Paper

The Consequences of Low Fertility, Aging, and Depopulation in Japan

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Abstract

Japan' s modernization was late and rapid compared to other advanced nations. Industrial growth early in the 20th century brought high fertility which lasted until the end of the post-war baby boom in 1949. As a result of structural shifts in the economy, continued urbanization, and changes in the family model, fertility began to decrease in 1950 and soon leveled off at around population-replacement level. Fertility remained at this level until 1974, but the population continued to increase because people were living longer. Nineteen seventy five was a key demographic intersection point as the birthrate fell to below population-replacement level and the elderly population began a sharp rise. As the low fertility rate continues to this day, and the elderly population continues to rise, the nation will face socioeconomic consequences in the years ahead such as labor shortage, elderly health care, and domestic responsibility.

Key words and phrases

demographic change, labor shortage, medical care for the elderly, The Gold Plan, Long-term Care Insurance, domestic challenges

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Introduction

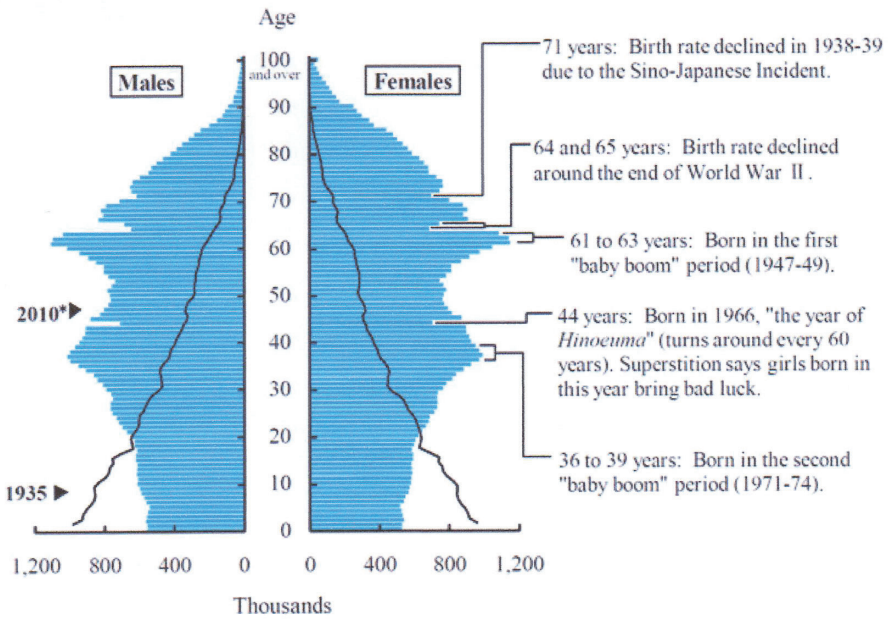
Japan's modernization was relatively late and rapid compared to that of other advanced nations. Industrial progress in the first half of the 20th century was paralleled by high fertility rates, which continued through the 1947-1949 post-war baby-boom. From 1950, influenced by structural shifts in the economy, continued urbanization, and changes in the family model, fertility began to decrease and level off at around population-replacement level. Fertility remained at this level until 1974, but the population continued to increase because mortality was lower as a result of longer lifespans and decreased infant mortality. Nineteen seventy five was a key demographic intersection point as the birthrate fell to below population-replacement level and the elderly population began to sharply rise. Figure 1 below illustrates the extreme demographic change between 1935 and 2010, which transforms from a classic cone-shaped pyramid to the shape of a kite.

After Japan's population peeked in 2004 at 127.8 million, it started to decline the following year. As the proportion of elderly continues to increase, as the proportion of youth dwindles, and as the population begins to contract, the nation is certain to face social and economic challenges associated with these demographic structural changes. Figure 2 compares the proportion of the different age groups in 1950, 2010, 2030 and 2050. These pyramids clearly indicate a population model that is becoming increasingly top-heavy, as well as a population that is contracting.

1 Statistics and Future Projections

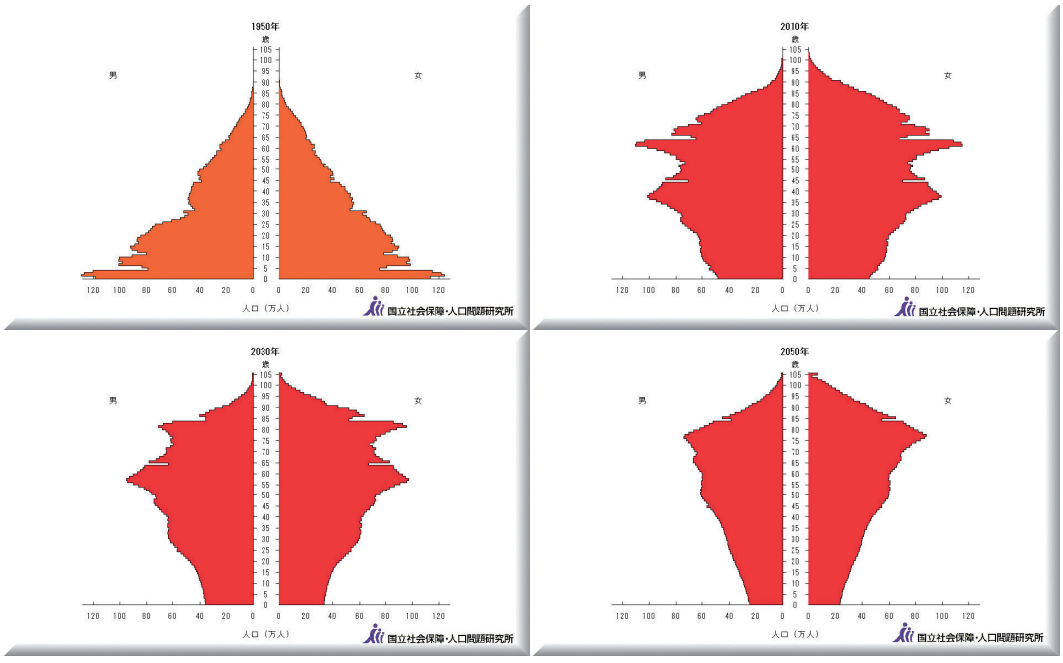
Before examining some of the challenges the nation will face as a result of population aging, let us examine a compilation of demographic statistics and future projections that have been published by demographers, scholars, and journalists, and are reflected in the population models below. The Japanese have gained 30 years in life ex-

Figure 1　Population pyramids : 1935 & 2010



(Statistics Bureau 2008)

Figure 2　Changes in the population pyramid : 1950, 2010, 2030, 2050



(Sōmushō tōkei kyoku 2008)

pectancy since World War II and many Japanese who are alive today can expect to see the average age of the population reach 50 in their lifetime. In 2010, the 0-14-aged population was 13.2% of the total population — the lowest level since population estimates began. The population of the 65-plus group has outnumbered that of the 0-14 group since 1997, and as of April 2010, the elderly group accounted for 23.1% of the total population (Statistics Bureau 2008). The elderly population is expected to reach 25% by 2015, 33.7% by 2035, and 41% by 2055, or 1 out of every 2.5 people (Mbendi 2010). In 1960, there were 11.2 workers to support every elderly person. By 2005, the ratio had fallen to 3.3 workers, and by 2055, there is predicted to be only 1.3 workers to support every elderly person (Nagano 2010). The 15-64 working-age population, after peaking in 1999, is already 2.5% smaller today, indicating that it is shrinking faster than the population at large (Forbes 2010). Between 2005 and 2030, while the population is predicted to have decreased by 9.8%, the working-age population will have dropped by 12.9% (Mbendi 2010). By 2050, the working-age group will be smaller than it was in 1950, and unless the nation's productivity rises faster than its workforce decreases, economic output is expected to decline (Economist 2010).

Japan's population peaked at 127.84 million in December 2004, then showed a decrease to 127.77 million in 2005, the first decline after World War II. In 2009, the population was 127.51 million, 183,000 less than 2008. In 2010, however, the population posted 128.05 million, indicating some fluctuation and a temporary leveling off. But when considering that deaths have outnumbered births since 2005, and that this gap has been growing every year, current projections indicate that between now and 2050, population decline may average out to be about 1% annually. The most recent official medium projection, conducted in 2006, shows the population falling to 122.74 million in 2020, 115.22 million in 2030, 105.7 million in 2040, 95.2 million in 2050, and 90 million by 2055 (Statistics Bureau 2010; Forbes 2010). According to the lowest projections, the decline is expected to bottom out at 64 million by 2100 (Coulmas 2007). These projections may later be adjusted due to changing fertility trends, or an overhaul of the nation's immigration policies which leads to the acceptance of millions of foreign migrants. Based on present fertility trends, however, and the pace at which society is aging, the population is projected to decrease by half within 90 years.

2　Socioeconomic Challenges

How the Japanese government deals with the increasing demographic challenges is crucial to Japan’ s future economy and global standing.　The central factor connected to socioeconomic challenges caused by low fertility, aging and depopulation is the old-age dependency ratio — the number of elderly compared to that of the working population.　The dependency ratio “is calculated by dividing the population aged 65 and over by the working-age population between about 30 and 65” (Coulmas 2007:62). A decreasing dependency ratio implies that labor shortages may become a serious economic challenge, and it is predicted that the present ratio of 3.9 workers supporting 1 elderly person will decrease to 2 workers to 1 elderly by 2030 (NIPSSR 2010).　As the elderly numbers grow, the burden of public social contributions on the working population is likely to increase, which may hamper consumer spending and further deter economic productivity.

Japanese society is steeped in the Confucian tradition that emphasizes filial obligation including caring for elders by family members.　Outside care services are relatively new to Japan because frail elderly have traditionally been the sole responsibility of the family as home services were negatively associated with poor relief policy for elderly without families.　Consequently, home help got a late start, and expanded very slowly.　Dispatching of home help became official state responsibility in 1962 when just one nursing home, two senior centers and 250 home helpers were authorized in 6 cities including Tokyo.　In 1963, social welfare and others began to dispatch home helpers under the Law for the Welfare of the Elderly (Saito 2010a; Campbell 1992). The number of elderly in hospitals grew from 157,000 in 1970, to 402,000 in 1980, during the“old-people boom” as a result of free medical care for elderly.　This increase of in-patient care cost the public billions of yen without sufficiently addressing the need for preventative care measures, and there was little significant development in the area of home help until implementation of the Gold Plan in 1990 (Campbell 1998).　The nation had found itself ill-prepared for the huge demands of elderly care provisions created by the rapidly increasing percentage of older people.

Though the traditional obligation of care within the family is weakening, many of the shrinking younger generation still want to support and care for their elderly parents.　However, it is becoming more difficult, if not impossible, for this willingness to

be realized (Christensen 2010). Considering the growing population of singles, many may have the responsibility of looking after elderly parents without a spouse, children, or siblings to help shoulder the burden (Fukue 2010). Hence, the duties associated with the Confucian-based tradition of filial piety are simply becoming too great a burden to bear, which may become a source of intergenerational conflict. The reality is that the number of elderly living alone or with their spouse has been increasing, from approximately 12% in 1960 to 36.6% in 1990 (Ikegami 1996b). As this ratio continues to grow, isolation of the elderly may become a formidable social challenge, particularly in rural areas, where younger workers have been drawn to larger urban areas for employment.

3 Labor Shortages

Based on the vast number of *furi-ta-* who would like to be in regular employment and in the context of Japan's near 20-year recession, high unemployment, and job insecurity, the idea of labor shortages may seem inconsistent. However, experts predict that as the working population declines, there will be labor shortages, particularly as the baby boomers move into retirement. Unless the productivity of workers increases enough to offset their decreasing numbers, the GDP will shrink along with Japan's economic competitiveness and global standing. Although labor demand has been decreasing in manufacturing, sectors like farming and healthcare already face personnel shortages and this need will only increase (Tabuchi 2009). By 2025, Japan will need almost twice the 1.2 million nurses and care workers that are currently employed (Harlan 2010). The country is expected to face unskilled labor shortage in the service economy since many young Japanese shun undesirable jobs described as the three Ks: *kitsui* (difficult), *kiken* (dangerous), and *kittanai* (dirty).

A practical solution to depopulation and a shrinking labor force would be for the government to ease restrictions on immigrants who wish to reside and work in Japan. While the percentage of non-Japanese residents has grown in recent years, the figure is still under 2% making Japan one of the most homogeneous nations on Earth. However, as the population ages, the labor force shrinks, and depopulation sets in, the government will be under increased pressure to overhaul its conservative stance on immigration. In certain fields of employment, such as nursing and healthcare, where short-

ages are most severe, restrictions have already been relaxed. In 2004, a "Japan-Philippines Economic Partnership Agreement" was established by the two governments, which allows Filipino qualified nurses and certified care workers to work in Japan for three and four years, respectively (Coulmas 2007). If Japan is going to remain a global economic power, continued agreements such as this may need to be seriously considered, as well as the more general notion of a multi-cultured, racially-diverse populous, similar to that of other advanced nations. If Japan chooses not to accept a substantial number of foreign workers in the near term, it may be impossible to make up for the shortage of labor later on. It would be unrealistic to attempt to completely offset the total projected rate of depopulation because the government would be required to admit some 350,000 immigrants annually until 2050. And to offset the workforce decline, 647,000 migrant workers would be needed every year (United Nations 2000).

Depopulation and a shrinking labor force may exacerbate the nation's already dismal economic situation. Japan's debt is almost double its $5 trillion output and if this debt continues to grow and the economy continues to shrink, public finances will be in greater pearl. Japan's international significance will fade as its position changes from a great power to a shrinking nation (Ato interviewed in Kato 2010). Due to prolonged recession and deflation, living standards have already begun to fall below par with other wealthy nations, and real estate and housing prices, along with household savings, have fallen over the last two decades (Economist 2010b). Most of today's youth are only familiar with a deflating economy and this environment has produced a generation of extremely thrifty young people referred to as "consumption haters", a term referring to young people's reluctance to spend compared to the extravagant spending habits of the youth of the bubble economy (Matsuda 2009).

An increasing percentage of elderly implies that there will be a greater demand for tax and pension revenues on fewer contributors to the system. This will strain public finances and the government may not be able to honor fully its payout commitments (Economist 2010b). Even though many of today's retirees are financially stable and are reaping the benefits of a long and prosperous career, it is feared that the high level of benefits they enjoy will not be sustained for future generations. It is likely that young pension contributors will be required to pay more and receive less than their predecessors, and there is concern that, if fertility continues at its present low level, the

aging population may bankrupt the pension system.

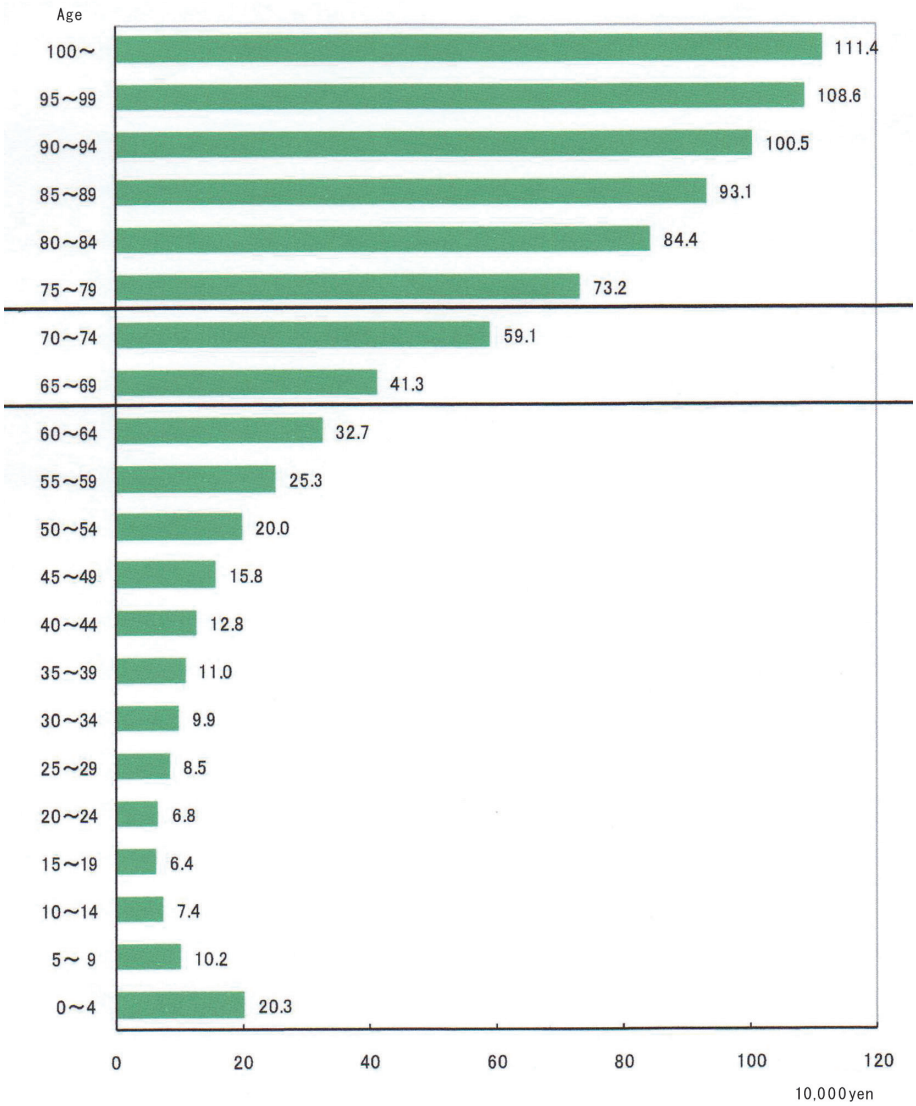
4 Elderly Healthcare Challenges: Past, Present and Future

Japan's healthcare system is one of most efficient in the world even though the number of people over 65 has doubled in the last 20 years (Economist 2010b). Statistics show that in virtually all categories the Japanese are the healthiest people in the world and long life-spans and low infant mortality testify to the success of the healthcare system. Medical costs per capita in Japan are roughly half those of the U.S. in terms of per-capita spending of GNP, indicating that the healthcare system spends less, but yields better results in terms of health outcomes and patient satisfaction (Hsiao 1996).

Fairness and equal access to healthcare have been fundamental tenets of Japanese healthcare for a half century. Since 1961, under the National Health Insurance Law (*Shin-kokumin hoken ho*), medical insurance coverage has been universal, and subsequent years have witnessed greater equality among various insurance plans through cross-subsidization of insurance schemes, and by using tax revenues of the general population to pay proportions of healthcare costs of needier people. National Health Insurance (*kokumin kenkō hoken*) is a government sponsored plan provided for those not covered by employee-type insurance (Saito 2010b; Ikegami 1996a). Japanese citizens can go to any hospital or doctor and pay the same fee, which is based on a highly-regulated schedule, and providers have no reason to discriminate among patients. These egalitarian policies have allowed the Japanese to achieve substantial equality and efficiency in healthcare (Campbell 1998). As the elderly population continues to increase, however, the government will face mounting challenges in terms of strained financial and human resources.

A universal truth concerning healthcare is that the average individual receives approximately 80% of their allotted treatment and funds, from the age of 65 to death (Colby 2004) (see Figure 3). Medical expenses per senior are 4.8 times higher than that of other citizens, and in 2007, medical expenditures for those over 65 accounted for 52% of total healthcare spending (NIPSSR 2010). Those over 70 are recipients of 41.5% of the nation's healthcare spending and those over 75 are projected to outnumber those between 65 and 74 by 2017, and account for 65% of all elderly by 2055 (Na-

Figure 3　Medical expenses per person according to age group



(Kōseirōdōshō 2008)

gano 2010). This growing cohort will force the government to consider new measures by which to fund healthcare and seek ways to make health care for the elderly more efficient. Management and distribution of healthcare services, in terms of insurance systems and quality of treatment, will need to undergo continued assessment and restructuring.

4.1　Free Medical Care for the Elderly

Population aging and care for the elderly was not a significant part of the national

conscience until after the war because up to that point, the elderly consisted of only about 5% of the population, and care for them was generally provided within their own households. Those who were not cared for by their families were considered to be socially marginal leftovers to be covered by government assistance, or were placed in public facilities that were thought to have inferior care conditions and were, in effect, poorhouses. The first significant elderly-specific policies came shortly after the war and involved pension benefits for current workers, a response to the *rōgō mondai* (aging problem), when people began to worry about what would happen to them when they got old.

The next major movement stemmed from the *rojin mondai* (old-people problem), which concerned poverty and lack of medical care for the elderly and led to the "old-people boom" of big expansions and free medical care for the elderly in the early 1970s. After more than a decade of high economic growth and relatively stable public spending in the 1960s, the standard of living had reached western levels and the government had a surplus of funds that could be used for new programs. However, as the number of elderly was rapidly growing and family structure was changing, there was a feeling among the public that the economy grew faster than the nation' s ability to properly deal with the increasing numbers, and many were not getting the care they needed. The public sentiment was likely fueled not only by Confucian-based traditional respect for the elderly, but by the notion that the nation' s prosperity had been built by those who were now old, and it was only natural that older-people should be the recipients of the nation' s growing prosperity (Campbell 1992). In January 1973, legislation was implemented for free medical care for the elderly to be covered by general revenues and through cross-subsidization. Unfortunately, a key feature of this landmark policy was that there was a disproportionate emphasis on medical treatment as opposed to health maintenance and social services, which led to the proliferation of low-quality geriatric hospitals and over-medication and over-testing of older patients (Takagi 1999). Free medical care resulted in recipients who took advantage of the system bringing a surge of long-term admissions of elderly patients, with or without major medical issues (Campbell 1998). Consequently, healthcare spending increased from 4 trillion yen in 1973 to 12 trillion in 1980 going from 4.1% to 6% of national income. Though the elderly comprised about 10% of the population in the early 1980s, they

were responsible for over one-third of healthcare spending. Enormous numbers of elderly, many of which did not require serious treatment, were living in hospitals and the national health insurance system was coming under heavy financial strain (Saito 2010b; Campbell 1992, 2000).

Gradually, the policy of elderly getting free healthcare and overusing facilities, coupled with the fact that their numbers were rapidly growing, became widely resented as they were seen as having an unfair advantage (Campbell 1998). As a result of overspending associated with free medical care and overuse, towards the end of the 1970s the national agenda shifted toward the *kōreika shakai mondai* (aging-society problem), or the problems created for everyone else by the growing numbers of elderly (Campbell 1992). This embodied a national awareness of Japan' s hyper-aged society, and its socioeconomic impact, and led to administrative reforms and the Health and Medical Service Law for the Elderly. Enacted in 1983, this law included fairer cost sharing of medical expenses by the elderly by introducing a small copayment and thus ending the 10-year free medical care system (Saito 2010b). This legislation aimed to ensure appropriate care for the elderly while providing stable funding for these services by cross-subsidizing the National Health Insurance Program with the more stable Employee Health Insurance. While the effort was successful in that the growth of the overall national healthcare spending was reduced to a fairly constant share of the GDP throughout the 1980s and into the early 1990s, these new measures failed to come to terms with the issue of long-term care for the frail and bedridden elderly who needed extended nursing care (Campbell 1992, 1998; Takagi 1999).

4.2 The Gold Plan

By the end of the 1980s there was a clearer realization of a growing gap between the pace of Japan' s aging society and that of the development of various social policies for the elderly. To cope with the growing gap between supply and demand the government planned to implement a new consumption tax. In order to sweeten the effect of introducing this new tax on the public, particularly on women voters who were more heavily burdened with domestic care responsibility, the government proposed the Gold Plan in 1989. The Gold Plan, implemented in 1990, was a ten-year strategy to promote health and social services to meet the needs of the growing elderly society. The

plan called for a major shift from institutional care to community care with an objective of preventing bedridden elderly through rehabilitation activities. Care by families would still be encouraged, but their burden would be lessened by expanding health and social services such as day-care centers and home-care services rather than focusing on medical treatment. The Gold Plan represented a professionalization of home help in Japan and reflected the growing consensus that families needed a backup support system through the welfare system. The government planned to increase the approximately 30,000 home helpers to 100,000 by the year 2000 and in 1994 this goal was raised to 170,000 under the New Gold Plan (Ikegami 1996b). However, by the mid-1990s, the bulk of institutional care for the elderly was being handled by hospitals and clinics as 45% of inpatients over 65 had been hospitalized for over 6 months (MHW 1989; Takagi 1999). It was becoming clear that the Gold Plan was *chūto hanpa* (a halfway measure) because it was not comprehensive enough to meet the needs of the frail elderly, and the rapidly ageing population was making new demands that could only be met through a major overhaul of the system (Ikegami 1996a). Hence, a new kind of insurance system was in order, which might provide the necessary financial resources for the elderly to help them in their pursuit of maximum independence and the highest quality of life possible.

4.3 The Long-term Care Insurance System

Kaigo hoken seido (Long-Term Care Insurance system (LTCI)), introduced in April 2000, aimed to improve community or in-home long-term care services rather than institutions, and to promote high quality care provision through competition and market forces. The system is based on the idea that social welfare should help an individual live an independent life according to their own needs and should value and promote individual's independence, choice and high quality social service (Campbell 1998; Auestad 2010). LTCI is funded approximately 45% by insurance fees of citizens who are 40 and over; 45% by state and municipalities; and 10% by the users themselves. After the elderly user receives a needs certification for the amount of care approved by a committee of doctors and other professionals, they can choose which service to purchase. The service providers can be either profit or non-profit and provide housework assistance, physical assistance, visiting nurses, bathing, and toileting, etc. (Auestad

2010). Home care users increased at an unprecedented rate after LTCI was implemented because many more middle-income users who could not previously access care now found it affordable under the new insurance system (Saito 2010a). The greatest future challenges facing the LTCI system will be providing the financial and human resources necessary to keep up with the demand of the growing number of elderly–the dependency ratio — and the issue of public verses private responsibility (Campbell 1998). The 2000 budget of 3.6 trillion yen increased to 7.2 trillion yen in 2008, and the Ministry of Health, Labor and Welfare has been trying to conserve funds by reducing long-term care benefits through assessment reforms.

The LTCI system was revised in 2005 placing greater emphasis on prevention and rehabilitation in order to reduce the need for care in the first place, and made it more difficult for older people residing with family to access the system. Also, a new category of home help, *kaigo yobō hōmon kaigo* (home-visit services to prevent the need for care), was added, which led to a decrease in the volume of home help from previous years (Saito 2010a). Other challenges involve distribution of care and limited choice of services for elderly in rural areas. When the choices of services are limited, market forces and competition is weakened, which may detrimentally affect the variety and quality of care. The majority of home help services by profit corporations are established in urban areas where clientele demand is highest because it is difficult for for-profit organizations to establish their services in rural areas where they may risk a poor return on their investment. Thus, public social welfare corporations still tend to be the main servers of rural areas. Critics have also argued that the LTCI system may cause inequality in the amount of care and level of quality available to clients because prices are set without regard to users' income and the 10% fee may be too expensive for those with low-incomes (Auestad 2010; Saito 2005, 2010b).

5　Domestic Challenges

A major challenge associated with population aging is the domestic burden and familial conflict over elderly care. The customary expectation of children taking responsibility for looking after their frail parents has been weakening with the *dankai junya* (second baby boomer) generation, and co-residency is no longer a matter of course. As mentioned, the traditional way of taking care of elderly within the family

is breaking down because it is clearly inadequate for their rapidly rising numbers and increasingly more women will be needed to work outside the home (Campbell 2000). While this is being accepted by some, it may be a source of grief and intergeneration conflict for others. At any rate, more elderly will be living alone and social isolation of these individuals may become a serious social concern.

Japan's post-war modernization and economic growth and restructuring led to more nuclear family units, more women working, less children born, and increased longevity. Though the nuclear family has become the norm, three-generational households are still relatively common. In 1970, 73.4% and 1985, 64% of elderly were residing with their adult children (Saito 2010a). However, as aging and low fertility contributed to this vertical expansion of the family, it has become increasingly difficult for families to look after their elders as generations in the past have. To be fair, more elderly, longer life spans, fewer births and more women working can mean that grandparents, while they are fit, may be more useful in helping their working children with domestic responsibilities such as cooking, cleaning, and looking after their grandchildren. However, as the ratio of elderly increases, nursing care within the family is becoming too great a burden for many families to bear particularly as elderly become frail or bedridden. A couple in which each is an only child, for example, having to look after four dependent elderly parents, while working and raising their own children, may find it practically impossible to preserve this long-valued family tradition.

Regardless of this reality many elderly may find it hard to accept that their own children will not shoulder the responsibility for their care. The baby boomer generation was not only raised under the expectation that it was a matter of course that a son or daughter looked after their frail parents, but they most likely cared for their own, or are doing so now.

Based on the old civil code and the Imperial Education Edict, the family has traditionally been, the greatest single source of support for the elderly and the center of their life, and social services were negatively associated with poor relief policy (Saito 2010a). Some cases in which children have attempted to maintain this tradition in spite of the practical obstacles, have led to cases of abuse. *Kaigo jigoku* (nursing hell), a term that has evolved with Japan's hyper-aged populous, characterizes the experience of people who feel hopelessly burdened by having to look after frail or mentally

deteriorating relatives (Coulmas 2007). In a research report of elderly care conditions for family caregivers, the Japan Trade Union Confederation found that 34.6% of family caretakers felt that their elderly parents were hateful and 49.6% had experience of abuse indicating the severe stress of obligatory nursing care (Rengo 1995). While having children is usually planned and parents have a legal obligation to care for them, caring for elderly parents can seem like a responsibility thrust onto a family and the legal obligations are less defined. Also, while children will become less dependent, elderly parents tend to become more dependent, and for an unpredictable period of time (Campbell 1999).

Recently, however, the elderly population, in general, seems to be more accepting of the idea that their family will not be solely responsible for their care as more seniors expect to live alone or with a spouse. As many seniors shift from the expectation of co-residence to occasional contact, time spent with family is decreasing and time spent on hobbies, travel and other pastime activities in increasing (Coulmas 2007). Recent attitudinal surveys have revealed that fewer Japanese are committed to the responsibility of caring for their elderly parents, and middle-aged and elderly people themselves do not want to burden their children. A 2003 poll found that 48.6% of elderly surveyed said that it is natural to expect children to take care of parents, compared to 57.3% in 1995 (Japan Times 2003). According to the same pole, 80.1% expect to use public social services, when they can no longer live independently, indicating a clear shift away from the home and family as the main source of care, but an increasingly heavy burden on taxpayers and the national LTCI system.

Conclusion

This article has addressed some of the ongoing consequences and challenges Japan is facing as the population ages and the dependency ratio becomes an increasingly heavy responsibility for the government and the younger working population to carry. In the coming years, it will become increasingly important for the elderly population, with the support of family and outside caregivers, to remain as independent and active as possible to help offset physical dependency as well as idleness and isolation. After retirement, it is realistic to consider that many elderly will live two more decades and be fit and healthy enough to carry on an active role in society. In a nation where a

large portion of elderly are blessed with health and vitality well after retirement, it is only appropriate to encourage continued activity, since the involvement of the growing percentage of seniors will be crucial to the economic stability of the nation.

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