Nursing Care Provision Systems for Elderly People and Geographical Distribution of Services in Japan

Teruo Hatakeyama, Shin'ichiro Sugiura, and Hitoshi Miyazawa

Abstract In 2000, with the rapid progress of population aging after the high economic growth period, Japan introduced a long-term care insurance system in which nursing care services are provided through the social insurance system. Under the long-term care insurance system, private business operators were encouraged to enter a quasi-market environment. As a consequence, their service centers came to be located mainly in metropolitan areas. Such uneven distribution of the services to metropolitan areas led to regional differences and disparities in the services. That trend persists even in community-based long-term care services where the authority to establish the services was transferred to municipalities. In fact, some municipalities have no established services.

Keywords Community-based long-term care services · Home-based care services · Institutional care services · Long-term care insurance premium · Long-term care insurance system

1 Nursing Care Provision Systems in Japan

Many economically developed countries have experienced population aging ahead of economically developing countries. Even in economically developing areas, some Asian countries, including the Republic of Korea and Singapore, are expected to experience extremely rapid population aging (United Nations, Department of Economic and Social Affairs, Population Division 2017). Those countries have put together

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public care guarantee systems along with the progress of population aging. However, care guarantee systems differ among countries in terms of the following items: the ways and means of financial resources, the scope of persons to be guaranteed, the number of institutional care users, the availability of cash benefits, the body providing services, and the availability of copayments (Masuda 2014).

By devoting attention to the ways and means of financial resources in the care guarantee systems, we can divide the countries into those that adopt the social insurance system and those that provide nursing care services from general taxes. For example, in European countries where public care guarantee systems are the mainstream, Germany and the Netherlands have adopted a long-term care insurance system using a social insurance system, although Sweden and the United Kingdom have adopted systems that provide nursing care services from tax revenues.

Japan had publicly guaranteed nursing care. However, with the rapid progress of population aging, an assumption was made that it would become difficult to support welfare services for elderly people sustainably solely using public funds available from taxation. Given this, Japan introduced a long-term care insurance system using the social insurance system in 2000 under the idea that society supports elderly people as a whole. The long-term care insurance system in Japan is said to be modeled on the long-term care insurance system in Germany (Seon 2010). The following sections describe the long-term care insurance system, which is the core of the nursing care provision systems in Japan, with comparison to the long-term care insurance system in Germany, as is appropriate.

1.1 Characteristics of the Long-Term Care Insurance System in Japan

Insurers of the long-term care insurance systems in Japan are municipalities that have provided welfare services for elderly people as the basic local government closest to residents.[1] With long-term care insurance, 50% of the insurance benefits, except 10%[2] copayment by users, are financed by long-term care insurance premiums that persons aged 40 years and older pay; the remaining 50% are financed by taxes from the central government, prefectures, and municipalities. Although Germany, too, introduced a long-term care insurance system using the social insurance system, the financial resources are premiums paid by residents only; no copayment is made by users (Masuda 2014). In Japan, public involvement is secured in operating the long-term care insurance in addition to taxpayers' payments for it. For example, the central government develops laws and regulations and also revises the system. Prefectures undertake the designation and supervision of long-term care insurance service providers and support for municipalities (human resources development,

[1] In some cases, multiple municipalities set a wide-area insurer.

[2] Persons who earn more than a certain level of income were to pay 20% from August 2015. Persons who earned more were to pay 30% from August 2018.

explanation of legal systems, etc.). Municipalities manage a special account for long-term care insurance and the certification committee of needed long-term care.

In the long-term care insurance premiums in Japan, the payment method and calculation basis for premiums vary according to the age of the insured person. Insured persons aged 65 years and older are to be first-category insured persons. The long-term care insurance premiums to be paid by first-category insured persons are based on the base amount specified by the long-term care insurer; they differ according to a person's income.[3] The long-term care insurance premiums to be paid by first category insured persons are also calculated in the long-term care insurance planning that is revised every three years as one term based on the demand for nursing care services in each long-term care insurer. Insured persons aged 40–64 years are to be second-category insured persons, with premiums calculated differently from first-category insured persons. They paid the premiums, with half paid by their employers. In the long-term care insurance system in Germany, the insurer (Krankenkass[4]) for public medical insurance, in which 90% of the population participates, also serves as the insurer (Pflegekasse[5]). Insured persons under public medical insurance are also positioned as persons insured by long-term care insurance.

Figure 1 portrays the flow by which residents use long-term care insurance services in the long-term care insurance system in Japan. In long-term care insurance in Japan, benefit recipients are specified as insured persons aged 65 years and older, except those in an in-need-of-care state because of certain diseases. When an insured person[6] intends to use long-term care insurance services, the person must first apply for certification of a need for long-term care to a municipality. A committee certifying a need for long-term care informs the insured person of certification results based on the insured person's physical condition as determined by computation, results of a screening by a physician, and results of a home-visit interview by a municipal officer. The certification results are of three kinds: Independent, In need of assistance, and In need of care. Services to be received vary according to the condition of the insured person. Those In need of assistance comprise assistance level 1 and level 2. In need of care is set at five levels: levels 1–5. The number of services to be received also varies according to these levels. In the long-term care insurance system in Germany, medical service (MDK: Medizinischer Dienst der Krankenversicherung) established by Krankenkass undertakes the certification of needed long-term care

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[3]In the 6th term (2015–2017), the Ministry of Health, Labour and Welfare presents Level 1 (0.5 times of the base amount) to Level 9 (1.7 times the base amount) as the standard model.

[4]The Krankenkass is a non-profit public corporation which is independent of government. An insured person can choose an affiliation among 116 (as of 2016) Krankenkass such as Allgemeine Ortskrankenkasse (AOK), Betriebskrankenkasse (BKK), Innungskrankenkasse (IKK) etc. Financial resources are covered only by insurance premiums. The insurance rates differ among Krankenkass. However, the upper limit of insurance rates is 15.5%; when it is insufficient to compensate for spending, additional premiums will be collected. Additionally, the remaining 10% of people subscribe to private insurance.

[5]The Pflegekasse belongs to Krankenkass. Although they are financially separate, the Krankenkass collect insurance premiums together. The subscribers are obligated to subscribe to Pflegekasse.

[6]A care management provider can submit an application on behalf of the person.

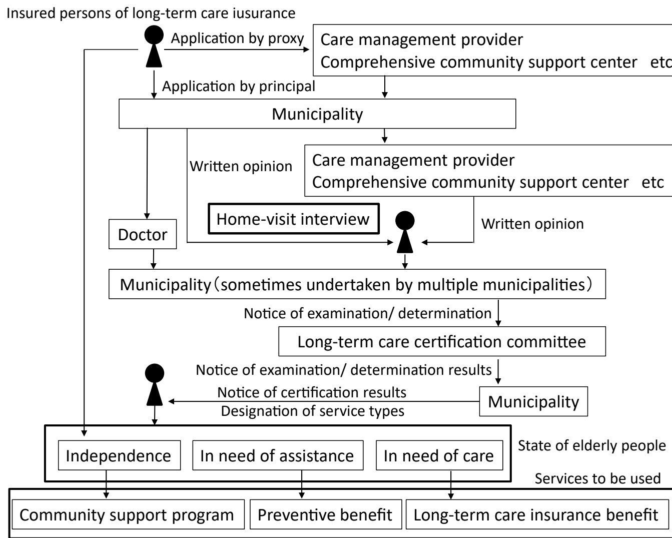

Fig. 1 Flow of use of services in long-term care insurance in Japan (Created based on Ido 2017)

similarly. However, the determination results for the classification of levels of care are more finely defined in Japan. In Germany, the examination is conducted in accordance with the standards by which persons who are certified as care level 2 or lower in Japan are excluded from insurance benefits.

The long-term care insurance system in Japan assigns importance based on user-centered care support. Consequently, users can receive various services from different providers based on their own choices. However, because the work is troublesome for insured persons themselves, care management providers or care managers in comprehensive community support centers usually create care plans. Users receive services based on the care plans. In Japan, to guarantee users to choose services and providers freely, a variety of providers, including private business operators, were allowed to enter service-providing businesses with the start of the long-term care insurance system. It had been expected that competitions between providers would improve service quality. As explained below, numerous private business operators actually entered home-based care services after long-term care insurance started in 2000. Care supply through the long-term care insurance system in Japan clearly has a quasi-market nature that introduces a market mechanism in care provision while securing control of governmental regulations and financial resources.

The introduction of long-term care insurance has encouraged private business operators to enter service-providing businesses in Germany, which is the same in Japan. Also in the long-term care insurance system in Germany, users and their families can select which services to use. For the requests, Pflegekasse offers options and makes decisions. It became possible from 2009 to obtain advice on that occasion from care counselors who undertake case management.

As described above, the long-term care insurance system in Japan has been developed using the long-term care insurance system in Germany as a reference. However, they are different in numerous ways because of differences in their respective historical backgrounds and socioeconomic conditions.

1.2 Types of Long-Term Care Insurance Services

Types of long-term care insurance services in Japan have increased through repeated revisions to the system. Table 1 shows long-term care insurance services as of 2018. The long-term care insurance system that was launched in 2000 provided only long-term care insurance benefits, for which most prefectures, ordinance-designated cities, and core cities[7] have the authority to designate and supervise. Services of the long-term care insurance benefits are intended for elderly people in need of care. Services of long-term care insurance benefits are classified broadly into "home-based care services", by which elderly people receive services while living at home, and "institutional care services", by which elderly people enter a facility and live there. Home-based care services are divided further into the following categories: "home services", by which a helper visits an elderly person's home and provides services; "outpatient services", by which an elder person visits a facility to receive services; and "short-term stay services", by which an elderly person enters a facility for a short period of time while living at home. The services also include "care management", which creates care plans for service users. Institutional care services of three types exist. Welfare facilities for elderly people are welfare residential facilities for elderly people who have difficulty living at home independently. A health facility for elderly people is a medical-care residential facility where elderly people aim at readjusting to life at home while undergoing rehabilitation. A designated long-term care hospital is also a medical-care residential facility affiliated with a medical institution to provide long-term care.

As described earlier, regarding long-term care insurance services in Japan, people can receive welfare services such as those provided at a welfare facility for elderly people as well as adult day care and home care, similarly to other countries. In addition, they can receive medical-care services such as the health facilities for elderly people as well as outpatient rehabilitation and home health. Long-term care insurance services in Japan are characterized by which receivable services of various types exist.

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[7]In Japan, each municipality is included in a prefecture. Generally, a city has a population of 50,000 or greater. It is vested with the authority to provide more services than towns and villages. Among cities, local governments with a large population are given authority for numerous services from prefectures: they are ordinance-designated cities and core cities. An ordinance-designated city has a population of 700,000 or more. A core city has population of 200,000 or more, by and large. Ordinance-designated cities have the authority to provide more services than core cities. That authority is more or less equal to the authority that prefectures have.

Table 1 Long-term care insurance services in Japan (as of 2018)

	Services designated and supervised by prefectures, ordinance-designated cities, and core cities	Services designated and supervised by municipalities
Long-term care insurance benefit	• Home-based care services – Home services Home care In-home bathing services Home health Home-based rehabilitation Medical management – Outpatient services Adult day care Outpatient rehabilitation – Short-term stay services Short-term stay for personal care Short-term stay for health care • Institutional care services Welfare facility for the elderly Health facility for the elderly Designated long-term care hospital • Others Residential care for residents of long-term care facilities Reimbursement for purchasing adaptive equipment benefit Home modification benefit	• Community-based long-term care services Routine-visit and on-call home health care Night time home care Community-based day care services Day care services for people with dementia Small-scale multifunctional home-based care services Group home for people with dementia Community-based specified facility care Community-based residential care Combined senioir care services(Small-scale multi-functional nursing care services) • Care management

(continued)

Table 1 (continued)

	Services designated and supervised by prefectures, ordinance-designated cities, and core cities	Services designated and supervised by municipalities
Preventive benefit	• Preventive care services – Home services Preventive home bathing services Preventive home health Preventive day care rehabilitation – Outpatient services Preventive day care rehabilitation – Short-term stay services Short-term preventive stay for personal care Short-term preventive stay for health care – Others Preventive residential care for residents of long-term care facilities Disability prevention adaptive equipment rental services Preventive reimbursement for purchasing adaptive equipment benefit Preventive home modification benefit	• Community-based preventive care services Preventive day care services for people with dementia Preventive small-scale multifunctional home-based care services Preventive group home for people with dementia – Preventive care services

Created based on Ido (2017)

Revision of the long-term care insurance systems in 2006 raised awareness of building community-based integrated care systems, as discussed in Second Part. Community-based integrated care systems are aimed at providing housing and services of medical care, nursing care, preventive care, and livelihood support in the local community in an integrated manner. This system is for elderly people to be able to continue to live life in their familiar community and in their own way even if they become needful of care. Under the circumstances, community-based long-term care services provided from long-term care insurance benefits and preventive benefits were newly established. In terms of community-based long-term care services, the authority to designate and supervise providers was given to municipalities because prefectures had authority over designation in many services until that time, and facility development plans were not created in accordance with community needs (Hatakeyama 2009). Services of preventive benefits were newly established to prevent elderly people from declining to the point of needing care. The background is that long-term care insurance benefits and expenses soared after the long-term care insurance system was introduced because of the entry of numerous service providers. Furthermore, community-based preventive care services that combined the services explained above were introduced. Preventive benefit services are intended for elderly people who need assistance.

At around the same time, a community support program was established in which municipalities take the initiative in providing services,[8] although it is financed by long-term care insurance. This is a service for elderly people who are not deemed to be in need of care or in need of assistance to prevent them from declining to a point at which they would be in need of care or in need of assistance (Fig. 1). More specifically, home-visit type and day-care type preventive care programs have been undertaken in addition to public awareness-enhancing activities related to preventive care.

However, with long-term care insurance in Japan, people are not allowed to choose cash benefits as nursing care allowances, which is possible in Germany and Netherlands, and in other countries. They can receive services only. In Germany, when a person cares for a family member, the person can receive allowances from cash benefits. However, when the long-term care insurance system was introduced, Japan did not institutionalize cash benefits with the aim of outsourcing care provided by family members. This is a characteristic of Japan, where long-term care insurance was introduced to socialize care.

2 Increase of Service Providers and the Surge of Long-Term Care Insurance Premiums

Before the long-term care insurance system was introduced in Japan, the use of nursing care services depended on public financial resources from taxes; service

[8]Services can be entrusted to private business operators.

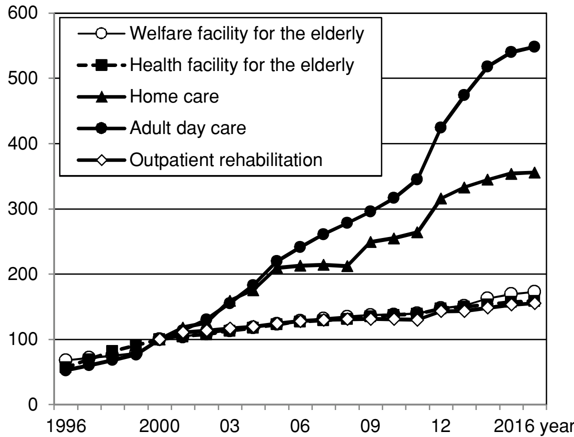

Fig. 2 Changes in the number of major long-term care insurance services centers in Japan (indexes equal to 100 in 2000). With regard to adult day care, small-scale facilities with a capacity of 18 or fewer people were positioned as community-based adult day care in community-based services in 2016. Consequently, the number of centers in 2016 is a combination of the number of adult day care centers and that of community-based adult day care centers (Created based on Survey of Institutions and Establishments for Long-term Care)

providers were limited to the public sector (local governments, social welfare corporations,[9] etc.), in principle. However, as described earlier, the introduction of the long-term care insurance system made it possible for various providers to enter service-providing businesses. As a result, numerous private business operators, mainly for-profit corporations and nonprofit corporations, entered markets of those related businesses. Figure 2 shows changes in the number of major providers of long-term care insurance services. The figure shows that providers for home-based care services such as adult day care and home care increased sharply, influenced by the increase of services run by private business operators. With that increase, users of long-term care insurance services also increased.

Consequently, long-term care insurance benefits and expenses surged. Figure 3 shows changes in the total cost of long-term care insurance benefit expenses in Japan. The total cost has tripled from 3.6 trillion yen in 2000 to 10.8 trillion yen in 2017. To make an international comparison here, Table 2 presents public care expenditures (including compulsory insurance systems) of nine major countries as a percentage of GDP, taking regional balance into consideration. Public care expenditures in Japan account for 2.0% of GDP. Although not as high as Scandinavian countries such as Denmark and Sweden, it is slightly above the OECD average and is ranked 7th among 26 countries. The growth rate of public care expenditures in Japan is 4.6%, which

[9]Non-profit and public interest corporations in Japan differ among corporation types according to the business domain. Social welfare corporations are private and non-profit corporations mainly engaged in social welfare business operations. Furthermore, medical corporations provide medical; and NPO corporations are private organizations engaged in social activities.

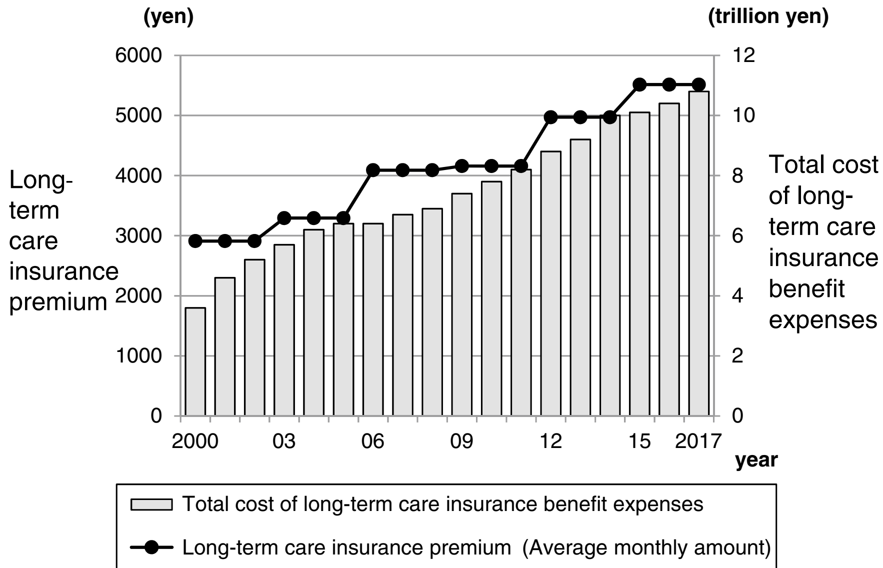

Fig. 3 Changes in the total cost of long-term care insurance benefit expenses and long-term care insurance premiums in Japan. Actual results are used until 2014 and the initial budget is used during 2015–2017 (Created by the Committee for Promoting the Integrated Economic and Fiscal Reforms Integrated Economic and Fiscal Reforms)

is the same as the OECD average, during 2005–2015. However, the growth rate is high compared to Scandinavian countries. It is ranked the 6th among 26 countries. It is readily apparent that public care expenditures in Japan are average-sized among economically developed countries and that they show an expanding trend in recent years.

With increasing long-term care insurance benefits and expenses, long-term care insurance premiums that insured persons pay are also soaring. Figure 3 shows the average of long-term care insurance premiums (a monthly amount) for each local government. The average of long-term care insurance premiums nearly doubled from 2,911 yen at the start of the long-term care insurance to 5,514 yen in the 6th program term (2015–2017).

However, long-term care insurance premiums shown in Fig. 3 are national averages. Long-term care insurance premiums are set by long-term care insurers. Therefore, the amount differs depending on the long-term care insurer because the distribution of care resources and the progress of population aging vary from one long-term care insurer to another. Figure 4 shows the base amount of monthly long-term care insurance premium in the 6th program term for each long-term care insurer. In general, a trend exists by which long-term care insurance premiums are low in metropolitan areas and in high in underpopulated areas. However, the premium is low overall in Hokkaido. In the program plan for the 6th term, the difference between the highest and the lowest premiums is tripled.

Table 2 International comparison of care expenditure (Unit:%)

Country	Long-term care expenditure(health and social components) by government and compulsory insurance schemes, as a share of GDP, 2015(or nearest year)	Government and compulsory insurance spending on long-term care(health) by mode of provision, 2015(or nearest year) (rate of inpatient long-term care)	Annual growth rate in expenditure on long-term care(health and social) by government and compulsory insurance schemes, in real terms, 2005-15(or nearest year)
Japan	**2.0**	**68**	**4.6**
Denmark	2.5	36	2.5
Sweden	3.2	64	2.0
Netherlands	3.7	86	2.9
Hungary	0.2	96	0.3
Poland	0.4	14	5.1
Canada	1.2	87	2.0
United states	0.5	–	1.8
Republic of Korea	0.8	85	32.1
OECD average	1.7[a]	65[b]	4.6[b]

[a] 15 OECD countries reporting "health and social LTC"
[b] 26 OECD countries (Created based on OECD Health Statistics)

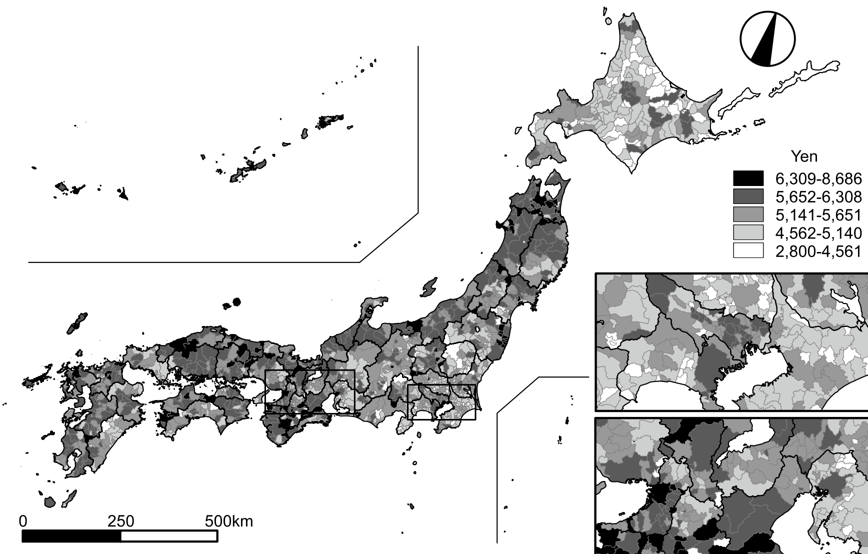

Fig. 4 Base amount of long-term care insurance premiums in the 6th long-term care insurance planning (Created based on the Ministry of Health, Labour and Welfare 2015. Reprinted from Sugiura 2017a with permission of Akashi Shoten)

A key factor for areas where long-term care insurance premiums are high is that because the degree of the improvement of the service infrastructure is high in relation to the size of the population of first-category insured persons, long-term care insurance benefits and expenses per person surged. As described later, a direct factor in the surge of long-term care insurance benefits and expenses is often derived from the location of institutional care services centers, including the welfare facility for elderly people. Table 2 also presents the percentage of hospitalization care services in public care expenditures in various countries. The value is 68% in Japan, which is slightly above the OECD average and is ranked 12th among 26 countries. Japan has shifted from institutional care services to services centering on home-based care by introducing the long-term care insurance system. Nevertheless, many areas still greatly need institutional care services. However, the level of the improvement of care infrastructure is often low in areas where the level of long-term care insurance premiums is low. Figure 4 shows that areas where the level of long-term care insurance premiums is low are often distant from the prefectural capital city and central cities, or are mountainous regions in prefectural border areas or isolated islands in each prefecture. Because the population size is small and because the demand for nursing care services is low in these areas, nursing care service providers are less willing to enter the services.

3 Regional Differences in Long-Term Care Insurance Services

This section considers regional differences in long-term care insurance services to clarify the distribution of care resources in Japan. If there are large regional differences in the distribution of nursing care services and providers, then users are prevented from choosing services and providers freely. Networking regional resources mainly by respective municipalities is regarded as important for building a community-based integrated care system. If regional differences occur in long-term care insurance services that are the key element for regional resources, then the creation of effective networks can be expected to be hindered. The distribution of nursing care services varies greatly depending on the service. For that reason, we separately consider the regional differences in home-based care services and institutional care services in long-term care insurance benefits and those in community-based long-term care services. However, preventive benefit services are often affiliated with home-based care services and community-based long-term care services centers. They are similar to the distribution of those services. For this reason, we omit the consideration of preventive benefits for space constraints.

3.1 *Home-Based Care Services (Long-Term Care Insurance Benefits)*

Home-based care services in long-term care insurance benefits consist of home services, outpatient services, and short-term stay services (Table 1). The distribution of resources depends on the service. For this reason, based on an analysis by Miyazawa (2017), we consider regional differences in the services using home care, adult day care, and short-term stay for personal care, respectively, as examples of home services, outpatient services, and short-term stay services.

The trend of the number of home-based care services centers is influenced by the entry behavior of service providers who consider conditions related to management. Service providers make a decision about entering service markets while considering regional characteristics. Consequently, the distribution of home-based care services has given rise to regional differences. Figures 5, 6 and 7 present the number of centers per 100,000 population of persons certified as being in need of care by long-term care insurers using home care, adult day care, and short-term stays for personal care as examples, respectively. The following trends are apparent from the figures.

Although many home care centers exist in metropolitan areas and in major cities in provincial areas, a small number of short-term stays for personal care centers exist in metropolitan areas. On the Sea of Japan coast, a small number of home care centers exist, whereas there are many short-term stay for personal care centers.

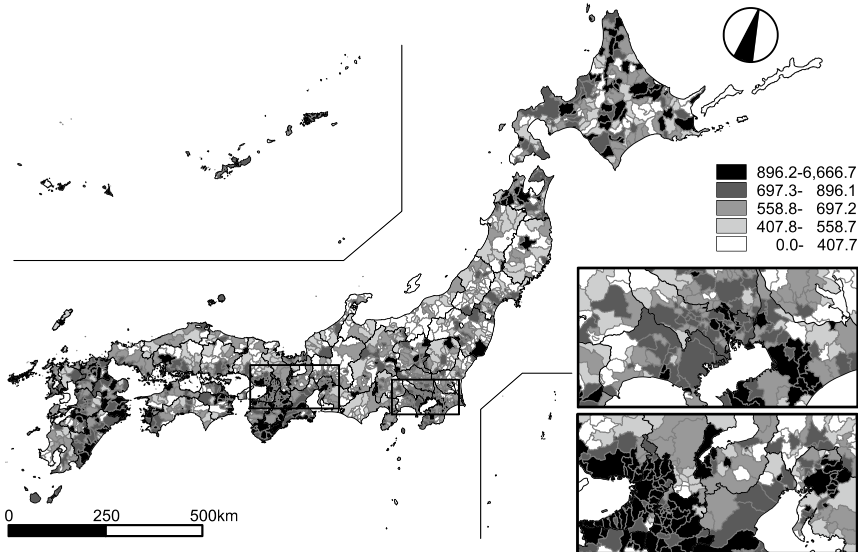

Fig. 5 Number of centers for home care services per 100,000 population of persons certified as needing care (2016) (Created based on Home-based Long-term Care Services Database by Tamura Planning & Operating, Inc. and Monthly Status Report on the Long-Term Care Insurance System. Reprinted from Miyazawa 2017 with permission of Akashi Shoten)

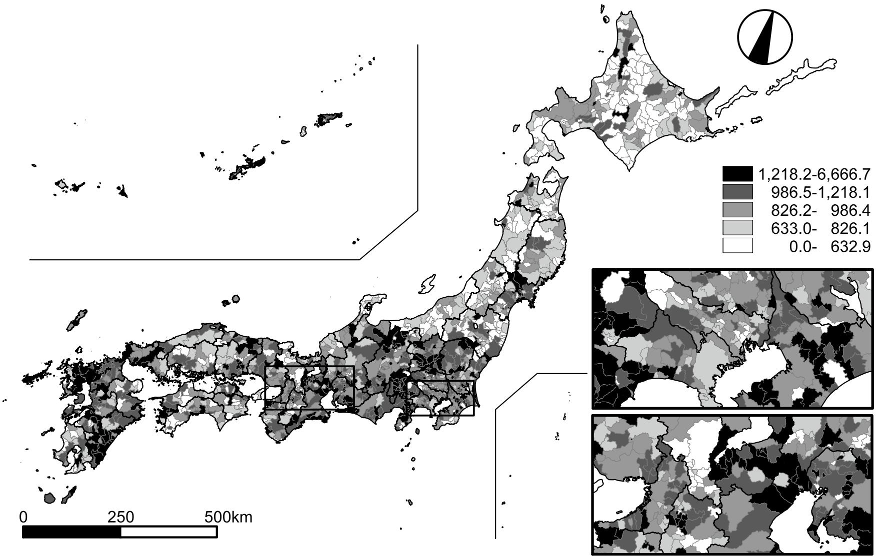

Fig. 6 Number of centers for adult day care services per 100,000 population of persons certified as needing care (2016) (Created based on Home-based Long-term Care Services Database by Tamura Planning & Operating, Inc. and Monthly Status Report on the Long-Term Care Insurance System. Reprinted from Miyazawa 2017 with permission of Akashi Shoten)

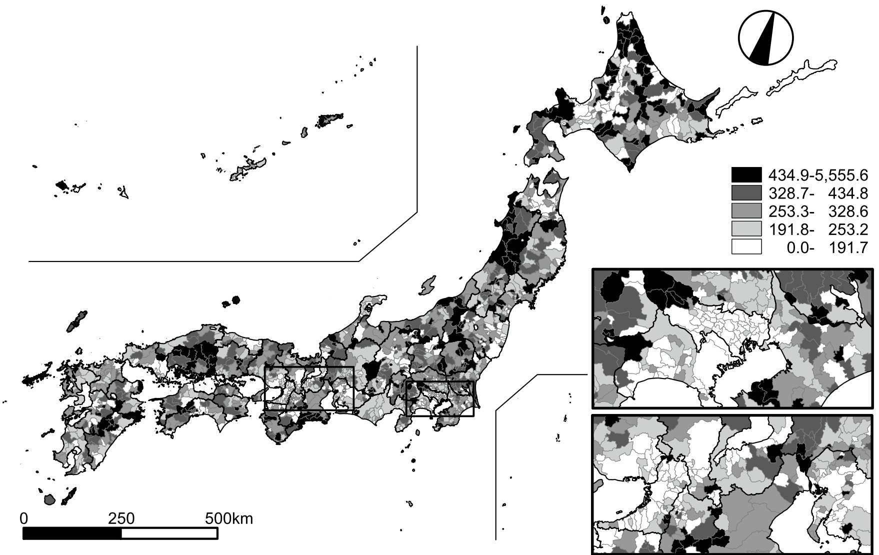

Fig. 7 Number of centers for short-term stay for personal care services per 100,000 population of persons certified as needing care (2016) (Created based on Home-based Long-term Care Services Database by Tamura Planning & Operating, Inc. and Monthly Status Report on the Long-Term Care Insurance System. Reprinted from Miyazawa 2017 with permission of Akashi Shoten)

No clear regional differences can be observed in adult day care centers. The distribution is intermediate between the other two services. Such regional differences in the distribution of centers are a consequence of which service providers selectively entered the areas. The result can be explained from differences in the forms of providing services and the conditions related to securing a space for business purposes (Miyazawa 2003).

Home care services require spaces for goods management, office work related to management and service provision, and consultation and for care staff to visit users' homes. With respect to the former, because no restriction exists on the location of offices, one can readily find a space, even in urban areas. Regarding the latter, because the travel time to make a visit is beyond the scope of long-term care insurance reimbursement,[10] saving as much care staff travel time as possible is necessary to improve profitability. That is, when considering the location of a home care center, areas with a high population density where the proximity to service users' homes will be close are advantageous. In contrast, hilly and mountainous areas where the population density is low and the Sea of Japan coast, where snow in the winter is an obstacle to travel,[11] are not amenable to home care, although regional additions to long-term care insurance reimbursement are made.

Services of short-term stay for personal care must have private rooms, a dining hall, a kitchen, and other facilities. For this reason, short-term stays for personal care centers are often affiliated with the welfare facility for elderly people that is institutional care services and use unoccupied beds and equipment in the facility. Therefore, as explained later, the distribution pattern of short-term stay for personal care centers is similar to institutional care services. To establish a short-term stay for a personal care center that requires space to provide services, non-urban areas where land prices are low and where land use can hardly compete with others present some advantages. In areas covered with snow, it becomes difficult for some people to live at home during the winter season. In rural areas, it becomes difficult for family members to give care during the busiest season for farmers. As described, the needs for short-term stay services change seasonally.

Adult day care requires a dining hall, a functional training room, and other facilities. However, no hindrance exists when the space is small compared to short-term stay services. In addition, although staff members need to travel to pick up and drop off users, travel is less frequent than that required for home care. Accordingly, the distribution pattern of adult day care centers is considered to be intermediate between that of home care and that of short-term stay for personal care.

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[10]It is a consideration paid to service providers from the long-term care insurance finances when long-term care insurance services are used.

[11]Characteristics of the climate on the Sea of Japan side of Japan include high winter snowfall at low latitudes. The mechanism is the following. From Siberia to Japan in winter, cold seasonal winds blow from the northwest. When these winds cross the Sea of Japan, they absorb heat and moisture to form clouds, thereby becoming wet seasonal winds. These clouds bring snowfall on the Sea of Japan side of Japan. Particularly, west of Japan's central mountain range experiences heavy snowfalls.

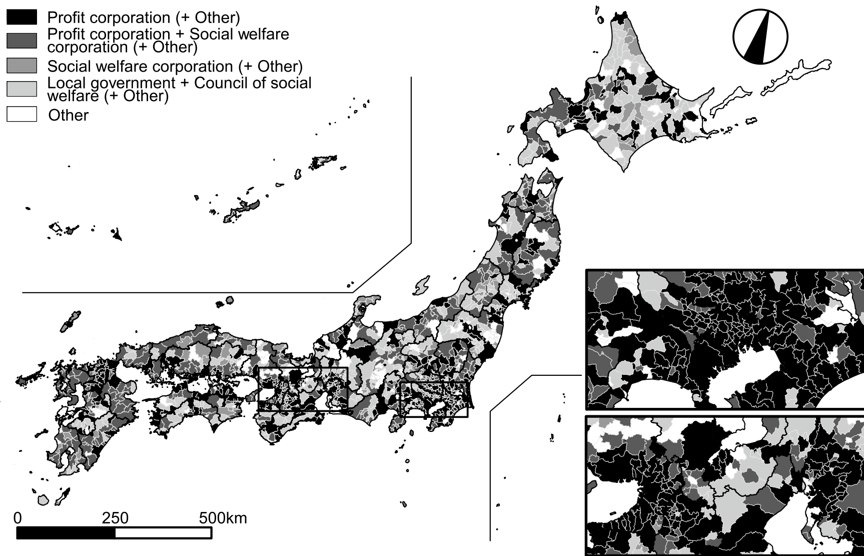

Fig. 8 Corporation types of service providers dominant in home care (2016). Insurers from whom data could not be obtained are included in Other (Created based on Database of Home-based Long-term Care Services by Tamura Planning & Operating, Inc. Reprinted from Miyazawa 2017 with permission of Akashi Shoten)

With the introduction of the long-term care insurance systems, many private business operators have entered home-based care services and regional differences have occurred also in entry trends. Figures 8, 9 and 10 respectively present the types of dominant corporations that established centers by long-term care insurers in terms of home care, adult day care, and short-term stays for personal care. Data show that many areas exist in which centers established by for-profit corporations dominate home care and adult day care. For-profit corporations are particularly dominant in metropolitan areas and major cities. Because those providers pursue profits, uneven distribution of services has occurred mainly in metropolitan areas (Miyazawa 2003). By contrast, centers established by public bodies such as local governments, councils of social welfare,[12] and social welfare corporations, and corporations with a high public benefit are dominant in small towns and villages.

In short-term stay for personal care, many centers have been established by social welfare corporations throughout the country. The reason is that only local governments and social welfare corporations can operate welfare facilities for elderly people

[12] A Council of Social Welfare is a private organization promoting local social welfare activities. However, many Councils of Social Welfare have a strong public character because welfare-related outsourcing projects are conducted by local governments. Based on social welfare laws, Councils of Social Welfare are organized in every municipality and prefecture. A national organization exists, supporting a federation structure. Furthermore, District Councils of Social Welfare are established as voluntary organizations of residents in small areas in a municipality.

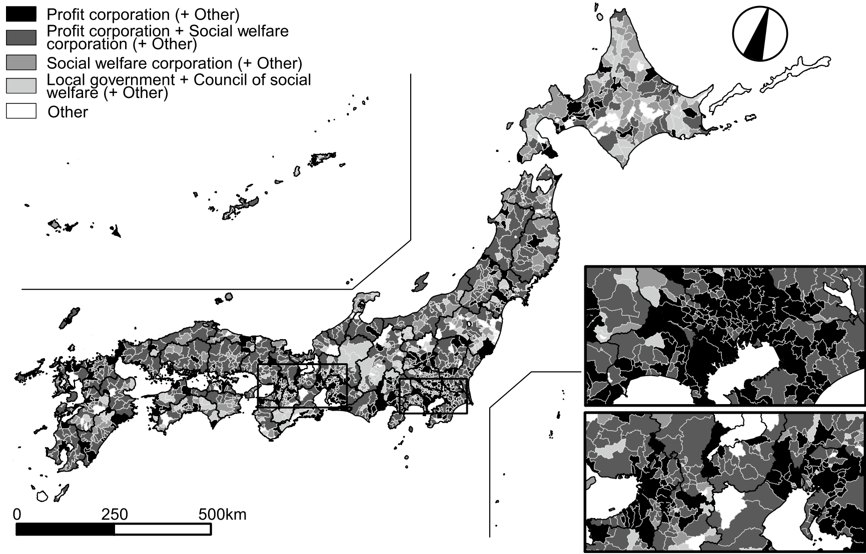

Fig. 9 Corporation types of service providers dominant in adult day care (2016). Insurers from whom data could not be obtained are included in Other (Created based on Database of Home-based Long-term Care Services by Tamura Planning & Operating, Inc. Reprinted from Miyazawa 2017 with permission of Akashi Shoten)

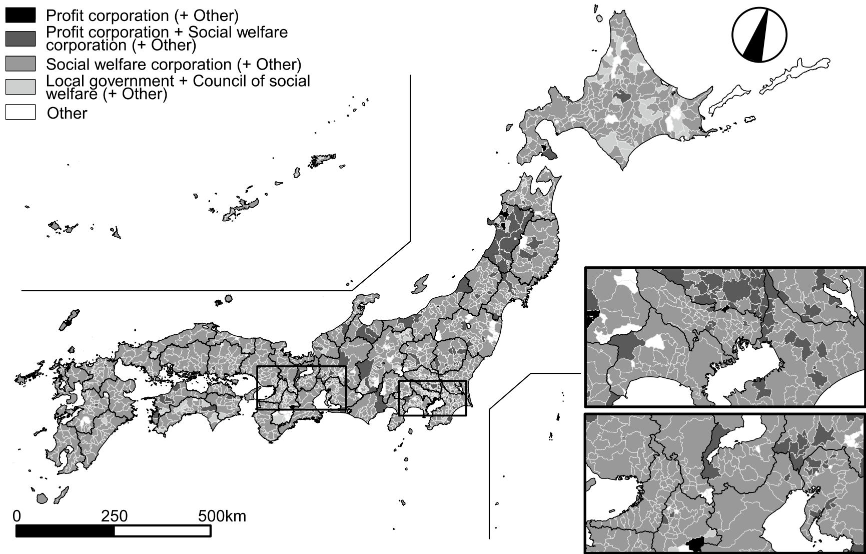

Fig. 10 Corporation types of service providers dominant in short-term stay for personal care (2016). Insurers from whom data could not be obtained are included in Other (Created based on Database of Home-based Long-term Care Services by Tamura Planning & Operating, Inc. Reprinted from Miyazawa 2017 with permission of Akashi Shoten)

to which short-term stay for personal care is often attached. However, centers established by for-profit corporations are dominant in the suburbs of Tokyo and Nagoya metropolitan areas, where centers are often affiliated with private elderly care homes and in some areas on the Sea of Japan coast, where many standalone centers are not affiliated with other facilities. In small towns and villages where even social welfare corporations are less willing to enter service markets, local governments and social welfare councils provide services.

3.2 Institutional Care Services (Long-Term Care Insurance Benefits)

In an international comparative analysis of the long-term care system in Japan, we ascertained that although the system has been designed by emphasizing home-based care services rather than institutional care services in Japan, institutional care services still account for a large percentage of public care expenditures. Community-based integrated care systems promoted since 2006 aim to watch over elderly people by various actors in areas where they live while further emphasizing home-based care services. However, as we have described, home-based care services are affiliated with institutional care services in many cases. This is true because the operations of nursing care service providers are becoming increasingly diversified according to considerations of profitability in a market mechanism. Institutional care services therefore play a salient role also in the community-based integrated care system.

Institutional care services in long-term care insurance benefits consist of welfare facilities for elderly people, health facilities for elderly people, and designated long-term care hospitals (Table 1). The distribution of resources differs for each of the services. Therefore, based on an analysis by Sugiura (2017b), we consider regional differences in the services, emphasizing welfare facilities for elderly people.

To improve and maintain the system of institutional care services, laws require a building as the physical environment to be a receptacle, with a generous number of staff. Consequently, costs to improve institutional care services are high. In urban areas, because the construction of facilities imposes a heavy economic burden, including the cost of land, it is difficult to develop facilities in relation to the population size of elderly people. For this reason, the development of institutional care services is likely to lead to large regional discrepancies between services in urban areas and non-urban areas.

Figure 11 shows the capacity of institutional care services per 100 population of first category insured persons aged 75 years and older by prefecture. It is readily apparent from the figure that the value is high in prefectures in the Hokuriku region, including Toyama Prefecture, which is the highest, Tokushima Prefecture, and Tottori Prefecture. The next level is often found in provincial areas, such as Akita and Kochi prefectures, distant from metropolitan areas, in addition to Ibaraki Prefecture.

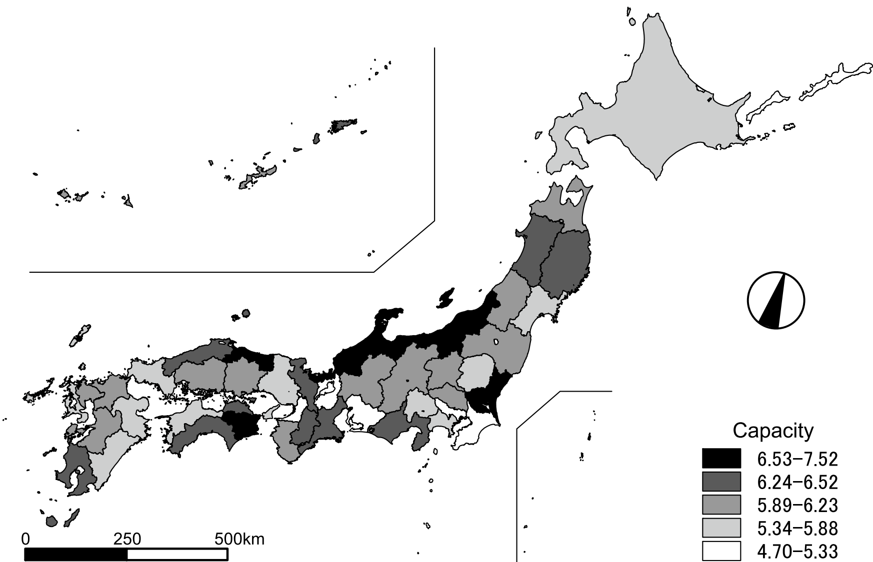

Fig. 11 Capacity of institutional care services per 100 population of first category insured persons aged 75 years and older (2014) (Created based on Survey of Institutions and Establishments for Long-term Care and Annual Status Report on the Long-Term Care Insurance System. Reprinted from Sugiura 2017b with permission of Akashi Shoten)

However, most areas with low capacity are dominated by prefectures such as Tokyo, Osaka, and Aichi, which serve as the core of metropolitan areas.

The welfare facility for elderly people accounts for 56.3% of facilities in institutional care services of three types. Many people are on waiting lists: they have applied but cannot enter welfare facilities for elderly people. This has persisted as an issue for the welfare facility for elderly people. Under the circumstances, Japan has emphasized the functions of the welfare facility for elderly people as facilities to support persons in need of care who have moderate or severe difficulty living at home. More specifically, users of welfare facilities for elderly people are limited to elderly people who are certified as care level 3, in principle, since 2015.

Figure 12 shows the capacity of the welfare facility for elderly people per the number of persons certified as care level 3 or higher by long-term care insurers. Compared to home-based care services, welfare facilities for elderly people cover a wide geographical range in which demand and supply of services are linked. Accordingly, not all residents are inhabitants of the municipality where the facility is located. However, people do not generally prefer to enter a facility in an area far away from the place where they have lived. They often choose a facility located in their municipalities. Therefore, for analyzing the location trends of facilities in this paper, we recognized the necessity of grasping them in the unit of each municipality. In Fig. 12, municipalities with a high level of capacity are noticeable in Hokkaido. Many areas have high capacity in mountainous regions in the Tohoku and Kyushu regions. In this

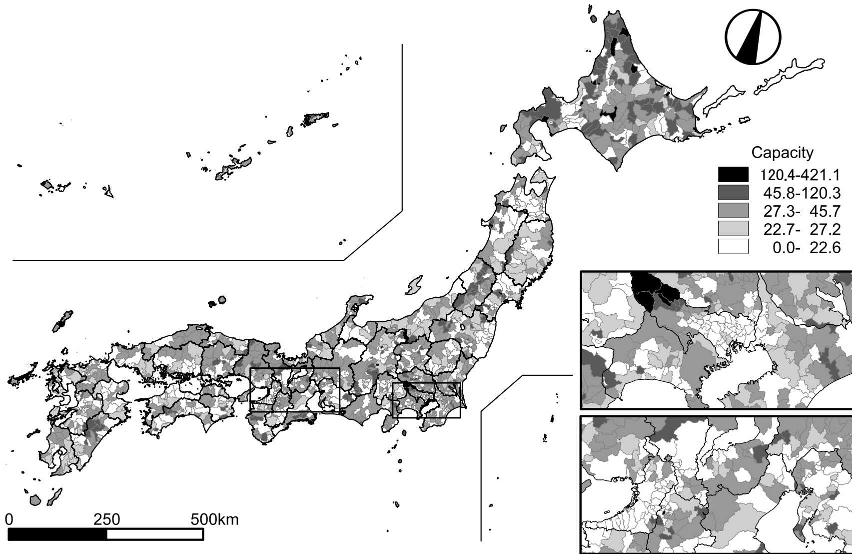

Fig. 12 Capacity of welfare facilities for elderly persons per 100 population of first category insured persons certified as care level 3 or higher (2014). Insurers from whom data could not be obtained are treated as 0 (Created based on Survey of Institutions and Establishments for Long-term Care and Annual Status Report on the Long-Term Care Insurance System. Reprinted from Sugiura 2017b with permission of Akashi Shoten)

way, areas with a high level of capacity are concentrated in provincial areas. However, it is characteristic of metropolitan areas that the Okutama region of western Tokyo shows a high value. Facilities have been actively developed in the Okutama region for a long time to service residents of urban areas, such as special wards of Tokyo. The reason is that it was difficult to develop facilities in urban areas because of high land prices.

It is readily apparent that many areas in Japan have no facility. Such areas are small towns and villages. The main reason that facilities have not been developed is that the demand size is insufficient to operate a welfare facility for elderly people as a business even when including neighboring municipalities. If one facility is located in a municipality in this manner, then it is reasonable to expect that a certain number of residents shall enter the facility. As a consequence, long-term care insurance benefits and expenses can be expected to rise, which might cause a surge of long-term care insurance premiums. For this reason, facilities are not developed in many cases.

3.3 Community-Based Long-Term Care Services

As of 2018, community-based long-term care services consist of nine types of long-term care insurance benefits and preventive benefits of three types (Table 1). These

services present differences according to their geographical distribution. Based on an analysis conducted by Hatakeyama (2017), we consider regional differences in the services.

Community-based long-term care services are new services established by the revision of the long-term care insurance system in 2006. The purpose for which the service provision was newly established was to guarantee, as much as possible, that an increasing number of elderly people with dementia or those living alone would be able to continue to live in the community with which they are familiar. A characteristic of the services is that municipalities, which are closest to residents, have the authority to designate, instruct, and supervise providers. That is, the services are of importance in the community-based integrated care system which municipalities must build according to the initiative.

A Survey of Institutions and Establishments for Long-term Care revealed that, as of October 2016, the number of centers for community-based adult day care (21,063) is the highest among community-based services. Although community-based adult day care had been positioned as home-based care services, small-scale services with a capacity of 18 people or less were positioned as community-based services in 2016. The number is followed by the institution-based type of group home for people with dementia (13,069), home-based type of small-scale multifunctional home-based care services (5,125), and home-based type of adult day care for persons with dementia (4,239).

To clarify regional differences in community-based long-term care services, we calculated coefficients of variation from the number of centers per person in need of care for each long-term care insurer (Table 3). The service with the lowest coefficient of variation is the group home for people with dementia (0.73); other services had a

Table 3 Differences between insurers in the number of centers for community-based long-term care services per person certified as needing care

Service name	Coefficient of variation	Percentage of insurers who have not yet established the services
Night time home care	5.20	91.7
Small-scale multifunctional home-based care services	1.93	37.0
Group home for people with dementia	0.73	9.6
Community-based specified facility care	4.28	89.4
Day care services for people with dementia	1.41	41.7

Only five services, those from which detailed data by insurers were obtained, are compared. Data for 2015 are used for group homes for people with dementia. Data for 2016 are used for other services (Created based on Database of Housing for the Elderly and Database of Home-based Long-term Care Services by Tamura Planning & Operating, Inc. and Monthly Status Report on the Long-Term Care Insurance System. Reprinted from Hatakeyama 2017 with permission of Akashi Shoten)

coefficient of variation exceeding 1. Particularly, the value exceeded 4 for night time home care and community-based specified facility care. As described, considerably numerous large regional differences in community-based long-term care services because many long-term care insurers do not institute community-based long-term care service centers. The percentage of insurers who have not yet established services is 9.6% for the group home for people with dementia, which is the lowest; it exceeds 30% for other services (Table 3). Approximately 90% of long-term care insurers of night time home care and community-based specified facility care have not yet established services. In this way, large differences prevail among services in terms of the percentage of long-term care insurers who have not yet established services.

Group homes for people with dementia and small-scale multifunctional home-based care services are on a steeply increasing trend among community-based long-term care services and have a low percentage of insurers who have not yet established the services. With regard to them, Figs. 13 and 14 present the number of centers per 100,000 population of persons certified as being in need of care by long-term care insurers. The group home for people with dementia is a service to provide specialist care for users with dementia. In the service, a small number of users live in a group home with specialists. Small-scale multifunctional home-based care services are a service that provides support for everyday life and functional training to enable users

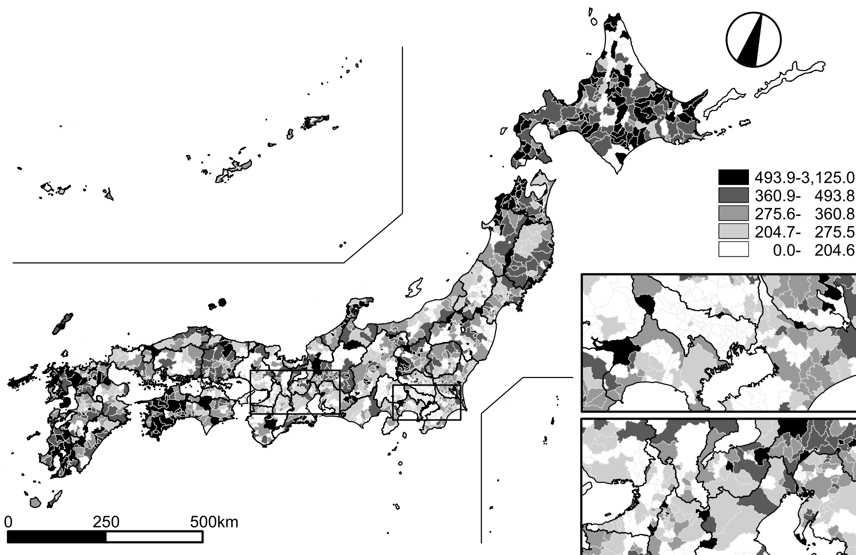

Fig. 13 Number of centers for the group home for people with dementia per 100,000 population of persons certified as needing care (2015). Insurers from whom data could not be obtained are treated as 0 (Created based on Database of Housing for the Elderly by Tamura Planning & Operating, Inc. and Monthly Status Report on the Long-Term Care Insurance System. Reprinted from Hatakeyama 2017 with permission of Akashi Shoten)

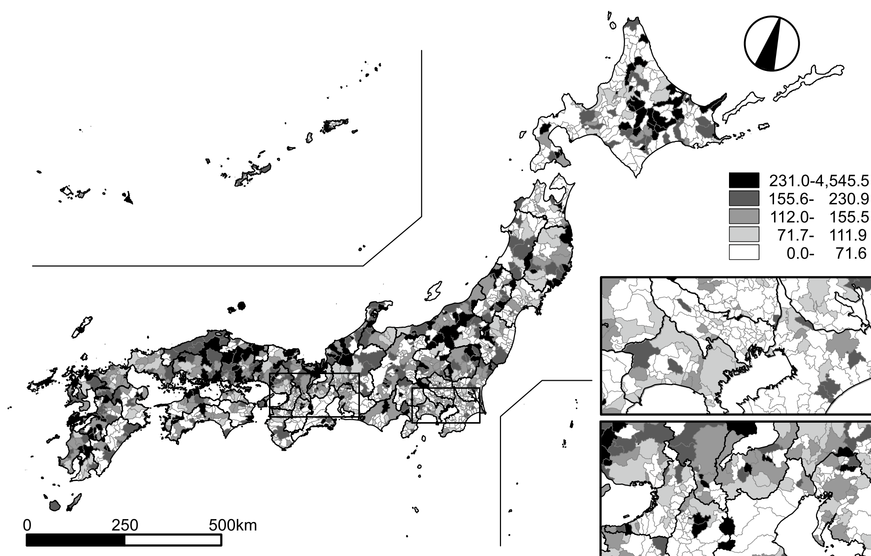

Fig. 14 Number of centers for small-scale multifunctional home-based care services per 100,000 population of persons certified as needing care (2015). Insurers from whom data could not be obtained are treated as 0 (Created based on Database of Home-based Long-term Care Services by Tamura Planning & Operating, Inc. and Monthly Status Report on the Long-Term Care Insurance System.Reprinted from Hatakeyama 2017 with permission of Akashi Shoten)

to live everyday life as independent as possible, combining outpatient services, home services, and short-term stay services according to the user's choice.

Figures 13 and 14 show that a few centers exist in the Tokyo metropolitan area and the Kyoto–Osaka–Kobe metropolitan area in both services, although many centers exist mainly in underpopulated areas in Hokkaido and the Tohoku, Chugoku, Shikoku, and Kyushu regions. However, in small-scale multifunctional home-based care services where the percentage of insurers who have not yet established the services is 37.0%, many insurers have not yet established services in underpopulated areas in Hokkaido, the Tohoku, Chubu, Shikoku, and Kyushu regions, and southern Kinki. That is, in underpopulated areas, many cases exist in which services have not been established. However, once they are established, the degree of satisfaction can be expected to be high compared to those for metropolitan areas because the population is small. As explained earlier, regional differences in community-based long-term care services are large between metropolitan areas and underpopulated areas in non-metropolitan areas and between insurers who have and those who have not yet established services in underpopulated areas.

Similarly to home-based care services, many private business operators have entered community-based long-term care services. The entry of for-profit corporations is particularly noticeable. As of 2015, the percentage of centers established

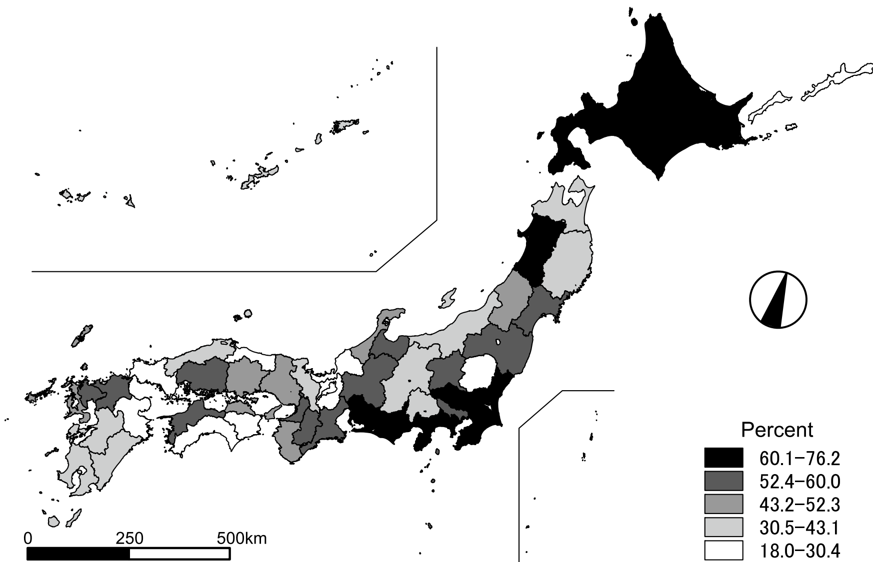

Fig. 15 Percentage of centers run by for-profit corporations in the group home for people with dementia (2015) (Created based on Survey of Institutions and Establishments for Long-term Care. Reprinted from Hatakeyama 2017 with permission of Akashi Shoten)

by for-profit corporations exceeded 40% in night time home care, small-scale multi-functional home-based care services, group homes for people with dementia, and community-based specified facility care.

Group homes for people with dementia have numerous centers in community-based long-term care services and a high percentage of for-profit corporations, accounting for 53.6% (2015). Figure 15 presents the percentage of for-profit corporations by prefecture with regard to group homes for people with dementia. From that figure, it is apparent that the values of prefectures located in metropolitan areas are generally high. In addition, a trend exists by which the values are high in eastern Japan and low in western Japan. The former is true because many for-profit corporations entered service in metropolitan areas with prospects of large-scale demand. Particularly, the percentage exceeds 70% in Saitama and Chiba prefectures. However, the latter is true because many medical corporations entered service mainly in the Chugoku, Shikoku, and Kyushu regions in western Japan. It is a characteristic of western Japan that medical corporations have a strong base. A similar trend was observed in the service of long-term care insurance benefits.

In community-based long-term care services, municipalities were expected to have the authority to designate providers, which made it possible to set the amount of service supply based on long-term care insurance planning by municipalities. However, regional differences in services are large. Furthermore, quite a few insurers have not yet established services. Two reasons exist for these discrepancies. One is the case in which a goal for the development of facilities was not set in long-term

care insurance planning in the first place. The other is the case in which providers were less willing to enter because of the small demand, although having set a goal for the development of facilities.

In community-based long-term care services, although municipalities became able to designate providers with the enhanced authority, the effect has not been demonstrated. Particularly, different problems have arisen in areas on both ends of the spectrum: services have not been established in underpopulated areas; moreover, the services are in short supply in metropolitan areas.

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