

ACTION RESEARCH TO START NEW SERVICES AND
EXPAND ROLES FOR MONGOLIAN OLDER ADULTS

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Abstract

The older adult group consists of 962 million people worldwide, representing 13% of the total world population. This number is projected to double by 2050 and triple by 2100, reaching three billion older adults. However, the number of older people in less developed countries is projected to increase by more than 250%, compared to only 71% in developed countries by 2050.

Mongolia, a developing country with three million people, currently has a low percentage of senior citizens in its overall population (about 7%), yet this is projected to triple to about 19% of the population by 2050. This change is due, in part, to increasing life expectancy, from 48 years in 1960 to almost 70 years today. Yet, the retirement age in most sectors is unchanged, 60 years for men and 55 years for women. Thus, older Mongolians are spending more years in retirement, and many are struggling to find meaningful activities after retirement, including socialization and work opportunities. There is gap in the research about Mongolian older adult's service development because these services and opportunities are limited.

I helped to create some of the first senior services in Mongolia, using an action research framework, and this model should be examined for transferability to other low- and middle-income countries and for expanding services in Mongolia. My research question is "How can an action research strategy be useful in the development of new services, particularly senior centers and employment opportunities, and expand roles for Mongolian older adults?"

The objective of my dissertation is to produce a single, holistic case study on the efforts of Quality Life NGO and Prost LLC to develop low-cost senior services in

Mongolia by using the action research strategy. I described and compared the two pilot services developed under the initiative, examining their reach, effectiveness, adoption, implementation, and maintenance using RE-AIM framework, and examining roles adapted by older adults using these services. Developed first were senior centers for purposes of socialization, and the second were employment options including a laundry business that employs older adults. Both services are located in Ulaanbaatar, the capital city of Mongolia. I conducted a secondary analysis of existing data collected in 2015 and 2019 and collaborated with Quality Life NGO and Prost LLC to collect additional data in 2021 to document the planning, implementation, observation, and reflection phases of the action research model.

Case study findings suggest that the Quality Life NGO and its partners contributed to expanding services and opportunities for Mongolian seniors. Findings also point out the challenges faced in developing and sustaining services in an under-resourced country facing rapid growth in its older-adult population. This case study may become a reference for public and private sector organizations in other developing countries that are preparing for a significant increase in their older adult population. The study provides a tangible example of solving a practical problem using the action research strategy.

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Introduction

Statement of Problem

Global life expectancy is increasing, from about 29 years in 1800 to 46 years in 1950 and to 71 years in 2015 (Roser et al., 2019), and the older adult (60 years or older) population is growing faster than all younger age groups. Currently, the older adult group consists of 962 million people worldwide, and it represents 13% of the total world population. However, the number of older adults globally is projected to double by 2050 and triple by 2100, reaching up to three billion older adults. At the rate of 3% annual growth each year, by 2050 all regions except Africa will have a population distribution that includes 25% or more older adults (United Nations, 2017).

Although more-developed countries have the oldest population profiles, the most rapidly aging populations are in less-developed countries. The number of older people in less-developed countries is projected to increase by more than 250% by 2050, compared to a 71% increase in developed countries. While most-developed countries have had decades to adjust to their changing age structures, many less-developed countries are experiencing a rapid increase in the percentage of older people without the resources or societal structures in place to support them. For example, it took more than 100 years for the percentage of older adults in France's population to rise from 7% to 14%, but the same demographic aging will occur in just two decades in Brazil (World Health Organization, 2011).

This trend brings its own challenges, as older people need more services, and there is often a lack of services to support older people to live healthy lives. This issue is even more prevalent in less-developed countries that are transitioning from a cultural

expectation that younger family members look after their elderly to a more independent family framework (Pereira et al., 2007).

Mongolia has a population of roughly three million people, and more than 28% of the people live below the poverty line (World Bank, 2018). Adults aged 60 years and older represented a mere 7% of the total population in 2020. Because of local laws and customs, Mongolians retire early—at around 55 years for women and 60 years for men (Pension Watch, 2019). Many have only a small state pension or social security payment as their main source of income. However, the population is aging rapidly. The United Nations estimates that by 2050, people aged 60 and older in Mongolia will increase to 19% of the population, from 6% in 2012 (United Nations, 2017).

The Mongolian government's financial indicators are poor, and Mongolia accessed bailout help from the International Monetary Fund in 2017 (Reuters, 2017). With very little funding from the government, senior services have been unable to develop, especially when there is little buying power from seniors and little attention is given to them (Mujahid et al., 2010). This is a serious issue in Mongolia, because, unlike the old culture where the younger generations took care of the older generations, now young adults are increasingly leaving their parents and grandparents so they can attend school, build careers and many leaving to other countries in search of better opportunities. This has created a huge gap between needed services by the seniors and supply of services. Developing new services and opportunities for seniors requires deep understanding of priority needs among seniors and learning about potential interventions to meet these needs.

There is a growing number of older adults in Mongolia who have transitioned from meaningful roles in the workforce to retirement age. In their retirement, they struggle to find meaningful opportunities to socialize and to contribute to community and society. There is limited opportunity for older adults to contribute to the economy, to be financially independent, or to contribute financially to the family. To create new services and expand opportunities, we need to study how new services start and sustain themselves and learn from what has been tried. However, there is limited research related to the development of older adult services in Mongolia, especially in English language.

Purpose of the Study

International organizations (e.g., the World Bank, the Asian Development Bank) and local organizations in Mongolia (e.g., the National Statistics Office of Mongolia, Mongolian Association of Elderly People) have conducted research on Mongolian older adults, especially about high poverty risk of older adults. They all recognize that many Mongolian retirees do not have adequate income or robust social networks to be independent. Researchers and funders of these reports emphasize the importance of creating employment opportunities and social engagement to prepare for aging population increases (Mujahid et al., 2010; National Statistics Office of Mongolia, 2011). However, little research has been done in Mongolia to examine different low-cost service models in meeting older adults' economic and social needs and developing new roles for them.

In 2015, a small group came together to try to develop new service models. The initial team was comprised of five staff members at Proliance LLC, a medical equipment

and supply distribution company in Ulaanbaatar, Mongolia. The group established a non-profit non-government organization (NGO) named Quality Life with a mission to improve the quality of life for older adults and their families and build partnerships with others with similar goals. In 2018, a commercial laundry business named Prost LLC launched as a spinoff project from Proliance LLC and Quality Life NGO's pilot. In the same year, some Quality Life NGO members set out to establish the Mongolian Board Game Association as a separate project, which over time added new members to the team. In this paper, the founders and key people from the partnering organizations are referred as the team.

As of 2021, the team included 12 members, all volunteers serving as Board of Directors and coordinators with an average of 4 years of service with the organization. The average age of team members is 41 years, ranging from 21 to 52 years old, and 67% are female. All team members have worked or studied outside Mongolia, e.g., the USA, Japan or Korea, and have experienced services available for older adults in other countries. Six studied and worked in business, and four studied and worked in public health or social work. Eight (60%) currently or had worked in the healthcare sector as business managers or medical providers, so we fully understand the importance of building sustainable programs that have positive impacts on physical and mental health. Five members of the team studied in Hawaiian universities and five worked for Proliance LLC in the past. As Proliance CEO, I initially invited them to be part of the team. Having similar backgrounds and a common goal to improve the quality of lives for our fellow Mongolians were key reasons to join the initiative and contribute to the sustainability of service development and testing for the last 6 years.

I disclose my position here as a member of the team and a PhD student. I am interested in the case study of Mongolia's senior center because I would like others, especially my fellow citizens, to have a model to start and sustain non-profit services with limited resources and experience. Although my focus is on senior centers and social enterprise, this action research strategy can be used for non-senior care service settings. I am one of the founders of these organizations and have in-depth experience in planning and operating these pilot projects. I worked as the CEO for Proliance LLC for seven years and continue to serve as volunteer executive director for Quality Life NGO and board chair for Mongolian Board Game Association. I wish that the study's results and lessons learned will help others to make senior centers accessible to more seniors and contribute to expanding new services and employment opportunities for seniors and the community. My previous experience also helped me build trust with the community members I was researching; participants were more willing to participate in interviews and support the study by providing documents and telling their stories because of my connection to these organizations. Being an insider was a direct support in collecting quality data.

The purpose of my study is to provide an in-depth description of how our team started and sustained pilot services for older adults in Ulaanbaatar, Mongolia. The case study methodology was used to document the how decisions were made and efforts undertaken to implement, improve, and expand these services. This study will fill a gap in the literature on how to develop new services in under-resourced countries and to share the lessons learned.

Background and Significance of the Problem

In this section, I describe older adults in Mongolia. Data on the population is limited, and the primary source is the Population and Housing Census, conducted every ten years. The most recent report published by the National Statistics Office (NSO) was in 2021 based on the 2020 data.

In Mongolia, older adults are traditionally defined as 55 years old for females and 60 years old for males. However, for statistical comparison purposes, the Mongolian population census defined older adults as 60 years and above. Following the international guideline, the older adult group was divided into three main groups: 60-64, 65-74, and 75+. All information below reflects 2020 Mongolian census definition and statistics unless noted otherwise.

There were 232,029 older adults living in Mongolia in 2020, representing 7% of a total population of 3.3 million. While the average annual population growth was 2.2%, older adults population's annual growth was 5.9% (National Statistics Office of Mongolia, 2021). The 60-64 age group had an estimated 96,433 adults (41.6%) in 2020, while the 65-74 age group had 88,027 adults (37.9%), and 75+ age group had 47,912 adults (20.5%).

There are five main ethnic groups in Mongolia, and they represent 93% of the older adult population: Khalkh (82.8%), Kazakh (3.0%), Durvud (2.7%), Buriad (2.2%) and Bayad (2.2%). The second largest ethnic group, Kazakh, has a distinct language, culture, and traditions from the other ethnic groups. The sex ratio was most equal in the Kazakh group, with 82.8 men to 100 women, while the rest of the ethnic group averaged

about 69 men to 100 women in 2020. The ratio of men to women has been decreasing since 2000 from 79.4 to 75.1 in 2010 and 68.7 in 2020.

The median age of older adults was 66.5 in 2020, which is about 4 years higher than it was in 2010. Data collected since 2010 suggests that life expectancy increased to 67.3 in 2017 and to 70.4 in 2019. Women represent 59.2% of older adults in Mongolia, and their average life expectancy is 76 years, which is about 10 years longer than for men (National Statistics Office of Mongolia, 2018, 2019).

The majority of older adults live in urban areas (68.7%) and the remaining adults reside in rural areas with low density. Rural areas have a higher percentage of adults aged 75+ compared to urban areas due to the migration by the younger older adults (60 to 74 age) to the cities.

Due to the former socialist system, the literacy rate is very high (99%) among older adults. It is estimated that 18% completed elementary school, 43% completed middle or high school, 13% completed technical college, and 23% graduated from a 4-year college or university. There is a significant difference in the levels of education between urban and rural areas. For example, 30% of older adults living in urban areas had a college degree compared to 8% of those living in rural areas in 2020. Also, the youngest group (60-64 years old) had the highest percentage of college degrees compared to the other two groups. If this trend continues, future generations of older adults are likely to be better educated than the current generation. However, older women's education level is lower than men's, although the education gap has narrowed since 2010. For example, older women's college degree attainment was 11.5% of total female older adults, compared to 24.8% for older men in 2010. Within the last 10 years,

the older women's college degree increased to 21.4% of total female older adults, compared to 25.4% for older men in 2020. This is a significant positive change for older women.

Marital status of older adults differs by gender. In 2020, almost 82% of older men were living with a spouse or partner, while only 50% of older women were living with a spouse. There were 3.4 times as many female widows than male widowers. Single older adults who have never been married represented 2.6% of men and 3.0% of women. Older adults living alone represented 25%, living with their own family was 41%, and living with others was 34% in 2020. Compared to census in 2010, percent of older adults living alone increased from 11% in 2010 to 25% in 2020 (National Statistics Office of Mongolia, 2011, 2021). This change may increase the need for social connectedness, livable income, and social welfare, especially for women who are likely to retire earlier with limited social security income and live longer than men whether in a household or living alone. On average, the older adult's household included 3.4 persons.

According to the housing census in 2020, 37% of older adults lived in the traditional "ger" or nomadic tent, while the rest lived in modern housing, including apartments, houses, single huts, and other living places. The single hut was the most common modern housing, representing 52% of older adults living in non-traditional tents. This type of housing has electricity, but typically does not have running water or centralized heating. Older adults living in single hut use open fire (85%) for heat and cooking, and they transport their water from another location. During the transition from socialism to democracy in the 1990s, all previously government owned apartments and

land in the urban area were freely transferred to the ownership of the residents living in the place. This is the primary reason that 93% of older adults owned the housing they live in as of 2020.

Buddhism is the major religion in Mongolia. In 2020, 66% of older adults reported themselves to be Buddhist, and about 27% of them reported to be atheists. Lunar New Year is the most widely celebrated holiday in Mongolia. This is a week-long celebration, usually in February. The holiday celebrates the successful passing of harsh and long winter and is the time when the younger generation visits the older generation, especially grandparents. This is also time when government agencies and companies send gifts to older residents and retirees.

There were 12,196 older adults with disability, representing 5.3% of total older adults in 2020. The primary disabilities were due to the loss of mobility (30%), eyesight (16%) and hearing (8%). Mental disability is third largest disability cause among older adults, representing 10% of total disability. Data on mental health status other than mental disability is lacking.

Based on hospitalization records in 2017, older adults were diagnosed with and treated for cardiovascular disease (35.1%), digestive system disease (12.6%), genitourinary system disease (10.3%) and nervous system disease (8.7%). Among 9,000 older adults aged 55 and above who died in 2017, 78% died of either cancer or cardiovascular disease (National Statistics Office of Mongolia, 2018).

Mongolian healthcare services are primarily delivered and funded by the government. In 2017, total health expenditure represented 4% of GDP. The majority (62%) of the healthcare expenditure was public, and 32% was out of pocket (The World

Bank, 2020). Working people pay health insurance tax, and the government provides free health insurance for children and older adults. This insurance coverage is limited to government-owned healthcare facilities and inpatient services. In Mongolian public healthcare system, doctor's office is in the hospital itself. Only private doctors have offices outside hospital and government health insurance does not cover it. For example, older adults are entitled to hospital and physician services up to 10 days at government hospital, and government health insurance covers 90% of the cost. But older adults are responsible for the cost of specialty drugs, surgery supplies, CT and MRI diagnostic imaging, and any hospital stays beyond 10 days. In the outpatient setting, very few drugs are provided by the government (e.g., insulin for diabetics and pain medications for cancer patients are provided). Older adults can get discounted drugs, but the supply runs out fast, and many complain about logistical challenges of getting the drugs because they have to wait in line for many hours. There are some for-profit, private clinics and hospitals, but older adults have to pay out of pocket for all private outpatient services and for the majority of private inpatient services. Thus, only wealthy residents of Ulaanbaatar seek treatment in private hospitals (Neumann & Warburton, 2015).

Based on the Labor Law of Mongolia, older adults' opportunity to work is limited based on age. Currently, retirement age is 55 for females and 60 years for males and older adults are eligible for social security pension if they paid taxes for a minimum of twenty years. The law states that when a person reaches 60 years old, the employer can initiate a termination of employment contract, but that the older person can continue working if both parties agree. However, for government employees, the upper age limit

is 65 years old, and the law mandates discontinuation of employment (National Statistics Office of Mongolia, 2021). As of 2020, only 1 in 6 older adults worked after reaching retirement age. Thus, only 16.4 % or 37,958 older adults were economically active in 2020. Of the total, 18,264 or 48% older adults worked in urban areas and 19,694 or 52% worked in the rural areas. The top three sectors in urban areas were in education, service industry and agriculture, while 88% of older adults working in rural areas worked in agriculture, including livestock production. Older adults between 60 to 69 years represented about 86% of the older adult working group. Among the working older adults, 48% earned income through their own small business, 44% as paid employees, and 6% as volunteers in their family business.

Older adults in rural areas reported higher employment (27%) compared to people living in urban areas (11%) because they have a greater opportunity to work in agriculture, especially in livestock production. Employment opportunities are much more limited in urban settings, as there is high unemployment in the general population, and employers have limited interest in hiring older adults. Employment among older men was 24%, while the rate was 11% for older women in 2020. Women's lower participation in employment is mostly due to the retirement age of 55 years, and women can even retire at age 50 if they have four or more children. The low level of job participation among older women increases their risk of poverty and poor health.

Overall, in 2020, 83% of older adults were economically inactive, and 90% relied on social security pension as their primary income. In 2017, the average monthly pension was 314,200 MNT which is about \$129 (2427.13 MNT=1USD). This pension

amount is not adequate to meet basic needs of older adults (Central bank of Mongolia, 2017; National Statistics Office of Mongolia, 2018).

The Mongolian Association of Elderly People (MAEP) is the largest advocacy group for older adults in Mongolia. It is similar to the non-profit organization AARP in America. It was established in 1988 and has membership of seniors throughout the country. In 2017, MAEP conducted a survey of 1,130 working adults who were near retirement age. When asked about their preparedness for and their feeling about retirement, 46% of the respondent had concerns about retirement because they were fearful of losing social interaction, feeling lonely, and losing their regular income source. Almost 40% did not have concerns about retirement, and the remaining 16% were looking forward to it. In another workshop sponsored by MAEP and the Ganabell Institute, 275 retired older adult participants, mean age 62.6 years, completed a short survey asked about their biggest dream. Almost half (46%) of participants responded that their dream was to work and have social engagement, while 34% of participants wanted to travel, and the remaining 20% of participants wished to have peace and be healthy. MAEP's findings concluded that older adults wanted more opportunities for work and social engagement after retirement (Mongolian Association of Elderly People, 2017; Mongolian Association of Elderly People & Ganabell Institute, 2020).

In 2018, the Mongolian government decided to increase the retirement age by 3 months each year, reaching 65 years gradually within 20 years for men (from 60 to 65) and within 30 years for women (from 55 to 65). The main driver of this decision was to help the sustainability of the social security pension system, mostly benefiting the government. However, older adults who paid into the system all their working years

argued that this shortened the years they could collect a pension, assuming the average life expectancy remains at 70 years. In 30 years, all adults will have to work until 65, and perhaps benefit from the pension system for only five years after retirement. Older adults who are not healthy and have to quit work before age 65 would have no income until they reached age 65. Raising the retirement age also discourages the younger population, because they feel that older adults will compete for limited job opportunities when the unemployment rate is quite high among working adults, 6.35% in 2018 (Statista, 2020).

According to the Household Socio-Economic Survey of 2018, 28.4% of Mongolian households lived under the local poverty level. This level was determined at a monthly income of 218,614 MNT or 83 USD per household (2643.69 MNT=1USD). The most recent statistics suggest that the poverty level in rural areas is 31%, compared to 27% in urban areas. Among the different age groups, 20% of older adults 60-64 years live below the poverty level, with percentages increasing in the other older age groups (The World Bank & National Statistics Office of Mongolia, 2020).

Providing social welfare to seniors will require substantial funding, which the government is currently unable to provide. Policies, programs, and services for older adults exist in a very limited scope and implementation. The expected growth of the older adult population, from 7% of the population in 2020, to 19% of the population by 2050, raises many questions and concerns from the local and international community. When 28% of the general population is living under the poverty level, how should the government allocate limited resources to older adults? Should decisions be based on age, poverty level, or another category? Should assistance be provided on one-time or

ongoing basis? How and who will pay for this additional welfare cost? For example, when the Mongolian president made a surprise announcement during the 2020 New Year's greeting and authorized pension-backed loan debt forgiveness in January of 2020, many seniors benefited from this one-time support. This \$283 million act helped 71% of the older adults who had personal bank loans. This act was criticized by older adults who didn't have bank loans as being unfair and encouraging irresponsible behavior of not paying for loans. The social media criticism was so strong that the government had to issue a "credit note" of cash payment to the remaining older adults (29% of people who didn't have bank loans), payable in 2021. Many questioned the motive of this act and believed it was politically driven, as Mongolians were preparing for parliament election in summer of 2020 and presidential election in 2021. The International Monetary Fund's (IMF) representative was critical of this decision as not being consistent with the authority's goals under the IMF-approved program agreed in 2017. He said "it increases already high public debt by 2% of GDP to help one narrow part of the population, regardless of their financial need... and also raises concerns about governance and proper parliamentary oversight" (Reuters, 2020). The business community and taxpayers also didn't think it was a good use of their hard-earned money. Thus, establishing government-backed social welfare for older adults alone is not likely feasible in the current political and economic setting.

Overall, Mongolian older adults want and need services to lead meaningful lives and fill meaningful roles in our society. There are many barriers to living a long and productive life, including high poverty, high unemployment, poor public health systems, unstable government, and current labor laws. However, older adults also have wisdom

and non-material resources and strengths to contribute to society. It is critical to understand how to utilize older adults' resources and develop new services and opportunities for them and with them.

Senior Centers and Employment Programs in the US

Because our first needs assessment pointed to a desire for senior center and employment programs, I provide a brief summary of these programs in the US. In the US, senior centers are designated by the Older Americans Act (OAA) of 1965 as community focal points, where older adults can come together for services and activities. The first senior center, Hodson Community Center, opened in New York City in 1943, and it was funded by the City of New York as a place where elders could gather to pursue social, physical, and intellectual activities, expand their talents, and find support through essential services (Markwood, 2013). Today there are nearly 11,000 senior centers in the US, serving 1 million older adults every day and an estimated 10 million older adults annually (Dal Santo, 2009; National Council on Aging, 2015).

Senior centers can offer a wide range of services and programs, including meal programs, health and wellness programs, transportation services, employment assistance, and educational and arts programs. However, the term "senior center" can vary from a large multipurpose service provider organization with paid professional staff to small nutrition sites with only occasional programming run by volunteers (Krout, 1985).

Taietz was the first researcher who identified two basic types of senior centers in 1976. The first is known as a social agency model that primarily serves the poor and

disengaged populations that are in need of services to meet their basic survival needs. The second model is named the voluntary organization model that tends to attract socially active elders, relatively affluent and better educated. Several researchers concluded that these early two models are not in conflict with each other; both are needed. However in the US, most senior centers can best be described as following the voluntary organization model (Fitzpatrick et al., 2006; Pardasani & Thompson, 2012; Taietz, 1976).

In the US, approximately 70% of senior center participants are female, and half of them living alone. The majority are Caucasian, followed by African American, Hispanic, and Asian; their average age is 75. Three quarters (75%) of participants visit a center in their community 1 to 3 times per week and spend an average of 3.3 hours per visit (National Council on Aging, 2015). Based on the NCOA's findings, senior center participants have a higher level of health, social interaction, and life satisfaction and a lower level of income than the average elderly citizen. As the population continues to age, the impact of senior centers will increase in significance.

As continued employment, income, and volunteer opportunities are of interest to Mongolian older adults, I reviewed two programs, Senior Corps and Senior Community Service Employment Program, that support opportunities for volunteerism and employment that currently do not exist in Mongolia. Senior Corps is a U.S government agency under the authority of the Corporation for National and Community Service. In 2020, Senior Corps was re-branded as AmeriCorps Seniors. There are three main programs – Foster Grandparents, Senior Companion Program, Retired and Senior Volunteer Program (RSVP). The first program, Foster Grandparents, was developed in

1965 to encourage low-income people over 60 to engage in community service and support special needs children. In 1980s, this program was championed by First Lady Nancy Reagan, and she helped expand and evolve the program. In 1968, the Senior Companion Program was established to expand the role of low-income older volunteers who provide personal services to others. RSVP was begun by private groups and government agencies to create opportunities of engagement, activity, and growth in many aspects for older Americans. The RSVP pairs thousands of Americans aged 55 and older with organizations making change in communities across the country (AmeriCorps Seniors RSVP, n.d.).

Senior Corps is for people age 55+ who aspire to share their experiences with others who are most in need of mentors, coaches, or companionship. Some older adults receive tax-free stipends to offset costs incurred while participating in the program, and the eligibility for these stipends is based on income criteria. The majority of participants receive pre-service and monthly training, transportation reimbursement, an annual physical, meals, and accident and liability insurance while participating in the program. According to the Senior Corps 2018 report, there are over 220,000 senior volunteers participating in the programs, and they provide 54 million hours of service at 25,000 unique sites each year. Two independent reports from a multi-year longitudinal study found that program volunteers reported improved health after just one year of service. For example, among 1,200 first time volunteers, 88% reported fewer feelings of isolation, 84% reported stable or improving health, 78% reported fewer symptoms of depression (*Senior Corps & Health Benefits*, n.d.).

Created in 1965, Senior Community Service Employment Program (SCSEP) is the America's oldest program that specializes in helping low-income, unemployed individuals aged 55+ find work. The program is funded by the Department of Labor, administrated by the National Council on Aging (NCOA). It matches eligible older adults with part-time training assignments for various nonprofit organizations. According to NCOA, the total budget of the program is \$38.4 million; 90% is federally funded and 10% is from non-federal funding. In 2015, over 65,000 low-income older Americans received paid training, and more than 2,000 nonprofit agencies were supported by the seniors. After initially receiving subsidized minimum wage, 51% of participants gained unsubsidized employment following the program. A majority of participants (88%) reported experiencing either same or improved physical health while working. Many older adults (72%) reported a better outlook on life while employed (National Council on Aging, 2020; Washko et al., 2011).

Theoretical Framework

I'm using three theoretical frameworks in my study. In summary, the action research framework was used to guide and describe our process of developing, evaluating, and reflecting on services. This framework allows for cycles, with successes and lessons learned from the first cycle to inform direction of the second cycle, and so forth. Role theory provided the rationale for the types of services we developed in Mongolia. The RE-AIM (Reach, Effectiveness, Adoption, Implementation and Maintenance) framework guided our evaluation phase to see how well services were implemented and sustained, paying attention to the five essential program elements of the model.

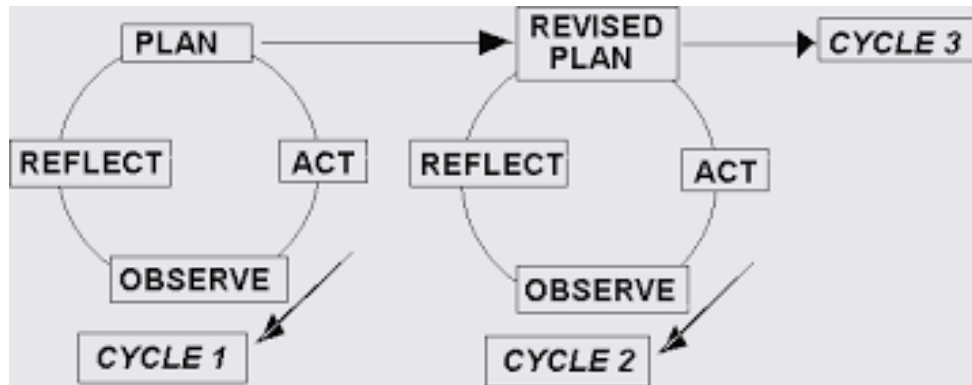
Action Research

Action research is commonly associated with ‘hands-on’, small-scale research. It usually is driven by the need to solve practical, real-world problems and is led by practitioners. Action research was first introduced by Kurt Lewin in the 1940s, who stated that “research that produces nothing but books will not suffice” (Lewin, 1946, p. 35). The four main characteristics of the action research are its practical nature, change, its cyclical process, and participation (Denscombe, 2017).

Action research is practical and applied, as the process of research and action are integrated. The research is usually done as part of the practice rather than as a separate process. Change is considered a good idea in action research and is regarded as a valuable enhancer of knowledge, rather than something to be pursued after the results of the research have been obtained. Action researchers focus on the aspects of their own practice as they engage in that practice. Thus, the scope of the changes introduced is not grand, as practitioners may focus on change at the micro level.

The cyclical process of action research (see Figure 1) aims to improve practice through several cycles of research. The crucial points of action research are that research feeds back directly into practice, and the process is ongoing. Action research not only identifies the “problem,” but it also involves an evaluation of changes just implemented. It may lead to further research.

Figure 1. Cyclical process of action research



Planning usually starts with a general idea to reach a certain objective. Exactly how to reach this objective is often not too clear. Thus, the planning phase involves identifying the problem, assessing the need, and planning strategies to improve the situation. If this first step is successful, it helps to prepare an overall plan on how to reach the objective and make decisions regarding the first step of action. The action phase refers to implementation of the changes needed. In my case, the action phase involved the offering of the senior center programs and the offering of employment options including the laundry business that employed seniors. In the observation phase, the action or change is recorded and evaluated. For example, this phase shows whether what has been achieved is above or below expectation. In the reflection stage, the stakeholders analyze the process and the effect of the changes made. They rethink the need and the change strategies considering the observed results. The reflection phase gives stakeholders a chance to learn and to gather new general insight, for example by reflecting on the strengths and weakness of certain techniques of action. Finally, it serves as basis for correctly planning the next step and modifying the overall plan. (International institute of education and development, 2019; Le et al., 2015; Lewin, 1946)

The participatory nature of action research is one of its most unique features. Conventionally, research is conducted by an expert, who is usually an outside person. This researcher usually initiates the process of research, sets the scope, and designs data collection and analysis. After the research is completed, those involved might get some feedback about the research results. They may, or may not, initiate changes based on the research findings. The act of conducting research is separated from the act of making changes. In contrast, action research insists that practitioners and subjects must be active participants in the research. The research is practitioner-driven, and thus the practitioner is someone who wants to implement change or solutions and who consequently initiates the research.

All four main characteristics (e.g., practical nature, change, cyclical process, and participation) of the action research model apply well to this dissertation study as its theoretical framework. Its practical nature is aligned with our goal to meet an urgent and growing need of older adults in Mongolia. Characteristics of change can be seen in the piloting new services that did not exist in Ulaanbaatar. The cyclical process involves the major steps of planning, action, observation, and reflection, all of which are critical components in this study as described in the methods section. Lastly, this research is practitioner driven, as my colleagues and I are actively involved in doing the research, instigating the change, and evaluating the impact of each cycle. This framework will assist in reflecting our past work and revising our next plan in improving our two organizations' reach through expanded roles of older adults.

Role Theory

Social theories of aging help me to understand and explain changes in social relationships that occur in late adulthood. Role theory speaks to individuals' roles, role norms, and activities within society (Hooyman & Kiyak, 2018). People play a variety of social roles during their life course, such as graduate student, mother, wife, businesswoman, and grandmother. Such roles identify and describe a person as a social being. They are generally organized chronologically, so that each role is associated with a certain age or stage of life (Hooyman & Kiyak, 2018). Some roles are ascribed and are based on criteria such as race, sex, or age. In contrast, other roles are achieved through personal effort, accomplishment, or choice. For example, the role of women within a certain culture may be ascribed, whereas the role of wife or businesswoman is achieved.

Roles define us and our self-concept, and they shape our behavior (Hooyman & Kiyak, 2018). The term "role loss" has been used often in relationship to aging. Retirement or the permanent loss of a job is accompanied by the loss of an occupational role. The death of a spouse brings the loss of a marital role. As children grow up and leave home, older adults may lose childcare roles. These role losses are a major source of depression, social isolation, and poverty in older adults (Robbins et al., 2012). How well people adjust to aging is assumed to depend on how well they cope with the role changes presumed to be typical of the later years.

Age norms help to open or close off the roles people can play. They are assumptions of age-related capacities and limitations, which result in beliefs that a person of a given age can and ought to do certain things and not others. Norms may be

formally expressed through social policies and laws (e.g., mandatory retirement policies in Mongolia) or operate informally. For example, employers can assume that a woman is too old to train and not hire this older woman even though they cannot legally refuse to hire her. Creating new and desirable role options for older adults would be helpful to older individuals and to an aging society.

Activity theory also tries to explain how individuals best adjust to age-related changes such as retirement, chronic illness, and role loss. Successful aging has been considered as an extension of middle age, in which older people seek to maintain roles, relationship, and status in later life (Annele et al., 2019; Hooyman & Kiyak, 2018). According to early researchers, it was believed that the well-adjusted older person takes on age-appropriate replacement roles, for example, involvement in voluntary and leisure associations upon retirement for paid employment. It was assumed that the more active the older person, the greater his/her satisfaction, positive self-concept, and adjustment. Although activity theory has been challenged as not being applicable to all older adults (Achenbaum & Bengtson, 1994; Schroots, 1996), several age-based policies and programs have been designed to help elders develop new roles and activities to encourage social integration (Hooyman & Kiyak, 2018). For example, Role Theory and Activity Theory were useful in justifying the development of senior centers and elder employment programs decades ago in the US. This framework guided me to critically look with new perspective on how to expand roles for older adults and assess whether our new services have impact on their roles.

RE-AIM

RE-AIM is an acronym that consists of five elements that relate to program expansion, and it stands for Reach, Effectiveness, Adoption, Implementation, and Maintenance. It was first originated in 1999, and over 200 authors have utilized this framework in a variety of fields to help translate research into practice. RE-AIM has been cited in over 2,800 publications according to a 2019 literature review. Its goal is to encourage program planners, evaluators, and policy makers to pay more attention to the key program elements to help improve the sustainable adoption and implementation of interventions in “real world” settings (*Frequently Asked Questions – RE-AIM*, n.d.; Glasgow et al., 2019) The five steps or elements are: 1) Reach, which is the absolute number, proportion, and representativeness of individuals (in my case older adults) who are willing to participate in a program and reasons for why or why not. 2) Effectiveness is the impact of the program on important individual outcomes, including quality of life, as well as economic outcomes. 3) Adoption refers to the absolute number, proportion, and representativeness of settings and people who are willing to initiate a program and why. 4) Implementation refers to program staff’s ability to consistently deliver the program as intended and the time and cost of the program. It also includes the adaptations made to programs and implementation strategies. 5) Maintenance is the extent to which a program becomes part of an organization’s routine practices. Within this framework, maintenance also applies to both at organizational setting level and individual level. I used this framework to reflect on the two cycles and compare the overall impact.

Methodology

Study Design

I used a qualitative case study design to document the process of using action research framework to develop low-cost services for older adults in Mongolia. Case studies focus on one instance of a particular situation with a goal of providing an in-depth account of events or processes occurring in that specific instance. The case study approach is widely used in small-scale social research (Denscombe, 2017).

The case study approach has certain defining characteristics and contrasts with other research approaches such as surveys or experiments. For example, the case study focuses on one setting rather than many instances, and it allows for depth of study rather than breadth of study. This approach highlights processes rather than outcomes and provides a view of the whole, rather than of the isolated. It uses multiple sources of data, rather than one research method.

According to Robert Yin (2018), an expert on case study research, the case study method is more relevant when the research question seeks to explain some contemporary circumstance and to examine the “how” or “why” of a social phenomenon. My research focuses on answering questions such as “How did a pilot senior center start in Ulaanbaatar in 2015?”, “How did action research’s cyclical process help start the laundry business for generating income for older adults?” and “How do these services support older adults in having new or expanded roles in their community?” These events are contemporary and don’t require control over behaviors. The case study is an explanatory one, as it seeks to explain the causes of events, processes, or relationships within a setting.

This case study covers the time period between 2015 and 2021, during which the two programs of interest – senior centers and employment options that included a laundry business that employ older adults – were developed by the team following the planning, acting, observing, and reflecting processes of action research.

Using the action research cyclical process, as shown in Figure 1 above, I describe the methods of two cycles separately. In brief, the first cycle focused on meeting social needs of Mongolian older adults. In the planning phase, we conducted a needs assessment, which suggested that older adults wanted places to socialize. In the action phase, Quality Life NGO established and piloted several senior centers. In the observation phase, the senior center programs and their sustainability were evaluated in 2019. During the reflection stage, stakeholders examined the service's five key program elements (reach, effectiveness, adoption, implementation, and maintenance) and developed lessons learned from the pilot senior center.

The second cycle focused on meeting economic needs of older adults by creating new job opportunities. In the planning phase, we further reviewed the needs assessment's qualitative, open-ended questions about older adult's biggest concerns. Lack of income for the family was among the top three concerns, and this led us to try several ideas to increase employment, the most successful of which was developing a commercial laundry business to employ older adults. Evaluation and reflection for this cycle was completed in December 2021.

Data Collection

As recommended by Yin, my case study evidence came from at least six different sources: documents, archival records, interviews, direct observations,

participant observation and physical artifacts (Yin, 2018). I created a case study database to preserve my collected data in retrievable form. Table 1 below shows the sample documents I collected for documenting the two cycles.

Table 1. Six Sources of Evidence for Cycle 1 - Senior Center and Cycle 2 - Senior Employment

Source of Evidence	Plan	Act	Observe
Documentation	<p>Cycle 1-Senior Center:</p> <ul style="list-style-type: none"> - Needs assessment survey forms and results - Meeting minutes <p>Cycle 2-Senior Employment, laundry business:</p> <ul style="list-style-type: none"> -Business trip agenda to study about commercial laundry business - Business projections - Emails <p>Volunteer Grant application for government project for advisory project</p>	<p>Cycle 1</p> <ul style="list-style-type: none"> -Facebook posting of senior center activities -Registration of participants - Project report to funders - Agreements with partners and senior consultants <p>Cycle 2</p> <ul style="list-style-type: none"> -Grant proposals -Emails, letters -Personal notes -Websites -Pictures of laundry business operation - Newsletter piece written after interviews 	<p>Financial reports between 2015 to 2021</p> <ul style="list-style-type: none"> a) Revenue & Funding source b) Expenditures <p>Satisfaction survey among participants</p> <p>Grant report for senior advisory project – 71 participants</p>
Archival Records	NGO & Business registration documents	<ul style="list-style-type: none"> -Attendance records, service records - Project records and business reports 	# Of participants Annual report to government
Interviews			<p>Cycle 1</p> <ul style="list-style-type: none"> -Interviews and focus group with senior center stakeholders

			Cycle 2 -Short interview with business owners and senior employees of the laundry business
Direct observations		Interviews/talk on national Radio and TV, videos, presentations	Visit the senior center and laundry business sites
Participant observations		Memory of key events by founders, staff, and volunteers	
Physical or cultural artifacts		Certificates & recognitions by the partners	

In the following section, I provide detail of the methods for each phase (plan, act, observe, reflect) of each of the two action research cycles.

Cycle 1 Development of Senior Centers

Plan

To document the planning phase of Cycle 1 (development of senior center), I re-analyzed retrospective data from the Senior’s Needs Assessment Surveys completed in 2015 and sponsored by Proliance LLC, a Mongolian private healthcare company at which I worked. Below is the description of the method and data collected by our team.

Participant Recruitment. Staff from Proliance served as researchers. To recruit participants to complete the needs assessment, researchers collaborated with the Mongolian local government unit in all six districts of Ulaanbaatar city, the Railroad Workers Association, the Mongolian Red Cross Worker Association, and one rural city

government in the outskirts of the city. Community members were recruited to ensure proper representation from various communities with random and stratified sampling. The local government's outreach staff helped to contact their older residents and their families, inviting them to come to the community meeting room to participate in the survey. According to the community outreach workers, the response level was high (above 85%).

Survey Content and Measures. A team of two people from Proliance LLC worked to develop the Survey Form, a two-page document with seven main questions. The first item related to services that elders might need. Nine types of services, numbered one through nine, were listed, followed by a description of each service, and participants were asked to indicate the ranking of need at low, medium, and high levels. Services were: 1) Home Care-medical 2) Home care- non-medical 3) Transportation 4) Senior Center 5) Day care 6) Short term care, physical therapy 7) Senior town/Independent living 8) Assisted living facility and 9) Nursing home. At the time of survey, the majority of service types were not available in Mongolia. Thus, sample descriptions were given to assist participants understanding of each type of service, particularly with the services numbered three to nine. Home care was provided by family members and by some family doctors, so there is familiarity with those services.

Next, participants were asked to choose one item as the highest priority item among the nine service types. Next, participants were also asked the preference of location of the service types six to nine (service with actual facility requirements) if it was selected as a needed service. Two choices were given: in the city in which they currently live, and outside of the city (an hour drive from where they currently live).

The next section of the survey solicited demographic information: age, gender, living arrangement, and previous or current occupation. If retired, the survey asked how the individual spent his/her free time. A question asked if there was someone in the family who needed home care and nursing care.

The next item requested the participant to share their concerns and potential solutions for the concerns. The next item asked if the person was able to pay for the priority service type they chose. Answer choices were: "Yes", "No", or "Maybe". The last item asked if the researcher could contact the person to follow up. If he/she agreed, the participant provided a name and phone number. The survey form thanked the participant for their time and support. Because data were collected from multiple sites, the survey date and location were indicated on the form. The survey form was pretested with several older adults for feedback before it was finalized.

Data Collection. Government meeting rooms at 10 different sites were used to collect 84% of the total surveys. The remaining 16% was collected at the senior's home setting or neighborhood areas where seniors gathered in small numbers. Prior to the survey, the researcher introduced the purpose of the survey to assess needs and how it may help to guide some people who are interested in developing new services for seniors in the future. A PowerPoint presentation on the content of the survey was used to explain the purpose of the survey and to help explain the types of services that might meet elders' needs, for example by showing pictures of the services from other countries.

The researchers made it clear that participation in the survey was voluntary. After the presentation and explanation, the survey form was distributed. Team members

were available to assist with filling out of the form and answering questions respondents may have had. The presentation was about 15 minutes long, and survey took about 20-30 minutes to complete. Opportunity to share their thoughts and suggestions was provided after the survey when the survey took place in a meeting room. Tea and coffee were provided. A small gift with \$1 value per person was distributed as an incentive. The data collection period ran from August to October of 2015, and a total of 427 surveys were completed. According to local practice in Mongolia, IRB approval was not required. However, prior to the survey, researcher explained that participation in the survey was voluntary. Willingly filling out the survey was considered as consent.

In the results section of my dissertation, I describe the results of this needs assessment in detail and how these research findings impacted the first step of action.

Act

I accessed to data from various sources to document the action stage of the senior center development. Documents such as participant registration, Facebook posting (Page name: Quality Life Club UB) of weekly activities, and various grant proposals provided data on the activities and reach of the service. Data on participant and staff were available through transcripts of radio and TV talks by program staff and volunteers. Detailed description of the act phase is described in Implementation element of the RE-AIM evaluation for Cycle 1.

Observe

To understand the resources and sustainability, I reviewed financial reports of Quality Life NGO between 2015 and 2021. Interviews and focus groups with stakeholders, including senior center participants, founders, volunteers, and

government officials were conducted in 2019 as part of my University of Hawai'i at Mānoa qualitative research class project. Thus, for this dissertation, I re-analyzed this already collected data. IRB approval was received from the University of Hawai'i. Below is description of the methods of the data collected by me and Dr. Kathryn Braun in the summer of 2019.

Senior Center Participants—Recruitment, Measures and Procedure. For the senior center participants, there were two focus groups with current participants. One focus group was with the Khan-Uul district participants, and the second with the Chingeltei district participants. Five to six elders participated in each focus group, for a total of 11 people.

Recruitment. Purposive sampling was used, following these questions: “What kind of characteristics of individuals am I looking for?” and “Who can give me the most and the best information about my topic”? (Mayan, 2009). These characteristics are described below. We also used convenience sampling because we enrolled whoever was available from among those meeting our inclusion criteria (Mayan, 2009).

Focus group participants were older adults who came to the senior center for at least four sessions within the last three years, including one visit within the three months preceding the focus group. Because the center has activities once a week per site, four sessions means that they have been to the center for at least one month, even if the sessions attended may not have been consecutive. Coming to the center for at least four sessions ensured that the participants had a chance to be part of all or most of the programs provided by the center. English classes, board games and light exercises were core activities that occur every session, and craft making, and guest speaker talk

sessions occur intermittently, usually alternating and occurring once a month. Field trips, seniors' performances during open house, and other special projects (senior employment program) occur once every three to six months. Requiring one visit within the last three months in the inclusion criteria helped to recruit people who are familiar with current programs and activities.

The reason for choosing five individuals per focus group is that it provided a good representation of the current participants, and it was a manageable number for a focus group. On average, eight to ten people participate in a weekly session. In the three years between 2015 and 2019, there have been about 448 older adults who participated at least once in each of the districts. Older adults who have participated at least four times were invited to the focus group.

Measures. Focus group participants were asked the following 5 open-ended questions:

1. Why do you come to the senior center?
2. What is your favorite part and why? What is your least favorite part and why?
3. What factors (supports and barriers) do seniors face currently with senior center participation?
4. How can we make senior center accessible to more people?
5. How do the senior center's activities impact your life?

Procedures. Mongolian seniors in Ulaanbaatar usually go to the countryside and take care of their grandchildren during the summer season, and senior center activities take a break during the summer between the months of June and August. Thus, the focus group date was in May 2019. Participants were invited in person a week prior to

the planned date, with a reminder call the day before the actual date. The focus group was held at the community meeting room where the senior center operates for easy access for seniors, and it ran about 45 minutes each session. I prepared and conducted the focus group in Mongolian language with the guidance of my professor. When participants came, all consent forms were signed. The entire focus group session was audio recorded to help with transcripts. Light refreshment was served. In appreciation of their time, a small gift valued \$10 was given to each participant.

Board of Directors, Management and Staff - Recruitment, Measures and Procedure. Interviews were conducted of the current Board of Directors (BOD), management, and staff. To ensure person has a deep knowledge of the organization, he/she must have worked with the organization for at least 6 months. The organization has five board members, and we interviewed four board members with following questions.

1. Why did you start Quality Life NGO? Why are you currently serving on the BOD/Management?
2. What are some successes?
3. What are some challenges of the first senior center?
4. How do you sustain the operation financially?
5. What advice would you give for starting and sustaining a non-profit?

Inclusion criteria are for the staff was that they work at least part time and receive a salary or allowance from the organization. Questions included:

1. Why do you choose to work for this organization?
2. How do you decide on the programs and activities?

3. What are the successes?
4. What are some challenges for being staff in a non-profit?
5. What advice would you give for starting and sustaining a non-profit?

Interviews were conducted at a coffee shop or the office space for the BOD and staff by two members of the research team. Interviews lasted about one hour. A \$10 valued gift was given to each person. Interviews were audio recorded for the most BOD and staff.

Funders and supporters—Recruitment, Measures and Procedure. In partnering with local government units (the smallest government unit within the district level, similar to a county in the USA), Quality Life NGO was able to utilize the government's community meeting room for the senior center operation. The government provided the meeting room at no charge and covered all utility costs. Because these rooms are used by other organization and community members, they were available to the organization once a week. Among the seven government units that hosted senior center activities, one was the governor from the Chingeltei district who has worked with Quality Life for at least two years; she was interviewed using these questions.

1. Why did you decide to work with Quality life NGO?
2. How does the government unit contribute to the senior center activity?
3. How can the government support in making the senior center more accessible?

The non-profit relies heavily on other in-kind supports from guest speakers and volunteers. During the first 3 years, over 40 community guest speakers shared their professional expertise and inspiring life stories with participants. We interviewed one guest speaker who volunteered at our center several times and partnered in the senior employment project in the past and we asked the following:

1. Why did you decide to volunteer at the organization?
2. How can the community support in making the senior center more accessible?

All interviews lasted about 30 minutes, and a \$10 valued gift was given for their time.

Interviews were completed by two researchers. They were not audio recorded, but one researcher took notes which were transcribed. In total, 19 people were engaged in focus groups and interviews.

Document review. To understand the organizational structure, staffing, funding source and other factors, the following documents were reviewed extensively:

1. Financial reports for projects, 2015 to 2021. In secondary analysis, the funding source were broken down by member contributions, program income/grants/board game sales and other.
2. Grant applications and reports for the same time period (Mongolian and English versions). These reports gave goals of the programs, participants, and outcomes.
3. Facebook page: Quality Life Club UB. The organization made weekly post with pictures and videos between 2015 and 2019. It gave additional information about programs and participants.
4. Other available sources such as the website (www.qualitylife.mn), previous TV and radio recordings, participant registration forms, attendance sheets, and satisfaction surveys were reviewed.

Reflect

In 2018, data to date was analyzed among board of directors and key staff of Quality Life to consider strengths, weaknesses, and revision to the overall plan. These data were recorded in minutes. Discussion led the team to do two things. First,

modifications were recommended for senior centers to incorporate more intergenerational activities and collect a nominal fee to sustain the programs for older adults. While continuing the current senior center in partnership with local government, we decided to partner with a local coffee shop and test board game café to have intergenerational activity and generate modest income by charging for the game time and selling board games. We established another non-profit named Mongolian Board Game Association in 2018 with goal to support multi-generations to socialize while playing and learning board games. New board members joined this new organization who were passionate about sharing benefit of board games to all generations.

Second was to expand volunteer and employment opportunities. Based on the preliminary observation results and concerns about the financial sustainability of cycle 1, we decided to explore options to increase senior employment, starting by partnering with private companies to place “senior advisors.” Also, during this phase, we developed a commercial laundry business as a place to employ seniors.

As reflection for Cycles 1 and 2 were completed in December of 2021, I described methods for the continuation and finalization of the reflection phases under Cycle 2.

Cycle 2 Development of Senior Employment Opportunities

Plan

Portions of the 2015 service needs assessment were used in the planning stage for 2nd cycle. For this dissertation, I specifically re-analyzed the open-ended survey questions and answers relating to economic need. In the planning phase, we developed a program and applied for a grant to connect older adults to organizations and

businesses to volunteer or work, with a grant paying the older adults a stipend. The goal was to get the organizations and businesses to then hire the older adults. At the same time, the stakeholders came upon the idea of developing a commercial laundry business to employ seniors. Research to plan the business was also initially sponsored by Proliance LLC. The management team went to Singapore and China to learn about the commercial laundry business model. Thus, business trip agendas, meeting minutes, and trip pictures were reviewed to document the planning stage. E-mails and business plan projections helped explain the partnership of Proliance LLC and Quality Life NGO in establishing the business, named Prost LLC, as a unique social entrepreneurship.

Act

We have signed grant contracts with General Office of Mongolian Labor and Welfare Services for stipend funding for 'senior advisory program' for 2 years. By 2018, we recruited 71 seniors to participate in the program and reached out to over 40 community organizations to host seniors for up to 2 months. To document these actions, we have the memorandum of agreement with each participating senior and the volunteer service host organization and stipend payment transaction records.

During the 1st year of pilot laundry business, the business was owned by Proliance. Older adult employees were recruited, and payroll was administrated by Quality Life NGO. After the successful pilot period, the business became an independent business under Prost LLC, and older adults became direct employees of this business in 2018. I was involved in the planning and operating the business from 2016 to 2018, and now I'm no longer officially involved in the business. To document these actions, we have project records (e.g., renovation of the laundry business site,

equipment list, business license) and business reports with customer list, sales, and payroll register.

Observe

To document this phase related to the grant funded senior volunteer project, I analyzed seniors' volunteer work reports, satisfaction survey of the host organizations, and final grant reports to document the implementation of this program. I also reviewed the meeting minutes of our staff who supported the older adults to travel to host organizations, write their reports, submit final grant report to the funder. We observed that this program took a lot of time and effort on our staff to administer. However, the volunteer program did not lead to employment opportunities or ongoing volunteer opportunities beyond grant period.

For the laundry business, I reviewed business records, including older adults staffing count and customer count. To explain a resource requirement, information about initial investment of equipment, supplies, and other resources were collected from financial records. Demographics and job descriptions of older employees were reviewed. In 2019, Dr. Braun and I visited the laundry business, and we interviewed the older women who worked there. The main business owner also was interviewed, and findings were summarized in the June 2019 newsletter of Active Aging Consortium Asia Pacific. These data were reviewed.

To evaluate the sustainability of this social enterprise, I collected additional financial documents and conducted short interviews with a current owner and all seniors working there (five seniors who currently work or worked previously). Interview

emphasis was on the areas of roles of older adults in sustainability of the business and how employment after retirement impacted their role in their lives.

Reflect

Quality Life NGO team and its partners, Proliance LLC, Mongolian Board Game Association and Prost LLC participated in the reflection sessions in 2019 and 2021.

Ten members participated in the online reflection session as a group and five individual discussion was held to develop next cycle plans in short, medium and long-term range.

For the grant funded senior volunteer project, our team discussed strengths and weakness of the program and decided to discontinue the program until there is significant change in the scope (e.g., more funding for the administration time and longer implementation period, flexibility in type of work seniors is expected to perform). These decisions are recorded in the meeting minutes.

For the employment opportunity in laundry business, the reflection phase was completed in November and December of 2021 after completing the Cycle 2 observation findings. I got commitment from the current business owners, managers and employed older adults to share information via short interview. I interviewed two business owners/managers and five employees near retirement age or recently retired adults who worked for the laundry business between 2017 to 2021. Interviews were conducted in interviewees' native Mongolian language and their responses have been translated to English. The interviews with the two co-owners/managers of Prost Laundry were audio-recorded with their permission for manuscript writing purposes. Questions were shared with the owners one day before their scheduled interviews, and the English-translated manuscript was reviewed by both for accuracy. Both managers

speak English. Questions to the staff were shared a week in advance. The interview was conducted online, separately for each person, for about 15 minutes for each person. Small gift cards were given in appreciation for their time. Over the course of two weeks, interviews were conducted to gain insight into the business and how it has impacted their lives.

The Interview was guided by semi-structured questions and below were the questions for the older adults:

1. What was your past roles at work, family, community before working at this business?
2. What is your current role at work (i.e., job description), family, community after working at the business?
3. Why do (did) you decide to work near or after retirement (e.g., economic and/or social needs)?
4. How does your current work role impact your life?
5. What are some barriers and supports for you and other older adults to continue to work after retirement?

Interview questions for the business owners/managers:

1. How many staff (part time and full time) did you have between 2017 and 2021? How many are near retirement or retired adults?
2. Has there been any changes in the proportion of older adult workers to all staff?
3. What roles (i.e., scope of work) do they have at the business?
4. What are some strengths and challenges of employing older adults?

5. Does this social entrepreneurship model bring any advantage in business (i.e., more sales from companies supporting older adults)?
6. What will help to expand job opportunities and roles for older adults?

For this dissertation, I facilitated a reflection session by Quality Life NGO and Prost LLC stakeholders and invited few guests from partner organization, Mongolian Board Game Association in December 2021, here referred to as the team. For this, I shared findings from both cycles, including a comparison of the organization's reach, adoption, implementation and effectiveness or impact on expanding role options for older adults, and maintenance of the different services. The team reviewed the result of program evaluation and had reflection session comparing the two initiatives and giving scores up to three scores (low – 1, medium- 2, high- 3 points) for each of the five elements of RE-AIM with maximum of 15 points. The higher score meant it is feasible to expand in the future. This information led the teams to identify lessons learned and help to determine our next cycle's steps and modifications to our overall plan to expand opportunities for socialization and employment of older adults in Mongolia. Below were some questions to help with the reflection session:

1. What are your thoughts on the evaluation data presented today?
2. What were/are the strengths and challenges of this initiative?
3. What do these data tell us about improving and expanding services for older adults in Mongolia?
4. What are our lessons learned? What is our next plan of action?

Data Analysis and Presentation

As usual with case studies, I described each phase of the program, summarizing data chronologically to tell the story. In addition to comprising the bulk of my

dissertation, this story was shared with current stakeholders of the two organizations, Mongolian Association of Elderly People and other action researchers in Mongolia and other low-income countries.

Second, I analyzed data to pull out themes that allowed me to compare the different service options' reach, adoption, implementation, impact on expanding role options for older adults, and maintenance. To do this, retrospective and recent interview conducted in Mongolian language was translated into English first and then transcribed. Interviews conducted in English were transcribed immediately after the interview in 2019. Two members of the team were involved in the data coding and memo-ing. Based on the literature review sample, key coding focused on organization's reach, adoption, implementation, effectiveness and maintenance and additional themes developed from the data. If there were any difference in themes, I discussed them with my professor and finalized the themes. Microsoft Word and Excel programs were used to transcribe and code. Each quotation was identified by participant number only, without names. Table 2 below shows my detail work for data analysis.

Table 2. Data Analysis Steps for Cycle 1: Senior Center

No	Source of Evidence	Analysis strategy	What did this inform? (Reach, Effectiveness, Adoption, Implementation, Maintenance)
1	Needs assessment survey forms and results	Frequencies of low, mid, or hi need of 9 service categories and top priority service	Reach
2	Meeting minutes, which include dates for decisions and resources allocated	Compile key dates, decisions, and allocation for chronical timeline	Adoption, Implementation

3	Facebook posting of senior center activities	Compile activity types/dates, participants, and roles	Reach, Adoption, Implementation
4	Registration of participants, Attendance records	Count # of participants	Reach
5	Project report to funders, annual NGO report to government	Check for additional info on activities, participants, resource use, and impact	Reach, Implementation
6	MOUs and agreements with partner organizations	Compile list of partner organizations and roles	Implementation
7	NGO organization establishment records	Extract info on mission, goals, etc.	Reach, maintenance
8	Financial reports between 2015 to 2021	Extract info on revenues and expenses by year and participant	Implementation, Maintenance
9	Satisfaction survey among participants	Frequencies of low, mid, hi satisfaction with activities	Effectiveness
10	Interviews and focus group with senior center stakeholders	Content analysis of transcripts to identify themes re: successes, challenges, and impact on seniors	Effectiveness, Implementation, Maintenance

Table 3. Data Analysis Steps for Cycle 2: Senior Employment

No	Source of Evidence	Analysis Strategy	What did this inform? (Reach, Effectiveness, Adoption, Implementation, Maintenance)
1	Needs assessment survey forms and results	Frequencies of open-ended answers about concerns and suggestions, current or past occupations/roles,	Reach
2	Meeting minutes, business records	Compile key dates, decisions/actions made, resources allocated	Adoption, Implementation
3	Business trip agenda to study about	Compile key dates, decisions/actions made, resources allocated	Implementation

	commercial laundry business Business projections		
4	Emails, letters, Personal notes, Websites, Pictures of laundry business operation, Newsletter piece written after interviews	Compile key dates, resource requirements. Extract info on older worker and manager's views on employment (interview in 2019).	Effectiveness/Impact on older adults, Implementation
5	Grant application and reports for senior advisory project	Compile host organization list, number of participants, roles of each partner, dates, income/stipend amount for older adults	Reach, Adoption, Implementation, Maintenance
6	Business registration documents	Extract info on mission, goals, etc.	Reach, maintenance
7	Financial reports between 2017 to 2021 – laundry business	Extract info on revenues and expenses by year, start up and operating cost, average income for older employees	Implementation, Maintenance
8	Interviews with older employees and business owners	Content analysis of transcripts to identify themes re: roles impact, supports and barriers (new interview for 2021)	Reach, Effectiveness/ Impact on roles, Maintenance.

To assure trustworthiness of the data and findings, I utilized methodological coherence and a well-thought-out plan for approach, research question, sample selection, data collection, and analysis. For interviews recently completed for Cycle 2, questions were provided to the participants in advance, and the findings were shared with participants to review and correct. I worked with Quality Life NGO and Prost LLC team to review and analyze the data. I kept an audit trail of all processes. Audio recording were used in the three interview sessions for accurate transcribing.

Findings

My findings are presented in four parts: 1) the 2015 needs assessment; 2) the observation findings for Cycle 1 within the RE-AIM framework; 3) the observation findings for Cycle 2 within the RE-AIM framework; and 4) reflection findings. The observation findings are formatted into the five RE-AIM elements. These were presented to the Quality Life NGO team for reflection and comparison of two programs. After these findings, I present the lessons learned and next steps as determined by the team.

Needs Assessment Results

Key to the planning stages of both cycles was the 2015 needs assessment. In Table 1, the profile of survey participants is presented. In summary, 427 older adults participated in the survey. The mean age of sample participants was 64.43 years, and 73% were woman. Household size ranged from 1 to 14, with mean value of 3.61. A third (33%) of the participants indicated that they spent their free time babysitting their grandchildren. More than half (60%) had a college degree.

Table 4. Profile of Participants

Variable		N	Mean	Valid Percentage (%)
Total Sample		427		
Age		418	64.43	
	Up to 60 years old	139		33
	61 to 70 years old	145		35
	71 years old and over	134		32
Gender		422		
	Female	308		73
	Male	114		27
Household size			3.61	
	Min	1		
	Max	14		
Living arrangement		400		
	Alone	34		9
	With Family	366		92
Free time		130		
	Babysit	43		33
	Work	24		18
	TV	12		9
	Read, write	11		8
	Play	7		5
	Exercise, walk, dance, bike	10		8
	Travel	8		6
	Art crafts	4		3
	Farming	5		4
	Caregiver	3		2
	Other	3		2
Education		89		
	Up to high school degree	36		40
	College degree	53		60

Shown in Table 5 are the perceived levels of service needs. In summary, among the nine types of services, four services -- retirement town, assisted living, day care, and senior center -- had the highest occurrences of medium or high need. For example,

85% of all participants (N=427) selected medium or high need for retirement town. The lowest occurrence of medium or high need was for transportation service, but 33% of participants still indicated medium or high need for this service. When participants were asked to select only one service as priority, total frequency indicated that retirement home, home care-medical, and senior center were the highest priority. The lowest priority rankings were for transportation, respite care, and assisted living.

Table 5. Perceived Needs Based on Medium or High Need Selection Occurrence

Type of service	Medium or High Need N=427	Medium or High Need %	Priority Ranking N=342
Home care - Medical	170	40	2
Home care - Nonmedical	147	34	4
Transportation	140	33	9
Senior Center	179	42	3
Day care	193	45	5
Respite care	146	34	8
Retirement town	362	85	1
Assisted living	295	69	7
Nursing home	172	40	6

Shown in Table 6 are perceived need counts by gender and age group. Consistent with the participant profile, female participants made 77% of the total medium and high service need selections. For female respondents, retirement town was the highest priority, while for males group home care medical service and retirement town were the most needed. Respite care was awarded the lowest priority for males, while transportation service awarded the lowest priority for females. Among the age groups, respondents less than age 60 years indicated more perceived needs compared to other two age groups.

Table 6. Perceived Needs (Medium and High) Count by Gender and Age Group

	Medium or High need occurrence count	Medium or High need occurrence count
	N	%
Gender	1547	
Female	1188	77
Male	346	22
Unselected	13	1
Age Group	1547	
Up to 60 years old	640	41
61 to 70 years old	476	31
71 years old and over	431	28

Shown in Table 7 is summary of responses for the open-ended question on top concerns. A total of 256 participants (60%) responded to this question, listing 367 items. These were categorized by level – micro, meso, and macro -- to look at issues in context and find solutions within the interaction between people and their environments. Micro-level items focus on individual, families, and small groups (Miley et al., 2017). Concerns at this level focused on individual’s worry for their own lives, including health, housing, family finances and relationships within their support networks, and these represented 24% of total items. Meso-level items focus on organizations and formal groups. Concerns at this level included lack of hospitals, home care access, senior centers for socialization, and employment opportunities for themselves and for their children, represented 57% of items. This included many comments on the need to develop formal group for older adult to be socially engaged to avoid loneliness. Also, older adult wished for safer and friendly neighborhoods with better walkability, lights on the street, and place to sit when outside. Macro-level items focus on larger communities, societies, and policies. In this category, respondents expressed concerns

related to low pension/social security payments to older adults, limitations in the overall healthcare system, which is very expensive, and instability of the Mongolian government. Macro-level items represented 19% of all concerns. They wished for system changes at the policy level to improve their lives. It is interesting that concern for health and healthcare services were mentioned in all three levels, from struggles dealing with sickness, to poor quality of hospital service, lack of medical advice on how to be healthier, and limited access to healthcare. Low income was also big concern in all three levels, and older adults wished for better income for their families and increases in government pension amount.

Table 7. Concerns

Level	Key Concerns & Needs	N	%
Micro	Individual, own health, housing	36	10%
Micro	Families, finances, support	32	9%
Micro	Relationship, loneliness	19	5%
	Micro Level	87	24%
Mezzo	Hospital, care	79	22%
Mezzo	Senior center	58	16%
Mezzo	Communities, safe neighborhood	42	11%
Mezzo	Business, employment	31	8%
	Mezzo level	210	57%
Macro	Policy law about low pension	36	10%
Macro	Healthcare system	24	7%
Macro	Political system, instability	10	3%
	Macro level	70	19%
	Total	367	100%

Table 8 presents information on the perceived ability of respondents to pay for new services. Data are shown by age group and gender as percentage of all 255 respondents. Overall, 41% of respondents said they could pay for new services.

However, we did not include the cost of services in the survey, nor were these services already available in Mongolia, so respondents may not be making an informed decision on this question. Age group under 60 years old reported 10% higher percentage of ability to pay compared to the age group with 71 years old and above.

Table 8. Ability to Pay

Payment related Response	Age group			Gender		Total (N=255) %
	<=60 (N=95) %	61-70 (N=84) %	>=71 (N=71) %	Female (N=190) %	Male (N=65) %	
No	19	25	27	26	14	23
Maybe	37	32	39	33	45	36
Yes	44	43	34	41	42	41
Total	100	100	100	100	100	100

Based on the needs assessment result, we chose to develop the senior center first because it was relatively inexpensive to pilot. Founders and volunteers were able to allocate one or two days of the week to help run the program based on their experience, while keeping their regular jobs and duties. The program coordinators utilized their own skills and resources to teach basic English proficiency, board games, and art projects. We did not need to spend a lot of time learning new skills and acquiring new equipment, have our own meeting place, or secure a special license to run senior center. However, we had to establish a non-government organization (NGO) to be able request to use government facilities for meetings and to seek grant funding, especially after learning about senior's limited ability to pay for services. The government unit provided the place to meet, so there was no major cost other than allocating time and supplying some class material. The Proliance team initiated the establishment of NGO and agreed to allocate staff's time to volunteer at the senior center in the first three years.

We decided to next develop employment opportunities. We learned of grant opportunities for short term projects such as the “senior advisory,” which would fund older adults to provide consulting or advisory services to the community. Given the importance of continued income for older adults, we had hoped that they would be hired after grant funding ended (similar to the US SCSEP program). The founders also had interest to test a new commercial laundry business idea to create job opportunities for older adults.

Observation Findings for Cycle 1 within the RE-AIM Framework

As noted above, we used the key five elements of RE-AIM framework to complete the observation phase and inform the reflection phase of each action research cycle. We modified the order of the RE-AIM elements for reporting. Adoption refers to the organizations willing to initiate a program. Implementation refers to the ability to deliver programs and the time and cost involved for this delivery. Adoption and implementation focus on the organization level of impact. Reach refers to the number of people who join the program and reasons why or why not. Effectiveness refers to the impact of the program. Reach and effectiveness elements focus on the individual level of impact. Maintenance refers to the sustainability of the program and whether the program becomes a part of the organizations routine practice. Maintenance focuses both on individual and organizational impact.

Adoption. Quality Life NGO adopted the senior center program for Mongolia, creating opportunities for seniors to socialize and thus meeting one of the needs identified in the needs assessment. The program was called “Quality Life Club”. The team approached a total of seven government local offices to collaborate with them by

providing space to meet and support the seniors to come to the club. Of the seven sites, three sites had weekly operation for more than one year, while the remaining four sites did not adopt the program on a consistent basis.

Support from the local governor included doing public announcements to their older residents in the area and providing a facility for the club that was easy for seniors to access, especially in wintertime with slippery roads. The primary barrier was the frequent change in governors due to political and other reasons. For example, the very first site's governor in Khan Uul district was very supportive and often visited our program and advocated for funding from the higher government office. However, in the next election (in 2017), a new governor was appointed, and he did support us to continue the program. The governor in Chingeltei district that partnered with us for over two years helped publicize our program by posting updates on her office's Facebook page, and she arranged for us to use small and large meeting rooms to host events on consistent and weekly basis. When she got promoted at another position in Fall 2019, new governor delayed the program start and later had to close the operation due to the COVID-19 pandemic in early 2020. Other barriers include meeting facility not being clean, safe, or available on consistent basis. Some sites had frequent cancelation of room reservation, which made it difficult for NGO program coordinators and participants.

Implementation. Senior centers ran in local government's meeting room between 2015 and 2019. Quality Life NGO contributed 77 million MNT or \$29,913 USD to support the senior center operation in seven different sites, some lasting only a short time and others lasting longer. This amount included monetary and non-monetary contributions and represented 47% of the Quality Life's total income from 2015 to 2021,

which totaled about \$62,139. Other income for Quality Life NGO was generated by getting contract and grants from local government (30%) and the East West Center in Hawai'i (8%), service fees for helping people to be employed in Mongolia or Hawai'i (30%), in-kind donations (16%), other income (11%), and selling board games (4%). Despite needs assessment findings suggesting older adults would pay for services, only 1% of the overall organization's income was contributed by senior center participants.

Operating expense covered the part-time salary and taxes for the senior center coordinators (54%), program activities and supplies (36%), and other administrative cost (10%). At the senior center, there were up to two activity coordinators; one was paid by Quality Life NGO, and another was paid by Proliance, as the coordinator worked part time for Proliance until 2019. Both coordinators were above 40 years old, had teaching experience, had worked overseas, and had a passion to help others. Older adults highly valued their commitment to the program for over 3 years each.

At its first site, the senior center operated two days a week from 10am to 4pm. Then it transitioned to one time a week. For later sites, we operated once a week for about 4 hours each time so that participants had time to take care of family obligations, such as picking up grandchildren from school and cooking dinner for the family. This timing was also due to the meeting room availability at the government office. Seniors' role in implementing senior center programs evolved and improved as we got more experience. In the beginning, they helped with inviting guest speakers and donating small money or materials toward the program supplies. Later seniors started being the guest speakers themselves, sharing their hobbies and experiences with others. Some members led different activities and taught board games to others in the

senior group and at the board game café. Seniors coordinated “open house” day for their families and friends twice a year in December and May to demonstrate what they learned and to share their talents by singing and dancing. They appointed senior center leaders among themselves, and they organized monetary donations to cover tea break, special events like a New Year party, and field trips to other members’ farms to harvest berries. Some members visited other new sites to share their testimonies about the program impact and co-teach the games and activities. Consistent with role theory, members were engaged and fulfilled as they expanded their roles within the senior center setting.

Reach. Quality Life NGO’s senior center had total of 448 seniors participating at least one session during the 5 years of operation at different sites. On weekly basis, 8 to 10 people participated, and some participants frequented the senior center for up to two years. The average age of participants was 65 years old, mostly women. The majority were highly educated and had worked as medical doctors, lawyers, professors, and in managerial positions. Based on the focus group results, participants initially came to avoid loneliness, have more social engagement, and learn new things. Many said they could not participate on a weekly basis due to family obligations, health issues, and limited accessibility. Due to limited locations, some had to travel on bus for up to 1 hour to come to senior center and coming to center site during winter period was the most challenging. At the center, they enjoyed the board game sessions the most, followed by guest speaker talks, dance exercises, crafts, and learning basic English. At several sites, we conducted satisfaction surveys among participants, and 100% were satisfied with the content of the program activities.

Effectiveness. Center participants highly valued the impact of the program. Having social engagement with friends resulted in better mental and physical health. One participant said “I always look forward to my Thursday because I get to see my friends at the senior center. Seeing everyone, learning new things, brings me joy and helps me forget about all the stress in my life”. Another participant shared that their physical health improved after coming to the senior center because of the various mental and physical exercises. The majority of participants noted learning new things, such as board games, crafts, and new interesting topics, all of which make them mentally sharp. Some shared that their family recognized improvements in their mental health and encouraged them to attend their weekly program. Family members, especially grandchildren, were impressed with their progress in English language classes and willingness to practice new words and do their homework. This engagement improved their relationships with their grandchildren, especially as they shared their senior center day events with their families.

Maintenance. Although the Board of Directors were committed in sustaining the senior centers, maintenance or sustainability was challenging due to funding issues on the organizational level. Limited funding was a barrier to hiring paid staff to run the program and securing consistent space to meet. The sponsoring NGO and Board was tasked with raising funds from foundations and the private sector because there was very limited financial support from the government or the participants. As of December 2021, we lost the program coordinators because the senior center could not operate during COVID-19, and these coordinators found new jobs. Team want to re-start the programs after COVID-19, but without new funding and new coordinators to run it, it will

be very difficult to maintain it. In the past, NGO founders were part of Proliance management team and were able to allocate funding and shared human resources with the NGO. Team believes that champions, active leadership of the organization and strong support from the local governor's office will be needed to re-launch the program.

Maintenance on the individual level is sustainable especially when we can keep consistent location and time to meet. The meeting room capacity was for about 15 to 20 seniors at most sites, but on average about 8 people attended on consistent basis. Older adults are more involved in the senior center and help to sustain it when they serve as guest speakers, co-coordinators to lead activities, and organizer tea breaks and special events. Expanding the roles of seniors in the activity planning and execution is key to successful sustainability.

Observation Findings for Cycle 2 within the RE-AIM Framework

The needs assessment showed that at all micro, meso and micro levels, older adults worried about finances, especially after their retirement as they received low social security payments. They wished for more employment opportunities and increased social security payments. To meet this need, Quality Life tried several short-term projects. First, we organized continuing medical education (CME) workshops among healthcare workers by inviting older healthcare professionals as guest speakers. Mongolian medical doctors, laboratory doctors, and pharmacists have to earn at least six CME credits each year to maintain their medical licenses, and only nonprofit organizations were eligible to provide such training. Thus, we partnered with Proliance LLC, which provided the workshop meeting space and invited healthcare workers, including their hospital and pharmacy customers, to attend. Quality Life recruited older

medical experts, paid speaker fees, and provided CME certification to the attendees after completion of the training. The CME certification and credit were approved by the Mongolian ministry of health based on content and length of the training. Quality Life organized four CME workshops, and 299 healthcare workers attended between April and December of 2017. This was a successful collaboration with Mongolian hospitals, where younger healthcare workers learned from the older experts. However, a new law required that only educational entities such as medical universities with permanent paid staffing could issue CME credits. Quality Life applied to be certified, but we did not have salaried medical training staff, and we could no longer continue this project after December 2017 when the new law was implemented.

Next, we tried our “senior advisory” project after securing grant funding from the government agency called General Office of Labor and Welfare. In 2017, we helped 31 older adults to provide consulting services to local organizations, mostly in the education, healthcare, and agricultural sectors. Older adults were paid a stipend from the grant funding. We partnered with 44 local organizations, and these 31 older adults provided training and technical assistance to 3,572 people within 2 months.

Then in 2018, we applied and received grant to do another round of “senior advisory” projects with 40 older adults for two months. The competitive grant application process and reporting requirements were harder in the second round, especially when a new government official was appointed. For example, the grant funding had to be spent only for senior’s stipend, with little administration support cost for Quality Life team. The government officials wanted the older adults to consult and advise others on large

projects, but demand for such services was low. Mainly older workers went to their previous jobs and did training within two months.

Providing a modest stipend was helpful to older adults economically, but it was challenge for the Quality Life team to administer the program. For example, our team had to collect school diploma copies, help build the CV to prove that our seniors were qualified to do the consulting job, and help the older adults write their consulting reports. We could not easily find and match organization with large project's consulting service need within the grant's short period. Instead, we asked seniors to contact organizations in their networks that might need their service. Although over two rounds 71 older adults provided services to organizations, we observed that this project did not lead to long term consulting engagement or employment for the older adults. Thus, we decided not to pursue this grant funded project after 2018 due to limited staffing for grant administration.

We then focused on creating long term job opportunities by launching new business to employ older adults. In below section, we share the findings of the eco-friendly, commercial, laundry business initiative using RE-AIM framework.

Adoption. Prost LLC is a commercial laundry business in Ulaanbaatar, Mongolia. It was founded in 2017 as a social entrepreneurship project in partnership with Proliance LLC and Quality Life NGO. Quality Life's intent was to provide employment for older adults, and Proliance's purpose was to complement other business operations, as it already supplied laundry supplies to other customers. Prost LLC's adoption reason was testing a new business idea in an environmentally sustainable way.

The environmental cost of doing laundry at home is high. A single load of laundry when washed at 60°C and dried in a combined washer/dryer, results in 3.3kg carbon footprint (CO₂e). For a family, it means they can generate about 440 kg CO₂e on annual basis (Berners-Lee & Clark, 2010). Most washers and dryers use electricity to generate heat, which is not efficient way to create heat. There is significant energy waste, water waste, and chemical pollution involved when we do laundry at home using typical washing machine. Making changes to our laundry habits and switching to eco-friendly machines and dryers, specifically designed to reduce water and energy are good solution toward a greener way of life. With the usage of commercial laundry equipment, laundry detergent, Prost aims to reduce water and energy by 50% compared to home laundry.

In the beginning of the project, older adults were hired and managed by Quality Life NGO, and we outsourced their service to Proliance LLC. Proliance LLC supplied the equipment, supplies, space, and business management oversight to operate commercial laundry, which was a new business idea. In 2018, the project became separate business entity under Prost LLC, co-owned by two entrepreneurs. One key factor here is that all key people were involved in three partnering organizations, which made the adoption process smooth. For instance, members of the Proliance LLC's executive management team were the founding members of the Quality Life NGO, and one later became the co-owner of Prost LLC in 2018.

Implementation. Proliance senior team visited commercial laundry businesses in Singapore and China to study the business requirements in early 2017 and launched the laundry business in the summer of 2017. They invested about 250 million MNT or

\$103,002 USD (Central Bank of Mongolia, 2017) for startup cost, which included laundry equipment, supplies, space renovation, and outsourced staffing in the first year of operation paid to Quality Life NGO. Outsourcing the staffing was useful because Proliance's other business had very different staffing and salary structure (i.e., no part time employment, all staff are salaried), thus the part time employment with hourly rate was good pilot to test.

It was managed by the co-owners, and older adults were hired and trained to do the basic laundry services, including sorting, operating laundry machines and dryers, ironing, and packaging. It has been operating since July 2017, serving about 10 routine commercial customers, including hotels, resorts, and restaurants in Ulaanbaatar. It operates in a 200-meter square space in Khan Uul district of Ulaanbaatar.

Reach. Of the company's nine total employees pre-COVID, five were older adults who were either retired or near retirement age. Interviews were conducted with these five people, some of whom no longer work at Prost Laundry since the COVID-19 pandemic. All the current and former employees interviewed were female and were aged 48-61; the median age of the group approximately 55. They all have children, most have grandchildren, and their current household size was about three persons. Their highest level of education completed ranged from high school to four-year college, the median education level being Technical College/associate degree. The eldest interviewee (61 years old) had the highest education level and was the only one with a bachelor's degree. Two staff worked in Korea in the past to earn income, and two had attended technical school or college in the Czech Republic, Uzbekistan, or Russia during the socialist time.

Older staff members operate four commercial laundry machines and the large ironer, and they rotate in tasks such as sorting, folding, and packaging laundry. There is a separate driver for product delivery, but if there is a shortage of drivers, older adults also cover for the driver when needed. Experienced staff's role also includes training newer employees, doing quality inspection, and helping with customer communication. Two staff have worked for more than 3 years from beginning of the project and on average they worked 1.5 years at Prost Laundry. The majority of older staff work full time, and their hourly pay rate is between 3,500 MNT to 5,000 MNT (\$1.23 to \$1.76 USD equivalent per hour), which is average market rate for labor work.

Before working at Prost Laundry, many of the older adult staff worked in government jobs (manufacturing, teaching, print publishing, etc.). They all had been raised during socialism in Mongolia and lived through the government's transition to democracy in 1990. In this transition, those people working in the public sector lost their jobs and struggled to find work in the private sector. "Finding and keeping a good job was difficult during democracy, even more after retirement," said one employee. She was a former government manufacturing employee and cited a low pension as a major reason for coming to work at Prost.

Many of the other staff members mentioned having a financial incentive to work near/after retirement, e.g., wanting to supplement a low social security pension or to qualify for a pension in the future. Notably, interviewees also mentioned wanting coworkers. "I decided to work for both financial and social connectedness reasons such as having a co-worker friend," said one staff member. "Not having social interactions or colleagues was really difficult," said another.

Effectiveness. For the older adults working at Prost Laundry, their jobs have an impact that goes well beyond their paychecks. The job gets them out of the house, helps them feel productive, brings them social connections, provides income, and reduces stress. One employee said specifically that she felt staying at home was not good for her health. When asked about how their current work role impacts their lives, they responded saying it greatly improves their lives. They enjoy having better finances, spending time with colleagues, having a routine, staying healthy, discussing intellectual topics, and more. They also say that at Prost Laundry, “the work is not hard.” The work is not stressful or dangerous, and those that do some of the more physical work enjoy the exercise.

One staff person highlighted that this job helped her family a lot. In the past, she was mostly self-employed and did not have an “official” paycheck, which made it difficult to qualify for bank loans etc. With this job, she gets a steady paycheck, which allowed her to secure a bank loan to buy a 1-bedroom apartment. Previously she lived in traditional home “ger” with no running water and outdoor bathroom.

Maintenance. When asked what supported them to work after retirement, the primary support was not having the obligation to care for grandchildren or aging parents. One staff said “My children don’t ask me to babysit their children, and they encourage me to live my life as I want it”. Three older adults currently working at Prost Laundry don’t have caregiving obligations on daily basis and therefore are able to work full time there.

Even though retiring at age 55 seems too early for some, it also played a supporting role as they are healthy and capable to work in new sector in a new role,

especially in clean and good working environment. For those who had not retired yet, having the company pay their social security taxes and health insurance was key support, preparing them to qualify for a pension later. They wanted to continue working at the business and wished that more people could work like them. However, the laundry service demand at the current facility is just enough to keep three seniors employed at any point in the year. To increase job opportunities for other older adults, the business would need to expand with more equipment capacity, more customers, and more sales.

Shortage of daycare for young children and not having residential senior care facilities were mentioned by almost all participants as the major barrier to work. Two of the staff had to discontinue working to help take care of their children, grandchildren, and/or aging parents. Traffic in Ulaanbaatar city also made it difficult to keep a part time job, as older adults needed to pick up and drop of children from school. One staff said” I wanted to continue working... but in order to help my children to work, my husband and I had to help with pick up and drop off my granddaughter.” “It takes almost 2 hours to get from home to school or work, so it is hard to work part time or full-time job when I need to help out others.”

Limited job opportunity for older adult in Mongolia, especially rural Mongolia, is another barrier to employing older adults, even though there are many people who wish to work. One staff shared “In Erdenet city, there is no job available in private sector. If I stayed there with my husband, I could not work at all.”

Having health issues or caring for household members with health issues was another barrier to work for older adults. For those who can’t work due to health and

other issues, they still need place to socialize with others. Older workers shared concerns about fellow retirees who don't have places to gather together, talk stories, and learn new things. They wished senior centers to be available to those who can't work.

From the business owner's and manager's perspectives, older workers have many strengths, including rich work experience, dedication, and reliability. They may not be as fast and energetic as younger workers, but they are very reliable, especially if they don't have many family care obligations and do not have health issues of their own. Business managers don't necessarily publicize that they are employing older adults but having reliable older workers has helped Prost run the operation smoothly, and this brings a business advantage. "Older adults being responsible workers helps our business operation very much," said co-owner. According to managers, older adults pretty much cover all parts of the operation, except the transportation of clean and dirty laundry and business paperwork. During the COVID pandemic, they had to reduce the number of workers and but kept the older workers because they were the most responsible.

Having a good work environment that is suitable to older adults helps to offer and expand job opportunities for older workers. The Prost managers provide older adults relatively easy tasks and offer a flexible schedule in stress-free environment. At the facility, they have table tennis and pool tables, and older adults like to play, have fun, and do exercise during their break. In typical 8-hour day, older adults work about 2 or 3 hours standing up (e.g., feeding bed sheets to ironing machine, packaging) and then rest for 30 minutes, and then do another task, doing rotations. The business delivery car

is available to pick up and drop off the workers before or after rush hour traffic if needed.

In the future, the Prost managers will continue employing older adults for the main operation and employ younger workers for more physical work (i.e., delivery and transportation). An owner said, "Older workers are asset to our company, they are not as fast as young workers, but they are good, reliable workers." To employ more older adults, the business would need to generate more sales and profit to sustain it. According to owners, more government support is needed to private business to hire older adults on a part time basis along with the younger generation. He stated, "older adults can then support younger workers with training and mentorship on the job... older adults and younger people will benefit both."

A manager suggested either government or business to help cover health insurance that will allow older adults to get services at private clinics and hospitals. The current government-sponsored health insurance covers services in government hospitals, and older adults sometimes must wait a long line to get health services or pay a lot of money out of pocket for services at private hospitals. Access to fast and quality healthcare services will support older adults to be able to work and have meaningful roles in society. Business owners are considering starting a savings program for older staff to be able to cover unexpected high costs such as healthcare costs.

Reflection Findings

In December of 2021, the team reviewed the result of program evaluation to reflect on the senior center and employment initiatives. The team started by giving

scores (low – 1, medium- 2, high- 3 points) for each of the five elements of RE-AIM with maximum of 15 points. The higher score meant it is feasible to expand in the future.

Table 9 shows the summary of the points for each element by the team. Cycle 1 Senior Centers had high reach because they served over 448 unduplicated seniors since the beginning of program, and Cycle 2 Senior Employment had low reach as it supported about 70 older adults to volunteer and work at community organizations, including the five older staff at the laundry business. Both initiatives had positive impact on their lives in regard to social engagement, physical, and mental health, thus received high scores for effectiveness. Adoption was scored at the medium level for Senior Center because adoption varied based on the governor's involvement and support. Three sites operated more than one year, while four sites operated for several months only. Senior Employment adoption also received a medium score because the senior advisory project wasn't adopted by the hosting organizations after the grant funding in both years. However, the laundry business was well adopted for four years, albeit only in one site. Implementation was medium for senior center, as we relied heavily on the meeting space provided by the government, and we could not deliver program at some sites as intended. Implementation was high for the employment initiative because older staff were able to consistently deliver the senior advisory project or operate the laundry service and earn good income as intended. Senior Centers were scored low for maintenance because of continual challenges to running the program without external funding and with the need to rely on elected officials for space. Maintenance was high for senior employment in the laundry business, as working with older adults have become the laundry service's routine practice, and both the business owners and older

staff are planning to continue the project in the long term. Short term employment or senior advisory project was high for maintenance at the individual level due to the grant funding support for the stipends, but for the organization level, it was medium because it was hard to administer with little administrative support. Overall, the Senior Center initiative received 11 points, higher in reach and effectiveness elements, while the Senior Employment initiative received 12 points, higher in implementation, effectiveness, and maintenance.

Table 9. Program Evaluation for Cycle 1 and Cycle 2 within RE-AIM Framework

Key measures	Cycle 1: Senior Center	Cycle 2: Senior employment
Reach	High – 3	Low – 1
Effectiveness	High – 3	High – 3
Adoption	Medium – 2	Medium – 2
Implementation	Medium – 2	High – 3
Maintenance	Low – 1	High – 3
Overall Score (15 max)	11 points	12 points

Based on the data and discussion, the team all agreed that we should focus on expanding Senior Employment programs, as this expands seniors' roles, provides social connectedness, and has a positive financial impact on their lives. This initiative met the two main needs we identified in our initial planning research in 2015 and decided to follow with action in 2017. Board members were satisfied with the result of Cycle 2 observation findings from research conducted earlier in 2021 among the laundry

workers and had productive discussion and planning on the next cycle as part of our action research in Fall 2021.

Lessons Learned

Team agreed that together we accomplished a lot, despite limitations in funding and paid staff. We learned that strong organizational and individual champions are important. Board members, volunteers, and supporters played key roles to start and sustain these two initiatives. Some contributed cash, space for our office, and activities, and others contributed their time in grant writing and generating other income to support the mission.

Second, we learned that future services should be low cost or generate income somehow. Although external funding would be very helpful, currently, the Mongolian government is not in a position to help at policy development and funding, and politicians are always shifting. Relatedly, we learned that to expand senior centers or try new services without payment, we need to work on the policy level to resolve funding issues, which will take a long time considering our current economic and political context. Instead of waiting for government policy and action, we will continue developing our initiatives in partnership with private sector to find ways to utilize older adults' skills.

Third, building win-win partnerships with stakeholders is critical for future services. We learned that our program is successful when it benefits both the older adults and the stakeholders, such as the business owners and government units. For senior centers, the government played role by providing space and promoting our program. In return, they were seen as forward-thinking and people-oriented, which

helped their prestige. In the case of laundry business, older adults' employment program had to fit well with the business goals.

Next Steps

Based on the reflection session discussion and lessons learned, the team brainstormed new ideas and developed short, medium, and long-term plans to promote new roles for older adults in Mongolia. New information brought to the team included our current experiences living and working in Hawai'i and other locations for education. For example, while in my doctoral program, I completed an internship with the Arcadia group, worked at Plaza Assisted Living and Kokua Kalihi Valley Comprehensive Family Services (KKV), and volunteered at the Osher Lifelong Learning Institute and University of Hawai'i's Center on Aging.

To provide education and promote socialization, our next cycle's immediate action plan includes developing Facebook content directed to both older adults and their families, as Facebook is commonly used among Mongolians, and it is low cost. Per the 2020 Census data, over 90% of older adults use phones and over 32% utilize internet. Short messages, videos, and training content which highlights older adult's strengths, healthy aging, and employment benefits will be targeted to older adults themselves. Other content will be targeted to their support network, especially their families, to support older adults to have fewer family obligations at home and demonstrate how social connectedness and employment after retirement can truly benefit older adults' mental and physical health, benefiting everyone. We will highlight success stories of older employees such as laundry workers, so other business owners can consider hiring

older adults and partnering with us. These messages will help to change the overall attitude about older adults and build a good audience for us.

Our medium range plan is to develop a Human Resources agency for older adults and others (i.e., disabled people, women above 40 years and older) who are struggling to find jobs on their own. We will research and find opportunities for outsourcing to jobs that are suitable for older adults by creating a database of older workers and a database of businesses that need reliable workforce. By generating income from Human Resources agency fee, we will support our sustainability by having dedicated staff and funding to support other programs. This way older workers can also contribute to re-launch our senior center operation after the pandemic and help support those who can't work.

The poor healthcare system is big concern for older adults and everyone in Mongolian society, as shown in our research results. We will explore opportunity to utilize retired healthcare workers first as volunteers and paid staff. Medical doctors in our team shared how patients come to large state hospitals and don't know where to go and where to get appointments, and they get frustrated when they cannot find the right doctor's office. Hospitals really need greeters to welcome patients and guide them with getting appointment and finding the doctor's office etc. Hospitals may have some budget for this position. We can help retired healthcare workers to go back to work and help their hospitals as greeters and in other support roles. For example, the Mongolian Cancer Center is in a huge building, and many people come there with severe medical needs and wait a long time to be seen by doctors. Older healthcare workers can help them with basic information about certain diseases and give them helpful information

while waiting in line for the doctor's visit. We can work with hospital management to train the volunteers and collect any complaints and suggestions from patients about improving the services. One medical doctor on our team noted, "We can even support patients to play games at the hospital to encourage them. People who come to cancer center are struggling with life threatening disease, so emotional support and giving them opportunity to play and laugh will be helpful."

Training older adults in new roles and new sectors after retirement will be one of the key goals. Training may include customer service and communication skill such as helping to manage angry customers and patients with de-escalation techniques. To build credibility for the organization and older adults who work with us, we will work toward building "Quality Life" brand and continue our collaboration with international organizations. We are in the discussion with East West Center on how to set up training for older adults and provide some credentialing for the successful completion of the training for older adults.

In the long term, we wish to develop a multi-purpose senior center where older people can get comprehensive services including training, lifelong education, social engagement with other generations and receive employment assistance like in large senior centers in the US. We need safe facilities, dedicated staff, and volunteers to provide various services. We need to learn best practices of how government supports senior centers and employment programs in other developing countries, so we can also help train others, especially Mongolian government staff and other stakeholders, on how they can help develop these opportunities at policy level.

Discussion

My research question was, “How can an action research strategy be useful in the development of new services, particularly senior centers for social engagement and employment opportunities, and expand roles for Mongolian older adults?” Action research was useful as a systematic approach to planning, acting, observing, and reflecting on the development of new services for older adults in Mongolia. Action research was particularly helpful to our team because of its practical nature, cyclical process, and participatory characteristics. Overall, it is an efficient strategy in achieving positive change.

The older adult population is growing globally. Senior employment, services, and programs are widely used in developed countries by people who are 60 years and older to help them remain active and healthy, live independently, and contribute to society. In contrast, less-developed countries are facing rapid increases in their older adult populations, and limited resources are hindering the development of senior services and opportunities. Mongolia, a developing country, currently has a low percentage (7%) of overall population that are senior citizens, yet this percentage is projected to triple and reach 19% by 2050 (National Statistics Office of Mongolia, 2021; United Nations, 2017). Many retirees in Mongolia struggle with inadequate income and would like to find employment that fits them. Only 16% of seniors in Mongolia are able find jobs after they retire at age 60, even though 60% of retired people wish to work or volunteer (Mongolian Association of Elderly People & Ganabell Institute, 2020; National Statistics Office of Mongolia, 2021).

How can less developed countries like Mongolia start and sustain services for older adults when there is high need of services and limited resources to meet the need? Which programs should we start first? Building retirement homes would require a lot of investment, and the Mongolian government is unable to pay for such investment yet. The private sector is reluctant to enter the new market when the majority of older adults are unable to pay for services themselves, especially when the current target customer represents only 7% of the population or about 232,000 people. This is why we need to focus on case studies of lower cost senior service delivery models, such as senior centers, in developing countries and share the result to expand these services. Supporting older adults' employment is one solution to alleviate concern for low income. Quality Life NGO piloted senior centers in Mongolia to meet one of the priority services and offered opportunities for part time employment in partnership with business entrepreneurs.

Using action research and RE-AIM frameworks supported the team to plan, act, and observe the program outcomes and then to reflect, preparing us for the next cycle of our journey in starting and sustaining new services for older adults and expanding roles for Mongolian older adults. Action research is generally hands-on, small-scale research and driven by real-world problem. During the planning phase, Quality Life team surveyed over 400 older adults to learn about their priority needs. We learned that all services were needed, and priority ranking confirmed that senior centers were desired for socialization and that low income was a big concern of Mongolian older adults.

Based on the needs assessment results, we run senior center programs from 2015 to 2019 and observed that seniors came to the senior center to avoid loneliness, and for self-development. Participation barriers included limited locations for senior centers, family obligations, health issues and lack of awareness. Participants reported positive impact on their lives, especially for better health and social engagement. This impact finding was similar with research results from senior center participants in the US (National Council on Aging, 2015).

Reflection sessions pointed to the need for organizational and individual champions. This was consistent with findings from other researchers who researched new program sustainability among eight eldercare agencies in Hawai'i (Tomioka & Braun, 2015).

Little or no monetary contribution from senior center participants was consistent with needs assessment result about low ability to pay for services. In the absence of adequate funding, a key finding included the importance of win-win collaboration with Mongolian government and businesses and the need for sustainable initiatives that capitalize on older adults' strengths and new roles in the community. In the program sustainability literature, win-win collaboration is also called a program-organization fit. This literature points that the program needs to fit the organization's mission and goals to be sustainable (Scheirer, 2005).

Utilizing the needs assessment's finding about low-income concerns, we developed our cycle 2, employment for older adults. With the grant funding, we first launched several short-term employment projects such as CME trainings among healthcare workers and "senior advisory" project among community organization.

During the observation phase, we learned that these short-term projects did not lead to long term employment or volunteer opportunities as we hoped for after the grant period. Creating job opportunities in partnership with commercial laundry business had very positive results. Older adults decided to work for financial and social engagement purpose. Senior's employment support included their family's support to work. Elders' good physical health and mental capacity to work were other supporting factors. The additional income helped them to be more independent and contributed to their family's income substantially. Older workers enjoyed the social interactions and sense of community. They reported positive impact on their physical and mental health, more energy and productivity. This finding was consistent with studies in the US for Senior Corp and SCSEP program where participants reported better health outcomes (National Council on Aging, 2020; *Senior Corps & Health Benefits*, n.d.; Washko et al., 2011).

Even though the senior center and senior employment initiatives are different programs, it was helpful to use RE-AIM framework to compare aspects of program reach, effectiveness, adoption, implementation, and maintenance on both individual and organization level. This helped us decide where to focus next. Using high, medium and low level to understand the factors is consistent with literature review regarding RE-AIM framework (Glasgow et al., 2019). Cycle 1, senior center program received high level in reach and effectiveness because over 400 older adults participated in the program in five years and reported positive impact on their lives, especially on social engagement. The senior center program received medium level for adoption and implementation as the implementation varied based on the government agency's involvement and support. It received low level for maintenance due the challenge of the organization's ability to

sustain it without external funding. Cycle 2, senior employment program received low level for reach due to the lower number of participants in the program due to grant funding and employment job opportunity limits. However, it received high level for effectiveness, implementation and maintenance elements because older workers reported high impact on both social and economic factors. For the employment in laundry business, maintenance was high at both individual and organizational level. Overall, senior employment project received higher total scores compared to senior center project's scores.

The reflection phase helped us to compare and evaluate the programs and plan for our next cycle's action. Based on these reflections and new experiences of team members, the team decided to focus on expanding senior employment opportunities by developing a human resource agency for older adults and provide outsourcing service for businesses that need reliable workforce. Building on our experience from Mongolia and internationally, we also plan to support older adults through Facebook to gain new skills and expand their roles after retirement by providing training and network with local and international organizations.

Study Limitations

Even though there are many advantages of the case study approach, there are four main disadvantages of this approach: 1) producing generalizable findings; 2) gaining access to case study settings; 3) focusing on process rather than outcomes; and 4) defining boundaries to the case (Denscombe, 2017; Yin, 2018).

The primary audience of this case study was current stakeholders of the two organizations, future supporters, and advocacy groups such as the Mongolian

Association of Elderly People in Mongolia and Mongolian Medical Science University's social work department. I made presentations about our research frameworks and findings to Mongolian social worker students and community leaders. My goal is to expand and generalize theories (analytical generalization) and not to extrapolate probabilities (statistical generalizations).

Based on my current volunteer roles both in Quality Life NGO and Prost LLC, I had access to the case study documents and settings. This study utilized previously collected data by the researcher. Although the participants and stakeholders in previous study, especially the volunteer staff and government officials, may be no longer accessible for further clarification and verification of the primary source, Ulaanbaatar is a small city and I'm in touch with many of the stakeholders. One of the board members of the Quality Life NGO is recent graduate of the University of Hawai'i at Mānoa and she helped verify previously collected data.

In addition to explaining action research process, I also analyzed reach (e.g., number of senior participants in the two services) and reflecting on the outcome of each cycle and phases (i.e., quantitative research for service needs assessment, qualitative research on program evaluation). I set boundaries by limiting the case period from 2015 to 2021 and services related to older adults. For example, these two organizations have other services not directly related to older adults, and these were excluded in the case study scope.

There is potential bias because I am passionate about the organization as its founder, and I know more about the case compared to some of the new board members, staff, and stakeholders. However, I aimed to be objective because I want true

lessons and challenges to be shared. Sustainability beyond the first 5-year pilot is a critical issue for the organization. Thus, this study also gave an opportunity for the organization to reflect and plan for the future.

Implications for Social Work

Advancing long and productive lives is one of the 12 grand challenges for social workers. Thus, it is critical to study aging and evaluate different service models and interventions in meeting older adults' economic and social needs, especially older adults in developing countries, and to use this knowledge to plan for future services.

Quality Life NGO used an action research model to plan, implement, evaluate and reflect on new senior services in Mongolia starting in 2015. The case report provides detailed answers to many questions, including: 1) What programs were implemented and how they were chosen? 2) Who participated in the senior center and employment initiatives, and what benefits or impacts did participants perceive? 3) How were the initiatives funded, and how can they be sustained in the future? and 4) Where should we go next? Sharing of case study results led to serious discussion and reflection among stakeholders of Quality Life NGO and Prost LLC and helped us plan for future research and action. Lessons learned may help other individuals and organizations in other developing countries to start and sustain similar services more effectively.

Action research is practical, hands on, and relatively small scale. It can be implemented in low-cost ways and in a short timeframe. For example, I utilized the 4 phases of action research while conducting a new online class for older adults at Osher Lifelong Learning Institute at the University of Hawai'i. This framework helped our

volunteer team to plan the online class, run the activities, and do observation at the end utilizing Zoom's poll features for feedback. Poll results helped us to evaluate each class activities immediately; our team reflected on the results right after the class and planned our next class with some revisions. This 4-phase strategy helped us to improve our class and run our activities effectively. Asking for participants' feedback, and quickly bringing small improvements based on their feedback, truly helps to build trust in community we work in. Understanding and utilizing this framework in micro, meso, and macro level will strengthen social work impact.

Being able to evaluate programs and reflect on the changes we bring is critical skill for social workers. Learning how to develop culturally appropriate questions is very important in the observation phase. For example, in Mongolian culture, we learned that older adults are hesitant to give answer to "What is your least favorite program and why?" Older adults were very thankful for the senior center activities, so they all said they loved all the programs. Then we had to modify the question to ask, "which activity will you not miss too much?" Then older adults were willing to answer, and it helped us to rank the programs for future planning.

Being inclusive and having equity in all phases of the process is important for social work. For example, Quality Life team was able to run pilot programs mainly in the city's central area where people lived in apartment and have medium-level income. Due to the lack of availability of government meeting rooms, volunteers, and guest speakers, we could not reach the low-income community in the outskirts of the Ulaanbaatar city. For the senior employment program, we could only support older adults who are physically and mentally capable. During our reflection session, our

interdisciplinary team discussed how to solve this equity issue. To be more inclusive, we plan to train older adults and other community members to run senior centers on their own in the next cycles and empower working older adults to make their own contributions in expanding services for older adults who may not be able to work. The greatest impact of this case study is it shows how an interdisciplinary team (i.e., business entrepreneurs, social workers, public health experts and government officials) worked together to advance long and productive lives with limited resources.

Celebrating the fact that many people are living longer, we need to be active in managing existing resources to ensure that all older adults now and in the future have a place and meaningful roles in their community. This opportunity to pursue social, physical, and intellectual activities and contribute talents and share experiences with others is critical. Considering the rising numbers of older adults, the diversity in the aging population, and the reality of costs and limited resources in developing countries, social workers should focus on researching, developing, and sharing innovative models. This case study of how we tried to develop services and expand roles for older adults in Mongolia can help others.

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