

# Study on the Problems and Countermeasures of an Aging Society

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**Abstract:** An aging society is a society in which the elderly population aged 65 or older accounts for 7% of the total population. On the other hand, if the proportion of the elderly population exceeds 14%, it is defined as an aged society, and if it is more than 20%, it is defined as a super-aged society. The aging factor is the decline in birth and mortality, and longevity is also a human wish in the sense that a country with a long life expectancy is an advanced country and symbolizes a peaceful and stable society. On the other hand, socioeconomic measures to respond to diseases, poverty, solitude, and unemployment that follow the aging society are the immediate tasks of an aging society. Although it is an aging trend worldwide, Japan's aging population is the fastest. This paper will look at the problems of an aging society and Japan's aging status and countermeasures.

**Keywords:** Definition of aging, aging society, countermeasures against aging, super-aged society, causes of aging, late-aged society

## 1. Introduction

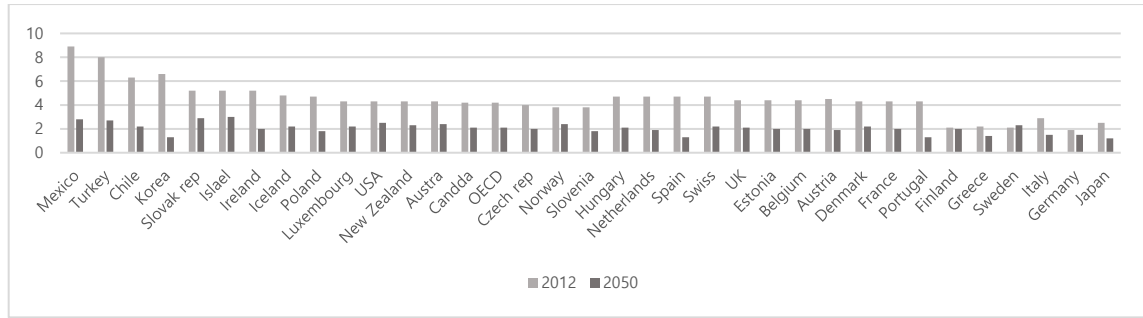
The progress of aging has a great impact on the decline of the domestic production-active population and social welfare. Above all, the decrease in the production-active population is an important part of national policy as it is related to the quality of life of the people due to the reduction of the domestic market and the decline in economic growth. Therefore, an important challenge in modern society is understanding an aging society. There is no exact academic definition of the terminology of an aging society. Therefore, the definition of the term aging is not universally constant. However, in a 1956 United Nations report, people aged 65 or older were referred to as the elderly, and advanced countries in Gumi also refer to more than 7% of the population aged 65 as an aging society. That has become the standard of today's aging society, and society with an aging rate of more than 14% is generally called an aging society, and society with an aging rate of more than 21% is called a super-aged society. The aging rate is classified and defined as the rate of the elderly, which accounts for the total population when the age of 0-14 is the boy population, the age of production aged 15-64, and the age of 65 is the elderly population. Population aging is a decrease in fertility rates and an increase in life expectancy, seen in Table 1. According to Table 1, Japan's average life expectancy was in the mid-60s in 1955, but now it is in the mid-80s, an increase of more than 20 years in half a century.

Table 1: The aging trend in Japan

Year	Male (age)	Women (age)
1955	63.60	67.75
1990	75.92	81.9.
2019	81.41	87.45
2040 (estimated)	83.27	89.63

**Data:** Japan (each year), National Social Security and Population Research Institute

Figure 1 below shows the working age (20-64 years old) population per elderly (65 years old) in OECD member countries. The longitudinal axis shows the working-age population per elderly person. Compared with the 2012 and 2050 forecast figures for the elderly population, it is possible to understand the decrease in the life safety population due to the elderly. A society with a high percentage of people aged 65 or older is called an aging society, and a society with a high percentage of people aged 75 or older, that is, a society with a high percentage of people aged 75 or older, is already emerging. In particular, Japan's post-aging society is rapidly progressing



Data: OECD Society at Glance 2014

Figure 1: Old-age support ratio(OECD Society at Glance 2014)

Human society reaches the limit of the ability of the population to survive in the same area if a certain environment persists. After reaching the limit of ability and over some time, aging appears remarkably. Countries with developed social welfare systems often encourage aging despite the serious situation of low birth rates because the labor population is a real problem for the burden. Although aging and low birth rates cannot be simultaneously carried out, various problems arise when both parties proceed simultaneously in terms of finances such as pension, medical care, and welfare, so measures are often taken at the same time[1].The aging population caused by an increase in average life expectancy can be seen in developed and high-income countries in the past, but has also appeared in developing countries in recent years. According to data, the aging population is currently the largest in human history. The United Nations estimates that 18% of the world's population will be 65 years of age or older by 2050. OECD member countries predict a super-aged society in which one person must take care of less than three elderly people (over 65 years old) in 2050[2]. France entered the aging society the fastest in 1864, followed by the United States in 1942, Japan in 1970, and Korea and China in 1998 (the age standard for the elderly is 60 in China and 65 years or older in Korea). And the aging society entered Austria in 1968, Japan in 1994, the United States in 2012, and Korea in 2017, but Japan entered the super-aged society the fastest in 2005 Table 2.

Table 2 Comparison of life expectancy in each country

	Male (age)	Women (age)
Japan	81.41	87.45
Korea	80.3	86.3
Switzerland	81.9	85.6
Singapore	81.5	86.1
USA	76.3	81.4

Data: Japan (each year), National Social Security and Population Research Institute

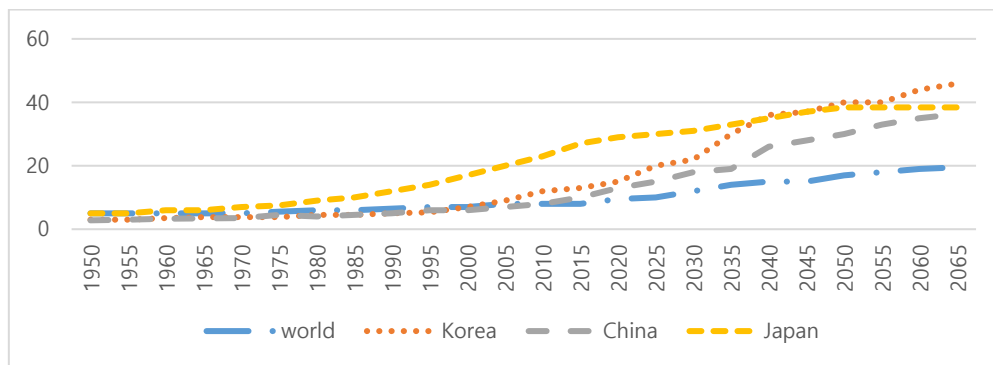
Applying the standards to the United Nations, Japan entered the super-aged society in 2021 with an aging rate of 28.9%. [3]. The aging phenomenon in Japanese society has reached the pace of aging and the current social serious situation since decades ago.

In the 14th Five-Year Plan in 2021, China defined response to an aging society as a national strategy. Along with measures for low birth rate, measures for aging have been strengthened. According to the "2020 National Aging Project Development Fear" released by the National Health Commission in 2021, as of November 2020, China had 190.64 million senior citizens aged 65 or older (13.5% of total acquisitions), and the aging rate in rural areas was higher than in urban areas. China's aging rate was around 6% from the 1990s to 2000. However, it exceeded 7% in 2001 based on an aging society. Since 2001, the rise has expanded further, recently increasing to 13.0% in 2020 and 14.2% in 2021, making 2021 the first year of an aging society. On the other hand, when looking at the ratio of the boy population (0-14 years old), 33.6% were implemented at the beginning of the one-child policy (1982), but it is on the decline. In the 2000s, it fell below 20%, recently to 17.9% in 2020 and 17.5% in 2021. The ratio of the working-age population (15 to 64 years old) is the same. In the 1990s, it was 66-86% and exceeded 70% after 2000, but after that, it gradually declined to a peak of 74.5% in 2010, falling to 68.6% in 2020, 68.3% in 2021, and the level of the late 1990s.

## 2. An aging population estimate

Japan's total population fell 820,000 year-on-year as of 2022, but the number of senior citizens aged

65 and over reached 36.27 million, up 60,000 from the previous year. The proportion of the elderly to the total population was 29.1%, an increase of 0.3% from the previous year. According to the composition of men and women, there are 15.74 million men (26.0% of the male population) and 20.53 million women (32.0% of the female population), with 4.79 million more women than men. In terms of population gender ratio (number of men for 100 women), there are many men under the age of 15 with 105.0 and 102.6 for those aged 15 to 64, but there are many women over the age of 65 with 76.7. In detail, the number of people aged 70 or older was 28.72 million (23.0% of the total population), up 390,000 (0.4% from the previous year), and the number of people aged 75 or older was 19.37 million (15.5% of the same), up 720,000 (0.6% of the same) from the previous year, and the number of people aged 80 or older was 12.35 million (9.9% of the same), up 410,000 from the previous year, up 0.4%. Meanwhile, the proportion of people aged 75 or older to the total population also reached 15% for the first time. In other words, it is analyzed that this is because those born in 1947-49 turned 75 years old from 2022. The trend of the elderly population ratio, which accounts for Japan's total population, has continued to rise since 1950 (0.4%), exceeding 10% in 1985 and 20% in 2005, and has already entered an ultra-aged society to 29.1% in 2022.



**Data:** Japan (each year), National Social Security and Population Research Institute

Figure 2: Trends in the proportion of the elderly population in China, Japan, and Korea (1950-2065)

According to an estimate by Japan's National Institute for Social Security and Population Affairs, this ratio will continue to rise in the future, reaching 35.3% by 2040, when the generation born in the second baby boom (1971-1974) will be 65 or older. Based on this, Japan's elderly population ratio is the highest in the world. Japan (29.1%), followed by Italy (24.1%), Finland (23.3%), and Puerto Rico (22.9%), compared to Japan (29.1%). On the other hand, one thing that China and Japan have in common is that aging is rapidly progressing. In particular, Korea's aging population is expected to surpass Japan in 2035, and China's aging population is expected to be closer to Japan in 2065 in Figure 2. Therefore, it can be said that it is an important time to take measures for low birth rate as well as urgently precise aging measures.

### 3. Aging Social Factors

Japan has already entered an aging society in 1995, with the elderly population exceeding 14.6%, and only 15 years later, the ratio of the elderly in 2010 was 23%, exceeding 21% of the standard of the super-. In 2021, the proportion of the elderly population was 28.9%, accounting for 30% of the total population. There are two factors that can be summarized in this rapid aging process. First, due to the development of the medical field and changes in the living environment, the average life expectancy increased to 81.56 years for men and 87.71 years for women in 2020. The number of deaths tends to increase as the population aged 65 or older increases, but when looking at the age composition, the age-adjusted mortality rate tends to decline. The second is the progression of low birth rates. At the peak of the second baby boom in 1970, the number of births was 940,000 and the birth rate per 1,000 people was 7.6. For the first time in 2016, the annual number of births fell below 1 million and is on the decline every year. In addition, the total special birth rate was 4.32 in 1947, but is low at 1.26 in 2005 and 1.33 in 2020[4]. The total special fertility rate is the sum of the fertility rates of women from the ages of 15 to 49, which is the number of children a woman gave birth to in her lifetime at the fertility rate by that age[5].

### 4. The Influence of an Aging Society

The progress of aging has a great impact on economic growth and social security systems above all else. A country's economic growth depends on the country's production-active population, and the production-active population tends to decrease due to the aging and low birth rates. In particular, social

security systems such as pensions and nursing show an increase in the elderly population and a decrease in the total population ratio due to a decrease in the production population. In addition, the decline in the production-active population can reduce the domestic market and weaken the economic growth power. In Japan, in terms of the social security system, the number of production-active people who bear one elderly person is 11.2 in 1960, 7.4 in 1980, and 2.4 in 2014, increasing social burden per person. If this continues, one elderly person and one working-age population will bear it in 2060, causing the balance of supply and demand of the social security system to collapse, focusing on medical or home care expenses.

In a situation where the total population tends to decline, the production-active population gradually moves to the elderly population, and an aging society is rapidly progressing. In particular, in 2015, when the number of elderly people increases, the number of elderly people will reach 33.87 million due to the increase in the population over the age of 65, which is called the first baby boomers. In 10 years, this generation is expected to be over 75 years old by 2025, with a population of 36.77 million. On the other hand, the total population is expected to decrease and the elderly population will increase to 33.3% by 2036. After that, the aging rate will not stop rising, and by 2065, the aging rate will reach 38.4%, of which 25.5% are over 75 years old. Moreover, Japan's total population is expected to decline to less than 90 million by 2025, and to decrease to 8.08 million by 2065. This figure is lower in total population than in 1950 [6].

## **5. The Countermeasures of an Aging Society**

Japan's aging measures are led by the government. The aging society measures are divided into areas such as employment and income, health and welfare, learning and social participation, living environment, R&D, and contribution to the international community by creating a basic structure. The basic structure is based on the Framework Act on Aged Society Measures in effect in 2005. The purpose of this Act is to promote the measures for the elderly society as a whole to improve the sound development of economic society and the stability of people's lives.

### **5.1. The Basic Policy**

The Framework Act on Aged Society Measures is basically divided into each field and implemented. The employment and income sectors aim to realize a working society, not limited to the elderly, and to support or implement policies such as environmental maintenance, stable operation of the public pension system, and asset formation. Second, the health and welfare sector aims to comprehensively promote health creation, operate a sustainable nursing insurance system, fulfill nursing services (realization of zero nursing turnover), and promote policies to support cognitively elderly people. Third, the field of learning and social participation aims to promote learning activities and social participation activities. Specifically, for example, experiential activities, including social service activities in small, middle, and high schools, or exchanges with the elderly, based on learning guidance for children to understand the elderly or tasks of the elderly society. Fourth, the living environment sector secures abundant stable residential life, comprehensively promotes the creation of villages suitable for the elderly society, secures traffic safety, protects against crimes and disasters, and promotes the use of the adult guardianship system. Fifth, areas such as R&D and contribution to the international community are aimed at promoting market activities, research and development, infrastructure maintenance, and sharing intellectuals and tasks with excluded countries for advanced technology activities and the elderly. In particular, R&D conducts research on serious illness and health promotion specific to the elderly, research on medical, rehabilitation, nursing-related devices, and research and analysis to comprehensively promote measures for the elderly society. Sixth, the promotion of the activities of all generations aims to promote policies to build a society in which people of all generations play a role in an aging society and actively participate. It also stipulates the promotion of solidarity in each field, including Japan's 100 million total activity plan, labor reform implementation plan, and new economic policy package[7]. An aging society is already an existing social problem in Japan. The aging society has already lasted for decades and is still going on, so it is not a problem that will be solved soon. Therefore, government policies should not be entrusted alone, and the public should pay attention to this problem to solve it. First of all, we must understand the problems of the aging society and think about how to do it, one by one.

### **5.2. An Increase in Life Expectancy**

In general, life expectancy is the average life expectancy from 0 years old[8]. In other words, it means the average number of years when a child survives from the age of 0 after birth. Life expectancy is

calculated based on the life table by calculating when a person of each age was born on average, assuming that the death situation of a group will not change in the future. According to the 2020 "Simple Life Table" released by the Ministry of Health, Welfare, the average life expectancy of Japanese men is 81.64 years, and that of Japanese women is 87.74. According to the 2020 "White Paper on Welfare" by the Ministry of Health and Welfare, the average life expectancy of Japanese people has been on the right upward curve since 1955. As of 1955, the average life expectancy was 63.60 years for men and 67 and 75 years for women, but as mentioned above, the average life expectancy in 2020 exceeded 80 years for both men and women, increasing by 17 to 20 years over the past 65 years. In other words, the Ministry of Health, Welfare estimates that the average life expectancy of Japanese people will rise further in the future as men are 83.27 years old and women are 89.63 years old in 2040.

There are three main reasons for extending the average life expectancy of Japanese people. The first is advances in medical technology. Medical technology has evolved rapidly, and effective medical technology, medicine, and medical devices have been created over time. Among them, the development and use of antibiotics has reduced the risk of infection after surgery, and surgical surgery has developed remarkably. Antibiotics were also helpful in the treatment of infectious diseases such as tuberculosis, pneumonia, and gastroenteritis or liver in medical treatment[9] In addition, the advancement of medical technology aimed at early development and early treatment of diseases in Hyundai has also affected the extension of life expectancy. Secondly, there is a reduction in infant mortality. As mentioned above, the average life expectancy is 0 years old and the extension of the average life expectancy of Japanese people is a major factor in the decrease in infant mortality. The background is the promotion of maternal and child health measures such as treatment for pediatric medical patients, progress in treatment, and health guidance and health tests for pregnant women[10]. It expanded the correct knowledge of pregnancy and childbirth, and lowered infant mortality and premature death rates (midwifery death: stillbirth after 22 weeks (154 days) of pregnancy) with appropriate health checkups. Third is the improvement of the living environment. Living environmental facilities such as water supply and waste treatment facilities were maintained, reducing the incidence of water-borne infections, extending the life expectancy. Sanitation levels in the Japanese capital are high. The improvement of the environment in which stability and quality water can be used on a daily basis helped Japanese people live long[11]. Japan is a representative country of longevity. Internationally, Japan ranks first in terms of average life expectancy for women, followed by Korea at 86.3 years old and Switzerland at 85.6. Meanwhile, the man is 81.9 years old in Switzerland, a long life, followed by 81.5 years old in Singapore. Among the 10 major countries, both men and women have the shortest life expectancy in the United States, men are 76.3 years old and women are 81.4 years old, and the causes of the difference in life expectancy in countries or regions seem to be largely influenced by eating habits, smoking habits, and living conditions [12].

What I've been paying attention to lately is health life. Healthy life is defined as the period in which daily life is not limited due to health problems and life is possible, and the difference between life expectancy and healthy life means an unhealthy period in which daily life is limited. In 2019, the difference was 8.73 for men and 12.06 for women. It is an indicator of the average period of time expected to live in health. The Healthy Life Calculation Act is plural, but assuming that 100,000 people are born every year, the normal population of healthy people is saved from the total figure by adding the mortality rate by age, health by age, and unhealthy rate, and save healthy lives except for healthy life. Japan currently calculates the normal population of five years old class in the simplified life table, calculating the healthy and unhealthy ratio of each five-year-old class in the National Life Basic Survey to obtain the normal population of healthy people. In 2018, Japanese health life expectancy was 72.68 years for men and 75.38 years for women (14 years).

The significance of healthy life expectancy is that the average life expectancy was created for survival to the extent, and is included in the calculation of average life expectancy, even if it is impossible to live alone due to illness. However, satisfactory daily life is difficult if there is a health problem. Longer unhealthy conditions not only put a great burden on yourself, but also affect the lives of people around you, such as your family. In order for each citizen to live independently, it is necessary to increase the life expectancy of health. The average life expectancy in 2020 is 81.64 years for men and 87.74 years for women, and there is a difference of about 9-12 years between healthy life expectancy. The difference in the concept of the simplified life table in 2020 for the Ministry of Health and Welfare is gradually shrinking compared to the previous one, but the past few years have become parallel, so it is time for the state to implement policies to extend its healthy life.

### **5.3. Increase Healthy Life Expectancy**

According to Japan's Health and Welfare Guidelines, here are three main things to do to increase health

life expectancy. First, you need to change your diet. If you continue to eat with poor nutritional balance, it is likely to have a bad effect on your health and there is a high risk of lifestyle diseases such as cancer, circulatory diseases, and diabetes. It is better to supplement the three major nutrients (e.g., protein, fat, and carbohydrates) that are needed in a balanced way every day and eat enough vitamins and minerals. In addition, too much salt can increase the risk of circulatory diseases or stomach cancer due to high blood pressure, so it is better to keep it at less than 8 grams per day for men and less than 7 grams for women [13] Second, proper exercise habits are needed to maintain proper operation and healthy physical strength. Habitual movement of the body from an early age reduces the risk of knee pain or cognitive impairment other than diseases such as diabetes, heart disease, stroke, and cancer. The Japanese government's physical activity standards for health are set by chronology for daily exercise intensity and exercise volume. It is recommended that people aged 18 to 64 do 60 minutes of walking-intensity physical activity every day, and those aged 65 and older do 40 minutes of physical activity every day regardless of exercise intensity. In addition, it is recommended that 18-64-year-olds do 60 minutes of exercise every day to make them sweat breathlessly. Lack of exercise or sudden intense exercise by a person from an early age puts a great burden on the mind and body, so first of all, we start by moving our body within a range that is easy, such as walking or fast walking. Third, quality sleep. You need to get enough rest to live a healthy life. Sufficient rest means quality sleep as well as simple long hours of sleep. No matter how much sleep you get, if the quality of your sleep is bad, it is not enough rest. Moderate exercise is necessary during work for quality sleep. Bath two or three before bedtime, do not see the bright light before bedtime. If you wake up early, it is effective to enjoy the sunlight [14]. Fourth, Japan is a long-lived country worldwide, with average life expectancy increasing every year. However, since there is no concept of health or unhealthy life expectancy, health is important for each person to live a healthy and independent life.

## 6. Conclusion

Since Japan entered an aging society in 1970, the aging rate has risen sharply, entering an aging society in 1994 and an ultra-aging society in 2007. The elderly rate is expected to increase in the future, reaching about 30% by 2025 and 40% by 2060. The aging problem is also expected to be serious. In Japan, responding to problems such as medical care and welfare is an important task due to the rapid increase of the elderly population. With the advent of such an aging society, there is a problem that cannot be responded only with the conventional medical system and the elderly insurance system. The medical care of the elderly needs to be viewed from a different perspective from the medical care of the young. In Japan, for example, the rapid aging has a great impact on the medical and welfare sectors. When the proportion of the population changes, the qualitative structure changes, and the number of people in need of nursing care increases rapidly. So, there is a change in the social structure such as the family system of families. For example, when it comes to family composition, Japan is currently becoming a nuclear family, increasing the number of single households, couples only, and couples over 65 together. In particular, urban areas have many single residents due to unmarried or divorced life, and the rate of aging alone has risen due to the aging of urban areas. In the case of single residents, care is rarely available. Alternatively, there are many elderly care generations in which the elderly take care of the elderly. As a result, although they are cared for at home, their ability to care at home is decreasing. Against this backdrop, the elderly will choose to live at home once they have a disability. In addition, the problem with the current social security system is that the burden is borne by future generations in advance. For this reason, it is important to realize a balance between the young and the elderly so that the current and future generations understand it together and not unfair. The problem of dying alone is also serious as there is a tendency to isolate due to fewer exchanges between local residents. In order to solve this problem, the entire community needs to bear the super-aged society. Although it is predicted that the number of elderly people with cognitive symptoms will increase in the future, it is important to establish a regional comprehensive care system. Area. The comprehensive care system needs to be created according to the characteristics of the region based on local independence or subjectivity.

## References

- [1] Becker, Howard. (2012) *Teacher's thesis classroom, translation of Ogawkaoruhan, Keio University Press, 199-222.*
- [2] United Nations Population Division. (2022) *World Population ageing: 1950-2050, 29(07): 7-10.*
- [3] The Ministry of Health and Welfare. (2000) *Overview of the Welfare White Paper in 2000.*
- [4] Sato Otoshihiko. (2022) *Average Life and Healthy Life, e-Health Net.*
- [5] Ministry of the Cabinet. (2022) *White Paper on Aging Society 2022.*

- [6] Cabinet Office. (2019) *White Paper on Aged Society in 2019*, 20-22.
- [7] Cabinet Office. (2019) *White Paper on Aged Society in 2019*, 30-34.
- [8] The Ministry of Health and Welfare. (2022) *On the life table*, 62-65.
- [9] The Ministry of Health and Welfare. (1978) *white paper on welfare*, 2-5.
- [10] The Ministry of Health and Welfare. (1978) *The Welfare White Paper*, 12-24.
- [11] The Ministry of Health and Welfare. (1978) *The Welfare White Paper*, 24-25.
- [12] The Ministry of Health and Welfare. (2022) *Generation for Humanity, Report of the Society of Knowledge Research on the Method of Healthy Life Expectancy*, 3-6.
- [13] The Ministry of Health and Welfare. (2020) *Health Handbook*, 25-27.
- [14] The Ministry of Health and Welfare. (2020) *Health Handbook*, 31-36.