregiver Foundation, has a resource page where a multitude of aging-related topics can be found:

- Aging
- Alzheimer’s Disease/Dementia
- Alcohol & Drug Abuse/Misuse
- Assistive Technology

- Caregiving
- Chronic Pain
- Dental
- Disabilities
- Transportation
- Elder Abuse
- End-of-Life Care
- Financial Matters
- Grief Support
- Housing
- Incontinence
- Legal Matters
- Meal Services
- Mental Health Care
- Recreation
- Wheelchairs

Looking at each of these topics along with our results, many of the people we interviewed often mentioned needing education around these subjects. A directory could serve as a valuable reference point for individuals seeking assistance with various tasks related to elder care.

Leveraging existing resources such as state handbooks could enhance the depth and breadth of ACN's offerings, positioning them as a conduit for important information to their members. By expediting access to resources and assistance, ACN has the opportunity to alleviate the stress

associated with navigating senior care options. Building upon the foundation of ACN's established physician care program, implementing a strategy akin to this is well within reach.

Summary of Recommendations to Improve the ACN

Through careful consideration of the wealth of recommendations made here, the Amazing Care Network will be able to identify, rank, and carry out the most effective enhancements. These could include everything from intricate knowledge-enhancement programs to more straightforward approaches to increasing event participation. In addition to meeting urgent needs, this all-encompassing strategy will set the stage for long-term success and guarantee that the program will continue to adapt to the changing needs of its members.

Recommendations to Expand the Amazing Care Network

Another objective that the Amazing Care Network (ACN) pointed out was the expansion of the member base to a wider demographic. In its current state, most of the Amazing Care Network members are over the age of 60. Specifically, the organization wanted to focus on gaining membership from people ages roughly 50 to 60. The idea for this demographic is to give them knowledge about how to provide end-of-life care for elderly relatives and other elderly people close to them while also preparing themselves for retirement. In order to target this demographic, we recommend that the Amazing Care network implement an improved outreach strategy, accessible events, and targeted topics.

Improved Outreach

The current modes of outreach to new members are word of mouth and event postings on Eventbrite. Expanding through word of mouth seems to work well for recruiting members ages 60 and older, however, it has not been particularly successful in recruiting the younger demographic. According to our interviews with participants who were still working, they simply

did not have the time to attend any ACN events which typically happen during the workday. These participants were in their late 50s to early 60s, and they believed that the group ACN caters to was not them; one of these participants said that they “were not at that stage in life yet.”

Again, our data showed that about 76% of participants who were working kept up to date by watching the local news and reading the local newspaper (Figure 4). From this data point, we recommend that the ACN reaches out to the local news and newspapers to advertise their events there as well. Furthermore, we also found that this younger demographic uses social media more often than the older ACN members. Thus, we recommend that the ACN advertises its events through cross-posting on Facebook and Instagram as these were the two most relevant social media platforms for our younger participants. A more direct and less costly recommendation is for the ACN to reach out directly to local companies to advertise their services directly to the older employees of those companies. This can be a way for ACN to explicitly target the demographic of 50s and older.

Accessible Events

Since almost all of this desired demographic is working, the events would need to be made more accessible. Currently, the Afternoon Teas are only held in person at around 2:00 pm on weekdays. This is a hard time to physically meet for a lot of people in the workforce while events on the weekends or in the evenings would be much easier to attend. However, when we pitched these new scheduling ideas to current members, they shot them down. Existing members are quite happy with the current days and times of the events, but they would like to see a virtual option added for the Afternoon Teas. With this knowledge, we recommend two new scheduling options. First, we suggest that the Afternoon Tea events be held in a hybrid format, so that one can attend either virtually or in person, at 12:00 pm during the weekday. This way those in the

workforce could attend virtually during a lunch break. The other possible option is for the ACN to hold separate additional events for people aged 50 to 60 and those who are still in the workforce on weekends or weekday evenings. This should give everyone in all demographics one (or more) opportunities to attend in person.

Targeted Events

From our data, we gathered that most members only choose to come to an ACN event if they find the guest speaker's topic interesting. With this in mind, the topics that interest the current members, who are mostly retired and over the age of 60, may not be as appealing to those who are younger and still working. Therefore, we recommend that the Amazing Care Network hold some events with topics that focus on preparing for retirement. These topics can include but are not limited to, maximizing retirement savings in the final years before retirement, finding fulfillment and purpose for retirement, optimizing Social Security benefits, and phased retirement. These topics are of interest to the desired demographic and therefore should attract these folks to attend the events and potentially become members of the Amazing Care Network.

Conclusion

In closing, we set out to find pertinent information to improve and expand upon the Amazing Care Network's existing programming. We accomplished this by finding relevant topics and easiest means of communications to help a younger audience join the program, by identifying any fiscal issues for the aging demographic, and by understanding the social and personal struggles that come with aging. To achieve these goals, we conducted a series of interviews in varying formats to find and reaffirm any relevant ideas.

From these interviews, we discovered that the current demographic of the ACN consists mainly of upper-middle class, retired, female healthcare workers whose main want is accessing more opportunities to get together to socialize and give back to the community. We also discovered that interviewees want a more interactive and in-depth program outside of the afternoon teas. On top of that, many interviewees hope for more accessible events regarding scheduling and transportation issues. This was particularly important to working class members who often cannot make meetings due to their in-person schedule during the workday. Additionally, many members suggested that the ACN expand to a younger audience filled with more working-class people. However, they clarified that this expansion should not hurt the existing audience's programs and benefits. On another note, many interviewees alluded to Hawai'i's high cost of living and the powerful fear of losing oneself to a cognitive disorder. In regard to the primary form of outreach, most people used the news, word of mouth, and social media in descending order of popularity to find out about events on the island.

From these results, we suggested an expansive program that connects services between members of the ACN to further expand everyone's network and give members opportunities to

help others in their communities. We also suggested more charity events hosted by the ACN to achieve a similar purpose. Furthermore, we recommended bringing back a dedicated person to host events to make the overall program more structured and to introduce more interactive workshop events to boost community within the ACN. In addition, we also drafted a list of topics that ACN members were interested in to make future Afternoon Teas more engaging.

To expand the program to a wider demographic, we proposed that ACN widens its streams of outreach to social media and appearances on local news, as well as their current approach of word of mouth. We also recommended that they continue to advertise to local employers because they have a large number of people in ACN's target audience. We also encouraged hybrid meetings to make the program more accessible for homebound people and working individuals. Finally, we proposed that the ACN provide more events specifically catered to a younger audience with topics that are more pertinent to them. These meetings should be scheduled on the weekend or evenings and address topics that are more relevant to working people.

After working closely with the ACN, its members, and other aging people outside of ACN, it is evident that the aging community has unique issues such as fear of losing oneself, social isolation, and the loss of close family and friends in addition to many other things. The ACN does a great job of bringing awareness to these issues with their Afternoon Tea program, but they can further improve in giving this community the tools and experiences to better address the issues. In addition, we believe that they can serve a wider audience to get younger people thinking about these issues proactively. We hope that our results and recommendations will better help ACN serve this valuable community and enable them to lead better lives.

Bibliography

- I. Active aging: A policy framework. (n.d.). *Age-Friendly World*. Retrieved November 14, 2023, from <https://extranet.who.int/agefriendlyworld/active-ageing-a-policy-framework/>
- II. Baral, S. P., Prasad, P., & Raghuvamshi, G. (2022, March 24). Mental Health Awareness and generation gap. *Indian Journal of Psychiatry*.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC9129327>
- III. Belbase, A., & Sanzenbacher, G. T. (2017). *Cognitive aging and the capacity to manage money*. <http://dlib.bc.edu/islandora/object/bc-ir:107284>
- IV. Buettner, D. (n.d.). *THE BLUE ZONES: LESSONS FOR LIVING LONGER FROM THE PEOPLE WHO'VE LIVED THE LONGEST*.
- V. Buettner, D., & Skemp, S. (2016). Blue Zones: Lessons From the World's Longest Lived. *American Journal of Lifestyle Medicine*, 10(5), 318–321.
<https://doi.org/10.1177/1559827616637066>
- VI. Chauhan, V., & Sagar, M. (2021). Consumer confusion in healthcare decision-making and choice: A qualitative exploration of patient confusion. *Journal of Marketing Theory and Practice*, 29(3), 323–342. <https://doi.org/10.1080/10696679.2020.1840276>
- VII. Chauhan, V., & Sagar, M. (2023). Healthcare decision making and choice: An empirical model of patient confusion. *Management Decision*, 61(11), 3454–3474.
<https://doi.org/10.1108/MD-11-2022-1488>
- VIII. Chrysohoou, C., Panagiotakos, D. B., Pitsavos, C., Das, U. N., & Stefanadis, C. (2004). Adherence to the Mediterranean diet attenuates inflammation and coagulation process in

- healthy adults: The Attica study. *Journal of the American College of Cardiology*, 44(1), 152–158. <https://doi.org/10.1016/j.jacc.2004.03.039>
- IX. *Cost of Living Index by State 2024*. (n.d.). Retrieved February 14, 2024, from <https://worldpopulationreview.com/state-rankings/cost-of-living-index-by-state>
- X. Dupuis-Blanchard, S., Neufeld, A., & Strang, V. R. (2009). The significance of social engagement in relocated older adults. *Qualitative Health Research*, 19(9), 1186–1195. <https://doi.org/10.1177/1049732309343956>
- XI. Eacott, J. (2022, October 28). *Blue Zones Six lessons from the worlds Healthiest People*. TrainingPeaks. <https://www.trainingpeaks.com/blog/blue-zones-six-lessons-from-the-worlds-healthiest-people/>
- XII. Eckman, M. H., Wise, R., Leonard, A. C., Dixon, E., Burrows, C., Khan, F., & Warm, E. (2012). Impact of health literacy on outcomes and effectiveness of an educational intervention in patients with chronic diseases. *Patient Education and Counseling*, 87(2), 143–151. <https://doi.org/10.1016/j.pec.2011.07.020>
- XIII. Fraser, G. E. (2009). Vegetarian diets: What do we know of their effects on common chronic diseases?1234. *The American Journal of Clinical Nutrition*, 89(5), 1607S-1612S. <https://doi.org/10.3945/ajcn.2009.26736K>
- XIV. *From the New York Times bestselling author of The Blue Zones Solution comes... THE BLUE ZONES OF HAPPINESS: Lessons From the World's Happiest People By Dan Buettner*. (2017, October 17). National Geographic Partners. <https://nationalgeographicpartners.com/2017/10/blue-zones-of-happiness-dan-buettner/>

- XV. Glass, T. A., & Balfour, J. L. (2003). Neighborhoods, aging, and functional limitations. In I. Kawachi & L. F. Berkman (Eds.), *Neighborhoods and Health* (1st ed., pp. 303–334). Oxford University Press New York.
<https://doi.org/10.1093/acprof:oso/9780195138382.003.0014>
- XVI. Glass, T. A., De Leon, C. F. M., Bassuk, S. S., & Berkman, L. F. (2006). Social engagement and depressive symptoms in late life: Longitudinal findings. *Journal of Aging and Health*, 18(4), 604–628. <https://doi.org/10.1177/0898264306291017>
- XVII. Guido, G., Amatulli, C., & Sestino, A. (2020). Elderly consumers and financial choices: A systematic review. *Journal of Financial Services Marketing*, 25(3–4), 76–85.
<https://doi.org/10.1057/s41264-020-00077-7>
- XVIII. Heath, C. L., Lopez, N. V., Seeton, V. N., & Sutcliffe, J. T. (2022). Blue Zones-Based Worksite Nutrition Intervention: Positive Impact on Employee Wellbeing. *Frontiers in Nutrition*, 9. <https://doi.org/10.3389/fnut.2022.795387>
- XIX. Howard, D. H., Gazmararian, J., & Parker, R. M. (2005). The impact of low health literacy on the medical costs of Medicare managed care enrollees. *The American Journal of Medicine*, 118(4), 371–377. <https://doi.org/10.1016/j.amjmed.2005.01.010>
- XX. *Justice, Health, and Healthcare: The American Journal of Bioethics: Vol 1, No 2*. (n.d.). Retrieved November 14, 2023, from
<https://www.tandfonline.com/doi/abs/10.1162/152651601300168834>
- XXI. Kakulla, B. (2023). *2023 Tech and the 50-Plus*. AARP Research.
<https://doi.org/10.26419/res.00584.001>
- XXII. Kamita, R. (2023). *The Health Care Industry*. Department of Business, Economic Development & Tourism Research & Economic Analysis.

https://files.hawaii.gov/dbedt/economic/reports/DBEDT_Health_Care_Research_April2023.pdf

- XXIII. Kanasi, E., Ayilavarapu, S., & Jones, J. (2016). The aging population: Demographics and the biology of aging. *Periodontology 2000*, 72(1), 13–18.
<https://doi.org/10.1111/prd.12126>
- XXIV. Lee, H. Y., Jang, S.-N., Lee, S., Cho, S.-I., & Park, E.-O. (2008). The relationship between social participation and self-rated health by sex and age: A cross-sectional survey. *International Journal of Nursing Studies*, 45(7), 1042–1054.
<https://doi.org/10.1016/j.ijnurstu.2007.05.007>
- XXV. *Living Well at the End of Life. Adapting Health Care to Serious Chronic Illness in Old Age*. (n.d.). Retrieved November 14, 2023, from
<https://apps.dtic.mil/sti/citations/ADA416211>
- XXVI. Martellini, L., & Milhau, V. (2020). *Advances in Retirement Investing* (1st ed.). Cambridge University Press. <https://doi.org/10.1017/9781108917377>
- XXVII. Mason, A. (2002). *Aging, Pension Income, and Taxes in Hawaii Report to the State of Hawaii Tax Review Commission*.
<https://www2.hawaii.edu/~amason/Research/hawaiitax.2002.pdf>
- XXVIII. McCORMACK, L., Bann, C., Uhrig, J., Berkman, N., & Rudd, R. (2009). Health Insurance Literacy of Older Adults. *Journal of Consumer Affairs*, 43(2), 223–248.
<https://doi.org/10.1111/j.1745-6606.2009.01138.x>
- XXIX. Murray, J. (2022, November 30). *Public Sector vs. Private Sector: What's the Difference?* The Balance. <https://www.thebalancemoney.com/public-sector-vs-private-sector-5097547>

- XXX. Mustafa, W. M. W., Islam, Md. A., Asyraf, M., Hassan, Md. S., Royhan, P., & Rahman, S. (2023). The Effects of Financial Attitudes, Financial Literacy and Health Literacy on Sustainable Financial Retirement Planning: The Moderating Role of the Financial Advisor. *Sustainability*, *15*(3), 2677. <https://doi.org/10.3390/su15032677>
- XXXI. Polster, D. S. (2018). Confronting barriers to improve healthcare literacy and cultural competency in disparate populations. *Nursing2023*, *48*(12), 28. <https://doi.org/10.1097/01.NURSE.0000547717.61986.25>
- XXXII. Poulain, M., Pes, G. M., Grasland, C., Carru, C., Ferrucci, L., Baggio, G., Franceschi, C., & Deiana, L. (2004). Identification of a geographic area characterized by extreme longevity in the Sardinia island: The AKEA study. *Experimental Gerontology*, *39*(9), 1423–1429. <https://doi.org/10.1016/j.exger.2004.06.016>
- XXXIII. Prohaska, T. R., Anderson, L. A., & Binstock, R. H. (2012). *Public health for an aging society*. JHU Press.
- XXXIV. *Publications – ORCLS*. (n.d.). Retrieved November 15, 2023, from <https://orcls.org/publications/>
- XXXV. *Quarterly Statistical & Economic Report 3rd Quarter 2023*. (2023). Department of Business, Economic Development & Tourism Research & Economic Analysis. https://files.hawaii.gov/dbedt/economic/data_reports/qser/qser-2023q3.pdf
- XXXVI. Shahid, R., Shoker, M., Chu, L. M., Frehlick, R., Ward, H., & Pahwa, P. (2022). Impact of low health literacy on patients' health outcomes: A multicenter cohort study. *BMC Health Services Research*, *22*(1), 1148. <https://doi.org/10.1186/s12913-022-08527-9>
- XXXVII. Steihauser, K. E., Christakis, N. A., Clipp, E. C., McNeilly, M., Grambow, S., Parker, J., & Tulsky, J. A. (2001). Preparing for the End of Life: Preferences of Patients, Families,

Physicians, and Other Care Providers. *Journal of Pain and Symptom Management*, 22(3), 727–737. [https://doi.org/10.1016/S0885-3924\(01\)00334-7](https://doi.org/10.1016/S0885-3924(01)00334-7)

- XXXVIII. *U.S. senior households living alone by gender*. (n.d.). Statista. Retrieved November 14, 2023, from <https://www.statista.com/statistics/912400/senior-households-living-alone-usa/>
- XXXIX. Yakoboski, P., Lusardi, A., & Hasler, A. (2022). *How Financial Literacy Varies Among U.S. Adults: The 2022 TIAA Institute-GFLEC Personal Finance Index* (SSRN Scholarly Paper 4256989). <https://doi.org/10.2139/ssrn.4256989>
- XL. Yu, M., Guerriere, D. N., & Coyte, P. C. (2015). Societal costs of home and hospital end-of-life care for palliative care patients in Ontario, Canada. *Health & Social Care in the Community*, 23(6), 605–618. <https://doi.org/10.1111/hsc.12170>
- XLI. *U.S. Census Bureau QuickFacts: Hawaii*. (n.d.). Retrieved February 14, 2024, from <https://www.census.gov/quickfacts/fact/table/HI/PST045222>

Appendix A: Initial Focus Group Questions

Introduce Ourselves:

Name, where you're from, major, family

Hi all before we start we are required to read the following statements. Please bear with us as we know that they are long. *Good [morning/afternoon/evening], and welcome. Thank you for agreeing to participate in this research study conducted by the Amazing Care Network in collaboration with Worcester Polytechnic Institute. Your insights are invaluable to us as we seek to enhance the quality of aging for the people. Our team, comprising current university students, is engaged in exploring pertinent themes and optimal modes of communication related aging. The objective is to contribute valuable insights to the improvement of the Amazing Care Network's program. During the course of this interview, we will be delving into your personal experiences and perspectives on aging. We are particularly interested in identifying aspects that could have potentially facilitated your life journey as you navigated through the aging process. Recognizing the personal nature of some questions, we want to assure you that it is entirely acceptable to decline any inquiry that falls outside your comfort zone. Your comfort and well-being throughout this process are most important to us. The information gathered during this interview will be utilized to inform and develop enhanced support mechanisms within the Amazing Care Network. It is important to note that our research findings will be made available online; however, to safeguard your privacy, no names will be disclosed in any publications. Your participation in this interview is entirely voluntary. At any point during our discussion, should you decide to withdraw or discontinue the interview, please just let us know. There is no obligation on your part to respond to any question that you are not comfortable answering.*

We ask that each participant maintain the confidentiality of their interview and not share these conversations with people outside of the group. We cannot promise that what you say here will not be shared outside of this group, but we ask that you respect the privacy of the people in this room.

Thank you once again for your willingness to contribute to our research. Your input is instrumental in shaping a more comprehensive understanding of the challenges and opportunities associated with aging, ultimately benefiting the broader community through improved care programs.

Why we are interviewing them/project goals:

- We are looking to get your input on how to make information about aging more accessible. The information here is for the purpose of the improvement of the Amazing Care Network and for the completion of WPI's Interactive Qualifying Project.

Initial Focus Group:

1. General Questions

- a. How many people here are active members of ACN?
- b. What are your favorite parts of the Afternoon Teas? Your least favorite parts?
- c. How did you find out about ACN?
- d. How do you stay up to date about what's happening around the island?
- e. Do you receive any support as you age?
- f. How do you provide support to loved ones they age?
- g. You can ask their age, if they decline, then you can ask by range, 50-59, 60-69 etc.

2. Healthcare Questions

- a. Who are your health insurance providers?
 - i. How many people here are using Medicare?
 - ii. Why did you choose to go with your current plan?
- b. Has navigating healthcare been difficult? If it was difficult, what was the most difficult part? Also, if you can't pin it to a specific part and the whole thing is confusing, that's okay too.
- c. How confident did you feel that you were making an informed choice when you chose your health insurance plan? What made it an easy or difficult choice?
- d. Do you feel happy with your current plan? Please elaborate.
- e. Is there anything related to Healthcare that you want to learn more about or you wish you knew more about?

3. Finance Questions

- a. What ideas in finance interest you the most? What interests you the least?
- b. What financial topic do you currently wish you had more experience or knowledge of?
- c. As a group, How do you feel living in Hawai'i affected your finances?
- d. Have you experienced any financial struggles after retirement?
 - i. (If yes to d) What has been your biggest financial struggle after retirement?

- e. If you could give one piece of financial advice to yourself 15-20 years ago, what would it be?
4. Social and Personal Questions
- a. What do you do for fun?
 - b. How do you connect with your friends?
 - c. How often are you able to socialize with other people outside of your household?
 - d. How do you meet new people outside of your home?
 - e. Who do you talk to the most?
 - f. Who are some of your closest friends?
5. Things that work?
- a. What is your typical daily routine?
 - b. What do you typically eat for breakfast, lunch, and dinner?
 - c. What do you like about living in Hawai'i? Are there things you don't like about living in Hawai'i?

Appendix B: Individual Interview Questions

Introduce Ourselves:

Name, where you're from, major, family

Hi all before we start we are required to read the following statements. Please bear with us as we know that they are long. *Good [morning/afternoon/evening], and welcome. Thank you for agreeing to participate in this research study conducted by the Amazing Care Network in collaboration with Worcester Polytechnic Institute. Your insights are invaluable to us as we seek to enhance the quality of aging for the people. Our team, comprising current university students, is engaged in exploring pertinent themes and optimal modes of communication related aging. The objective is to contribute valuable insights to the improvement of the Amazing Care Network's program. During the course of this interview, we will be delving into your personal experiences and perspectives on aging. We are particularly interested in identifying aspects that could have potentially facilitated your life journey as you navigated through the aging process. Recognizing the personal nature of some questions, we want to assure you that it is entirely acceptable to decline any inquiry that falls outside your comfort zone. Your comfort and well-being throughout this process are most important to us. The information gathered during this interview will be utilized to inform and develop enhanced support mechanisms within the Amazing Care Network. It is important to note that our research findings will be made available online; however, to safeguard your privacy, no names will be disclosed in any publications. Your participation in this interview is entirely voluntary. At any point during our discussion, should you decide to withdraw or discontinue the interview, please just let us know. There is no obligation on your part to respond to any question that you are not comfortable answering.*

Thank you once again for your willingness to contribute to our research. Your input is instrumental in shaping a more comprehensive understanding of the challenges and opportunities associated with aging, ultimately benefiting the broader community through improved care programs.

Why we are interviewing them/project goals:

We are looking to get your input on how to make information about aging more accessible. The information here is for the purpose of the improvement of the Amazing Care Network and for the completion of WPI's Interactive Qualifying Project.

Individual Interviews: (More questions will be written depending on the responses to the previous focus group interviews)

1. ACN-Related Questions

- a. Are you an active member of the ACN?
- b. How did you find out about ACN?
- c. Why did you decide to join ACN?
- d. What are your favorite parts of the Afternoon Teas? Your least favorite parts?
- e. How many people have you made friends with through ACN?
 - i. Would you say that you have made strong connections through ACN?
- f. Do you use the savings account provided by the ACN?
 - i. Has it been helpful? How often do you use it?
- g. Do you know younger people who can benefit from the ACN?
- h. What might be some factors are limiting people in the age range 30-50 from participating in the ACN

2. General Questions

- a. What is your typical daily routine?
- b. What do you typically eat for breakfast, lunch, and dinner?
- c. What do you like about living in Hawai'i? Are there things you don't like about living in Hawai'i?
- d. Do you have your own food garden?
- e. How do you stay up to date about what's happening around the island?
 - i. What social media/messaging apps do you use (Facebook/Messenger, Instagram, Twitter, etc.)
- f. Do you receive any support as you age?
- g. How do you provide support to loved ones they age?
- h. You can ask their age, if they decline, then you can ask by range, 50-59, 60-69 etc.

3. Healthcare Questions

- a. Which health insurance plan do you have and who is your health insurance provider?
- b. What led you to choose your current health insurance plan?

- c. Have you gotten sick in recent years, and how did you deal with it?
- d. Is your plan properly fulfilling your healthcare-related needs? Please elaborate.
- e. Do you feel like ACN has given you tips and tools to help you navigate healthcare and maintain your health?

4. Finance Questions

- a. Do you feel the ACN has helped to make your finances more manageable? How?
- b. How does living in Hawai‘i affect your personal finances?
 - i. Positive:
 - ii. Negative:
- c. What has been the highest cost post-retirement?
- d. Are there any financial decisions you regretted making?
- e. Does managing money provide stress?
- f. Do you experience any struggle in managing your money? If so, where?
- g. How would you describe your personal financial status?
- h. Where do you go to shop for groceries?
- i. What are your thoughts on having a discounted delivery service for local food?
- j. Did you struggle with the idea of “How much is enough for retirement”?
- k. If you could give one piece of financial advice to yourself 15-20 years ago, what would it be?

5. Social and Personal Questions (Read the less personal questions first then proceed with more personal questions if they are comfortable thus far)

- a. **Less Personal:**
 - i. In what ways have you been involved with your local community?
 - ii. What are your hobbies?
 - iii. How often do you socialize with people outside of your household
 - 1. Do you wish you socialized more?
 - iv. Who do you talk to the most?
 - v. How often do you participate in activities outdoors?
 - vi. How often do you travel, either locally or non-locally?
- b. **More Personal:**
 - i. How do you feel emotionally during your typical day?
 - ii. What would you say are your greatest fears about aging?
 - iii. What were some of/are your goals for your life?

6. Recommendations

- a. If you could recommend one cultural aspect for us to learn, what would it be?

- b. Any local spots you can recommend?
- c. Do you have any recommendations for events for the ACN? Especially for people your age.

Appendix C: Demographic Survey Questions

Survey Name: Amazing Care Network Demographics

Survey Description: Welcome to the follow up survey of the Amazing Care Network in collaboration with Worcester Polytechnic Institute! If you are taking this, then you have already been interviewed by WPI students to gather information on making aging more accessible. Your insights are invaluable to us, and we greatly appreciate your participation.

This follow up survey aims to gather information on the demographics of those we are interviewing. It will be entirely anonymous and no names and/or personal information will be attached to your answers. For this reason, we ask that you answer as truthfully as possible. This survey should take less than 5 minutes to complete. Thank you for taking the time to complete it!

If you have any question please feel free to contact any of us student researchers at gr-hc24-acn@wpi.edu !

1. Gender
 - a. Male
 - b. Female
 - c. Other: write in
 - d. Prefer not to say
2. Age:
 - a. 30-39
 - b. 40-49
 - c. 50-59
 - d. 60-69
 - e. 70-79
 - f. 80-89
 - g. 90+
 - h. Prefer not to say
3. What is your ethnicity?
 - a. Hispanic or Latino
 - b. Not Hispanic or Latino
 - c. Prefer not to say
4. What is your Race:

- a. White
 - b. Black or African American
 - c. Asian
 - d. American Indian or Alaskan Native
 - e. Native Hawaiian or other Pacific Islander
 - f. Other: write in
 - g. Prefer not to say
5. What is your Marital Status?
- a. Married
 - b. Not-Married
 - c. Widowed
 - d. Other: write in
 - e. Prefer not to say
6. Are you retired?
- a. Yes
 - b. No
 - c. Prefer not to say
7. What is your net income? Or if you are retired what was your net income before you retired?
- a. Less than \$40k
 - b. \$40k-\$60k
 - c. \$60k-80k
 - d. \$80k-\$100k
 - e. \$100-200k
 - f. \$200-300K
 - g. \$300-400k
 - h. \$400-500k
 - i. Above \$500k
 - j. Prefer not say

If you are happy with your answers, you can press the red arrow to submit. Once you do so, you cannot go back!

Thank you!

Appendix D: Amazing Care Network Deliverable



Amazing Care Network Deliverable

Event Topics and How to Reach the Audience

What topics are people interested in?

- Nutritional Dieting, Vegetarian and non-vegetarian
 - Learning how to make easy, long-lasting meals that elderly folks can manage simply
- Medically Assisted Dying
- How to healthily deal with loss and grief
- How to deal with losing one's mental capacity
- Traveling Safely as an older person
 - Also how to use Uber/Lyft
- Dealing with loss of driving, walking, and general mobility
- Staying fit and healthy while aging
- Decluttering and downsizing to make things more manageable
- How to prepare for your death, inspired by the book "Wait, Don't Die Yet"
 - The book talks about getting one's affairs in order, everything from labeling keys to knowing what provider one's homeowner insurance is with.
- How to interpret benefits through employer programs, insurance, etc.
- Mental health
 - Anxiety: general anxiety, anxiety about death, financial anxiety
 - Depression
- All things social security

- Especially regarding the recent changes in the laws
- Affordable medicine programs and companies
 - A good start is the company, “Cost Plus Drugs”
- Technology for Seniors
 - Cybersecurity for seniors
- How to manage investments
- How to achieve inner peace
 - Meditation, mindfulness
- How to connect with younger family members

How do people want to learn about these topics?

- 76% of interviewees stated they found news and information most accessible to them in the form of newspapers and local TV.
- 56% of interviewees stated they found news and information most accessible to them in the form of emails or word of mouth.
- 40% of interviewees stated they found news and information most accessible to them in the form of social media such as Facebook and Instagram
- 28% of people mentioned more workshops
- More Interactive workshops in addition to afternoon teas.

When it comes to how people want to understand topics, ACN members seem to have a fair mix of where people get their news. It is important to note with these statistics that they are mutually exclusive generalized categories. Some people consume news from multiple sources. With newspapers and TV accounting for 76% of the participants, it might help to focus on advertising in the local paper and news. Additionally, increasing social media presence would help to attract a younger adult audience (50 to 60 years old) as they begin to age. We specifically recommend cross-posting on Facebook and Instagram as these were the most prevalent form of social media among the interviewees.

Regarding the structure of the events, we highly recommend a hybrid model for the afternoon teas. To clarify, a hybrid model allows attendees to participate in person or on Zoom. Various factors such as not being retired and being homebound result in scheduling and transportation issues effectively decreasing the audience at these events. While there was pushback about events fully on Zoom, with a hybrid model the ACN will be able to increase engagement by giving people a choice to be at an event either in person or virtually.

On another note, more interactive workshops will greatly increase participation as many feel that the current afternoon teas follow too much of the same formula. By allowing people to interact with each other and the community, there is a much greater opportunity for expansion.

AFTERNOON TEA RECOMMENDED WORKSHOPS

When it comes to what interviewees wanted in the Amazing Care Network, many suggested workshops for the follow topics.

Mental Health Focus Groups

Many ACN members emphasized a want for mental health resources within ACN.

Recommendation

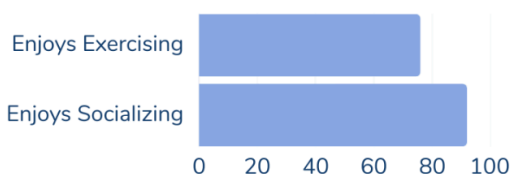
- Mental health discussion in small focus groups
- Use physicians from ACN's grief counselling program to lead the discussions.

8 of 10 Older Adults Suffer from Chronic illness.

According to the Center for Disease Control, Depression and mental health disorders are much more prevalent in people with other illnesses.



% of Interviewees



According to our interview data 76% enjoyed exercising often and 92% enjoyed socializing at least once a day.

Mobility-Enhanced Exercise

Through our interviews we identified that many members of the ACN enjoyed exercising and socializing.

Recommendation

- Mobility enhanced exercise workshops such as yoga, pilates, and barre.

Non-Certificate CPR

CPR is a crucial skill to have as one's network ages.

Recommendation

- A CPR workshop for ACN members

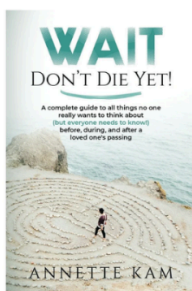
Older adults are 7x more likely to die of cardiac arrest.

Book Club

Many interviewees mentioned the book "Wait, Don't Die Yet!" as a must read to seamlessly prepare for their death.

Recommendation

- ACN hosts a book club with books that contain valuable information where the information may be difficult to normally discuss.



Visits to Senior Living Arrangements

Finding senior living arrangements can be difficult and costly. Many people don't have kids that will take them in or a dedicated caregiver.

Recommendation

- Provide visits to different senior living facilities so member can find the right fit for them or their family.

