



INNOVATION FOR AN AGING ASIA

*Case Studies from the
Healthy Aging Prize for
Asian Innovation (HAPI)*

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Kim Gould Ashizawa and Stephen McHugh

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Written by Kimberly Gould Ashizawa and Stephen McHugh, with assistance from Momoko Abe and Noor Farahnaz Abu Mansor.
Design and typesetting by Patrick Ishiyama.

Japan Center for International Exchange (JCIE/USA)
475 Riverside Drive, Suite 731, New York, New York 10115, USA www.jcie.org

Japan Center for International Exchange (JCIE/Japan)
Meisan Tameike Bldg. 7F, 1-1-12 Akasaka, Minato-ku, Tokyo 107-0052, Japan www.jcie.or.jp/japan

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Kim Gould Ashizawa
Senior Advisor
JCIE/USA

Stephen McHugh
Program Officer
JCIE/USA

OVERVIEW

The Healthy Aging Prize for Asian Innovation (HAPI) was launched in 2020 as a way to identify innovative policies, programs, services, and products that address the challenges facing aging societies, help extend healthy and meaningful lives, and improve the provision of care to older adults.

The need for greater understanding and awareness of the challenges and opportunities associated with the Asian region's rapidly aging population is clear. The number of those aged 65 and older in East and Southeast Asia is projected to roughly double between now and 2050,¹ and the number of people living with dementia is expected to jump from just under 16 million in 2020 to more than 47 million in 2050.² This will have a substantial impact on everything from the way that governments conceive of and fund healthcare and social welfare to the way that families, communities, and the private sector adapt to this new reality. HAPI was created with the belief that we do not have to start from scratch to search for solutions.

Japan had a roughly two-decade head start in terms of dealing with the aging of its population, and today, nearly 3 out of 10 people in Japan are at least 65 years old. As a result, the country is a rich trove of resources for lessons on how to live with these demographic changes. Since the 1990s and early 2000s, other Asian countries have also been adjusting to aging citizenries. China's older population currently stands at 13 percent—a smaller percentage than Japan, but one that represents over 190 million people—and is expected to rise to nearly 24 percent by 2040. South Korea, Thailand, and Singapore are also now well along the path toward becoming “aged” populations, while others in the region are quickly catching up.

From the national level to the community level, from nonprofits to corporations, and from academia to professional or neighborhood associations, people across the region have been thinking about how best to ensure that older people have the basics—adequate and safe housing, access to healthcare that addresses their specific needs, and nutritious food—but also that they have their social and emotional

1. AHWIN website, <https://ahwin.org/data-on-aging/>.

2. Alzheimer's Disease International, “Numbers of People with Dementia around the World,” <https://www.alzint.org/u/numbers-people-with-dementia-2017.pdf>.

needs met—the ability to remain in their homes and communities, to be engaged with their community, to enjoy physical activity, and to have a sense of purpose. There is great opportunity for and benefit from sharing innovative approaches with one another that can be adopted or adapted to other countries' needs.

After three rounds of HAPI prizes, we believe that we have accumulated a critical mass of exemplary work that provides useful lessons for countries across Asia and the world. This report seeks to highlight the various innovations that we have been fortunate enough to learn about, and to share those insights more broadly. We will begin by examining what can be done to help people age in their own homes and communities, addressing innovations that bring healthcare and other services to older people rather than limiting them to institutional settings, and how communities are becoming focal points for preventive care and healthcare. Next, we will examine innovative approaches that focus on the mental and emotional health of older people, promoting greater engagement with their communities, intergenerational connections, and purposeful living. Our next section will examine innovations in medical care and support for caregivers, followed by an examination of unique approaches that improve the lives and wellbeing of those living with dementia and those who care for them.



ABOUT THE HAPI AWARD PROGRAM

In 2018, the Japan Center for International Exchange (JCIE), in partnership with the Economic Research Institute for ASEAN and East Asia (ERIA), was tasked with promoting bilateral and regional cooperation on aging-related challenges in Asia under the auspices of the Japanese government's Asia Health and Wellbeing Initiative (AHWIN). The plan entailed creating a web-based platform that could provide information on trends and issues related to aging in Asia, showcase lessons learned and innovative approaches to aging, and share information on the AHWIN healthy aging initiative itself. The challenge we faced, however, was how to determine what was truly “innovative” and how to ensure a fair and unbiased selection process. The result was the creation in 2019 of HAPI, an award program that is guided by an international advisory committee comprised of experts from Northeast and Southeast Asia that makes the final selection of winners. The first round was held in 2020.

The criteria for applicants are that they must be an organization (individuals are not eligible), which includes local governments, businesses, civil society organizations, universities and research institutes, and so on. They cannot be central government ministries or departments or be international organizations, and they must be based in an ASEAN member country or in China (including Hong Kong SAR, Macau SAR, and Taiwan), Japan, or South Korea.

Through the first three rounds of the award competition, there were 10 HAPI Grand Prize winners and 18 winners of the Second Prize or Special Prize. The winners represent nine locations: China, Indonesia, Japan, Malaysia, Singapore, South Korea, Taiwan, Thailand, and Vietnam. Awards are given in three categories: Community-Based Initiatives, Supporting Self-Reliance, and Technology & Innovation. Within those categories, the specific innovative approaches that the awards have recognized have varied greatly and have addressed a broad range of topics, as shown in the figure below. Each winning innovation is featured on the HAPI website (www.ahwin.org/award). A number of finalists among Japanese applicants are also selected as “domestic best practices.”



1 ENABLING PEOPLE TO AGE IN PLACE

In recent decades, there has been a trend throughout Asia toward greater urbanization and away from multigenerational households. In China, for example, single-generation households grew from 13.5 percent of all households in 1990 to 33.25 percent in 2010, and the rate was more than 40 percent in urban areas.³ As populations age, this has led to large numbers of older people living at home either with an elderly spouse or by themselves. In Malaysia, a recent Asian Development Bank longitudinal study found that those living alone or only with their spouse ranged from about 20 percent for those 60–69 years of age up to 30 percent for those 70–79, and then back to around 22 percent for those 80+.⁴

Most people prefer to remain in their own home as long as they possibly can, surrounded by familiar places and faces. And from a cost perspective, remaining at home and receiving home-based care rather than moving to an institutionalized setting is more economical. Japan, for example, shifted the priority of its social welfare policy for older people away from the medicalization and institutionalization of aging—i.e., relying on nursing homes and other institutional arrangements to provide care—and toward greater in-home and community-based health and welfare services under its 1989 Ten-Year Strategy to Promote Health and Welfare for the Aged, better known as the “Gold Plan.” They have continued to adjust and improve that policy in subsequent years, and a wide range of technological and community innovations have facilitated that shift as well.⁵

Enabling people to age in place requires thought and intentionality in the design of services, programs, products, and community infrastructure in order to offset the challenges and obstacles facing older adults and to ensure that they can continue to not only live but thrive in their homes. While there are numerous innovations that address this objective, we will focus here on examples that tackle three important elements: housing, community-based healthcare, and preventive care.

Identifying Housing-Related Needs and Opportunities

In order for older people to remain in their homes as they age, they need to have affordable, accessible, and safe housing that is enmeshed in the community and allows them to obtain the goods and services they need as well as the social and physical activities required to live a happy and healthy life.

Two HAPI winners, one in China and one in Japan, have come up with creative solutions to meet the needs they identified in their communities. Both involve public housing complexes, where there tend to be large numbers of older people living on fixed incomes, and in both cases, the main focus is on providing care to older people. However, these

organizations looked beyond the narrow definitions of a long-term care facility, recognizing that there were opportunities to serve their communities in new ways. In our first case, Longzhen Senior Care, an organization whose primary business is the operation of residential long-term care facilities, created a liaison service that targets older people and people with disabilities still living in their community, particularly those living in public housing complexes that may challenge those with limited mobility. The liaison functions both to monitor the wellbeing of clients and to offer concierge-like help in connecting the clients to the goods and services they need. The result benefits the older residents who sign up

for the service, as well as the community and the organization itself.

In our second case, Grundtvig.inc set up its nursing care operations in a semipublic housing complex administered by Japan's Urban Renaissance Agency and worked to create an environment that would resemble an extended family, drawing in nurses and care providers as residents, and encouraging younger families to move in as well. By promoting intergenerational connections and revitalizing the community, their focus is on ensuring that older residents are not only healthy but are able to enjoy a fulfilling life on their own terms.



Longzhen Senior Care

3. Xizhee Peng, "Generational structure of Chinese households by percentage," https://www.researchgate.net/figure/Generational-structure-of-Chinese-households-by-percentage_tbl2_283944128.
4. Asian Development Bank and Social Wellbeing Research Centre, Malaysia Ageing and Retirement Survey Wave 2 (2021–2022) Survey Report (August 2023), <https://www.adb.org/sites/default/files/publication/905456/malaysia-ageing-retirement-survey-wave-2.pdf>.
5. See Shuichi Nakamura, "Japan's Welfare for the Elderly—Past, Present, and Future," AHWIN website, <https://ahwin.org/japans-welfare-for-the-elderly-past-present-and-future/>.

CASE STUDY 1

Longzhen One-Stop Community Elderly Service Program

Longzhen Senior Care (CHINA)

Longzhen Senior Care has been operating community-based elder-care centers in Beijing since 2017 and has offered home-based care since 2018.

URL: <http://www.longzhencare.com> (in Chinese)

PROBLEM STATEMENT

In the Jinsong region of Chaoyang, Beijing, more than 3,500 older adults aged 80 and above live in apartment complexes where there are no elevators, making it difficult for many of them to leave their homes and move about freely. In addition, most are not comfortable with or do not have access to digital technology, so are unable to get services and goods online.

INNOVATION

Longzhen Senior Care launched the One-Stop Community Elderly Service Program in 2018 to provide a solution for older adults or those with disabilities who require daily living services but do not yet want to move into a long-term care facility. The program uses liaisons who help older residents identify and access the services they need. The liaisons include home caregivers and staff, as well as dozens of local residents and community leaders who have joined the “Longzhen Sunflower Volunteer Team.”

Social workers first conduct a careful analysis of each older individual’s needs and then develop an individualized plan to address the person’s health and



wellbeing. Through regular communication with the liaison, the older people develop trust and gain confidence that they are still part of the local community. The liaisons also serve as a safety net, ensuring that people do not fall through the cracks, and they are able to identify changes in health or behavior that might need further attention.

The program can arrange for a broad menu of goods and services, including adult daycare, assistance with chores, respite care, medical supplies, counseling, emergency alert responses, home-delivered meals, information and referrals, assistance making doctor's appointments, legal assistance, home medical therapeutic services, shopping assistance, personal care, and other community-based services. Longzhen Senior Care negotiates with service providers to offer discounted rates for older clients, and it oversees the services to ensure they are provided with quality and compassion. By joining the network, local small businesses can increase sales and save on marketing expenses. As this age-friendly program develops, more local service providers and small businesses have applied to join the program network.



As of 2024, the program has expanded to nine different regions, primarily in the Chaoyang and Fangshan Districts, and more than 3,100 older adults are now enrolled, the majority of whom are at least 80 years old. The impact has been felt in many small ways. For example, one liaison found that their 83-year-old client was struggling to get downstairs and walk to a barbershop by himself, so with other volunteers, they arranged to bring him to the community-based elderly care center, where the One-Stop Community Elderly Service Program organizes haircut events

twice a month. In other cases, the impact has been life-saving, as in several instances clients suffering a stroke or heart attack reached out to their liaisons first and the liaisons were able to get them the critical care they needed.

FINANCIAL STRUCTURE

The One-Stop Community Elderly Service Program is a not-for-profit program. Clients pay only for the services they use, and more than half of all service costs are covered by the government and/or by the individual's social insurance. The program operating costs are roughly US\$20,000 annually, and it is seen as a marketing program for Longzhen Senior Care in that it builds trust between the organization and those who may eventually require their residential long-term care services.

- KEY LESSONS**
- Placing the program headquarters in the heart of the community makes it convenient for older clients or their family members to find it.
 - Close collaboration with the local government, community health centers, and hospitals ensures that the health needs of older residents are met.
 - Building trust between liaisons and older clients is key—home caregivers and community leaders the older person already knows are able to serve as volunteer liaisons, working with the organization’s professional social workers.
 - By identifying the needs of the older people in their community and facilitating their access to those services in an affordable way, this program helps older residents stay in their homes longer, while also building trust in the organization as a safe place to go when they eventually need long-term care.



CASE STUDY 2 The Housing Complex as One Big Family

Grundtvig.inc (JAPAN)

Grundtvig is a company that provides residential and in-home nursing and long-term care based on the philosophy of enabling their clients to live the life they choose.

URL: <https://www.grundtvig.co.jp> (in Japanese)

PROBLEM STATEMENT Social disconnectedness, particularly in urban areas, has a major impact on the health and wellbeing of older people. It is critical that “caregiving” address not only an individual’s health and safety, but also their happiness by building nursing care into the very fabric of the community.

INNOVATION Inspired by the way in which neighbors and communities came together to support one another in the aftermath of the Great East Japan Earthquake of 2011, Grundtvig developed a unique concept of taking a housing complex and introducing small-scale, multifunctional home-based care on site, which allows the housing complex to serve the role of a nursing facility while also promoting cross-generational exchanges. Their new model was based on the concept of “the housing complex as one big family.”





In 2015, Grundtvig leveraged an existing Urban Renaissance (UR) housing complex—a form of semi-public affordable housing in Japan—and began their work to create a sustainable community where older people can continue to live in the environment with which they are familiar. Situated in the city of Fujisawa, Kanagawa Prefecture, the Grundtvig housing complex is home to 478 residents, of whom 60 percent are over the age of 65.

By renovating and using existing UR housing rather than constructing a new nursing facility from scratch, they were able to reduce costs dramatically. One room in the housing complex was converted into a small-scale multifunctional facility, and about 10 caregivers and other staff moved into the housing complex to provide home-based care, fostering a community environment where staff and older people collaborate and live together. All of the 239 rooms

in the apartment complex can function as paid nursing home rooms as needed, and the multifunctional facility can handle a maximum of 29 people. They also established a second small-scale multifunctional nursing facility staffed with full-time nurses in the area, which has doubled their capacity.

Grundtvig has been able to adapt and expand its program to fill perceived gaps in services not just for older people but for the whole community. For example, in 2017 they established an in-home nursing station, and in 2020 they created a business that provides services such as shopping assistance, health consultations, post-natal rehabilitation, sports for children, and more. This has made the housing complex an attractive place for both older and younger people to live, with dozens of new residents moving in during the initiative's early years, including not only older adults but families with young children and single-mother households. As Grundtvig's CEO, Mr. Sugawara, explains, the philosophy is to "have residents take a bottom-up approach to create a living environment that they can all enjoy, and where no one is left behind."

Grundtvig's goal is to provide their facility users with happiness and fulfillment as they age, rather than just emphasizing physical health. This means creating "care that fulfills what a person wants to do." For example, if a person wants to be able to cook or tend a garden, that can provide motivation to improve their health and empower them to take control of their lives. In addition, the fact that caregivers are also neighbors who reside in the same complex creates a relationship of trust and a sense of security that functions as part of the care provided. As one resident expressed, "I can live in peace thanks to Grundtvig." This has led to marked improvements in the level of care required by residents.

FINANCIAL STRUCTURE

The Grundtvig model provides a sustainable and cost-effective model for community-based care. After initial startup costs—which were about 1 percent of what it would take to create a similarly sized residential nursing home and day care service—the complex began to turn a small profit each month, while still improving outcomes for older people. The services provided at the

multifunctional facility are covered by long-term care insurance, so the users of the services are responsible for their co-payment and the government insurance plan pays the rest.

- KEY LESSONS**
- Leveraging existing affordable housing options and converting them to include nursing care allows older residents to age in place and receive care close to home, and it allows the care providers living there to identify residents who might be at risk.
 - Approaching care through the lens of “the housing complex as one big family” and creating a community that includes staff and caregivers has led to improved care outcomes.
 - Care that places a premium on happiness and identifying what motivates the individual empowers older people to take control of their own health and lives.
 - Ensuring each person, regardless of age, is included in community building and encouraging intergenerational activities attracts younger families to the complex and the community and contributes to the wellbeing of older residents.



Creating systems for community-based healthcare

In addition to exploring the optimal way to provide or improve housing, systems are needed to ensure that older people have access to affordable medical care in their communities. In the 1980s and 1990s, Japan began developing systems to provide in-home health and welfare services for older people. This system is underpinned by the country's early adoption of universal health coverage and the introduction of a long-term care insurance system in the late 1990s that places municipalities in a central position. Since that time, Japan has been developing community-based integrated care, which draws on various community resources, including cooperation among health, welfare, and medical professionals, and with volunteer workers and other types of resident initiatives. The Grundtvig model outlined above, for example, functions within that ecosystem. By moving caregivers and nursing staff into a public housing complex as residents, Grundtvig is able to offer both an in-building facility for healthcare services as well as home-based care for residents.

Different organizations in Asia have come up with their own models of providing this type of community-based care in ways that respond to their unique contexts. For example, a project in Taiwan called the “Houston Apollo Model” has tapped into an existing community program to provide older people in rural areas with healthcare. The county of Yunlin in Western Taiwan has an aged population—20 percent of its residents are now over the age of 65—and like many rural areas, it lacks a sufficient healthcare workforce. To address this challenge, they decided to piggy-back on a government-funded congregate meal service (CMS) that provides meals regularly to about 10,000 older people in 150 sites nationwide. Yunlin worked with the National Taiwan University Hospital, Yunlin Branch (NTUHYL) to identify local physicians who would volunteer to provide telehealth and health monitoring services to those who were coming to the county's CMSs. Sites were offered medical

monitoring devices from the university, which serves as the project command center—similar to the US aerospace command center in Houston, Texas, that controlled the Apollo space missions. The doctors provide free health education, basic diagnostics, and referrals to clinics or to NTUHYL as needed. This system reduces the financial and transportation burdens of accessing medical services for older people.⁶

Another example comes from Vietnam, where HelpAge International in Vietnam created a model for community-based Intergenerational Self-Help Clubs (ISHCs) that offer homecare services through homecare volunteers, which will be described later in this report. Each ISHC has at least 10 homecare volunteers who develop case management plans and visit each client at least twice a week. They are trained and overseen by paid health professionals. This community-based care component has enabled the ISHCs to become the largest care providers in the country with around 30,000 caregivers offering regular and ongoing care—everything from providing a friendly ear to helping with housework, taking the client out for a walk, helping with personal hygiene, or monitoring blood pressure—for clients in their communities.

The following two case studies come from Thailand, where the population aged 65 or higher is expected to surpass 20 percent within the decade. Thailand does not have a long-term care insurance system, but since 2016, it has been working to implement a community-based integrated healthcare system that relies on trained community health volunteers and professional care managers. Our first case study is a program developed by a municipality outside of Bangkok that worked with a Japanese NGO and municipality to find solutions for their community, while the second is a national network of grassroots NGOs working to improve the overall quality of life for older people in Thailand, with a focus on the disadvantaged populations in the country.

6. For more information, see https://ahwin.org/houston_apollo_model/.

CASE STUDY 3 The STRONG Program in Bueng Yitho, Thailand

Bueng Yitho Municipality, Thap Ma Municipality, and Thammasat University (THAILAND); Yugawara Municipality and NOGEZAKA-GLOCAL (JAPAN)

This program was developed by the city of Bueng Yitho, a municipality about 20 kilometers outside of Bangkok, in collaboration with Thammasat University, Thap Ma (a second municipality in Thailand), a Japanese nonprofit organization, Nomezaka Glocal, and a Japanese municipality, Yugawara.

URL: <https://smart-strong-project.org/english/>

PROBLEM STATEMENT In Thailand, care for bedridden patients is typically handled by the central government, while community programs for active older adults are run at the municipal level. In the early 2010s, the local government in Bueng Yitho noticed that the services they were offering at their medical hospital/rehabilitation center and their community center were underutilized and were not meeting residents' needs.

INNOVATION Bueng Yitho, working with the Faculty of Social Administration at Thammasat University, conducted a survey that revealed that older residents in the municipality felt a need for somewhere to go each day and for more activities. They also worked





with Nogezaka Glocal (a Japanese NGO) and Yugawara municipality to learn from Japanese models of community-based care. Armed with that information, they developed an innovative program that emphasizes community engagement to create an integrated cycle of services—from health awareness and promotion to rehabilitation and medical care—to better meet the needs of their older residents.

The first step was the establishment of three Quality of Life Development Centers for older persons. A small membership fee is required to encourage a greater sense of ownership and engagement and to help sustain the programs. Activities include everything from dance classes and aquatic exercise to computer lessons and karaoke, and the municipality works with the members to recruit teachers and trainers. Promoting healthier behaviors and self-management of health are major objectives, and the more than 2,000 members of the centers have shown positive outcomes to date in terms of improved self-awareness and health behaviors. In 2018, this program came to be known as the STRONG Program, with STRONG standing for Socialization, Treatment, Recreation, Opportunity, Nutrition, and Group.

The results of the programs were monitored, and feedback was used to adjust the types of services offered. The target audience was broadened as well, and the members at the centers began taking a more active role. The STRONG Program encourages residents to participate in the planning, implementation, and monitoring of STRONG programs. In other words, it went from a top-down to a bottom-up approach to providing these services, or what they refer to as “dynamic value co-creation.”

In 2019, a day care and day service center were added to assist older persons who do not have caregivers at home. The caregivers working there are active older persons who have participated in the STRONG Program, some of whom are volunteers in the community, and they serve as role models who encourage others to get involved. The services there combine rehabilitation and other activities to improve users’ ability to carry out daily activities. Furthermore, a fourth Quality of Life Development Center was also established in the same building as the day care and day service. In short, by integrating its medical and rehabilitation services with its social engagement and health promotion activities, Bueng Yitho has been able to increase the utilization of its facilities in ways that promote health and wellbeing among its older residents.

Bueng Yitho has expanded their ambitions for the program to create a framework for disseminating their model, encouraging other Thai municipalities to

adopt STRONG. This has led to the establishment in 2020 of a training center in cooperation with Thammasat University and to the signing of a cooperative agreement with Thap Ma municipality later that year. In 2022, the program evolved into the “SMART & STRONG Project,” and as of mid-2023, a total of 26 municipalities had joined their network.

FINANCIAL STRUCTURE

Because local municipalities are tasked with providing medical and welfare services, most of the funding for this work comes from municipal budgets. In addition, those using the Quality of Life Development Center pay a small membership fee, which promotes a sense of belonging and “ownership” of the programming there. For residents 60 or older, the annual fee is 300 baht (about US\$8), while those under 60 pay 600 baht per year. The day care center can be accessed for 300 baht per day. The project is also supported by the Japan International Cooperation Agency (JICA).

KEY LESSONS

- By assessing the needs of its residents, the local government was able to create a more integrated approach to services for older people that offers a continuum of care and makes rehabilitation, day care, and healthcare more accessible and affordable.
- A bottom-up approach allows input from the community members to ensure their participation and investment in the program, which was critical in encouraging volunteers from the program to receive training to assist others with rehabilitation and health promotion.
- Sharing their innovation through local government networks allows STRONG to be replicated and adapted to other communities without reliance on national-level policy or funding.



CASE STUDY 4 Buddy HomeCare

Foundation for Older People's Development (FOPDEV) (THAILAND)

FOPDEV is a nonprofit, nongovernmental organization based in Chiang Mai that seeks to improve the quality of life for older people throughout Thailand by working with and for older people nationwide to address their physical, psychological, social, educational, and economic needs.

URL: <https://fopdev.or.th> (in Thai)

PROBLEM STATEMENT Like many countries, Thailand has experienced a shift from extended families to nuclear families due to economic development and urbanization. As a result, families are often no longer able to serve their traditional role as the primary source of care and support for older adults, and those who cannot afford private health services may not be able to receive the critical support they need to remain in their homes. Compounding that issue is the challenge of ensuring access to healthcare in rural areas, where there is a shortage of providers.

INNOVATION In 2015, FOPDEV created a social enterprise known as Buddy HomeCare, which provides free home-based care to low-income elders and paid care for those with medium-to-high incomes, using teams of case managers, trained caregivers and volunteers, and family caregivers.

The program leverages smartphone technology and a health monitoring mobile app to offer community-based healthcare. The Buddy HomeCare app includes features for conducting health screenings, designing individual healthcare programs,





and enabling follow-ups, which can be used to support remote healthcare for both paying customers and older people with lower incomes. A care manager works to create an individual care plan for each older person, inputting descriptions of tasks into a database. They then generate a QR code that can be used by the app to allow caregivers or health volunteers to access the care plan themselves.

Caregivers or Buddy HomeCare volunteers then visit the older person's home to carry out basic health check-ups, such as taking blood pressure, and can assist with daily activities such as bathing, cutting nails and hair, and cleaning. Older people, their family members, caregivers, and volunteers can all input medical data into the app. The Buddy HomeCare team analyzes the data and receives alerts if there are any abnormalities or if conditions exceed the normal threshold. Alerts will be sent to the nurses and the support team who can respond and adjust the care plan as needed.

The use of telehealth provides a channel for multiple providers to communicate within a single session and exchange large amounts of data. This is ideal for the treatment of older people, which often requires cross-disciplinary collaboration. Remote patient monitoring also allows healthcare providers to continuously monitor chronic health conditions, enabling providers to address problems before they become acute and thereby reducing the need for hospitalizations and emergency room visits.

This system can help the government reduce its healthcare expenditure because telehealth lessens the need for costly nursing home and assisted-care facilities. It also eases the burden on informal family caregivers while allowing them to monitor the health of their loved ones online in real time.

What makes the work of Buddy HomeCare and FOPDEV truly unique, however, is their social enterprise approach that focuses on creating an equitable society for all. Buddy HomeCare offers disadvantaged youth from the Karen people, a distinct ethnic group with their own language who live in Northern Thailand and Myanmar, a three-month training course to become caregivers, providing them the opportunity to contribute to the wellbeing of older people while also gaining access to educational and career opportunities. The curriculum was designed by Chiang Mai University's nursing faculty, and dozens of hill tribe youth have been trained to date. Some go on to assist Buddy HomeCare as caregivers while others work elsewhere, serving as healthcare volunteers and change agents in their communities.

FINANCIAL STRUCTURE The Buddy HomeCare model provides free services to older people with low incomes and a fee-based service for those with middle and high incomes. Clients can choose monthly or daily visits.

Initial support for the development of the business model and the mobile and web applications were supported by the Thailand Social Enterprise Office, the Thai Health Promotion Foundation, and the National Innovation Agency. Currently, revenue from sales and services covers the salaries and benefits of all employees (management plus 45 caregivers) as well as mobile app maintenance. Additional donations from individuals and corporations are used for training grants for tribal youth and for health check-up visits to impoverished older people in urban slums and remote mountainous areas.

- KEY LESSONS**
- FOPDEV's model is able to provide in-home care for older people, including vulnerable community members, by offering two tiers of service: paid and charitable.
 - The success of the technology FOPDEV developed is due in large part to their experience in community-based care and combines provider-to-provider tele-health communications and provider-patient communications as well.
 - The technology enables family members, caregivers, health volunteers, and/or the client to record and monitor health information to ensure that any abnormalities are quickly noticed and treated.
 - Working with a university to offer training to disadvantaged youths expands the pool of caregivers in rural areas and gives trainees an opportunity to break the cycle of poverty among many indigenous communities.



Promoting preventive care and identifying those at risk

As populations age, the financial burdens of chronic and age-related health conditions can become overwhelming both for individuals and for local and national governments, particularly if institutional long-term care is required. As a result, attention has increasingly been paid to promoting healthy longevity through health promotion and preventive care, and to identifying and assisting those who are at greatest risk of becoming frail or bedridden.

Education is one critical component in these programs. The Indonesia Ramah Lansia (IRL) Foundation, for example, has developed a range of community-based education programs for older people and their caregivers. In the Pleret Village in the Bantul Region of Yogyakarta, a province with one of the highest proportions of older people in Indonesia, the foundation realized that the elderly population in the village often lacked knowledge on health and disease prevention, with just over half of them having received little or no formal education. In response, they developed a senior school that is

free of charge and offers an integrated curriculum that utilizes practice, games, and gymnastics to meet the health, social, economic, and psychological needs of participants. Participants come away from the school with improved knowledge on how to maintain their independence and prevent degenerative diseases. The program has spread rapidly and now encompasses thousands of participants in villages across the Bantul region and in other provinces around Indonesia as well.

The following three case studies represent initiatives in Japan and Thailand that draw on the strengths of various sectors—universities, municipal governments, businesses, a development agency, and local communities. They are easily replicable and scalable and can be adapted to local needs. Moreover, the common thread that draws together the programs described below is that they are designed to be carried out by trained local volunteers from the communities rather than relying on medical professionals.



At Public Health Center 19 in Wong Sawang, Bangkok, older people are able to improve their physical and cognitive functions while also enjoying social engagement. (Photo: JCIE)

CASE STUDY 5

Citizen-Based Frailty Prevention Program

Institute for Future Initiatives, University of Tokyo (JAPAN)

The Institute for Future Initiatives serves as a platform for collaboration between industry, government, academia, and citizens to provide research-based alternatives for creating our future society and to help develop the human resources necessary to achieve it. As part of the Institute's work, researchers from the Institute of Gerontology have been conducting work on "Planning the 100-Year Life."

URL: <https://ifi.u-tokyo.ac.jp/en/units/gerontology/>

PROBLEM STATEMENT

Now that the prospect of a 100-year life is becoming a reality in Japan, how can people achieve true healthy longevity? While health promotion activities exist in various communities, until now the evidence supporting them has been weak, and many programs have suffered from low participation rates and low retention rates. As a result, they have done little to decrease the gap between life expectancy and healthy life expectancy (still about a 10-year gap).

INNOVATION

In order to promote healthy longevity, a research team conducted a large-scale longitudinal study of older people in Kashiwa City, located just outside of Tokyo, in 2012. The study examined about 260 data points over time, including physical functions and sociability. As a result, they identified three pillars of frailty prevention: (1) nutrition (food/oral function); (2) physical activity; and (3) connection and participation in society. They also found that it is better if these three elements are combined as one and reflected in an individual's life in a sustainable manner.

Based on this evidence, they introduced a new training system for local older people who could become resident volunteers, or "frailty supporters." A peer-to-peer, citizen-based model for "frailty check" activities was then developed where older people gather together and carry out a comprehensive assessment to notice changes and modify their behavior together. The check takes roughly two hours and uses a prepared questionnaire covering physical functions—for example, the circumference of a person's calf, their grip strength, and whether the person can stand up from a chair using just one leg—as well as residents' emotional health and sociability—i.e., connections and community interaction, social support, social participation, etc. Red and blue stickers are used to check off the answers, allowing a clear visual representation of the degree of one's frailty in terms of one's overall daily life. The frailty supporters review the results with the participants and provide advice on how to improve diet and eating habits, and how to increase levels of exercise and social engagement, and the data from

the frailty check can be used to predict the risk of someone requiring additional support or nursing care.

The program serves as a platform that provides training for professional “frailty trainers” who guide the local “frailty supporters,” as well as a number of certified “trainers of trainers” who can work in other regions of Japan. The program activities are carried out through local municipalities, which work with local residents to adapt the program to their needs. The message of this activity is: “Let’s take the first step ourselves and create, protect, and support our community alongside the local residents. And let’s focus on data that pre-



vents frailty!” It is a community-driven activity that engages volunteers and gives them a sense of purpose. As a result, the researchers confirmed that the frailty supporters benefited as well. They showed an increased awareness of their own health and made modifications to their own daily health behaviors, resulting in improved frailty check scores in general.

These frailty programs are now being carried out in roughly 100 towns across Japan, and the university has held annual gatherings and other meetings to promote the sharing of lessons and data among the various programs.

FINANCIAL STRUCTURE

The frailty check activities are carried out as official projects of the local governments and thus all expenses are covered in the respective municipal budgets for preventive care or community support projects. The cost depends largely on the number of supporters trained and the number of frailty checks conducted, but it is in the range of ¥500,000–¥2,000,000 per year (approx. US\$3,000–\$12,000). Initial outlays for equipment, uniforms (e.g., matching polo shirts), etc., are only incurred in the first year, and from the second year on, the necessary budget is small.

KEY LESSONS

- The program developed a system of evidence-based frailty checks focused not just on a disease-specific approach but on the overall concept of frailty.
- Conventional interventions and guidance by medical professionals tend to lead to one-sided guidance, making behavioral transformation difficult. By engaging the older residents living in the community and offering peer-to-peer guidance, the program improves the results of participating residents, but also leads to a new sense of purpose and accomplishment for the frailty supporters themselves.
- This platform can be introduced and carried out by any local government and can be tailored to the local needs. A nationwide network facilitates the sharing of lessons and data to improve local initiatives.

CASE STUDY 6 Health Promotion Using Japan's Self-Sustained Movement (SSM) Program

Hatachi Industry (JAPAN), in cooperation with the Tokyo Metropolitan Institute of Gerontology, and Kosai Consultants (JAPAN), Mahidol University, and the Thai Ministry of Public Health (THAILAND)

Hatachi Industry was established in the 1950s in Japan as the first manufacturer of plastic badminton shuttlecocks. Since that time, it has developed dual lines of business in leisure, health, and welfare industries and in industrial molding, and the latter business area encompasses a Thai subsidiary. From 2004, it began work in the area of dementia prevention, and in 2008 worked with Shizuoka University to develop a self-sustained physical fitness test.

URL: <https://hatachi.jp> (in Japanese)

PROBLEM STATEMENT As countries such as Thailand undergo the transition from an aging to an aged society, they experience a dramatic increase in medical and caregiving expenses. Preventive care to extend healthy life expectancy and identify those at risk of becoming frail can help reduce the financial burden of demographic change, but to be effective, it should be evidence-based and offered in a way that is accessible and retains people's interest over time.

INNOVATION In 2008, a Japanese company, Hatachi Industry, developed the Self-Sustained Movement (SSM) Program, a preventive care system developed under the supervision of Shizuoka University. The program consists of three elements: (1) an SSM Test, used to evaluate the physical capabilities of the older person; (2) SSM

Training, a selection of light load muscle training activities for older people; and (3) an SSM Master and SSM Trainer certification training course. This system is designed to be easy, fun, and motivating for participants, as they can have a sense of accomplishment in their own progress through participating in the program. More than 20,000 people have participated in the program to date in Japan.

Hatachi Industry also had a strong connection to Thailand through its manufacturing subsidiary, and so it decided to expand its health program to seven rural provinces in Northeastern Thailand, recognizing that the region's population was aging rapidly. Hatachi





worked in cooperation with Mahidol University to conduct a feasibility study starting in 2015. That study confirmed the program's relevance for the Thai government's policy for older people, and starting in 2018, they implemented a pilot project with support from the Japan International Cooperation Agency (JICA), which ran through 2021. The program had to be adjusted to account for the characteristics

of Thai people, so new versions of the training manual and software for analyzing SSM test results were created. The SSM tests take about 15 minutes and examine four areas: walking, manual dexterity, physical coordination, and changing posture.

One unforeseen outcome of implementing the program in Thailand was that the SSM test was effective in screening for frailty among older people. Thailand uses the Barthel Index (BI) as an Activities of Daily Living (ADL) evaluation index to identify the health status of the elderly. However, when using the SSM test, which provides people with an "SSM Age," it was found that 11 percent of the older people classified as "healthy" using the Thai framework were part of the group with the lowest overall score on the SSM test. In other words, these older people were one step away from requiring nursing care.

The SSM training saw considerable success in improving the health of older people. The concept of an SSM age, which could be compared to the participants' actual age, provided them with motivation to improve their physical health. Furthermore, it was confirmed that the training had an even greater effect on those who were classified as frail via the SSM test.

Hatachi has worked closely with Thai counterparts to implement the program. For example, the 8th Regional Health Office of the Thai Ministry of Public Health (MOPH) managed the training programs and played a significant role both in pilot projects and the actual dissemination. The training programs were carried out in local clinics and temples, and there are now 45 Thai SSM Masters and 71 Thai SSM trainers who have been trained to use the program.

FINANCIAL STRUCTURE

The original development of SSM was funded through Japanese government subsidies. In Thailand, the feasibility study and pilot project were both funded by JICA as part of Japan's official development assistance (ODA). Starting in 2021, Thai local governments were expected to provide funding through the National Health Security Office to implement the SSM Program in seven provinces.

- KEY LESSONS**
- The SSM test identifies people at risk of needing medical or long-term care and offers exercises and behavioral interventions to improve their health.
 - People are more likely to continue training because it is fun and easy, and the SSM test can provide motivation to older people who want to improve their “SSM age.”
 - SSM training activities are held in clinics and temples—locations that are already familiar to participants and that provide a community space where people can enjoy exercising together.
 - Close collaboration with Thai partners at Mahidol University and the Ministry of Public Health ensured effective transfer of Japanese know-how and technology, adapted to the needs of older Thai residents.



CASE STUDY 7 BMA Model of Preventive Long-Term Care

Health Department, Bangkok Metropolitan Administration (BMA) (THAILAND)

The Bangkok Metropolitan Administration is responsible for the management of the city of Bangkok and provides services for the health and wellbeing of Bangkok residents.

URL: <http://bangkok.go.th/health>

PROBLEM STATEMENT Bangkok's population has been aging rapidly and by 2025, 20 percent of the city's population will be 60 years of age or older. This has required BMA to increase spending for medical services to older people suffering from noncommunicable diseases such as degenerative joint disease, osteoarthritis, sarcopenia, and dementia. It therefore needed to find ways to promote healthier lifestyles that would prevent or delay the need for expensive medical and long-term care.

INNOVATION In 2017, the BMA Health Department launched a new community-based program using a Preventive Long-Term Care (PLC) model to promote the physical and mental wellbeing of its older people. The activities are conducted at local public health centers, which offer both primary healthcare and health promotion and generally serve as the first point of contact for people seeking healthcare. Bangkok has 69 of these sub-district-level public health centers, staffed with nurses, doctors and physicians, dentists, and pharmacists.

The PLC activities receive support from the district governments, local hospitals, and other organizations in the community. The activities combine



locomotion training, which focuses on balance training for fall prevention, and “cognicise” activities—a concept that originated in Japan and combines physical activities with cognitive tasks, such as word games, to help improve cognitive health.

In addition to training instructors to carry out PLC activities, the project includes a community element, through which instructors also train volunteers to become community trainers. There have been instances where older people transition from participating in PLC activities to volunteering as community trainers themselves. This community aspect is itself an important part of the program’s success.

The above-mentioned core activities are supplemented by recreational activities, such as seasonal events or ice-breaking activities. This provides participants with opportunities to get out of their homes and have positive interactions with their communities, helping them to avoid social isolation.

In addition to improving older residents’ health and wellbeing, the program also appears to reduce the burden on caregivers in some cases. For example, one participant was a 70-year-old woman who lived with her son. Her health was in decline, and she was spending most of her time at home while he had to travel for work, so her son was considering placing her in a long-term care facility. However, after joining the PLC activities, she connected with a neighbor who can take care of her and is now able to go out to the market by herself.

The initial pilot phase of the model was conducted in cooperation with Fukuoka Prefecture, Japan, sponsored by the Japan International Cooperation Agency (JICA). During this initial two-year period, BMA developed materials, equipment, and documentation, which have played a critical role in the program’s success. These materials include a guide for instructors and a trainer’s manual for community trainers, as well as various equipment to be used in PLC activities, all of which can be manufactured locally in Thailand. Evaluations and biannual monitoring are done to gauge impact and have shown that among the nearly 15,000 participants since 2018, there have been strong improvements in physical and social wellbeing.

By creating a robust foundation for its program, BMA was quickly able to scale its work in 2020 when the pilot ended, and it began to expand the project. By 2022, the program had grown rapidly and had 630 instructors who operated across 69 communities, and by 2023, the program was active in more than 487 communities throughout Bangkok as community and senior clubs were encouraged to design their own programs according to their own context. Indeed, the municipal government is so supportive of the program that it included it in the BMA Annual Action Plan as well as the Quality of Life Development Plan of the Elderly BMA, in which it was designated as a flagship project.

FINANCIAL STRUCTURE

The initial pilot project was funded with support from JICA. When BMA was ready to expand the project, the Health Department requested a budget of 1.6 million baht (slightly over \$50,000) to produce the necessary materials to carry out the project activities. In addition, in order to ensure project sustainability, they encouraged public sector involvement. Individual public agencies or communities are able to request funding from the Bangkok Health Security Fund to support their activities at the district level.

- KEY LESSONS**
- Leveraging local volunteers to act as “community trainers” creates a sense of local resident involvement in the activities and helps to provide opportunities for older people to engage with the community.
 - Strong commitment from the municipal government, combined with district-level public sector and community involvement ensures the sustainability of the project.
 - The ability of communities to request funding from the city to carry out preventive long-term care activities promotes greater engagement and a sense of ownership over the program among community members.
 - Developing a robust set of training and program materials during the pilot phase of the project allowed the program to be scaled up quickly once it had demonstrated positive results.
 - Cooperation with international partners (JICA) brought in new ideas, such as implementing “cognicise,” which had originated overseas.



2 SUPPORTING THE SOCIAL AND EMOTIONAL WELLBEING OF OLDER PEOPLE

There is a growing awareness around the world of the impact of loneliness and isolation on one's physical and mental health. One comparison making headlines in recent years suggests that loneliness does as much damage to one's health as smoking up to 15 cigarettes a day. According to the US Centers for Disease Control, social isolation increases a person's risk of dementia by 50 percent, heart disease by 29 percent, and stroke by 32 percent.⁷ The World Health Organization deems the issue so troubling that it recently created a Commission on Social Connection to look for solutions.

While social isolation is an issue that impacts people at all ages, it is particularly problematic for older adults. In Japan, the term “solitary death” (*kodokushi*) became part of the vernacular in the aftermath of the 1995 Great Hanshin Earthquake, an event that displaced nearly a quarter of a million people whose homes were damaged or destroyed. More than 200 older people passed away while living alone in temporary housing in the years after the disaster, their bodies lying undiscovered for some period of time. As the media and policymakers started to take up this issue, however, people quickly realized that in fact hundreds of people around the country were meeting that sad fate each year, regardless of whether disaster struck or not. Moreover, the isolation experienced during the COVID-19 pandemic gave added impetus for the country to act.

In 2021, Japan appointed a minister for loneliness (a position first created in the UK in 2018). In 2023, it passed a bill outlining measures to support people experiencing social isolation and loneliness, creating a task force headed by the prime minister and stressing the need for the state to cooperate with local governments on this issue. Japan is of course not the only society to be facing this issue. Across Asia, as more countries move toward urbanization and population aging, the issue has become more pronounced.

In this section, we will look at a number of examples of how communities, local governments, and other actors are working together to engage older people in their communities, create opportunities for intergenerational activities, and help older people find a renewed sense of purpose.

Engaging older people in their communities

A number of the cases described in our previous section have included activities that seek to engage older people in their communities. The “S” in the Thai municipality’s “STRONG” program described in Case Study 3 stands for “socialization,” and they encourage a sense of ownership and engagement in

the program among community members to ensure that they help develop activities that keep people coming back and participating. In the Grundtvig example (Case Study 2), they are working to create a housing complex that offers communal spaces and encourages residents to take a bottom-up approach

to create a living environment that they can all enjoy and where no one is left behind. In the Bangkok Metropolitan Administration’s model (Case Study 7), their focus on promoting wellness entails events and activities that bring the community together in ways that build emotional as well as physical health. And the IRL Foundation in Indonesia, which as described above focuses on community-based health education, works closely with local leaders, encouraging them to commit to creating an elderly-friendly village, meaning that they will work to provide facilities such as elderly-friendly parks where older

people and children can be active, elderly nutrition gardens, and so on.

The two case studies below offer unique cases of innovations that seek to engage older residents in their communities—one by reaching out to older residents who are in need of long-term care or are less mobile than they once were and getting them into town more regularly for shopping, dining, and recreation, and the other by creating citizen-led “self-help clubs” that engage members in designing a holistic set of programs to address the social, physical, mental, and economic needs in the community.



Participants enjoying one of the activities of HelpAge International in Vietnam’s Intergenerational Self-Help Clubs

7. US Centers for Disease Control and Prevention, Health Risks of Social Isolation and Loneliness, <https://www.cdc.gov/social-connectedness/risk-factors/>.

CASE STUDY 8

Odekake Rehabilitation Initiative to Promote Outings for Older People and Commercial Revitalization

Odekake Rehabilitation Promotion Council (JAPAN)

The Odekake Rehabilitation Promotion Council is a local association in the city of Hakodate that consists of about 17 groups including commercial facilities, long-term care facilities, therapists, as well as major beverage makers, taxi companies, etc.

URL: <https://odereha.com> (in Japanese)

PROBLEM STATEMENT In the city of Hakodate, on the southern shore of Japan's northern island of Hokkaido, more than one in three residents are aged 65 or older. As older residents become less mobile, they become more homebound or move to long-term care facilities and are less likely to visit the city's commercial districts regularly. In particular, Asaichi, the morning market of Hakodate, once flourished as the "kitchen of the local residents," but due to an increase in the tourist population, local residents were going less frequently. This was negatively impacting the city's sense of community.

INNOVATION Odekake (Outing) Rehabilitation (referred to as "OdeReha" for short) is an original healthcare project targeting older persons or those who require care and support. It combines the concepts of shopping, dining, recreation, and interaction to



create a form of rehabilitation. Shopping outings and other activities are designed to stimulate participants' physical ability, cognitive function, and communication skills. Rather than walking on a treadmill, for example, people are walking with a purpose and therefore are likely to walk longer. They must calculate the amount of change they need in shops, which helps cognitive thinking. And they interact with both their fellow participants, people in the shops and restaurants, and those assisting them. The fun activities and change in environment contribute to both the physical and mental health of the older person while at the same time contributing to the revitalization of local commerce.

The idea for this project came from a dual desire to promote the revitalization of Hakodate's Asaichi Market and to get older people out and about and connected to their community, thereby promoting healthy longevity. It is run by the Odekake Rehabilitation Promotion Council, which brings together representatives of commercial facilities, long-term care facilities, therapists, and others, working in close cooperation with local government agencies.

After conducting study groups and a test run, OdeReha officially started in 2017. The program initially focused on care facilities. However, it was difficult to recruit participants at the start since many facilities did not have enough manpower to let staff accompany residents on the outings. In response, in 2019, a new volunteer service to support the care staff called *otasuke* (helpers) was introduced. Staff from a care facility will drive a group of residents to a designated location and the *otasuke* volunteers will meet them there and will accompany each older participant. For example, in a market, they will help them select items to purchase, carry the shopping basket for them, and engage in small talk. Local school children are also invited to serve as *otasuke* at times to give them some insight into the field of caregiving. From 2018, the program also expanded to allow individuals (e.g., people who receive home-based care services) to join rather than just those in care facilities.

In order to encourage repeat participation, in 2018 a point system was introduced using an original currency, "odekake coins," which are provided to those who go on the shopping trips, volunteer or participate in health activities. After collecting 10 coins, participants can exchange them for a ¥500 gift voucher.

OdeReha has seen a great deal of success and has carried out a total of 266 events with more than 3,200 people participating. They estimate the value in terms of additional sales generated at commercial sites was about ¥7 million (about us\$48,000). Furthermore, about 70 percent of participants have been repeat users, meaning that people tend to stay engaged with the program. Caregivers also feel that the program has a positive impact, making comments such as, "Due to OdeReha, people who used to refuse to walk by themselves have taken the initiative in climbing stairs to buy gifts for their great-grandchildren. Also, the fun has enriched their expressions, and conversations with their families have increased," or "People who rarely go out of their rooms have started to go out with their families after experiencing OdeReha."

Building on their success in Hakodate Asaichi, OdeReha has expanded their work to roughly a dozen other shopping complexes around the city. In addition to the ordinary outings, new recreational and educational classes have also been introduced for those not in nursing care, encouraging community building among older people. In 2021, they also launched an "OdeReha Health Program"

that covers everything from baseline measurements for exercise to dietary habits, and this has become a new model for community alignment.

FINANCIAL STRUCTURE In order to generate income to carry out the project, OdeReha charges the commercial businesses that host their activities a nominal fee of ¥100/participant. In addition, these businesses are expected to bear the burden of other related expenses to carry out the outing such as recreation fees, taxi fees, and so on. The idea is that the business is a beneficiary of the program and so they should bear some of the financial burden as the cost of attracting new customers.

- KEY LESSONS**
- Re-engaging older people with their community can help both the individual and the local community thrive.
 - Incentive systems can be a useful way to ensure that people continue to participate—in this case, participation in outings and health activities or being a volunteer earns coins that can be exchanged for shopping vouchers.
 - The program engages local business and community groups, as well as long-term care facilities, and the businesses help defray program costs, recognizing the economic benefit of having older people returning to their stores.
 - The council works with administrative agencies such as local government offices for logistical support such as assigning local volunteers.



CASE STUDY 9 Intergenerational Self-Help Clubs

HelpAge International in Vietnam (VIETNAM)

HelpAge International is a global nonprofit organization that works to improve the lives of older people around the world. HelpAge International in Vietnam (HAIV) works closely with local partners, including the Vietnam Association of the Elderly, the Vietnam Women's Union, and the Center for Ageing Support and Community Development (CASCD).

URL: <https://www.helpage.org/helpage-at-40/vietnams-intergenerational-self-help-clubs/>

PROBLEM STATEMENT Vietnam is aging at a rapid pace and is expected to become an aged society (i.e., 14 percent or more of the population will be over 65) within the next decade. But given that Vietnam is still a low middle-income country with limited resources to properly respond to that demographic shift, it has become difficult for many older people to lead dignified, healthy, and secure lives. Many live in poverty, with little access to social pensions and in poor health. How can healthy longevity be promoted in ways that are sustainable and engage older people across the country?

INNOVATION In 2006, HelpAge International in Vietnam (HAIV) worked with local partners, including the Vietnam Association of the Elderly, the Vietnam Women's Union, and the Center for Ageing Support and Community Development (CASCD),



to pilot the Intergenerational Self-Help Club (ISHC) model. An ISHC is a community-based organization that follows the motto “the people know, decide, do, monitor, and manage.” It is a comprehensive and inclusive approach that promotes healthy longevity through a variety of interventions.

To promote psychosocial health, ISHCs carry out social and cultural activities such as games, performances, and home visits, and they promote life-long learning



through monthly talks, study visits, and intergenerational cross-learning and sharing on a broad range of topics. Roughly 70 percent of the members are older persons, with 30 percent being younger, which promotes intergenerational exchange and mutual assistance. Many members are also among the more vulnerable populations in the country.

The ISHCs focus on physical health by raising awareness of and promoting healthy and active lifestyles, encouraging exercise, sports, hobbies, meditation, and volunteerism. And as noted earlier, ISHCs also support health through a critical community-based care component, combining medical professionals and trained volunteers to provide access to regular health screenings (e.g., monitoring weight and blood

pressure), check-ups, and treatment. These activities help members maintain the health they need to engage in social and economic activities.

The ISHCs also focus on issues of economic development and self-reliance. They promote self-help—i.e., helping one another in the community through the provision of labor, technical support, cash, or in-kind donations—and help members’ livelihoods through self-managed microcredit and other support mechanisms for income-generating activities (IGA). They also provide information on rights and entitlements and offer legal services. To support these activities, they mobilize local resources through donations, membership fees, microcredit interest, and collective IGAs to generate revenue.

Notably, the ISHC development model is an initiative that gives control of the development process, resources, and decision-making authority directly to community groups. The model is based on the understanding that each community is the best judges of how its members’ lives can be improved and that, when provided with training, information, opportunities, and resources, they can organize themselves to provide for their immediate and long-term needs and development. This means that older people are deeply engaged as the key actors determining the activities of their club, which gives added incentive to remain connected and active in their community.

The impact has been impressive. As the program’s founder Ms. Tran Bich Thuy notes, “After joining the clubs, most members report that they feel happier, wealthier, and healthier, and they feel more empowered and confident.” By treating people as assets and partners in the development process, the ISHC approach has proven to be responsive to local demands, more inclusive, and cost-effective.

The strength of the ISHCs has gained broad recognition in Vietnam and the expansion of the ISHC model was included as a national government target in

the 2012–2020 National Plan of Action on Ageing. Having launched the model in 2006, Vietnam now has more than 6,500 ISHCs nationwide with a total membership of around 456,000 people.

FINANCIAL STRUCTURE The ISHCs are generally financially self-sustaining within one to two years after creation. An ISHC's income comes from a combination of its IGAs, membership fees, and local fund-raising. HAIV provides training and guidance to individual ISHCs in their start-up phase, including the provision of training materials and resources online. Their work has been supported by the Government of Vietnam, and in 2021 they received a grant from the Japan Social Development Fund of the World Bank to scale up their work, expanding to an additional 180 new communities and strengthening the ISHCs' connection to government service providers.

- KEY LESSONS**
- A community-based approach facilitates the identification of and response to local resources and needs.
 - The member-led approach to planning and development increases the popularity and effectiveness of the organization and solidifies older people's engagement in their communities.
 - A holistic approach allows ISHCs to respond to the multiple needs of older persons and their communities—social, physical, mental, and economic—which creates synergy among the activities and strengthens the community.
 - The breadth of activities, including income-generating activities, encourages younger adults to participate as well, both as volunteers and as members, and promotes intergenerational interactions that benefit all involved.
 - The support of national and international partners contributes to each ISHC's management capacity, while community resources (volunteers, donations, in-kind support, etc.) make the model financially sustainable.



Helping older people discover a renewed sense of purpose

Ensuring people's ability to continue to contribute to society as they age is one of five key "functional abilities" targeted by the UN Decade of Healthy Ageing.⁸ Similarly, in its Global Roadmap for Healthy Longevity, the US National Academy of Medicine pointed to the need for "public and private partnerships to create programs, connected communities, and innovative models that enable all people to contribute to society."⁹

Studies have indeed found links between one's ability to contribute to the community and one's health. In a recent 21-country study by McKinsey Health Institute, participants were asked "about 53 factors, ranging from societal participation to exercise, to assess what matters most to older adults and how those individual factors may affect health. The analysis reveals that purpose, balanced stress, physical activity, lifelong learning, meaningful connections with others, and financial security are the factors most strongly associated with respondents' overall perceived health."¹⁰ And a 2022 study by scholars at Boston University and Harvard University found that those reporting a higher sense of purpose among US adults aged 50 or older had a lower mortality risk over an 8-year period, indicating that

"*Purpose*, a potentially modifiable factor, might be a health asset across diverse populations."¹¹

A number of the cases described so far in this report offer opportunities for older people to volunteer in their communities, such as the citizen-based frailty check program (Case Study 5), where local residents provide peer-to-peer education and support to encourage healthy lifestyles. The three cases below offer examples of initiatives that utilize older community members as important resources and provide them with a strong sense of purpose, or "*ikigai*" as it is known in Japan. In the first, older people are viewed as a key to revitalizing their community, sharing local folklore, history, and traditions with younger generations, and generating videos and social media content to promote the region's charms. In the second case, a town created a "trial employment" system to match active older people with part-time jobs in daycare centers and nursing homes that are facing labor shortages. Finally, the third case is a community initiative that engages older residents in growing vegetables for the local "children's cafeterias," restaurants that offer free or reduced-price meals for children from low-income homes.

8. World Health Organization, "Decade of Healthy Ageing: Baseline Report: Summary (2021)," <https://iris.who.int/handle/10665/341488>.
9. National Academy of Medicine, "Recommendations, Global Roadmap for Healthy Longevity," June 2022, <https://nam.edu/wp-content/uploads/2022/06/HL-Roadmap-report-recommendations-FINAL.pdf>.
10. McKinsey Health Institute, "Aging with Purpose: Why Meaningful Engagement with Society Matters" (October 23, 2023), <https://www.mckinsey.com/mhi/our-insights/aging-with-purpose-why-meaningful-engagement-with-society-matters>.
11. Koichiro Shiba, et al., "Purpose in Life and 8-Year Mortality by Gender and Race/Ethnicity among Older Adults in the U.S.," *Preventive Medicine*, Volume 164, 2022, 107310, <https://doi.org/10.1016/j.ypmed.2022.107310>.

CASE STUDY 10 Older People Take the Lead! Passing on the Vitality of the Region

Hedate Ward, Chikuracho, Minamiboso City; Chiba University Hospital Patient Support Department; Matsunaga Clinic; and Tomiura Econmuse Study Group (JAPAN)

This innovation is conducted by Hedate Ward, a district of Minamiboso City on the Boso Peninsula, which forms the eastern coast of Tokyo Bay. They worked in cooperation with actors from local medical and nonprofit organizations.

YOUTUBE: <https://www.youtube.com/@user-ux5mt1rn5c>

PROBLEM STATEMENT Hedate Ward was once a port town, bustling with mackerel and saury fishing. The area has a long history, an abundance of local mythology, and numerous traditional festivals. But in recent years, the once-booming region has been suffering from depopulation, and more than 50 percent of those remaining are over the age of 65. As a result, it has become difficult to sustain the community and to pass on local traditions and events, and older residents felt marginalized as a result. The question was how they could revitalize the area to attract younger residents and create a community where older people can live out their lives in peace and harmony.

INNOVATION In 2016, a consortium of local government personnel, advisors from a local medical clinic, and other residents came together to establish a group called the Hedate Tea Room. The goal was to coordinate and promote cooperation among various organizations such as children's groups, youth groups, older people's groups, local medical institutions, etc., in a non-hierarchical manner.

This organization began working to revitalize activities in the community. They began by holding early morning radio calisthenics programs known as "rajio taiso," a tradition dating back to the 1920s in Japan. Young and old alike join in and follow along with music and instructions that lead them through a series of exercises, encouraging a healthy lifestyle. Over 1,100 people joined in the exercises in FY2021 alone. They also began holding the traditional Bon Odori (summer festival dance event) and Mochitsuki (rice-cake making) Festivals, which draw all generations together to celebrate the festivities.

That year, a local nonprofit, the Tomiura Econmuse Study Group, also helped in the production of traditional Japanese picture story shows (*kami shibai*) that introduce local folk tales and convey the peaceful state of the land from pre-historic times to the present. The storytelling is done by older residents who offer narration as colorful paper illustrations are displayed for the children in the audience. This provides a stage for them to realize a positive self-identity

and a valued role in society. The act of telling local folk tales allows the elders to share the knowledge they possess of their community and pass it down to future generations.

In 2021, a YouTube “Hedate Channel” was created to provide information about the community. This channel has been able to provide timely updates on the local community to those who are unable to return to their hometowns as well as introduce the attractions of Hedate to those in and outside of the community. The elderly themselves became active in the project by familiarizing themselves with IT and they became the central source of information dissemination by shooting videos, conducting interviews, and so on. Creating the videos turned out to be a process of exploring what the elderly themselves could do and what role they could play in the community. Interviews conducted with older people about the Showa period (1926–1989), for example, brought out bright and lively expressions, serving to activate their brains, and it gave them a sense of self-acknowledgment, while one senior’s video that shares phrases in the traditional local dialect has been viewed more than 22,000 times.

The Hedate Channel Association was also established to organize activities to create a place for people to relax, as well as to maintain and revitalize the beautiful nature around the community. The group maintains old roads, conducts rice cultivation in abandoned farmlands, and makes *shimenawa* (sacred straw ropes) for shrines. Their familiarity with the local history and landscape also allows them

to serve as sightseeing guides. The Hedate Tea Room has held seminars to train guides and holds guided walking tours of the area.

These activities were designed to build mutual support among different generations in the community. The older residents were able to have a sense of purpose and pride in their lives as “elders of the community” and to proactively engage in community building on their own. At the same time, they are passing on their long-nurtured affection for their hometown of Hedate to the younger generation along with the knowledge and experience they have accumulated over the years.



FINANCIAL STRUCTURE The Hedate Tea Room activities have no independent budget. They are supported by volunteers and through the budgets of the member organizations.

- KEY LESSONS**
- Having older residents take the lead in community revitalization helps dispel the image of older people as only needing to be cared for and shows a more positive aspect of the role that people can play in their community as they age.
 - It also provides older participants with a greater sense of self-determination and engagement in their community.
 - Focusing on the region’s folklore, festivals, and natural beauty, and conveying that to younger generations via media that they understand (YouTube and social media) helps bridge the intergenerational gap and sustain traditions that forge lasting community bonds.

CASE STUDY 11 **Healthy and Purposeful Employment Trial**

Takarazuka City Collaborative Community-Building Council (JAPAN)

The city of Takarazuka, located northwest of Osaka in central Japan, has been working to implement the World Health Organization's (WHO) concept of "age-friendly cities," carrying out initiatives under the slogan of promoting "mutual respect and collaboration." As part of this effort, in 2018, about 20 residents came together with the municipal government to establish the Takarazuka City Collaborative Community-Building Council.

URL: <https://lifespiceworks.com/> (in Japanese)

PROBLEM STATEMENT As a "super-aged society," Japan is currently facing a chronic labor shortage. In areas such as the nursing care and childcare industries, there has been a mounting burden on care specialists and other staff. Nursing staff at care facilities, for example, have to balance their time between direct care for residents and the many other peripheral tasks required. On the other hand, Japan also has a large group of healthy, active older people who have retired and no longer have places to go or activities that give them a sense of purpose and fulfillment in their lives. The question is how to match those needs and resources effectively.

INNOVATION In Takarazuka City, a Collaborative Community-Building Council was created, which established three working groups to examine challenges facing the community as a collaborative effort by citizens, the municipal government, and businesses. One working group was focused on the theme of healthy and purposeful lives and, seeing a space to match healthy older people with businesses suffering from a shortage of human resources, they conceived of the "Healthy and Purposeful Employment Trial" program, which the local government of Takarazuka City then proceeded to implement.

One of the hurdles to having older people apply for jobs or sign up for volunteer activities in general is that they often do not have a clear image of the work that they would be doing and whether it would suit them, and they are therefore reluctant to jump into such situations and commit their time. Some people are also worried about the legitimacy of the organizations that they would be working for.

The Takarazuka initiative sought to address those concerns by letting older people work on a trial basis at a nursing care facility or daycare center that is in need of assistance. Those facilities register with the national employment agency, Hello Work, to indicate their interest. Applicants are then recruited through the city's PR magazines and other media and have an opportunity to



learn about each facility at a briefing organized by the city, where they then apply for an on-site briefing at the facilities that interest them. The on-site briefings give participants a chance to see the actual work site, meet the staff, and get an idea of the workplace. Applicants are then interviewed and hired for a three-month trial period.

Participants who are hired are assigned light tasks for two hours twice a week, for which they are compensated. Following the trial period, they can continue to work if they so choose and if the employer was happy with their work. The trial nature of the employment helps lower the hurdle to participate in employment

and is one of the reasons for the high number of people who apply for the program.

A model version of the program was carried out at one nursing care facility, but it has since expanded to 19 facilities in total, not only in Takarazuka but also in cities such as Settsu and Daito in Osaka, and Ikoma in Nara Prefecture. Several more cities are also considering implementing similar initiatives, so the Takarazuka model is expected to expand further nationwide.

To date, 132 older people have participated in the program, working at nursing care facilities, childcare centers, after-school children's centers, welfare service centers for the disabled, and so on. The level of participation in the program was much higher than expected as there were more people applying for the program than available positions. Both participants in the program and those from host organizations have been pleased with the program. Participants have made comments such as, "It was more fun than I had imagined, and it went by so fast. I felt it was harder to stay at home on my days off," and "I enjoyed having a routine in my life and was motivated to get in shape for work." Meanwhile, host organizations expressed their satisfaction, saying, "The seniors have a strong sense of responsibility and are keen to do a good job," and "The burden on the staff seems to have decreased."

The involvement of the local government has been a key element of the program's success. When advertising individually for job openings, nursing facilities had difficulty getting applications. However, by having the local government serve as a recruiting window, people felt more motivated to participate as they felt a sense of trust and security in the program. In addition, the local government is able to brief participants about how the program will allow them to play an active role in society and improve healthy longevity. Furthermore, they explain the purpose of the program to host facilities to ensure that they arrange working shifts and assignments suitable for older people so that participants can work without feeling overwhelmed.

FINANCIAL STRUCTURE

The municipal government bears only the personnel cost of their staff in charge of the program and incurs no direct costs as recruitment is conducted through the city public relations newsletter and briefings held at community centers. The facilities pay the recruits directly for their hours worked. Thus, the program has a limited financial burden and is able to match job seekers with prospective employers in a sustainable manner.

- KEY LESSONS**
- Local government involvement improves the reputation of the program, ensuring that older people feel secure about participating and that the employers have appropriate expectations.
 - Framing the program as “trial employment” lowers the barrier for older people to sign up, and once people have tried the program, a majority of them continue to participate after the trial period ends.
 - The use of a positive catchphrase, “Recruiting active seniors! The community is waiting for your help,” the appeal from the facilities for help, and the fact that it is a paid job all reinforce the idea that older participants are making a difference in their community, which is a great source of motivation to remain active and healthy.
 - The program has made use of the WHO Framework for “Age-Friendly Cities” in developing a program that aims to keep older people active and give them a sense of fulfillment and purpose.



CASE STUDY 12

Creating a Healthy and Purposeful Life for Seniors through Growing Fresh Vegetables for Local Children’s Cafeterias

Tsurumi Ward Senior Volunteers “Agri,” Tsurumi Ward Social Welfare Council, JA (Japan Agriculture) Osaka City, Tsurumi Ward Council of Social Welfare and Child Welfare Commissioners, and the Liaison Committee of the Tsurumi Ward Community General Support Center (JAPAN)

Tsurumi is one of 24 wards in the city of Osaka and has a population of around 290,000. This project brought together a group of volunteers as well as ward officials, welfare workers, the local agricultural cooperative, and neighborhood farmers.

FACEBOOK: <https://www.facebook.com/profile.php?id=100071303560546> (in Japanese)

PROBLEM STATEMENT

In Japan, life after retirement lasts a long time. Many male baby boomers (now in their 70s) spent much of their lives working long hours in a company and, as a result, had little contact with their local community prior to retirement. They are therefore less likely to engage in social activities in the community after retirement as well, although social engagement is an important contributor to healthy longevity. Employees at the ward office in Tsurumi looked for ways to remedy that, offering an activity that could engage older men and give them a sense of purpose.

INNOVATION

In 2017, the Tsurumi Ward Social Welfare Council organized a training course that would encourage older men to volunteer to grow vegetables for donation to the local children’s cafeterias (*kodomo shokudo*), a nationwide program that offers free or low-cost meals to children from low-income families. Hearing of the proposed plan, JA Osaka (the local branch of the Japan Agricultural Cooperatives) offered their cooperation by providing fertilizer for the vegetables and guidance on how to cultivate them, and the fields were provided free of charge by local farmers. Local community welfare committee members and the Community General Support Center also cooperated in publicizing the training course.

After the course, the Tsurumi Ward Senior Volunteers “Agri” group was established in 2018. Working together, the group grows fresh, tasty vegetables using organic fertilizer and reduced pesticides. The harvest is donated to the local



children's cafeterias. The cafeterias and the children who benefit from those meals express appreciation through thank-you letters to the group. In one instance, as a show of gratitude, the volunteers were invited to attend a concert where some of the children from the children's cafeteria were performing.

The initiative also offers a place for children to experience farming. The group grows a lot of potatoes in particular, and once or twice a year, they invite children to the field during harvest time

to teach them how to use a sickle and dig up the crops. The children get to taste freshly harvested vegetables, and they enjoy discovering insects and observing the growth of vegetables. The opportunity provides them with valuable life experiences. The program has been well received by the children, who are eager to participate again, and the volunteers get to enjoy teaching and interacting with the younger generation, seeing their beaming faces as they unearth a "humongous" potato. That interaction has been a source of motivation, leading to a more healthy and purposeful life.

The initiative seeks to engage members by drawing on each individual's skills: those who are good with computers prepare grant applications and reports, those who have worked in civil engineering are responsible for raising ridges in the fields and improving drainage, those who belong to fishing clubs lend out their own generators and submersible pumps, those who are good at DIY cooperate in installing water distribution pipes and joints to improve water distribution efficiency. Except for rainy days (and sometimes even when it is raining), the members take turns watering, weeding, observing, and harvesting vegetables.

A general meeting is held once a week in the field, so there is little burden in pursuing the volunteer activity. The regular sessions, however, are important for building community and camaraderie. If there are members who have not participated for a while, the group calls on them to make sure all is well as a way of keeping an eye on one another's welfare and giving members a sense of belonging as well.

FINANCIAL STRUCTURE

The group's income comes from membership fees and donations from members, as well as corporate donations and grants. With these funds, the group purchases farm equipment and seedlings to increase the variety and quantity of vegetables. They actively promote their activities and recruit participants, since the more

members they have, the more money they can raise. Training and in-kind support has been offered by the local ward office, the local JA, and neighborhood farmers.

- KEY LESSONS**
- The fact that the initiative goes beyond being just a community garden and instead focuses on providing fresh vegetables to feed families in need offers the participants fulfillment and purpose.
 - By requiring just one meeting per week, the threshold for participation is low, but it builds connectivity and serves as an informal welfare check as well.
 - Each participant is able to contribute based on their strengths, for example in social media outreach, grant writing, irrigation, or farming.
 - The in-person interaction with children during the harvest allows the volunteers to feel the value of their contributions in a more personal way and to share their knowledge of farming with the next generation.

3 MEDICAL INNOVATIONS FOR OLDER PEOPLE AND CAREGIVERS

A recent study in *Gerontologist* examined US patent data to better understand how innovators are responding to the needs and possibilities presented by aging societies. What they discovered was that roughly half of the relevant patents they examined were aimed at “enhancing older adults’ physical and cognitive health, making the environment more age-friendly, or prolonging their independence,” more than one third were “anti-aging” inventions that tried to restore a more youthful appearance, for example, while another 12 percent focused on the “pathologization” of aging, or in other words, the patent applications treated “the process of aging as an illness requiring cure.” The authors called for greater research and innovation to help older adults “better cope with age-related functional decline so that they can lead socially and economically active lives for a longer period” and to “improve the quality of care dispensed to older adults.”¹²

While there are other award programs that recognize cutting-edge drugs and therapies to combat the physical conditions associated with aging, HAPI has sought out innovations that can make life easier, healthier, and safer for a broad range of older people and their caregivers. Given that many countries in Asia are seeing their populations age before the country has fully developed on the economic front, priority is given to technologies and systems that are affordable and can be easily introduced anywhere in Asia.

Applying technological advances to improve care and ease the burden on caregivers

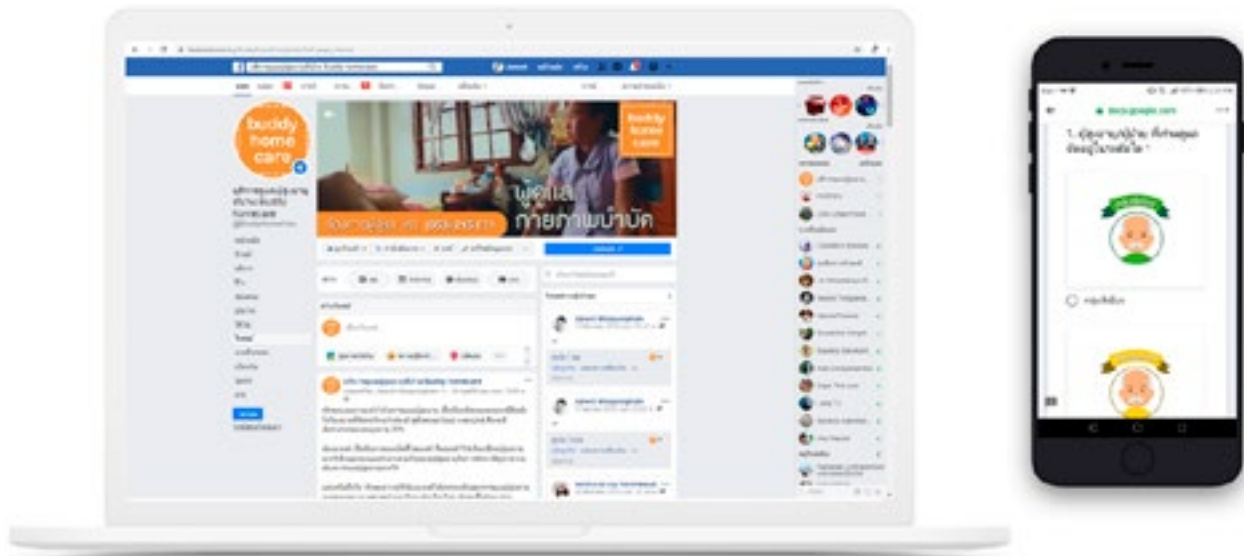
A wide range of new technologies are being used to improve the quality and effectiveness of care for older people—everything from companion robots to systems that monitor medications have emerged over the past decades. In the HAPI program, we have recognized a number of important technologies—some cutting-edge and others using more basic technologies in novel ways that address multiple objectives. As we have seen above in Case Study 4, the Buddy HomeCare program in Thailand has been able to use technology to connect community-based health volunteers and caregivers, who follow an individualized care plan and share data via a customized app

with a team of nurses and other professionals who monitor that data for changes and abnormalities. That program was able to improve care for vulnerable older adults who would be unable or less likely to go to a clinic for regular checkups, while also helping their families monitor their health and providing training to underprivileged youths. In the following chapter on dementia, we will see innovations that use virtual reality or augmented reality to improve the treatment of those with cognitive impairments, helping caregivers better understand their patients (Case Study 21). And in our final chapter on innovations in response to the COVID pandemic, we

highlight innovations that used technology to help caregivers support their patients' needs while minimizing direct contact.

The two cases below highlight innovations that apply new AI technologies to benefit both older people and their caregivers. The first is a monitoring system that can be used in nursing homes, hospitals, or at home to detect falls or other dangerous conditions while also helping nursing staff to do their jobs more

efficiently. The second case uses digital technology and AI to better analyze how well wounds are healing—a significant problem among older people who have more delicate skin and can be susceptible to chronic wounds. It enables wound checks to be done via telehealth, thereby allowing more efficient use of specialized healthcare professionals, who are often in short supply.



The Buddy HomeCare app highlighted in Case Study 4 uses simple technologies to allow community-based health volunteers and family caregivers to report on an older person's health.

12. Ng R, Indran N., "Innovations for an Aging Society through the Lens of Patent Data," *Gerontologist*, 2024 Feb 1;64(2):gnad015. doi: 10.1093/geront/gnad015. PMID: 37497634; PMCID: PMC10825844.

CASE STUDY 13 SmartPeep AI Monitoring System

SmartPeep (SINGAPORE & MALAYSIA)

SmartPeep is an AI health-tech company that develops automated monitoring system to prevent accidents and assist healthcare professionals to respond better to the needs of patients and older people, especially those with higher fall risk and low mobility.

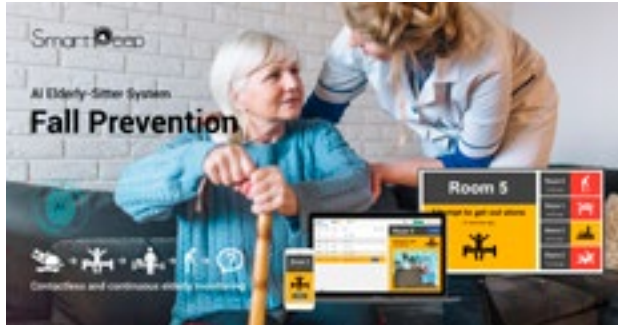
URL: <https://www.smartpeep.ai>

PROBLEM STATEMENT Ensuring the safety of older persons in long-term care facilities depends on two key factors: the timely implementation of routine tasks—feeding, bathing, checking vitals, providing medicine, and so on—and responding without delay if a resident has an accident or is at risk. As nurses and other caregivers often find themselves stretched to the limit, however, that consistency and speed are sometimes difficult to achieve. Safety is also a concern for older people living alone at home, as falls or illness may go undetected for hours.

INNOVATION In recent years, a number of new technologies have been developed to support the work of the caregivers. There are bed sensors and wearable devices for fall prevention and detection, systems to detect falls in the bathroom, sensors to monitor for bedsores, and so on. But high-tech start-up SmartPeep decided to take a different approach that would integrate those various functions more effectively. By combining existing surveillance technology with AI, they have created what they refer to as “care-oriented optical sensors” that provide proactive alerts, drawing the caregivers’ attention to anomalies that occur in a resident’s room or a common area of a nursing facility. This fits with what their founder and CEO Dr. Lim Meng Hui describes as their “mission of helping caregivers to provide better elderly care with AI.”

The SmartPeep AI Elderly-Sitter System is a computer-sized machine that can power 20 to 50 surveillance cameras, extending the caregivers’ line of sight to constantly monitor patients or nursing home residents. Using AI, the system can recognize the actions of the residents and alert caregivers if a person has fallen. It can also alert caregivers if a senior is trying to exit their bed, which can help prevent falls. The technology can also track movements of bedridden residents to help prevent bedsores, track the presence of residents in common areas to let caregivers know if someone has wandered off, and detect falls within the bathroom by monitoring the entrance to the toilet and alerting staff if someone does not emerge in a normal range of time. The system can also recognize and alert staff to behavior changes, such as less frequent trips to the bathroom or less movement within the resident’s room.

SmartPeep was designed to be non-intrusive and respectful of individual privacy and dignity. It does not require that the residents wear any devices that could harm delicate skin or that can be left behind if a resident wanders off. There is no



live streaming, and the alerts are sent with blurred images, so caregivers can identify that there is an issue, but the resident's privacy is respected.

For example, if a frail resident is trying to get out of bed at night, the system will send an alert and a caregiver will be dispatched to that resident's room. The system recognizes the staff's uniform when they arrive at the room and keeps track of how quickly they responded. As one nurse manager explains "the system is just like the second pair of eyes for nurses

and caregivers and it is especially helpful in preventing falls, which is crucial for our residents." It also records when a nurse or other caregiver makes a routine visit to a resident or patient, allowing employers to manage their staffing and make data-driven improvements to the care they offer.

The system is now being used in hospitals and nursing homes throughout Southeast Asia, and those using the SmartPeep system have reported a more than 70 percent reduction in patient falls, as well as a substantial reduction in response time when those falls do occur.

They also have a similar system for in-home use to support older people who want to age safely at home, or who are alone at home while their children are off at work. In that case, a combination of an AI bot, Wi-Fi cameras, and a 24/7 care team work to learn the older resident's normal patterns of behavior and then can detect and respond to falls, anomalies, or unusual absences. This system is also designed to maintain privacy and does not store or livestream video. But importantly, by using cameras and AI to detect motion, it breaks the reliance on wearable devices that may be forgotten or alert buttons that may not be accessible if someone has fallen or suffers a medical emergency.

FINANCIAL STRUCTURE

The business model is a fee-based service that charges an annual fee per camera or bed that is monitored using SmartPeep's AI system. In hospitals and nursing facilities that already have security cameras in place, the system can use existing hardware, thereby minimizing costs.

KEY LESSONS

- Innovations for the health of older people should be value-driven rather than technology-driven. In this case, the value was to provide an effective tool to improve the safety of older people while respecting their privacy and dignity, while AI was the technology that helped facilitate that goal.
- It was important that the program could work with existing surveillance systems and integrate a number of monitoring services—e.g., bedsore monitoring, toilet use monitoring, etc.—in a reliable and non-intrusive way.
- Working closely with the clients has enabled SmartPeep to discover features that really help nursing homes deliver better care and improve productivity. The product helps prevent falls rather than just detect them after the fact, which helps the individual resident and the staff.

CASE STUDY 14 CARES₄WOUNDS Wound Management System

Tetsuyu Healthcare Holdings Pte Ltd (SINGAPORE)

Tetsuyu Healthcare Holdings is a Singapore healthtech company that aims to create sustainable social impact through greater access to quality care via affordable innovation.

URL: <https://tetsuyuhealthcare.com>

PROBLEM STATEMENT In aging societies around the world, there has been an increase in the incidence of chronic wounds associated with comorbid conditions such as diabetes. In Singapore, which is aging rapidly, wound-related hospital admissions have doubled between 2000 and 2017 due to a high prevalence of neuroischemic ulcers and pressure ulcers, and Singapore now has one of the highest rates of diabetes-related lower extremity amputation in the world. Better wound care is therefore needed to reduce the clinical and economic burden on the healthcare system that this creates, to say nothing of the individual suffering such wounds entail.

INNOVATION Tetsuyu Healthcare Holdings decided to address this issue by harnessing new digital technology and artificial intelligence (AI) in a way that helps prevent wound infections and amputations. As they examined this issue, they found that wounds require regular reassessments and treatment adjustments. As nursing home staff may not be adequately trained to handle complex chronic wounds, frequent visits by wound care specialists are required, which is time-consuming and expensive. But the current methods of manual wound measurement using rulers and probes can be painful for the patient, and there is a risk of infection. Moreover, manual measurements can be inconsistent between clinicians or even between visits by the same clinician. Manual assessments of tissue classification percentages based on sight only can be difficult and varied. The shortage of expertise and standardization can lead to inaccurate wound assessments, resulting in deteriorating wounds being left undetected, which may lead to the need for amputation.

Tetsuyu therefore brought together a group of technical and clinical partners to develop AI-assisted software that would support evidence-based wound management and monitoring by clinicians such as nurses and podiatrists. In addition to the company's internal staff, they worked with the Institute for Infocomm Research (A*STAR), which has extensive experience in image processing used in healthcare, and with an Australian mathematician who developed the depth framework to enable measurement of the wounds. They were also guided by leaders in the field of wound management.

By repurposing an AI ophthalmology machine-learning model to automate what was previously a manual decision-making process, they created CARES4WOUNDS. This innovation comprises a mobile application that can be downloaded on an iPhone or iPad and a web-based monitoring tool. The mobile application automates wound measurements and tissue classifications, delivering high-accuracy results in just under one second.

CARES4WOUNDS translates assessments into clinically accepted PUSH or Wound Bed scores to objectively evaluate healing status. Embedded algorithms within the application help guide users on the risk of infection, treatment objectives, and treatment products, thus improving the productivity and consistency



of treatment provided by clinicians of different levels. By using this technology, less skilled users can deliver high-quality assessments and treatments. The data is relayed to a senior clinician, such as a wound, ostomy and continence (WOC) nurse, who can evaluate it remotely using a web monitoring

tool that allows the user to visualize the wound healing progress over time using customized charts and an image gallery. Through remote monitoring and teleconsultations, the senior clinicians can order objective and timely interventions.

CARES4WOUNDS makes wound management and assessment 11 times quicker. These time reductions arise from easy access to patient history and accessing of accurate wound information, automated processes, and lack of travel time with use of teleconsultations. This allows for more frequent consultations and timely interventions. In addition to speeding up the wound monitoring, assessment, and documentation process, the fact that it is a non-contact method of assessment lowers the risk of infection compared to manual assessments and most importantly, it reduces the patient's pain.

CARES4WOUNDS is currently in use at a number of hospitals and nursing homes in Singapore and Hong Kong, with eight facilities having adopted the technology in the first half of 2024 alone, and they are working to adapt the technology for use in countries throughout the region and in South America, with customization for differences in workflow, wound scoring systems, treatments, and so on. They are also in the pilot phase of a promising new solution that addresses diabetic foot screening, using their AI assessment technology to allow people with diabetes or their family members to self-screen for anomalies, thereby decreasing the need for in-person doctor's visits.

FINANCIAL STRUCTURE

Pricing varies depending on the work required for customization, integration, and data hosting. The general model includes an annual licensing fee and maintenance fee. The system can be adapted to account for differences in workflow, treatment products, wound scoring system used, etc.

- KEY LESSONS**
- By drawing on international experts in AI, wound care, mathematics, and imaging, the project was able to find a solution to a serious issue facing aging societies.
 - CARES4WOUNDS identified an innovative approach to wound care that allows more accurate measurement and assessment while reducing the risk of infection and causing no pain to the patient.
 - The product allows individuals with different levels of training to take consistent measurements and share both measurements and images remotely with wound care specialists, thereby improving the quality of treatment and reducing costs.
 - The innovation can be adapted to different countries' wound assessment systems and different organizations' workflows, and it uses only an iPhone or iPad, making it easy for a wide range of institutions to adopt the technology.



A community approach to promoting healthier outcomes

In many of the cases introduced in this report, communities have come together to ensure the health and wellbeing of older residents through activities that promote social engagement, health monitoring, and preventive healthcare. The Bangkok Metropolitan Administration's community-based efforts to prevent the need for long-term care (Case Study 7) and the University of Tokyo's frailty prevention platform (Case Study 5) are two examples of this.

But when medical issues do arise, it is also important for communities and various sectors to come together to ensure that care is accessible and effective, and that care providers have the support they need. In this section, we examine three



The Bangkok Metropolitan Administration trains volunteers in long-term care prevention.

CASE STUDY 15 Preventing Stroke Recurrence through a Hospital–Local Government Partnership to Support Patient Self-Management

Komagane City, in cooperation with Showa Inan General Hospital (JAPAN)

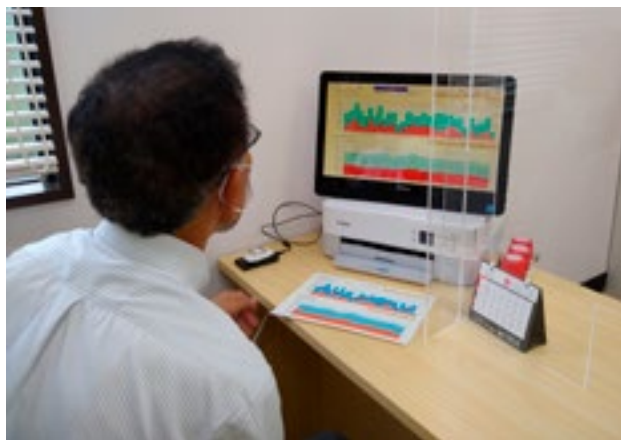
The city of Komagane is located in central Japan in Nagano Prefecture, nestled between the Central and Southern Alps. It has a population of just over 31,000, with more than 30 percent of the population aged 65 or older.

PROBLEM STATEMENT As populations age, it is important to develop systems that empower people to maintain their self-reliance and independence as they grow older. As Komagane City looked at options to create a healthier, age-friendly city, they realized that strokes were a major issue for their residents as they are a common cause of long-term disabilities. Once someone has suffered a stroke, what can be done to prevent recurrences and help older people avoid long-term care?

INNOVATION In 2015, the Komagane City government began examining how they can help their residents to remain healthier and age in place, without the need for institutionalization of care. To begin, they conducted research and identified the



medical facility to which the largest percentage of older persons were transported via ambulance, and where most stroke patients were hospitalized, Showa Inan General Hospital. Working with the hospital, they found that cerebral disease was the most common form of illness among the older people transported to the hospital. In addition, they discovered that the stroke recurrence rate was high-



est in the first year after discharge, with 60 percent of recurrences occurring in those with mild symptoms who could still walk. Part of the problem, they realized, was that simply providing patients with discharge directions on diet and exercise was not effective in affecting the types of behavioral change needed to lessen the chance of recurrence.

As a result, they developed a program through which skilled professionals work to educate patients and their families during the patient's hospitalization. They create a care plan, teach the patient how to monitor their vital signs, and have them record those vital signs using a "prevention notebook," in which patients set their own goals. Involving the patient in

this process of self-planning and self-monitoring encourages them to be aware of their disease and health status so that they can adopt a healthier lifestyle and improve their "self-management capability."

The path of support continues once the patient is discharged, as the registered nurse in charge will share information with the patient's personal physician and will hold consultations with the patient and their families four times over the course of the year (1, 3, 6, and 12 months after discharge) to ensure that they are sticking to their plan to achieve their initial goals.

This process is supported through a special "My Page" website developed by the local government, which allows patients to monitor their daily condition and explain that to their personal physician. The page can be viewed from a smartphone and can wirelessly record daily activities such as the number of steps taken, as well as be used to record vital data (blood pressure, weight, temperature, etc.).

By intentionally targeting patients with mild strokes, the municipality-hospital partnership produced significant improvements in outcomes for stroke patients. Before starting the program, the stroke recurrence rate was over 8 percent, but after implementing the project in FY2018 it dropped to 4.8 percent in FY2019. Thanks to the success of the program, they began looking at extending the scope of the program to target other chronic illnesses in the future, such as cardiac issues.

A two-year pilot program in the initial phase also played a key role in the success of the program. The pilot allowed them to build consensus and create common understanding between partners and stakeholders, including the local government, the medical facility, and care facility personnel. It also allowed them to properly incorporate and improve the patient education and self-management aspects of the program. As one example, they started having patients take their own blood pressure while still in the hospital so that they would be comfortable doing so once they returned home after discharge.

FINANCIAL STRUCTURE The costs of the program are relatively low, and most are borne by the local government or by the national health insurance plan. The city printed prevention notebooks and self-check forms, and they covered the cost of developing a special website, “My Page,” and smart phone applications. They also provided funds to implement the activity meter system. The cost of the community nurse visits to the patient are covered by insurance.

- KEY LESSONS**
- The patient-centric, self-management approach, facilitated by the city’s “My Page” website, encourages older persons and their families to be the main players, and encourages patients to take charge of their own health management
 - It is important to create a system where lifestyle advice and training on health monitoring are provided to patients before they are discharged, with follow-up and reinforcement by community nurses, personal physicians, and family members.
 - The close relationship between the hospital and local government allowed for the creation of a path of support after hospital discharge. This helped create a community-based integrated care system bridging medical, long-term care, and welfare systems.
 - Data was used to select the right target group and monitor the impact of the intervention over time.



CASE STUDY 16 **forOldy Grandpa-Grandma Shop— Secondhand Medical Assistive Devices for Low-Income Elders**

Help Without Frontiers Foundation; forOldy Project (THAILAND)

The forOldy membership network draws on models from Japan, the Philippines, Korea, and Malaysia to provide a healthier and happier environment for low-income older people. It has expanded over the past decade to include eight communities within Bangkok.

FACEBOOK: <https://www.facebook.com/forOldy/>

PROBLEM STATEMENT In Thailand, roughly 15 percent of the population is now 65 or older, and a significant portion of that population is considered to be living in poverty.¹³ Older, low-income community members have difficulty accessing the medical devices they need to assist with care and mobility. Items such as wheelchairs, walkers, medical beds, and bathing chairs are in great demand, but are too expensive for most people to purchase.

INNOVATION In 2009, Ms. Oranuch Lerdkulladilok, an energetic woman with a broad smile and an entrepreneurial spirit, launched a new initiative that combines social enterprise and social development for older people. She drew on her own experiences—studying in Japan, working on youth programs, and running community development initiatives for Thailand’s National Housing Authority—as well as on models she saw around the region—self-empowerment programs in the Philippines, day care centers in Malaysia, and Korean at-home care models. As a result, she created the forOldy membership network to help low-income and disadvantaged older people in Bangkok lead happier and healthier lives. It now covers eight communities in Bangkok.

ForOldy members have access to everything from at-home visits from health-care volunteers to income-generating initiatives, educational programs, and a funeral savings fund that helps cover the costs when members pass away. One critical need that Ms. Lerdkulladilok identified, however, was for medical devices to assist with care and mobility. Daily life can be a real struggle without these simple assistive devices, and yet they were out of reach for many.

In response, she started the Khun Ta Khun Yai Shop (or literally, Grandpa-Grandma Shop) using a space at her family property. As she explains, “I wanted to prepare a space where people who were no longer using these items could

13. Department of Older Persons, Government of Thailand, Situation of the Thai Elderly 2022 (Bangkok: Amarin Corporations Public Company Limited, 2023), 24.



donate them rather than abandon them. It reduces the hardship of having to spend a lot of money to provide equipment for loved ones and lets people live more comfortably during an illness or their final days.” The shop cleans the donated items, makes any necessary repairs, and makes them available for rent or sale at an affordable price, either short-term or long-term. This gives older persons a sense of agency in that they are purchasing the items rather than receiving a handout, and it also ensures that the items are in good shape and do not present a hazard to the next user. The initiative also helps preserve the environment through the reuse of equipment and the income generated from the shop is used to promote

activities to provide a better quality of life for seniors.

The shop also promotes a sense of community and mutual aid. The shop serves as a middleman, helping charitable individuals get used devices to those who need them. It uses social media to raise awareness of the initiative.

The forOldy members can request any needed items through their homecare volunteers who are part of the forOldy network. These volunteers have been providing healthcare knowledge to older community members, which has helped address lifestyle-related diseases and has decreased the need for assistive devices over the past six years. The combination of homecare volunteers and access to devices has increased mobility among older residents, allowing them to live with dignity and easing the burden on their families as well.

FINANCIAL STRUCTURE

The costs of the program are low, including office rental, utilities, and two staff people. There are also occasional costs for cleaning, repairing, and delivering the medical devices. Most of these expenses are covered by the rental or sales of items, which are offered at very low prices. If an older person cannot pay, forOldy looks for charitable individuals who can donate directly to that person.

KEY LESSONS

- In countries where there is no universal health coverage, or where the system does not cover medical devices, the lack of simple devices such as walkers or bathing chairs can greatly impair the quality of life for an older person.
- Donations of used items can lower costs, and this initiative also cleans and repairs the items to ensure that they are ready to be safely used again.
- The initiative promotes a sense of mutual aid, as community members would rather items like a wheelchair or walker be used again for someone in need rather than simply be disposed of after their loved one no longer needs it.
- The synergy between the home healthcare volunteer program and the forOldy Shop facilitates the identification of needs in the community.

CASE STUDY 17 KAIGO CAFÉ—Connecting Japan’s Caregiving Professionals

Mirai Wo Tsukuru Kaigo Café (JAPAN)

Mirai wo Tsukuru Kaigo Café, or literally “Creating the Future Caregiver Café,” is a non-profit organization designed to create a community of care professionals throughout Japan.

URL: <http://www.kaigocafe.com> (in Japanese)

PROBLEM STATEMENT In Japan, there are currently more than 1 million formal caregivers and close to 7 million informal caregivers.¹⁴ Those who are in-home caregivers can feel isolated over time. And in their daily lives, many have had little opportunity to reflect on their own experiences, communicate and compare notes with others in the field, or contribute to reforms. There is also little opportunity for medical, nursing, and caregiving professionals to talk openly and frankly with one another.

INNOVATION In 2012, Ms. Hisako Takase was working as a care manager in a facility in Tokyo when she decided to launch the Mirai Wo Tsukuru Kaigo Café to bring together people in her community who were involved in caregiving. The Café is open to anyone wanting to get involved, learn, connect, and get inspired, including a wide range of professionals, managers, businesspeople, students, and caregivers. The events, usually held monthly, gather more than 100 people each time.

The organizers view the secret of its success as being the fact that there was an unmet need felt by many in the profession of eldercare to interact and connect with others in the field on an equal footing across sectors and businesses, without the hierarchical constraints that might exist within their own facility or institution. For those providing in-home care as well, there was a desire to meet colleagues in their community with whom they could talk about issues they face, gaining insights from others on ways to improve both caregiving and care management.

Over the past decade, the Kaigo Café initiative has spread quickly, with more than 60 Cafés now set up with the objective of enabling better care and disseminating information within and outside Japan. This network, which meets both in person and online, is now the largest informal community of care professionals in Japan with more than 50,000 participants.

The continuous and open dialogues at the Café with people from diverse occupations help participants explore the true essence of care, which can easily be forgotten in the face of the overwhelming amount of daily routine

14. Rong Fu, Toshiaki Iizuka, and Haruko Noguchi, “Long-Term Care in Japan,” in *Long-Term Care Around the World*, eds. Jonathan Gruber & Kathleen McGarry (Chicago: University of Chicago Press, 2023), <https://www.nber.org/books-and-chapters/long-term-care-around-world/long-term-care-japan>.



and work. They gain an objective perspective about themselves and their own business or organization, can concretely imagine what changes should be sought, and can proceed to transform their organization. The Café allows the participant to connect with friends who are positive thinkers and continuously enhance his or her motivation.

As the activities expanded, people around the country expressed interest in establishing Kaigo Cafés in their own communities. In 2016, they launched the Kaigo Café Facilitator Course for those who want to create their own cafés and for those who want to learn tips for meetings and implementation. The group was able to obtain crowdfunding to create a textbook for facilitator training and to cover some of the costs to hold facilitator training courses outside of Tokyo. More than 600 people had participated in courses in 15 cities as of 2021, and online courses were being launched to increase the reach.

In regions outside the larger cities, the different needs and styles of operation have been shared and adopted to create Cafés that best suit each locality.

The organizers also pay visits to local primary schools to hold workshops on themes like the attractiveness and meaningfulness of a career in caregiving, or on topics such as community building or understanding dementia. And they hold events at companies and technical schools, such as study groups to promote career development or on care management and community management. In these ways, the Cafés serve as a bridge to connect those in the care industry with the local community.

FINANCIAL STRUCTURE

The project expenses—venue rental, operating costs, honorarium, etc.—are generally covered by the fees collected from the participants. The difference is covered by either seeking government subsidies, private grants, or sponsorships, or through crowdfunding. The cost of operating one Café ranges from ¥0 to ¥50,000.

KEY LESSONS

- Rather than developing siloed professional networks of just doctors, just nurses, just caregivers, just nursing care facility managers, etc., this model brings together all of these caregiving professionals to connect on an individual basis and on an equal footing, thus offering a broader range of perspectives and insights into ways to improve care.
- Kaigo Cafés allow the participants to empower one another through a network of likeminded professionals, providing much-needed encouragement and advice.
- Kaigo Cafés generate synergy that enriches both the caregiver and the care recipient.
- Particularly for informal and in-home caregivers, having this type of network can alleviate some of the loneliness they may experience.

4 SUPPORTING PEOPLE WITH DEMENTIA AND THEIR CAREGIVERS

Over the next 30 years, Asia will experience rapid growth in the number of people with dementia, a challenge that organizations throughout the region are recognizing and working to address. Alzheimer's International estimates that the number of people with dementia in Asia will more than double in the coming decades, rising from about 30 million people in 2020 to about 80 million people by 2050. This increase will be most pronounced in East Asia, where the number of people affected will more than triple, increasing from just over 11 million to over 36 million.¹⁵

The pressing need to prepare for this rapid growth was a topic tackled by a number of the winners of the Healthy Aging Prize for Asian Innovation. Indeed, 7 out of 28 of the HAPI awardees in the first three years of the program are organizations that provide direct support to people with dementia and their caregivers.

Effectively responding to the rapid increase in the number of people with dementia in the region will require innovations that are grounded in the local context and provide targeted interventions that can effectively support holistic health for people with dementia. Dementia's impact extends beyond the individuals suffering from the condition; it also affects caregivers, including family members, nurses, doctors, and the broader community. Creating dementia-friendly environments and communities therefore requires well-trained caregivers—both formal and informal—who understand dementia and can provide compassionate and holistic support for those living with dementia. A number of HAPI winners directly address this issue, from initiatives tackling the stigma around dementia and building understanding and empathy, to those providing specialized training and techniques for caregivers.

Supporting the Holistic Health of People with Dementia or at Risk of Developing Dementia

Dementia is a condition that can impact a person's life in a broad variety of ways, requiring holistic care that not only addresses decline in cognitive function, but also includes non-medical interventions to support the social and physical wellbeing of people affected. This care also needs to account for the specific context in which a person with dementia lives, to meet them, their caregivers, and their community where they are and provide support that makes sense.

Two HAPI winners exemplify the success that can be found in developing programs that provide holistic care that properly accounts for local context. They highlight the fact that while dementia is a global issue, understanding and recognition of dementia varies widely across East and Southeast Asia, necessitating a diverse range of interventions that have been tailored to local circumstances. For example, in China dementia is often heavily underdiagnosed, as was shown in a 2018 study in the *British Journal*

of *Psychiatry* that found over 90 percent of dementia in China was undetected.¹⁶ This means that there is a strong need for innovations that specifically aim to raise awareness and address stigma around dementia, including through adopting international models. In contrast, the Republic of Korea has had a national dementia plan since 2008, and in 2012 it passed a Dementia Management Act that created a framework for organizations to deliver services to those affected by or at risk of developing dementia.¹⁷ As such, the need in Korea has been more about creating programs that effectively operate within this framework while adapting government recommendations to meet specific community needs.

Our two case studies, one in China and one in South Korea, provide a diverse set of services and activities for people with dementia or at risk of developing dementia that not only aim to slow down or delay cognitive decline, but which also seek to promote social and physical wellbeing. They also both effectively cater their programming to meet differing local needs, connecting to existing networks of hospitals and senior welfare centers while also tapping into community resources who have specialized understanding of community needs, and can build trust with those using their services.

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15. Alzheimer's Disease International, "Numbers of People with Dementia Around the World," <https://www.alzint.org/u/numbers-people-with-dementia-2017.pdf>.
 16. Chen, Ruoling, Zhi Hu, Ruo-Li Chen, Ying Ma, Dongmei Zhang, and Kenneth Wilson. "Determinants for Undetected Dementia and Late-Life Depression." *British Journal of Psychiatry* 203, no. 3 (2013): 203–8. <https://doi.org/10.1192/bjp.bp.112.119354>.
 17. Ministry of Health and Welfare, Republic of Korea, The Third National Dementia Plan, <https://www.alzint.org/u/Republic-of-Korea-The-3rd-National-Dementia-Plan.pdf>.

CASE STUDY 18 Memory Home

Shanghai Jinmei Care for the Elderly (CHINA)

Shanghai Jinmei Care began as a grassroots mutual-help caregiver group organizing educational and preventive care activities in the community. They launched a Dementia-Friends Campaign and opened their first Memory Home in 2017.

PROBLEM STATEMENT Despite the growing number of people living with dementia in China, there is still little public understanding of the disease, and the stigma and discrimination surrounding it has led to low rates of both assessment and diagnosis of dementia. This in turn has meant a lack of community programs providing holistic support to people with dementia, seeking to address their social and physical wellbeing while also providing resources for caregivers and their families.

INNOVATION Shanghai Jinmei Care's Memory Homes serve as community-based physical spaces where social workers provide holistic care, covering a diverse range of challenges related to dementia, from pre-diagnosis advocacy and education to post-diagnosis support and intervention. As of 2022, Jinmei Care had established 21 Memory Homes throughout Shanghai, which have provided educational and preventive activities to more than 100,000 older people, and cognitive function assessments to more than 80,000.

Each Memory Home provides comprehensive programming across six primary areas. First, they organize educational programs for older people in the community to dispel myths and improve understanding of dementia. Second, they organize





preventive activities that promote a healthy lifestyle and keep people socially active. Third, they provide cognitive assessment to identify high-risk older people and have developed relationships with hospitals to provide efficient referrals and diagnosis. Fourth, they provide a wide-range of non-medical intervention activities such as music, dancing, and art, which can help slow cognitive decline and promote self-confidence among

older people. Fifth, they provide caregiver support through one-on-one consultations with social workers who can help develop care plans, through mutual-help groups for caregivers, and through a broad range of other resources. Finally, they have launched a “Dementia Friends Campaign” to promote intergenerational awareness about dementia and eliminate discrimination.

To improve on the already broad range of offerings at their Memory Homes, Jinmei Care has also adapted models from other countries, such as Japan. For example, their flagship Memory Home includes a Memory Café, where older persons with mild cognitive impairment or mild dementia symptoms are able to work as servers. They receive special cognitive function training through the process of making coffee, counting money, and interacting with guests. Caregivers are treated as VIPs at the café, while the general public are given an opportunity to learn about dementia and to become a Dementia Friend simply by buying a cup of coffee as a donation and giving the older server a smile, even though they may get a latte instead of the Americano they ordered. This initiative combines non-medical intervention and caregiver support with community interaction and sustainable fund-raising. While the Memory Café model is well known in Europe, Jinmei Care was one of the first organizations to successfully implement the model in China to address the specific challenges China faces with low rates of dementia awareness.¹⁸

Jinmei Care has also seen success in taking a case-management approach to their activities. They connect families with a social worker who acts as a case manager, creating a tailor-made support plan that is updated at least once every three months. This approach has had a tremendous impact on people’s lives. For example, one couple, Mr. and Mrs. Z, had lost hope after the husband was diagnosed with moderate-to-severe dementia. After learning about Memory Home and Jinmei Care online, they were able to work with a social worker to develop a tailor-made intervention and support plan. By attending educational sessions

18. For more information, visit the Memory Café Directory website, <https://www.memorycafedirectory.com/what-is-a-memory-cafe/>.

and connecting with other caregivers, Mrs. Z gradually changed her understanding of dementia, adjusted her mindset and expectations, and was able to relieve much of her anxiety. Meanwhile, Mr. Z's situation improved as he regularly attended activities at the Memory Home.

Jinmei Care has also been able to achieve broader policy impact to help raise awareness about dementia. Approximately 60 percent of older people who receive cognitive function assessments and are evaluated as being at high risk go on to visit a hospital for further diagnosis and medical treatment. Jinmei Care has also worked with the Shanghai government to launch a Shanghai Dementia-Friendly Community Construction Project (DFCC) in 2019, developing courses and toolkits to enable other organizations to join the project. The goal is to have all of the city's 216 communities become dementia-friendly communities by 2025.

FINANCIAL STRUCTURE The Memory Home activities and services are provided at no cost to older persons and their families. The program is funded through the Shanghai government's DFCC project, social foundations, and donations from companies and individuals (including the Memory Café proceeds).

- KEY LESSONS**
- It is important to take a comprehensive approach to dementia that addresses the needs of those with dementia, their caregivers, and the community, and to create a bridge between medical, non-medical, and home care.
 - Adapting international models, such as the Memory Café, to the Chinese social context and situation allows the initiative to respond effectively to the unique operational mechanisms of the local community.
 - Close collaboration with the local government has enhanced the organization's credibility, ensured project sustainability, and made social change happen more efficiently.
 - Jinmei Care's strong focus on community leadership has allowed them to connect with families, for example by employing staff who can speak local dialects, and to integrate existing resources, collaborate with industry partners, and coordinate different stakeholders to work and contribute together.



CASE STUDY 19 KB Good Memory School

Korea Association of Senior Welfare Centers (KASWCS)

KASWCS was founded in 1998 and acts as a network of senior welfare centers in South Korea. As of 2024, 343 senior welfare centers operating across the country were members of KASWCS.

URL: www.kaswcs.or.kr (in Korean)

PROBLEM STATEMENT South Korea has quickly become one of the oldest countries in Asia Pacific, with approximately 17 percent of the population now aged 65 or older, as compared to roughly 7 percent at the start of this century.¹⁹ A 2021 study published in the *Yonsei Medical Journal* found that as the population quickly aged, the number of hospital patients with dementia had tripled from 2008 to 2016.²⁰ The extreme financial, social, and human implications of this shift have drawn attention to the need for interventions to mitigate the impact of dementia.

INNOVATION In 2014, the South Korean government introduced the 3-3-3 rules of Preventing Dementia and Dementia Prevention exercises, which were intended to promote dementia prevention as part of their 2nd National Dementia Plan. Following the introduction of those rules, KASWCS developed the KB Good Memory School, a standardized program designed for non-medical senior care settings to promote dementia prevention and healthy and active aging. The model is designed to enhance public awareness about dementia prevention and to promote capacity building at senior welfare centers. As of 2019, a total of 5,266 older people had participated in the Memory School, which has been offered at 97 senior welfare centers that are part of the KASWCS network.

The Memory School program is a 12-session group intervention program consisting of semi-structured health promotion education and activities in four areas (1) cognitive function, (2) physical health, (3) social wellbeing, and (4) nutrition. The objective is to create a healthy lifestyle that can help delay or prevent the onset of dementia after the sessions are over.

KASWCS emphasizes an evidence-based approach in both the design of the program and in measuring its outcomes. When designing the program, they assembled a board of interdisciplinary experts in social work, public health, psychiatry, and preventive medicine to help standardize the workbooks, operational guidelines, and training for program implementors.

Program participants are administered a Mini-Mental State Examination for Dementia Screening (MMSE-DS) survey before and after participating in the

19. AHWIN, "Data on Aging," www.ahwin.org/data-on-aging; compiled based on United Nations, Department of Economic and Social Affairs, Population Division, *World Population Prospects: The 2022 Revision, Key Findings and Advance Tables* (2022).

20. Choi YJ, Kim S, Hwang YJ, Kim C. Prevalence of Dementia in Korea Based on Hospital Utilization Data from 2008 to 2016. *Yonsei Med J.* 2021 Oct;62(10):948-953. <https://doi.org/10.3349/ymj.2021.62.10.948>



Memory School. KASWCS found that in the group identified as “high risk” by the MMSE-DS, the average score improved from 19.88 to 22.44 after the program, meaning they were almost out the high-risk range (23 points or less on the MMSE-DC). Surveys also demonstrated statistically significant improvements in life satisfaction and decreased levels of depression.

The Memory School is also designed to take advantage of the strengths of each individual senior welfare center, which has the best understanding of its community and its needs. About 50 percent of the course material is left open, to be designed by the

implementing senior center, allowing them to tailor the course based on available resources and the needs they have identified in their community.

Relying on the localized expertise of individual senior welfare centers in implementing the program has helped to ensure that the program is engaging for older people. As one participant wrote, “I am 94 years old. I had been very depressed taking care of a disabled daughter. But I couldn’t wait to participate in the next session of the Good Memory School because it was so fun. I saw myself getting brighter as the sessions continued.”

Finally, KASWCS has made efforts to create a dementia-friendly environment and train professionals in the field, recognizing the importance of not only the individual person’s efforts but also improved awareness among the public and adequate infrastructure in order to deal with dementia at the community level.

FINANCIAL STRUCTURE

The Corporate Social Responsibility Fund of the KB Financial Group, a Korean financial holding company, provides KASWCS with approximately KRW250 million annually (approx. \$180,000) to support the operation of the Memory Schools. The majority of these funds (68 percent) are provided directly to the senior centers to carry out the program, while the remaining funds are used to cover personnel costs, employee training, and education development and network meetings.

KEY LESSONS

- There are a broad range of issues that are critical to dementia prevention that must be addressed holistically, including of course cognitive function, but also social wellbeing, physical health, and nutrition.
- Evidence-based approaches are important—KASWCS incorporates an advisory board of experts to inform the development of the activities and uses pre- and post-program surveys to evaluate their effectiveness.
- Given that there are 400 senior welfare centers in South Korea, KASWCS has the ability to disseminate its innovation broadly throughout the country.
- By building flexibility into the program, the implementing senior centers can cater their program to meet the needs of their local community and effectively utilize their own specific expertise and resources.
- The program coincided with the Korean government’s introduction of a National Responsibility Policy on Dementia Management, enabling KASWCS to create synergy between the government’s preventive programs and their work.

Supporting Family Members and Caregivers of Those with Dementia

In addition to the challenges faced by people with dementia, who as outlined above benefit from holistic, compassionate care that addresses their physical, social, and emotional wellbeing, it is also important to recognize the needs of those caring for someone with dementia. That role can be extremely demanding and there is a real risk of caregiver burn-out among both formal and informal caregivers. In fact, in a Blue Cross Blue Shield survey of 6.7 million family caregivers in the United States, 57 percent reported experiencing clinically significant levels of stress, anxiety, and depression.²¹

A particular challenge associated with caring for someone with dementia are the behavioral and psychological symptoms of dementia (BPSD), which can include depression, agitation, aggression, and psychosis. Much of the stigma around dementia is a result of these symptoms, which can often lead to dehumanizing care that heavily restricts the freedoms of the person with dementia and can also have a negative emotional impact on the caregiver.

Recognizing the unique challenges associated with being a caregiver for someone with dementia, many organizations incorporate caregiver support groups into their work. We have already seen an example of this with Jinmei Care's Memory Home, which connects caregivers with each other, helping to ease

the caregiving burden. These caregiver groups can also help address misconceptions about dementia that caregivers may hold, empowering them to confront the stigma around dementia and provide more empathetic care.

The following case studies are examples of organizations that have developed interventions specifically targeting caregivers, allowing them to provide more effective care for people with dementia, while also supporting their own health and wellbeing. The first case is from a Japanese medical group, which developed a manual for their caregivers that promotes techniques for managing behavioral and psychological symptoms of dementia without the use of physical restraints.

The next pair of cases showcase the use of technological innovations to help build empathy for people with dementia. These examples utilize similar, but slightly different, technologies—virtual reality (VR) and augmented reality (AR)—to help put caregivers in the shoes of someone with dementia, allowing them to better understand why someone with dementia might be having difficulty in a particular situation and creating a space for dialogue that can help caregivers better understand and deal with BPSD.

21. Blue Cross Blue Shield, "The Impact of Caregiving on Mental and Physical Health," September 9, 2020, <https://www.bcbs.com/the-health-of-america/reports/the-impact-of-caregiving-on-mental-and-physical-health>.

CASE STUDY 20

Taiseikai-Style Care to Improve Problematic Behaviors Associated with Dementia and Let People Live True to Themselves

Medical Corporation Taiseikai Group (JAPAN)

Taiseikai Group, based in Gunma Prefecture, has operated hospitals and care facilities for over 20 years. In 2002, they made a commitment to use zero physical restraints on patients in their hospitals, and in 2015, they established the “Taiseikai Style” as a manual for providing care to people with dementia without the use of physical restraints.

URL: www.taiseikai-group.com (in Japanese)

PROBLEM STATEMENT

Societal understanding of the behavioral and psychological symptoms of dementia (BPSD) remains low. As a result, situations arise where physical restraints are used on people with dementia to keep them in a bed or chair as a way to prevent them from wandering off or causing harm to themselves or others. Such treatment not only robs people of their rights and dignity but can also create additional psychological stress and, if repeated over a prolonged period, can cause deterioration in bodily functions.

INNOVATION

Recognizing that individuals with dementia should be treated with respect and in a way that does not infringe upon their rights, the Taiseikai medical group





in Japan has made a commitment to use zero physical restraints on patients in any of their facilities—a commitment they have fulfilled since 2002. Building on their success, they have established the concept of “Taiseikai-Style” care, which is being disseminated through books, manuals, and training programs with the goal of allowing people with dementia to live true to themselves and remain in the community with which they are familiar.

At Uchida Hospital, which is the base of the group, Taiseikai provides restraint-free care from the perspective of rehabilitation, life assistance, and the development of social roles that match patients’ lifestyles and backgrounds. This enables the patients to spend their hospitalization period in peace and to return to their communities in a happier state. As a result, they have found that over 80 percent of patients that received care in the Taiseikai Style showed considerable reductions in BPSD, and as of 2019, about 68 percent of patients with dementia who were placed in recovery rehabilitation wards were able to return to their own home after their stay.

A critical aspect of Taiseikai Group’s success has been the recognition that it is not sufficient to take a top-down approach with managers enforcing restraint-free care based solely on ideological grounds. Instead, it has been critical to achieve buy-in from caregivers on the front line by sharing evidence that demonstrates the advantages of this form of care and by providing specific techniques and knowledge to accomplish this goal. This approach allows Taiseikai to promote care that not only respects the rights of people with dementia but also reduces the physical and mental burden on caregivers.

Taiseikai has also been active in offering resources to others. For example, in 2015 they published a book called, *The Knack for Caring for Dementia*, which outlines the Taiseikai Style. Furthermore, they offer lectures and training sessions to facilities looking to learn more.

Finally, Taiseikai has also established a comprehensive system to support people with dementia living in the community in a concerted public-private effort with municipalities, social welfare councils, police, elementary schools, and local citizens. Taiseikai community activities include mock missing persons exercises, support for people in giving up their driver’s license, and assisting people in transitioning to long-term care insurance.

FINANCIAL STRUCTURE Taiseikai Group received funding from the National Center for Gerontology and Geriatrics of Japan to cover the costs for printing and translation of materials to help disseminate information about Taiseikai-Style care. Their annual budget for their training activities is about ¥2,210,000 (approx. \$14,500), which includes personnel costs for lecturers, venue rentals, and equipment (body restraints for mock experience, wheelchairs, beds, etc.).

- KEY LESSONS**
- Taiseikai-Style care starts from a clear and understandable goal of providing care without the use of physical restraints.
 - By taking a person-centered approach, Taiseikai is able to provide care for people with dementia that emphasizes their human dignity.
 - Rather than imposing standards for care upon caregivers with a top-down approach, Taiseikai provided them with evidence-based techniques with demonstrated impact, which helped to achieve buy-in and reduced the physical and mental burdens faced by caregivers.
 - Taiseikai has developed written materials and offers training to help share their approach with others, making the model easy to disseminate and implement widely.



CASE STUDY 21 Utilizing Virtual and Augmented Reality to Support Caregivers of Those with Dementia

Our next case study features two separate examples of innovative companies making use of virtual reality (VR) and augmented reality (AR) technologies to help caregivers better support people with dementia. Both of these approaches are unified in their goal of helping caregivers to better understand and more effectively react to and care for people with dementia. In one case, this is done through virtual scenarios created from the perspective of someone with dementia, while in the other, caregivers are able to see how a person with dementia might view the built environment that surrounds them.

Each example illustrates the specific advantage of their respective approach. VR entails wearing a headset that displays a completely virtual space to users, allowing for a totally immersive experience that can be used to help build empathy and understanding of people with dementia. With AR, on the other hand, computer-generated content is superimposed over a view of the real world, allowing users to experience what the environment around them might look like to someone with dementia.

EXAMPLE 1. VR ANGLE SHIFT

SILVER WOOD Co., Ltd.

SILVER WOOD carries out a variety of business ventures, including the operation of 12 senior living facilities in Japan. Their experience working with older people led to the development of a VR technology business to train caregivers in working with people living with dementia.

URL: <https://angleshift.jp/dementia/> (in Japanese)

INNOVATION

Expanding on their work with older people in a senior living facility, SILVER WOOD developed a VR tool called VR Angle Shift. The content for the virtual reality program was planned, written, filmed, and edited in-house based on interviews with people with dementia. After creating a prototype, they conducted hands-on experience sessions and continued to incorporate feedback into subsequent versions. What resulted was a 90-minute training program that allows people to experience multiple symptoms of dementia in virtual reality from the perspective of a person with dementia.

A key element of SILVER WOOD's program is that they do not just provide a VR headset and software to users but also send trained facilitators to each session. After the VR experience, the facilitator prompts participants to discuss questions such as "What did you feel?" and "How would you want to be treated in this situation?" These discussions push participants to think about changes to the environment that might help people with dementia feel safe.

For example, in one of their experiences, participants are shown a VR scenario where they are getting out of a car, but it actually feels as if they are standing on a tall rooftop and the person they are with is coaxing them to step off the edge, where they would fall down into the street. After the experience, participants discuss how this is what it might feel like for a person with dementia, where one of the symptoms can include changes in depth perception. They discuss how the situation felt alarming and confusing, and are encouraged to think about ways that they could have been reassured that they were not in danger in this scenario.

SILVER WOOD has conducted bias tests before and after participants undergo this experience, demonstrating that participants gain a significantly better understanding of people with dementia when compared to a control group. In feedback surveys, participants also shared comments such as, "I've always wanted to understand the feelings of people with dementia, but I was suffering because I just couldn't. Through this experience, I felt like I finally knew what I should do from now on, and it brought tears to my eyes." Another person commented, "If I had this experience 10 years ago, the way I took care of my mother might have changed. I want other people who are providing care to their family members to see this."

Since the initiative began in 2016, more than 140,000 people have participated in VR Angle Shift and it has been showcased in China, South Korea, Vietnam, Taiwan, Malaysia, Singapore, and the United States. Those who have participated in the sessions range from local residents and family members of those with dementia to nursing students and certified dementia nurses.



FINANCIAL STRUCTURE

While they initially offered their service for free, based on the high level of interest, SILVER WOOD now charges a fee for each session, starting at ¥150,000 yen (approx. US\$1,000) for one session for 30 people. Organizations often make use of national budgets set aside for dementia-related programs to pay for the sessions. VR Angle Shift has been profitable for SILVER WOOD since the second year they began charging fees, with sales of over ¥100 million/year.



EXAMPLE 2. DEMENTIA EYES

Mediva Inc.

Mediva Inc. is a healthcare consulting and service operation company operating in Tokyo and Kanagawa, Japan. They also act as the consulting arm of Platanus Medical Corp., which is a clinic group running family doctor practices, in-home medical care services, and health screening clinics.

URL: <https://mediva.co.jp> (in Japanese)

INNOVATION

Mediva, in collaboration with the Keio University Graduate School of Media Design, developed an augmented reality (AR) filter called Dementia Eyes to reproduce the visual effects that are experienced by people with dementia, such as poor depth perception, narrowing of the field of vision, and decreased contrast sensitivity. When a user puts on the AR goggles, they can experience the world that people with dementia see and the resulting difficulties. Unlike virtual reality (VR), which is reproduced in a virtual space, AR lets the user experience this effect in their own environment. They still see the room they are in, but through the AR filter.

Mediva started offering this new type of service for hospitals, long-term care facilities, companies, governmental organizations, and the general public in 2021. This program enables the participants to experience the difficulties that people with dementia face in their everyday lives. Before and after the AR experience, Mediva provides opportunities for the participants to reflect on their own practice with other participants, usually colleagues, which reinforces the lessons learned and promotes behavioral changes. They then learn the theory and practice of dementia care and dementia-friendly environments to capitalize on their AR experience. They also get support for team-wide or organization-wide implementation of what they learned about dementia care and the care environment. For example, Mediva helps identify built-environment issues and implement solutions through the dementia-friendly environment assessment tool as well as through the AR experience.

Mediva provided the Dementia Eyes AR experience to 147 healthcare workers and more than 250 members of the general public in the first six months after its launch. In feedback from this period, the majority of participants expressed that the experience of AR for dementia improved their empathy for people with dementia and made them view dementia as an issue of concern. Nurses and caregivers noted, “It made me reflect on my own caregiving practice,” and hospital managers pointed to increased motivation among nurses, with one stating, “I want this to be



included in the curriculum of nursing schools.” Comments from those in the general public who experienced Dementia Eyes were similarly positive, indicating a much higher level of awareness and understanding after the AR experience.

FINANCIAL STRUCTURE

The program cost about ¥3 million to develop, which was funded through a subsidy from the Ministry of Economy, Trade, and Industry’s “Project to Evaluate the Effectiveness of Products and Services for a Society with Dementia.” The program charges from ¥200,000 (approx.

US\$1,400) depending on the number of participants. The primary costs incurred on Mediva’s end for program implementation include hardware costs for iPhones and the AR devices as well as personnel costs for the facilitators.



KEY LESSONS

- It is critical to take advantage of the specific strengths of the technology being used. While VR Angle Shift makes use of the immersive nature of VR to build empathy and understanding among caregivers, the Dementia Eyes AR approach allows users to identify built-environment issues and offer solutions.
- Offering a VR/AR experience alone is not sufficient; in both cases, the programs also include facilitation and discussions after the experience to help participants process and draw lessons from what they have seen.
- It is important to consult with experts when creating VR/AR experiences on dementia, but it is also essential to get input from people living with dementia themselves.
- Both programs took advantage of national policies on dementia, which made funding available not just to develop the technologies but also to support local governments and other institutions who want to pay for their staff to experience the program.
- The technology and programs developed are beneficial for a wide range of people, and so both SILVER WOOD and Mediva offer their services to those working professionally with people with dementia as well as family members and the general public.

Fostering Dementia-Friendly Communities

While our case studies so far have addressed providing holistic care to people with dementia and providing programs that support their caregivers, a final critical pillar for addressing dementia is the creation of communities that enable people with dementia to age in place and remain in the community of their choosing for as long as possible. One major challenge that people with dementia may face when it comes to living in their community is “wandering,” where a person with dementia becomes lost

or confused about their location. According to the Alzheimer’s Association, at least six in ten people with dementia will wander at least once, and many will do so repeatedly.²²

Our final case study is an example of a private company working together with local government to protect people with dementia who might be prone to wandering in their local community, offering a solution that is low cost and non-intrusive.



In Iruma, Japan, volunteers practice ways to recognize and assist someone with dementia who has wandered off.

22. See “Wandering,” Alzheimer’s Association website, <https://www.alz.org/help-support/caregiving/stages-behaviors/wandering>.

CASE STUDY 22 QR Code Gel Nail Stickers for People with Dementia

Orange Links

Orange Links is a private company located in Saitama, Japan. The company was founded in 2015, following the launch of Japan's Comprehensive Strategy to Accelerate Dementia Measures. The founder was inspired after a friend's father who had dementia was found wandering in an area 20 kilometers away from his hometown and was only identified by authorities thanks to the registration sticker attached to his bicycle.

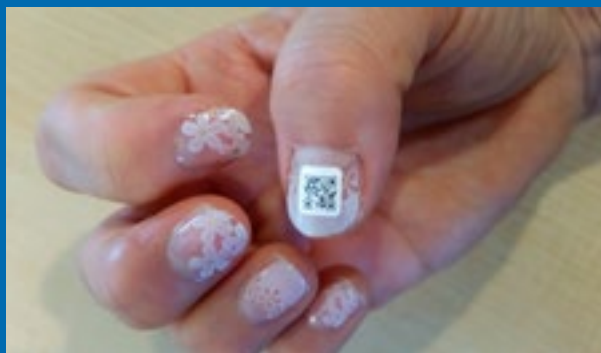
URL: <https://orangelinks.co.jp/en/>

PROBLEM STATEMENT As Japan's population ages, the number of people living with dementia has rapidly grown. According to the Cabinet Office of Japan, in 2012 there were 4.62 million dementia patients, accounting for 1 in 7 individuals in the 65 and older age group (a prevalence rate of 15 percent).²³ However, by 2025, that number is expected to increase to around 7 million. In Tokyo, the Metropolitan Police Department received over 17,000 reports of missing people who are suffering from dementia in 2020, and that number has been increasing steadily over the past decade.²⁴

INNOVATION Orange Links has developed a gel nail sticker, which can be affixed to a person's fingernail and features a QR code. The QR code can be easily read using a smartphone camera and directs people to the phone number of a family member, care facility, or other caregivers selected by the client.

Orange Links developed their nail stickers with the help of feedback from care facilities, hospitals, and care managers in the local community. The stickers themselves are 1cm x 1cm, waterproof, and can be easily affixed to a person's thumb. The QR code is also designed to be read accurately even if 15 percent of the code is worn off, and it can be read without the use of any specialized equipment. Each sticker is intended to last two weeks after it is affixed to someone's nail.

Unlike other wearable tracking devices, the long-use stickers will not be forgotten at home or taken



23. Cabinet Office, *Aging Society White Paper*, chapter 1 (2016), https://www8.cao.go.jp/kourei/whitepaper/w-2016/html/gaiyou/s1_2_3.html.

24. Tokyo Metropolitan Police Department, "The Status of Missing Persons in Reiwa 2 (2020)," 2020, <https://www.npa.go.jp/publications/statistics/safetylife/R02yukuefumeisha.pdf>.



off, so they provide a more reliable solution. They also have an advantage over phones and tracking devices that may require recharging. Also, because the stickers are not trackable and only provide a contact number upon scanning, the individual's privacy is maintained.

Orange Links partners with local government offices, including social welfare departments, to provide their services. The nail stickers are distributed to the local government, which can then distribute them to local at-risk residents for free, although they also can be sold directly to care providers and individuals.

For example, in Iruma City, Saitama Prefecture, where Orange Links is based, the stickers are being provided at no cost to more than 300 older persons with dementia, which in 2019 contributed to five older people getting back home safely after becoming lost. The city established an Iruma Wandering SOS Support Project that clarifies the steps to be taken when the police or the city hall receives a report that an older person has been found who cannot be identified. If they are found by the police, for example, they will be taken to the local police station, the nail sticker will be scanned, and the city's Elderly Welfare Section will be contacted to verify the individual's identity and get the predesignated contact information for that person. The police then reach out to the emergency contact and arrange to have the older person picked up. Orange Links has also collaborated with local police and a local railway company to conduct drills on the steps that should be taken when a wandering older person is found at a train station.

More recently, the town of Hirosaki in Aomori Prefecture has also adopted the gel sticker system, and a Korean dementia family caregiver support group has also expressed interest in implementing the system there.

FINANCIAL STRUCTURE Orange Links' program is very low cost. As noted above, some towns have purchased them to distribute to at-risk individuals free of charge. For others, the stickers are available at a cost of about ¥250/month (less than US\$2).

- KEY LESSONS**
- Orange Links has worked with key stakeholders—local governments, care facilities, individuals, and their families—to create a product that contributes to a dementia-friendly community by ensuring that all their partners are aware of how to use the stickers to assist people with dementia who are lost.
 - The stickers have advantages over other conventional monitoring and tracking devices available on the market because the stickers cannot be forgotten or left behind.
 - Orange Links avoids privacy issues because the system does not include personal information about the user, nor does it track their location. Users can choose what information is included on the sticker.
 - Manufacturing and running costs are cheap compared to conventional monitoring devices. The stickers stay on the nail for 2 weeks and cost about ¥250 per month. This may also mean the stickers could serve other functions, such as helping to keep track of people in the aftermath of a disaster.

5 LESSONS FROM THE PANDEMIC ON KEEPING OLDER PEOPLE SAFE

The final section of this report offers a few lessons and examples regarding the way in which organizations responded to the COVID-19 pandemic to ensure the safety and wellbeing of both older people and caregivers. The first lesson was that technologies such as videoconferencing and robotics were important for limiting person-to-person contact and therefore containing the spread of the virus. While companion robots were already available, some organization found creative new ways to apply robotics technology specifically for use in nursing facilities, for example, to adapt to the new realities. Second, shifting existing activities to an online format proved to be an effective way to keep older people engaged and active, or to continue health and wellness checks. While training on tablets or smartphones was sometimes required, it appears that many programs were able to successfully continue their work in this manner. Third, and related to that point, organizations already conducting community-based activities for older people were able to assess needs and respond more quickly, making them key players in multisectoral efforts to address the needs of older people during the crisis.

Example 1: Creating a robotic assistant to minimize close contact between caregivers and residents in nursing facilities

During the pandemic, contactless delivery suddenly became a critical tool to limit the spread of the disease and facilitate social distancing. Deliveries in an institutional living situation include meals, medications, and other daily necessities. To respond to this need, the Malaysian Research Institute on Ageing at Universiti Putra Malaysia launched a program in 2020 to develop an autonomous robot that could make contactless deliveries in long-term care settings. The robot is also able to perform basic health screenings, like measuring temperatures. By minimizing the need for staff to perform those tasks, contact with older residents was limited to those interactions where person-to-person care was required, thereby reducing the opportunity for spread of the disease.

The autonomous robotic platform is capable of sensing its environment and operating without human involvement. Using deep learning and LIDAR technology, the robotic platform navigates the facility unmanned, minimizing the face-to-face interactions between staff and residents, and promoting the practice of social distancing. To help staff use the technology, they developed comprehensive guidelines and instructional materials and also carried out on-site training and workshops to build the capacity of caregivers—following social distancing and mask-wearing protocols as they did so. Lectures covered general information on COVID-19, the impact of COVID-19 on older persons and how to minimize the risk of infection, as well as the possibilities that the autonomous robot offered.

Example 2: Using videoconferencing and online classes to keep older residents engaged and active

In the city of Matsudo, just outside of Tokyo in Chiba Prefecture, a consortium of universities, municipalities, volunteers, and service providers has been working together since 2016 to promote and evaluate long-term care prevention through a community-building program focused on social participation and collective impact. This “Matsudo Project” focuses on an urban long-term care prevention model where local residents operate activities known as *kayoinoba* (community gathering places). These gatherings promote social bonding and also provide data that has been used to assess the impact of long-term care prevention in urban settings.

The COVID-19 pandemic, however, meant that it was no longer possible to hold traditional in-person *kayoinoba* gatherings due to the risk of infection. At the same time, older people were in danger of social isolation and secondary damage to their health. The Matsudo Project responded quickly and developed the concept for hosting free online *kayoinoba* classes, which made social exchange possible while avoiding the risk of infection through in-person interaction. The online *kayoinoba* offered older people the chance to socialize across generations and included activities such as exercise classes, online travel, and health consultations. To ensure that these gatherings were accessible, the Matsudo Project offered them on a free trial basis.

Furthermore, since older people can sometimes find it difficult to adopt new technology, the Project provided participants with the option to borrow pre-configured tablets, which were set up to use Zoom and other key applications, free of charge. Support for the participants from service providers was also made available both remotely and at care facilities.

A similar effort was carried out by Japan’s National Center for Geriatrics and Gerontology (NCGG), in collaboration with a number of municipalities in Aichi Prefecture. The NCGG has been an active player in promoting healthy behaviors to prevent the need for long-term care. When the pandemic struck, they were deeply concerned about the long-term impact that social isolation and decreased physical activity would have on older people. As a result, they developed a free online *kayoinoba* app that was launched in mid-2020, combining both physical and cognitive exercises. It also includes a function that creates guided walks for the user and tracks their steps, a social media function to encourage communication, a function to keep track of nutrition, and a general health check. The program also held classes to instruct people in how to use a smartphone and held walking classes to promote socially distanced activity. The app continues to be available even after the pandemic ended and has been downloaded by tens of thousands of users.

Example 3: Promoting companionship and supporting physical and mental health in Indonesia

Shortly after the start of the pandemic, the IRL West Java Chapter was able to use its community ties, and particularly its ties to the *Puskesmas* (community health centers), to address both the physical and mental challenges the pandemic posed for older people. They launched an elderly companion program where trained volunteers regularly visited the homes of older people in their local areas. Drawing

on the IRL’s existing senior schools, they were able to recruit volunteers and instruct them on how to assist older residents while minimizing the risk of virus transmission. The volunteers were trained to carry out health monitoring—e.g., recording vital signs (blood pressure, temperature, etc.) and noting health complaints, which were then reported to health workers for further action—and to provide

psychological support as well. In cooperation with the *Puskesmas*, they made sure that older persons with chronic diseases were getting the medicine they needed, and they distributed multivitamins recommended by geriatric doctors. They provided masks and also offered accurate information about

the virus (since misinformation was rampant). The visits also included guidance on how to do at-home exercises to improve immunity, balance, and physical fitness. But most importantly, they were able to reinforce a spirit of community engagement and mutual support.



The autonomous robotic platform developed by the Malaysian Research Institute on Ageing



An online kayoinoba organized by the Matsudo Project

ABOUT THE JAPAN CENTER FOR INTERNATIONAL EXCHANGE (JCIE)

Founded in 1970, JCIE is a nonprofit and nonpartisan international affairs organization dedicated to strengthening Japan's role in international networks of policy dialogue and cooperation. Since the late 1990s, it has been promoting policy studies and dialogues focused on human security issues, and since the early 2000s, JCIE has been a leader in policy research and dialogue in the health sector through its Global Health and Human Security Program, which seeks to develop a better understanding of the critical value of human security to global health and to explore ways for Japan to enhance its leadership role in global health over the long term and to build domestic and international support for such a role. As an extension of that work, in 2017 it began looking at the critical impact of aging on Japanese and other societies. Partnering with the Economic Research Institute for ASEAN and East Asia (ERIA), it launched a program on Healthy and Active Aging in Asia, which works under the auspices of the government of Japan's AHWIN initiative with the objective of contributing to the promotion of bilateral and regional cooperation on aging-related challenges in Asia. The Healthy Aging Prize for Asian Innovation (HAPI) is a central element of that program.

Do you have an innovative approach to tackling these or other critical issues facing older people and aging societies? Learn more about the **Healthy Aging Prize for Asian Innovation (HAPI)** at www.ahwin.org.



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