

THE HEALTHY LONGEVITY BUSINESS IN A SUPER-AGING SOCIETY

— DIRECTION OF THE BUSINESS AS INDICATED BY THE LATEST GLOBAL TRENDS —

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SUMMARY

- The “healthy longevity business”, which is supporting the healthy living and financial stability of the elderly, is in the spotlight.
- The markets are expected to grow for anti-aging supplements that help extend healthy life expectancy¹, wellness services for supporting healthy longevity, and new technology-based financial services for the elderly. For the convenience of customers, it is necessary to build integrated services across segments.
- Factors necessary for the expansion of the healthy longevity business include ensuring the reliability of services, optimizing and merging offline and online customer touchpoints, personalizing products and services, respecting their wishes, and coordinated approaches with the elderly’s family members and caregivers. It is hoped that the growth of this business will lead to the realization of a healthy and long-lived society that incorporates the viewpoints of the elderly.

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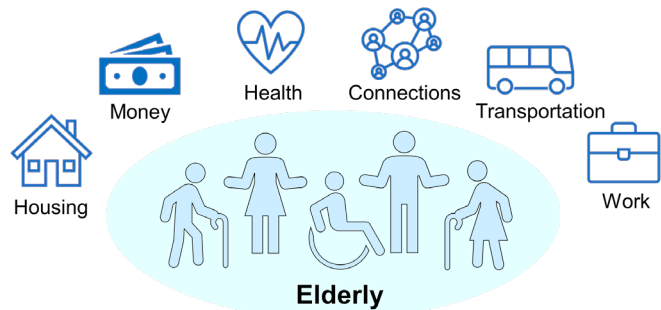
¹ Refers to a period of time when health problems do not restrict daily life activities (source: quoted from the [Cabinet Office website](#), in Japanese).

1. INTRODUCTION

According to the World Health Organization (WHO), by 2030, one in six people worldwide will be age 60 years or older, and the total number of those 60 and older will reach 1.4 billion². Japan, which has the highest aging rate among developed countries, had 29%³ of its total population age 65 or older as of 2023. This figure is projected to rise to 33.9% by 2038, when one in three people will be elderly, due to the decline in the total population and the increase in the number of elderly people⁴. As global aging accelerates, the United Nations has designated the period from 2021 to 2030 as the “Decade of Healthy Ageing”⁵, aiming to improve the lives of older people and their families, and to build age-friendly⁶ communities. Healthy longevity is the idea of “maintaining physical, cognitive, and social functioning” into one’s older years. In recent years, anti-aging research has progressed, which focuses on rejuvenation and aging control by exploring and understanding aging mechanisms. This has heightened expectations for the healthy longevity business, which supports healthy and independent living for the elderly.

The elderly often face concerns about housing, finances, health, social connections, mobility, and labor in the periods heading into and after retirement (Figure 1). To achieve healthy longevity, it is important to attend to these concerns and ensure that the elderly lead healthy lives and are financially stable. This report focuses on new businesses related to healthy longevity, targeting pre-retirees through to the elderly in their old age⁷ of their lives, with a focus on products and services that target a broad mass market beyond the affluent population.

Figure 1: Anxieties and insecurities of the elderly



Source: Compiled by MGSSI

Section 2 of this report provides an overview of the latest anti-aging products (supplements) emerging from anti-aging research. Section 3 explores wellness services designed for the growing population enjoying healthy longevity (such as clinic chains specializing in elderly care and advanced in-home support services). Section 4 introduces new financial services aimed at securing the financial stability of the elderly, including household finance, housing, and insurance solutions.

Through an analysis of trend-setting cases overseas, this report aims to discuss the challenges and the future direction of the healthy longevity business, and offer insights into creating an environment where more people can enjoy a fulfilling old age.

² [WHO website](#) (accessed July 1, 2024)

³ [September 17, 2023 Ministry of Internal Affairs and Communications press release](#), in Japanese (Statistical Topic No. 138)

⁴ National Institute of Population and Social Security Research, [“Population Projections for Japan” report](#) (in Japanese)

⁵ [United Nations website, Friends of WHO Japan](#) (accessed July 1, 2024): The “UN Decade of Healthy Ageing” proclaimed by the United Nations has been translated into Japanese as “Kenkōna kōrei-ka no 10-nen” by the Friends of WHO Japan.”

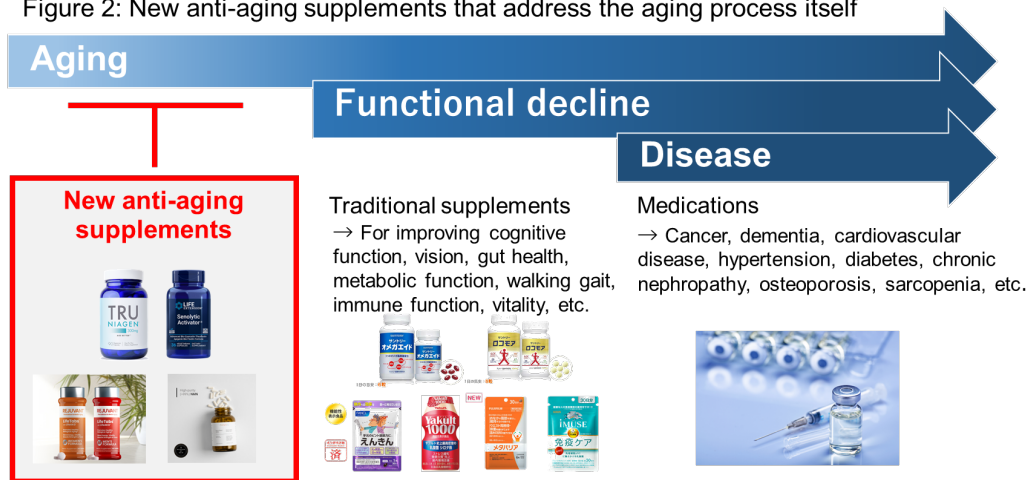
⁶ “Age friendly” means to treat people of all ages kindly and to adapt policies and services to the characteristics of each age group.

⁷ According to the [Qlife website](#) (accessed May 29, 2024), in terms of a person's life development stages, old age is defined as the last period of life following adulthood, and 65 is the age at which this period is generally considered to begin.

2. DEVELOPMENT OF ANTI-AGING PRODUCTS TO REALIZE HEALTHY LONGEVITY

There have been breakthroughs in research and development addressing the aging-associated decline in physical capabilities (cognitive, motor, metabolic, etc.), and a number of functional supplements are currently commercially available, especially in Japan. In recent years, R&D on the new concept of anti-aging products (supplements and medicines), which aim to maintain overall health by addressing “aging itself,” has begun to attract attention globally (Figure 2). While pharmaceuticals are subject to strict safety assessments and regulations and require a huge amount of time and development costs before they are launched, supplements, which are generally classified as food, have relatively low barriers to the market and are beginning to be launched on the market. This section shows the hallmarks of aging and examples of anti-aging supplements that address those, and discusses the future prospects for such products.

Figure 2: New anti-aging supplements that address the aging process itself



Source: Compiled by MGSSI based on information on company websites (Rejuvant, Tru Niagen, Life Extension, NOVOS, Sunory/ Omega aid, Fancel, Yakult, FuJIFILM, Sunory/ Locomore, Kirin)

2-1. Overview of the thriving anti-aging market

In January 2021, Nature, one of the most popular journals in the life sciences field, began publishing a journal dedicated to aging called Nature Aging. Since then, anti-aging research for healthy longevity has been generating increasing interest. According to an article in this journal, the economic impact of increasing life expectancy by 1 year in the US is estimated to be as much as US\$38 trillion⁸. In addition, a report by Longevitytech.fund, a US-based venture capital fund dedicated to investing in the longevity business, found that the amount of investment in this field has grown steadily over the past decade, with a massive total of more than \$5.2 billion committed to about 130 companies⁹, mostly in the US, in 2022. Thus, the anti-aging field is booming, and people’s interest in “rejuvenation” is growing year by year.

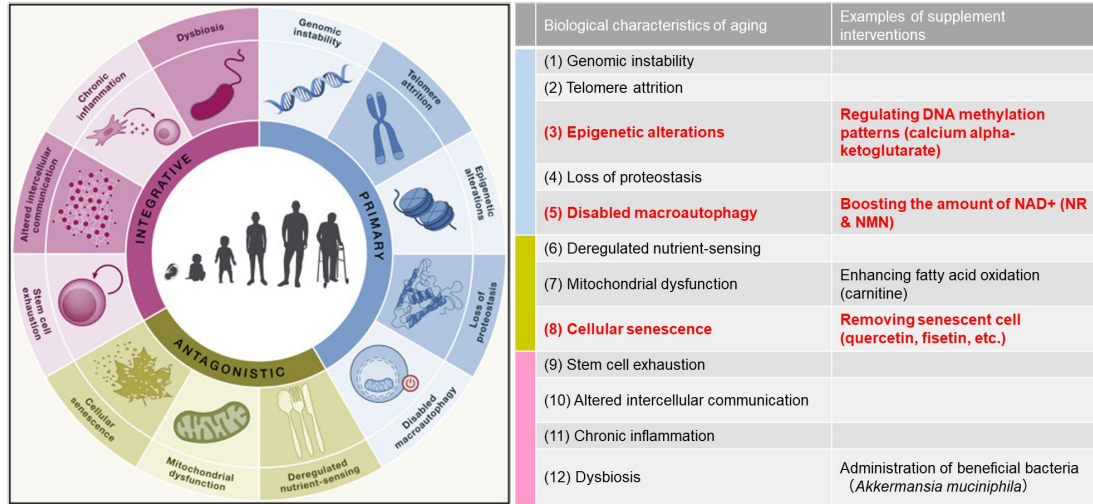
⁸ [The economic value of targeting aging, Nature Aging](#)

⁹ [Annual longevity investment report 2022 Archives, Longevity.Technology](#)

2-2. Example of a new anti-aging supplement that directly addresses the hallmarks of aging

At this time, aging is defined by 12 hallmarks, and anti-aging research is ongoing for each (Figure 3). Gaining momentum in particular are studies on anti-aging supplements for: I. Regulating DNA methylation patterns¹⁰, II. Boosting nicotinamide adenine dinucleotide (NAD+) level, and III. Targeting the removal of senescent cells.

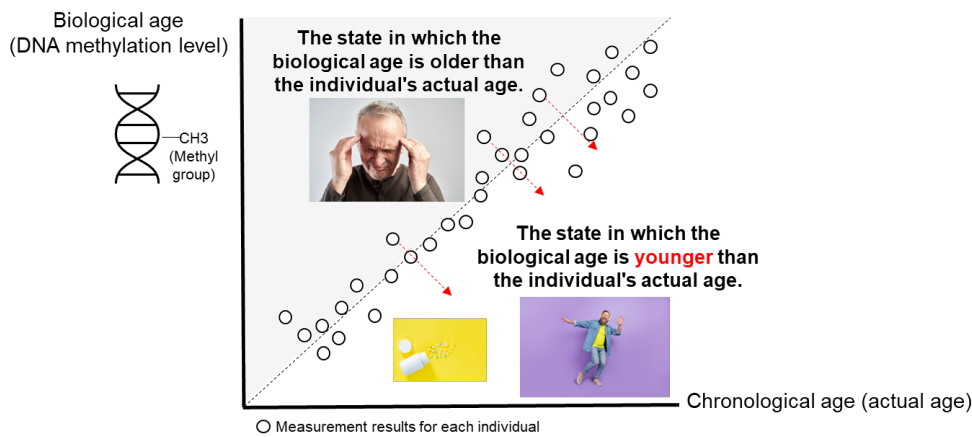
Figure 3: Characteristics of aging and examples of interventions with supplements, etc.



Source: Compiled by MGSSI based on Cell, Volume 186, Issue 2, P243-278, January 19, 2023 (accessed July 22, 2024)

I. Regulating DNA methylation patterns (Figure 4)

Figure 4: The anti-aging strategy of regulating DNA methylation patterns



Source: Compiled by MGSSI

DNA methylation is a chemical reaction that occurs when a small chemical structure called a methyl group is added to a specific part of DNA. It acts as a kind of switch that helps the cell to control genes, supporting them to be turned on or off. While normal DNA methylation is essential for normal gene function, it is now understood that abnormal DNA methylation is strongly correlated with the degree of cell and tissue senescence and increases the risk of developing cancer and other diseases¹¹. Recently, it has become possible to estimate an

¹⁰ A type of acquired chemical modification that does not involve a change in the DNA sequence, and rather, entails regulation of gene expression in cells through changes in methylation patterns.

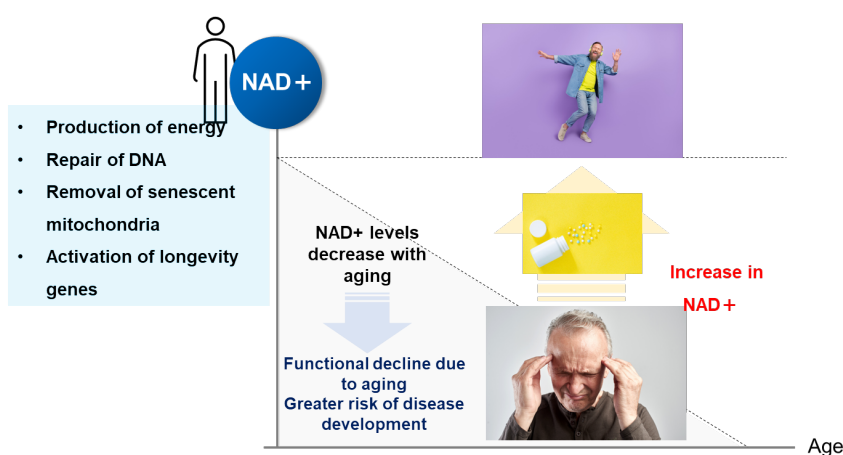
¹¹ DNA methylation age of human tissues and cell types, Genome Biology (springer.com)

individual's biological age by analyzing DNA methylation patterns in biological samples such as saliva and blood^{12,13}. This makes it possible to know an individual's internal age, which reflects the actual degree of aging of the body, and to take early action against aging and disease risks.

The US company Ponce de Leon Health has launched Rejuvant, an anti-aging supplement containing calcium alpha-ketoglutarate (Ca-AKG), an ingredient involved in the regulation of DNA methylation patterns. Some clinical trials are underway, and the company has reported that continuous intake of the supplement rejuvenates the biological age of healthy elderly subjects by approximately 8 years¹⁴.

II. Boosting nicotinamide adenine dinucleotide (NAD+) (Figure 5)

Figure 5: The strategy of anti-aging by boosting NAD+ levels



Source: Compiled by MGSSI

NAD+ is a biomolecule that plays an important role in the human body. For example, it is involved in the process of producing cellular energy, repairing DNA, removing dysfunctional mitochondria, and even activating longevity genes to slow cellular senescence. It has been reported that the decrease of NAD+ level with aging is closely related to the decline in physical functions and the development of various diseases^{15,16}, and as such, it has recently attracted attention as a promising target for anti-aging products.

Specifically, it has been already proven in animal experiments that the intake of nicotinamide riboside (NR) and nicotinamide mononucleotide (NMN), which are precursors to NAD+, can boost the amount of NAD+ that has decreased due to aging, and lead to improvement of pathological conditions such as metabolic deterioration and neurodegenerative diseases¹⁷. More recently, clinical studies on the safety and efficacy of such supplements have also been published¹⁸. Anti-aging supplements containing NR and NMN are available from many companies, including ChromaDex (US) and NOVOS (US).

¹² Apart from “chronological age,” which is based on the number of days since birth, “biological age” is based on the degree of aging of tissues and cells (source: quoted from [Funakoshi's website](#)).

¹³ [Epigenetic profile of Japanese supercentenarians: a cross-sectional study, The Lancet Healthy Longevity](#)

¹⁴ [Rejuvant®, a potential life-extending compound formulation with alpha-ketoglutarate and vitamins, conferred an average 8 year reduction in biological aging, after an average of 7 months of use, in the TruAge DNA methylation test, Aging \(aging-us.com\)](#)

¹⁵ [NAD+ in aging, metabolism, and neurodegeneration, Science](#)

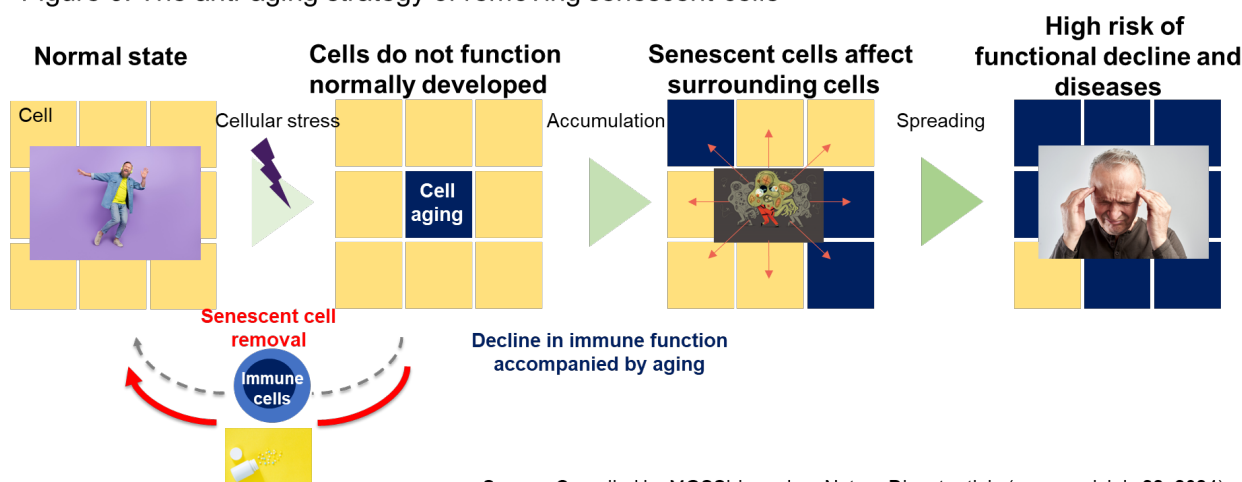
¹⁶ [NAD+ and sirtuins in aging and disease, Trends in Cell Biology](#)

¹⁷ [NAD+ Intermediates: The Biology and Therapeutic Potential of NMN and NR, Cell Metabolism](#)

¹⁸ [Nicotinamide mononucleotide increases muscle insulin sensitivity in prediabetic women, Science](#)

III. Removing senescent cells (Figure 6)

Figure 6: The anti-aging strategy of removing senescent cells



Source: Compiled by MGSSI based on [Nature Digest article](#) (accessed July 22, 2024)

Our bodies maintain health through the daily metabolism of countless cells, in a cycle where new cells are generated and old cells are eliminated. Old cells that no longer function normally, so-called senescent cells, are regularly removed by immune cells, which act as cleaners in the body. However, it has become clear that aging, obesity, stress, and other factors weaken immune cell function, resulting in the gradual accumulation of senescent cells. It has also been shown that accumulated senescent cells can adversely affect surrounding normal cells through the secretion of inflammatory substances, leading to aging-associated decline in physical capabilities and aggravation of disease states. These factors have prompted companies to pursue the development of senolytic supplements that selectively eliminate senescent cells.

For instance, it has been proven in animal experiments that quercetin, a flavonoid contained rich in onions, and fisetin, a flavonoid rich in strawberries, are effective in removing senescent cells^{19,20}. It is reported that quercetin, in particular, specifically reduces senescent cells in patients with diabetic nephropathy when combined with the anticancer drug dasatinib²¹. Anti-aging supplements containing quercetin and fisetin by many supplement companies have already been available, including Neurohacker Collective (US) and Life Extension (US).

2-3. Future challenges and outlook

Advances in anti-aging research have led to the development of a number of anti-aging supplements that could contribute to the realization of healthy longevity (Figure 7). Firstly, the priority task we should work on is to accumulate clinical evidence on the functionality and safety of these products. Another challenge going forward will be to find a solution to deliver anti-aging supplements to a larger number of elderly people. For example, the usage rate of dietary supplements, which exceeds 70% in the US, has long stagnated at around 30% in Japan^{22,23}. This might be mainly due to differences in the medical insurance systems in the two countries, but there have also been cases of widespread adverse health effects and other problems arising from the use of supplements²⁴, and consumer concerns about the safety of dietary supplements persist. As the price of supplements is not affordable for the average Japanese consumer, the key is to make consumers feel such

¹⁹ [Senolytics improve physical function and increase lifespan in old age, Nature Medicine](#)

²⁰ [Fisetin is a senotherapeutic that extends health and lifespan, eBioMedicine \(thelancet.com\)](#)

²¹ [Senolytics decrease senescent cells in humans: Preliminary report from a clinical trial of Dasatinib plus Quercetin in individuals with diabetic kidney disease, eBioMedicine \(thelancet.com\)](#)

²² Yano Research Institute, Health Food Market Facts and Outlook 2023 - Market Research Edition (in Japanese)














²³ [A survey by the US trade association Council for Responsible Nutrition \(CRN\) found the supplement usage rate among Americans to be 74%. And 90% of users say supplements are "essential for maintaining health", The Health Industry News \(kenko-media.com\)](#)

²⁴ [Kobayashi Pharmaceutical's Red Yeast Supplement Linked to Deaths: The Deeper Story Behind the Mismanagement That Led to the Spread of Adverse Health Effects, Nikkei CrossTech \(xTECH\) \(nikkei.com\)](#)

products are necessary for maintaining their health. To address these issues, companies need to work on further strengthening quality assurance, developing products with excellent cost performance, and expanding scientific evidence to offer consumers safe, reliable, and highly effective products by through partnerships with public research institutes. It is also important for companies to make concurrent efforts to increase the number of users of basic supplements by making it easy for consumers to understand the functions of those products by promoting them through advertisements, the media, and the labeling systems for foods with functional claims²⁵.

²⁵ The system for Foods with Function Claims is a system that allows businesses to label foods with functional claims if they notify the Commissioner of the Consumer Affairs Agency of the necessary information, including scientific evidence regarding the safety and functionality of the food, prior to its sale based on rules established by the government ([cited from the website of the Consumer Affairs Agency](#)).

Figure 7: List of companies offering anti-aging supplements

Company	Target	Details
<u>Ponce de Leon Health (US)</u>		Developed Rejuvant, an anti-aging supplement whose main ingredient is calcium alpha-ketoglutarate (Ca-AKG). The company has obtained clinical evidence for the intervention of this product.
<u>ChromaDex (US)</u>		Offers TRU Niagen, which was developed by combining a patent held by Dr. Charles Brenner, a pioneer in nicotinamide riboside (NR) research, with the company's proprietary technologies.
<u>NEUROHACKER COLLECTIVE (US)</u>	 	Sells the Qualia series of supplements that contribute to healthy aging, help keep the functionalities of brain, sleep, microbiome, etc. The company offers Qualia NAD+, whose main ingredient is nicotinamide riboside (NR), and Qualia Senolytic, which contains various plant extracts based on quercetin and fisetin.
<u>Life Extension (US)</u>	 	A dietary supplement manufacturer established in 1981, offering functional supplements in more than 40 categories. The company offers NAD+ Cell Regenerator, which is mainly composed of nicotinamide riboside (NR), and Senolytic Activator, which is mainly composed of quercetin and fisetin.
<u>Elysium Health (US)</u>	 	Dr. Leonard Guarente, an authority on aging and rejuvenation research, is co-founder and chief scientist of this anti-aging supplement company. The company offers several anti-aging supplements, including Basis, which contains NMN, and Format, which contains quercetin and fisetin. It also offers Index, a blood test kit for measuring biological age, and offers a wide range of services from testing to providing solutions.
<u>Tally Health (US)</u>	 	An anti-aging supplement company co-founded by Dr. David A. Sinclair, a leading researcher in aging and rejuvenation. The company offers VITALITY, which contains multiple anti-aging ingredients (calcium alpha-ketoglutarate (Ca-AKG), resveratrol, quercetin, fisetin, and spermidine). The company also offers TallyAge, a blood test kit that measures biological age designed by a proprietary machine-learning model, and has a wide range of services from testing to providing solutions.
<u>NOVOS (US)</u>	  	Based on advice from some renowned experts from Harvard University, MIT, and the University of Washington, as well as over 400 pieces of scientific evidence from third-party research institutes, the company developed NOVOS Boost, an anti-aging supplement containing high-purity NMN, and NOVOS Core, an anti-aging supplement containing calcium α -ketoglutarate (Ca-AKG) and fisetin. The company also markets NOVOS Age, a blood test kit for measuring biological age, and offers a wide range of services from testing to providing solutions.

Source: Compiled by MGSSI based on information on company websites

3. WELLNESS SERVICES SUPPORTING HEALTHY LONGEVITY

Advances in anti-aging research are expected to lead to a healthier and longer-lived society. At the same time, rising medical and care costs associated with an aging population remain a major societal challenge. In Japan, which is a super-aging society, the main reasons for the need for nursing care are dementia (18.1%), stroke (15%), weakness due to old age (13.3%), and fractures/falls (13%)²⁶. In recent years, preventive initiatives have begun to have an effect on slowing the progression of frailty, that is, by making appropriate interventions in the "frail"²⁷ stage, which is the state between normal health and the need for nursing care²⁸. In addition, measures for supporting the mental health and preventing the social isolation of the elderly are also urgently needed.

Wellness services to support healthy longevity are diverse. This section describes (1) clinic chains specializing in elderly care and (2) companies engaged in advanced in-home support services. These approaches aim to improve the quality of life of the elderly and their families and to enable them to live independently at home. It also discusses the future prospects of those businesses.

3-1. Overview of wellness services supporting healthy longevity

The health of the elderly is greatly impacted not only by medical treatment, but also by various aspects of their living environment, such as prevention, medication management, nutritional management, maintaining social connections, ensuring a healthy living environment, and securing transportation. In the US, there has been increasing focus on age-related diseases²⁹ and living environments for the elderly. This has led to the acquisition and partnership of clinic chains specializing in elderly care, aiming to maintain health, prevent disease progression, and reduce hospitalization and readmission rates.

Moreover, in-home support services that facilitate healthy and independent living of the elderly involve a range of professionals, including social workers, nursing staff, visiting nurses, and physical therapists, with services often being segmented and managed through analog processes. As a solution to these challenges, digital technology is being utilized in the US and European countries to offer personalized services and provide all-inclusive care through multidisciplinary collaboration. Additionally, the use of matching apps to avoid social isolation and to support rehabilitation is also expanding.

3-2. Examples of clinic chains specializing in elderly care and advanced in-home support services

The following are examples from the US and Europe, where innovation is prevalent.

(1) Clinic chains specializing in elderly care

In 2020, ChenMed (US) was named to Fortune Magazine's Change the World list, aiming to revolutionize elderly care with its prevention-focused approach. The company currently operates 130 clinics in 15 states that serve clients aged 65 and older³⁰. Through regular monthly checkups and comprehensive care³¹, they have managed to reduce ER visits and hospital admissions by 33%³², contributing to a reduction in overall healthcare costs. As

²⁶ Cabinet Office, Annual Report on the Ageing Society — 2022 Edition (accessed June 25, 2024)

²⁷ According to the report on the Comprehensive Research Project on Longevity Science funded by the Ministry of Health, Labour and Welfare's Health and Labor Science Research Grants (accessed on May 30, 2024), Frailty is defined as "a condition in which physical and mental vitality (motor and cognitive functions) decline with aging and the coexistence of multiple chronic diseases impairs daily functions, resulting in the appearance of physical and mental fragility. However, even in this state, with appropriate intervention and support, it is possible to maintain and improve the functions of daily living".

²⁸ Katsuya Iijima, "A Guide to Handling Life at 70: Lessons from a University of Tokyo Professor for Humanities Majors" (in Japanese), Newton Press, December 5, 2023

²⁹ According to the Center for Research and Development Strategy (CRDS), the main factors that inhibit healthy life expectancy are age-related diseases (e.g., cardiovascular, musculoskeletal, cancer, neurological, and sensory diseases).

³⁰ ChenMed website (accessed May 23, 2024)

³¹ Comprehensive care means comprehensive medical care, nursing care, prevention measures, housing assistance, and lifestyle support so that older people can continue to live independently.

³² ChenMed website (accessed May 23, 2024)

shown in Figure 8, physicians at ChenMed are salaried and manage relatively smaller groups of around 450 patients compared to conventional clinics³³. This allows them to spend more time on each consultation, enabling the provision of personalized services and achieving high-quality, cost-effective care (value-based healthcare). In terms of preventive measures, ChenMed offers free weekly exercise classes and a service that allows heart disease patients to order heart-healthy groceries in partnership with Instacart (US), a same-day food delivery company³⁴.

Figure 8: Comparison of conventional clinics and clinics specializing in elderly care

	Conventional clinic	Clinic specializing in elderly care
No. of patients per physician	2,000-3,000	Approximately 450
Frequency of routine health exams	1-2 times/year	Once every 3-4 weeks
Treatment time per visit	Approximately 5 min	20-40 min
Medical expense payment by insurers	Fee for service	Per capita payment
Physician's employment status	Private practice	Salaried + performance bonus
Patient benefits	—	Family physician, personalized services
Features	Visit the clinic when symptoms arise	Prevention-oriented, value-based healthcare (high-quality, low-cost healthcare using data)

Source: Compiled by MGSSI based on interviews

Oak Street Health (US), which also operates a clinic chains specialized in elderly care (with over 200 facilities across 25 states³⁵), came into the spotlight from an acquisition by drugstore giant CVS Health in 2023. Oak Street Health places a strong emphasis on prevention through measures such as regular checkups every three weeks, comprehensive testing, and strict medication management. As a result, they have reduced hospital admissions by approximately 51%, 30-day readmission rates by 42%, and ER visits by 51%³⁶. The company differentiates itself by being endorsed by AARP, the largest senior membership community in the US, with 38 million members³⁷).

In addition to the examples mentioned above, other clinic chains specializing in elderly care include CenterWell (operating 250 facilities³⁸, owned by Humana, a major private health insurance company) and Iora Health (operating 47 facilities as of 2021³⁹, now part of Amazon). (Figure 9).

³³ Interviews conducted by MGSSI found that physicians at a typical primary care clinic in the US usually handle 2,000 to 3,000 patients each.

³⁴ [Instacart website](#) (accessed May 24, 2024)

³⁵ [Oak Street Health website](#) (accessed May 23, 2024)

³⁶ [Oak Street Health website](#) (accessed May 23, 2024)

³⁷ [U.S. News website](#) (accessed May 23, 2024)

³⁸ [Humana website](#) (accessed May 23, 2024)

³⁹ [mobihealthnews website](#) (accessed May 23, 2024)

Figure 9: List of operators of clinic chains specializing in elderly care

Company	No. of facilities	Features	Partnerships
ChenMed (US)	130 facilities in 15 states (2024)	<ul style="list-style-type: none"> Prevention-oriented approach reduces emergency and hospital admissions by 33%. Ensures 10 times more face-to-face time between physicians and patients. (ChenMed website) In 2023, news media reported that Walmart was considering acquiring a controlling stake in ChenMed. 	<ul style="list-style-type: none"> Alliances with major private medical insurance companies. Partnerships with Instacart, a healthy food delivery company, and Lyft, a mobility service company (2022).
Oak Street Health (US)	More than 200 facilities in 25 states (2024)	<ul style="list-style-type: none"> Acquired by major drugstore operator CVS Health in 2023 (corporate value of approximately US\$10.6 billion). The clinic chain's program of visits every three weeks and regular health screenings and examinations reduce hospitalizations by approximately 51%, 30-day re-admission rates by 42%, and ER visits by 51%, compared to Medicare benchmarks. (Oak Street Health website) 	<ul style="list-style-type: none"> Alliances with major private medical insurance companies. Partnerships with AARP (the largest paid-membership community for seniors (50+) in the US) and pharmacy chain Walgreens. Acquired Agilion Health to strengthen preventive medicine for the elderly (2024).
CenterWell (US)	250 facilities (2024)	<ul style="list-style-type: none"> A division of Humana, a private health insurance company, was reorganized as CenterWell, a chain of clinics specializing in the elderly (2021). Integrated care models linked to insurance plans to address specific health needs. 	-
Iora Health (US)	47 facilities (2021)	Amazon subsidiary. In 2021, Iora Health was acquired by One Medical, which is now part of Amazon.	-

Source: Compiled by MGSSI based on information on each company's website

(2) Advanced in-home support services (in-home healthcare and rehabilitation)

Birdie is a UK company that has digitized in-home care⁴⁰. The company has built a B2B digital platform for managing and evaluating nursing care services, creating personalized care plans, and monitoring patients with sensors and wearable devices. It also generates "collective intelligence" from the vast amount of care data to optimize care and predict risks. In addition, the company manages multiple communities, promoting the networking of personnel in the home care sector. In 2023, Birdie was certified as a government-recognized digital supplier, positioning itself to enhance its credibility as a business enterprise handling sensitive information and to expand its operations⁴¹.

InnovAge (US) is a provider of all-inclusive care for the elderly (InnovAge PACE⁴²). It operates 19 daycare centers in 6 states, serving approximately 6,820 seniors⁴³. Users can receive a variety of support including bathing assistance, medical services such as health management, emergency care, and medication management, as well as respite care for family⁴⁴ from providers within the InnovAge network. InnovAge also offers transportation to fully equipped daycare centers with clinics, gyms (for physical therapy), and dining facilities (for nutritional guidance and meal services), helping the elderly live independently at home for as long as possible. Because this model is based on a fixed rate per registered user⁴⁵, it is necessary to provide personalized care that accommodates limited budgets⁴⁶. InnovAge estimates that there are 2.2 million PACE-eligible individuals in the US, and calculates the potential market size to be US\$235 billion⁴⁷.

Also worth mentioning are Papa and Luna, two other US companies that offer matching apps for the elderly. Papa operates an app that prevents social isolation in seniors by matching them with "Papa Pals", individuals aged 21 or older, who are akin to a grandchild generation. Papa Pals are paid US\$13 to \$18 per hour to provide companionship assist with transportation and household tasks, and teach them how to use smartphones. Luna, on the other hand, provides in-home rehabilitation services primarily to seniors covered by public health

⁴⁰ [Birdie website](#) (accessed May 24, 2024). According to PitchBook, Birdie's corporate value is US\$150 million (as of May 20, 2022)

⁴¹ [Birdie website](#) (accessed May 27, 2024)

⁴² PACE stands for Program of All-Inclusive Care for the Elderly, a public program administered by Medicare and Medicaid in the US.

⁴³ [InnovAge website](#) (accessed May 24, 2024)

⁴⁴ Respite care is a service that allows caregivers to take a break

⁴⁵ The cost depends on each individual's insurance plan and risk score.

⁴⁶ This system is known as "per capita payment." Users must see a medical provider within the InnovAge network for medical services; if they see a medical provider outside the network, they need to pay out-of-pocket.

⁴⁷ [InnovAge 2023 Annual Report](#) (accessed June 3, 2024)

insurance. The company operates an app that matches them with more than 3,000 physical therapists across 28 states⁴⁸.

Figure 10: List of companies offering advanced in-home support services

Company	Business overview
Birdie (UK)	<ul style="list-style-type: none"> Created an all-in-one digital platform for home care service providers. Care data is used to optimize care and predict risk for the elderly. Certified as a government-recognized digital supplier in 2023.
InnovAge (US)	<ul style="list-style-type: none"> Provides all-inclusive care to the elderly (InnovAge PACE). Users can receive lifestyle support, health management, emergency care, medication management, and other services from InnovAge in-network providers It operates 19 daycare centers in 6 states, serving approximately 6,820 seniors.
Papa (US)	<ul style="list-style-type: none"> Operates an app called "Papa Pals" that matches elderly people with young people 21 years old or older. Papa Pals are paid US\$13-18 to socialize with seniors, provide transportation, do housework, teach them how to use their smartphones, etc.
Luna (US)	<ul style="list-style-type: none"> Provides in-home rehabilitation services for seniors enrolled in the Medicare. Operates an app that matches seniors with more than 3,000 physical therapists in 28 states across the US.

Source: Compiled by MGSSI based on information on each company's website

3-3. Future challenges and outlook

The wellness sectors, including medical care and nursing care, are not only complex in terms of the systems themselves, but services are also highly segmented, making it difficult to ensure consistent quality. While digitalization is advancing, there are many aspects of elderly care that cannot be fully addressed through digital solutions alone. In cases where services cannot be continued due to the progression of dementia, for instance, it will thus be important to involve the family to continue to provide services. The financial burden of healthcare and nursing care costs after retirement is substantial, and there is a growing need for personalized services that take into account the living environment and social factors affecting the elderly. The aforementioned companies are characterized by offering one-stop services and simple, efficient solutions that utilize digital technologies, while also securing financial resources such as health insurance. In the future, attention will also focus on companies like The Helper Bees, which is building a digital marketplace for the elderly that transcends the boundaries of medical and nursing care⁴⁹. The company has developed an online assessment platform for determining how much help a customer needs, and then the insurance company determines the degree and amount of help the customer can receive. As a result, customers can make their own financial choices between covered and out-of-pocket services, while receiving assistance from the company's concierge and selecting from a variety of services on the platform. (There are several thousand certified providers of services. In September 2023, the company partnered with Sompo Horizon, US subsidiary of SOMPO.)

4. FINANCIAL SERVICES TO SUPPORT HEALTHY LONGEVITY

The way people deal with money may change greatly depending on their life stage. The elderly tend to shift their approach from accumulation of wealth to decumulation of wealth after retirement. No matter how attractive the anti-aging products and wellness services discussed in the previous sections may be, it is not easy for the elderly to manage their health spending within their limited household budgets by using complex financial services by themselves. For the elderly to enjoy healthy longevity over the long term, they need to have adequate financial means and stay connected to family and society. Economic independence of the elderly is closely related to social independence. This is an important factor that may also place a financial burden on the families of the elderly and lead to problems for "working caregivers", whose economic loss is estimated to reach

⁴⁸ [Luna website](#) (accessed May 24, 2024)

⁴⁹ The Helper Bees has created The Helper Bees Aging-in-Place Platform. In addition to in-home care, the company provides a wide range of support for the elderly, including transportation arrangements, shopping assistance, telehealth rehabilitations services, home repairs, and pest control.

¥9 trillion by 2030 (Japan). However, for many elderly people, the level of financial literacy necessary for financial independence is not necessarily high. According to a survey conducted by AXA Life Insurance, when people were asked about “the literacy necessary to live into their 100s,” respondents across all generations ranked literacy in “finance” to be equally important as literacy in “health”, but the numbers were particularly high among those in their 60s and older, perhaps reflecting concerns about life after retirement (Figure 11).

Figure 11: Kinds of literacy that people think is necessary to live into their 100s

	Health	Finance	Information	IT	Household matters	Nursing care
20s	37.5	46.0	38.0	36.0	31.5	20.5
30s	56.5	49.0	47.5	39.0	36.0	33.0
40s	51.5	54.0	40.0	35.0	32.5	34.0
50s	46.0	46.0	37.5	32.0	33.0	25.5
60s	66.5	55.0	44.5	40.0	42.5	39.5
Overall	51.6	50.0	41.5	36.4	35.1	30.5

Note: Survey period: November 10-12, 2021; survey population: 1,000 men and women age 20-69 sampled nationwide

Source: Compiled by MGSSI based on a [survey by AXA Life Insurance](#) (accessed July 1, 2024)

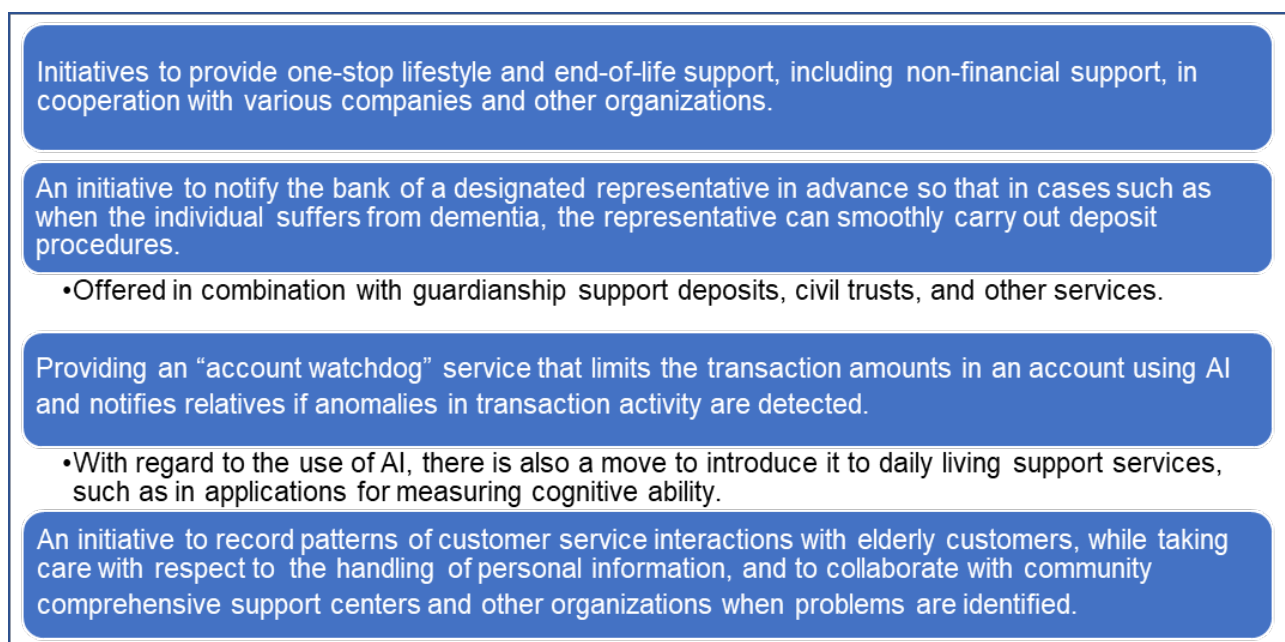
The elderly population, who may not necessarily be financially literate, needs to effectively and safely withdraw the wealth accumulated during their working years and mitigate the “risks of living longer” as they enter into old age. The following section of this report discusses how and by whom financial solutions that support healthy longevity can be provided most efficiently from the perspective of both users and operators.

4-1. Overview of financial services supporting healthy longevity

Financial services, which were previously geared toward high-income groups, often involved complicated and time-consuming procedures, but as costs have decreased with the use of technologies such as generative AI, many of these services are now as commercially viable as those targeted at the mass market. In Japan, deregulation is also helping such services reach a wider clientele. For example, amendments to the Banking Act of Japan have enabled financial institutions to establish regional trading companies that can provide services in non-financial areas where the potential needs of elderly customers are seen to be great. Financial institutions are also actively introducing their own services for the elderly, such as by starting to offer guardianship support deposit accounts⁵⁰ and providing “account monitoring” services such as AI-based account transaction restrictions (Figure 12). As healthy longevity extends over time, related markets will inevitably expand.

⁵⁰ A system in which from an elderly person’s property a guardian manages money necessary to make payments for daily necessities as savings, and deposits money not normally used into a guardianship support deposit account. Unlike ordinary savings accounts, transactions (deposits, withdrawals, and account closings) related to a guardianship support deposit account require written instruction issued by the court in advance, which, like a guardianship support trust, provides simple and reliable protection of the individual’s property.

Figure 12: Examples of financial institutions' responses to the concerns and insecurities of older customers



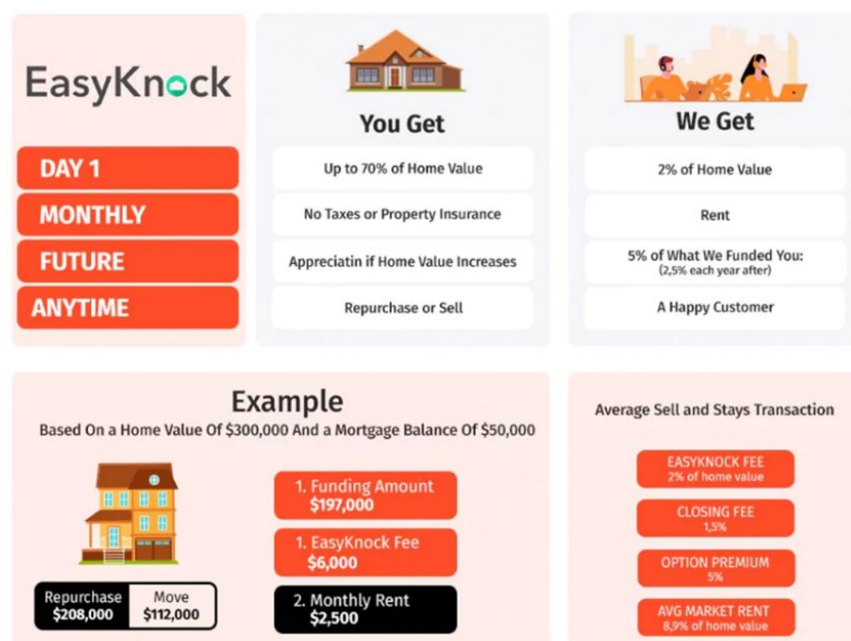
Compiled by MGSSI based on [Bank of Japan materials](#) (accessed July 1, 2024)

4-2. Examples of advanced financial services for the elderly

An overview of financial services for the elderly was provided in [MGSSI Monthly Report published in March 2024](#), which focused on Age Tech-related⁵¹ startups. Such services cover a wide range of areas and include household finance, real estate, and insurance. For example, in the area of household finance, True Link Financial (US) issues debit cards with usage limitations to seniors who have difficulty managing their spending on their own. When a payment is made with the card, real-time alerts are sent to family members, social workers, and others so that they can help the elderly individual manage and monitor purchasing behavior. In the real estate sector, a startup has emerged that uses technology to provide a service called “sale and leaseback,” a simple process that compensates for the shortcomings of reverse mortgages, which allow borrowers to borrow funds for retirement using the home they currently live in as collateral. Reverse mortgages may require prepayment due to changes in the value of the collateral property, and in some cases, the contract may expire during the owner's lifetime, forcing a lump-sum repayment of principal and interest. In contrast, under the US startup EasyKnock's sale-and-leaseback service, the property is immediately purchased from the homeowner, payment is made in cash, and the property is then leased back to the previous owner (Figure 13). Customers need to give up ownership of their homes, but can continue to live in their familiar residence without age- or income-based screening. In addition, since they no longer own the property, they are relieved of the burden of property taxes, insurance, and maintenance costs, and since the property is leased, it is not affected by a decline in value, making it a system suitable for the elderly.

⁵¹ Services that use technology to solve various issues faced by the elderly. Many are related to medical care and health, but there are many others that are directly or indirectly related to finance.

Figure 13: EasyKnock's business model



Source: [JATAPP website](#) (accessed July 1, 2024)

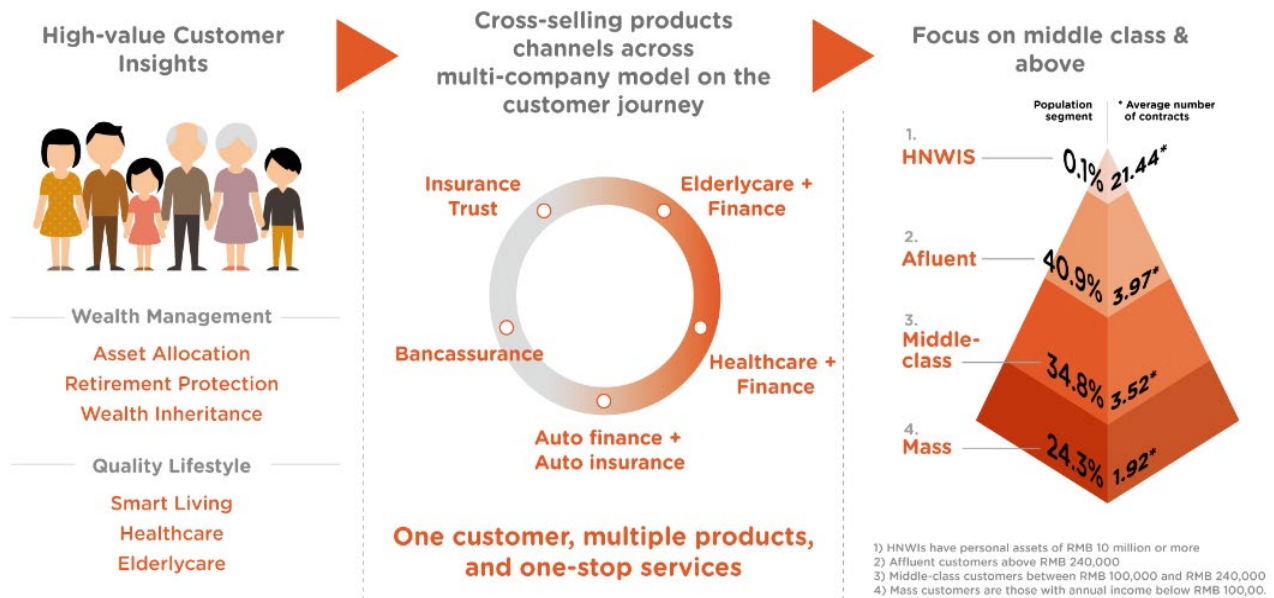
4-3. Future challenges and outlook

While financial services adapted for the elderly represent a promising business field, providers of such services will need to tackle several issues before they can operate independently. First, there is the issue of digital literacy among the elderly. Even today, it is not easy for the elderly to take full advantage of the conveniences offered by Age Tech companies. Age Tech companies must have the technical skills to provide services and UI/UX that match the literacy level of the target demographic. In addition, a company's creditworthiness has a significant impact on users' sense of security when it comes to services that involve money. Even if a startup has great technology, it may still have limited creditworthiness. Of these two challenges, the former can be overcome through the company's own efforts, but the latter is not easy to overcome because it involves the company's image as well as its financial size and other factors. In addition, the integration of services is likely to be pursued for convenience from the customer's perspective and for scale and efficiency from the operator's perspective. In this regard, a good reference is China's Ping An Group, which offers a variety of financial services centered around its insurance business. In addition to its insurance business, the company provides financial services to individuals, including banking and brokerage services.

Financial services for the elderly are expected to move toward integration, but whether this will be confined to the financial sector alone or include the health sector is a matter of debate. Given the convenience for customers and the potential for businesses to scale up, integrated financial-health services may expand due to both supply and demand factors. In fact, some overseas companies have already begun to develop such businesses. A typical example is the above-mentioned Ping An Group. The company operates a wellness business as well as a finance-related business. It launched a 24-hour online senior care concierge service and a home care service for the elderly through its subsidiary Ping An Life. The company is committed to providing a "worry-free, time-saving, money-saving" financial and healthcare services experience by offering professional "financial advisors," "family doctors," and "senior care concierge" services. The company's healthcare network covers 17 healthcare centers and all tertiary hospitals in China⁵², and includes approximately 54,000 physicians and contract physicians and 228,000 pharmacies. By September 2023, nearly 64% of the company's 230 million financial services customers had used services within the health-related ecosystem described above (Figure 14).

⁵² Hospitals in China are classified into tertiary, secondary, and primary hospitals in descending order according to the quality of their functions and operations.

Figure 14: Ping An Group's integrated finance and healthcare model



Source: [Ping An Group website](#) (accessed July 1, 2024)

When non-financial entities engage in the financial business, financial regulations, know-how, and creditworthiness can be limiting factors in business development, but the use of embedded finance solutions can address these issues. In embedded finance, a financial service provided by a fintech company is embedded in the business of an operating company. To the end customer, it appears that the operating company directly provides the financial services, but it is actually the financial institutions and fintech companies that provide those functions behind the scenes. Examples of companies that have adopted such arrangements include majors such as Apple and Tesla in the US, and the practice is spreading to small and medium-sized businesses as well. In Japan, the use of embedded finance solutions is gradually gaining popularity, especially among large corporations. For example, Japan Airlines is offering a service under its “JAL NEOBANK” business that allows deposits and transfers to be completed using the company’s app, and Yamada Denki is offering a home loan that covers the cost of purchasing home appliances to buyers of homes sold by the company’s corporate group.

5. TOWARD GROWTH OF THE HEALTHY LONGEVITY BUSINESS

Through interviews with companies, researchers, media organizations, and others in this field, we have identified that the key challenges to bringing about growth of the “healthy longevity business” are to ensure safe, inexpensive, transparent, and quality-assured services, understand the needs of the elderly, and guarantee continuous provision of services. In this regard, it is expected that optimizing the balance between in-person and online customer touchpoints could be a solution. Services for the elderly are heavily weighted toward face-to-face settings, which is an important factor in gaining customer reassurance and trust. Online services, on the other hand, benefit from cost efficiency. In addition, confidential online services are often more appropriate for services involving money or illness. Providing services that are both reliable and cost-effective, and taking advantage of both in-person and online services, will lead to greater customer satisfaction. If companies are able to keep customers within their own economic blocs, this should help to increase the level of recurring revenue and also help to attract new customers through the network effect. Integrated services that span multiple industries, such as healthcare and finance, and that mix physical in-person services with remote online services, were once shunned by the elderly population because of their complexity, making business development difficult. However, if the UI/UX is excellent, integrated services will be more readily accepted by today’s seniors, who have become much more digitally literate.

It is also important to sharpen the profiling of the target audience. The term “elderly” should not be used as a blanket label as they come from a variety of backgrounds, and have different preferences, health status, financial resources, and social experiences. Therefore, the key to a company's success in this business is to accurately understand each individual's service needs by utilizing all available customer touch points and providing personalized solutions. That said, many elderly people share a sense of belonging to society that does not diminish after retirement. Also, they are highly interested in contributing to society. For this demographic group, it is necessary to be aware of the need to “support what they want to do,” rather than thinking that “we have to do it for them”. It is important to focus not only on practical and immediate aspects such as health and money, but also on enhancing elderly people’s sense of well-being, that is, “enjoyment” and “purpose in life”.

Products and services such as those mentioned in this report are essentially those needed in old age. They include those for early stage and late stage. From a business perspective, attracting and retaining pre-retirement and post-retirement customers will make it easier to continue to provide the necessary services as customers move into later stages of life. This is expected to lower the customer acquisition cost (CAC) and increase the customer lifetime value (LTV)⁵³ for total service. Capturing customers at an early stage requires reaching out not only to target customers, but also to their families and caregivers. Whatever the health and financial status of the clients themselves, the involvement of family members and others in the lives of the elderly is essential, and the opinions of younger generations, who tend to be very well informed, have a certain degree of influence. By reaching out to these generations as well, businesses can expect to increase the likelihood that their services will be chosen by the elderly in their decision-making process. In this regard, the media will play a major role, and it will be necessary to use not only media for the elderly, but also media aimed at younger audiences.

In the future, it will be possible to provide more accurate and personalized services by accumulating and analyzing medical, nursing, and financial data. Examples of such services are health risk prediction (e.g., detection of signs of dementia based on medical information and purchase history), recommendations for anti-aging supplements based on predictions, and early intervention and care planning by social workers.

These efforts will likely increase the population of the elderly enjoying healthy longevity and create a society in which people can live to a happy old age. It is hoped that Japan, a country destined to experience various societal issues ahead of other countries, will proactively promote innovative initiatives and realize a society with healthy longevity by making the best use of the perspectives of the elderly.

⁵³ Total revenue earned from one customer over the period of service.

Figure 15: Positioning of “anti-aging products, wellness services, and financial services” in the healthy longevity business



Source: Compiled by MGSSI

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