

Dual community-based care innovations in a super-aged population: The role of Small-scale Multifunctional In-home Care and Nursing Small-scale Multifunctional In-home Care in Japan

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SUMMARY: With the accelerating trend of population aging, Japan has become the first country to enter a "super-aged society", where the proportion of people age 65 and over exceeds 21%, making it a global model in addressing aging-related challenges. In response to the various social and healthcare issues arising from this demographic shift, the Japanese Government has implemented a series of policy measures. Among them, "Small-scale Multifunctional In-home Care (Shotaki)" and "Nursing Small-scale Multifunctional In-home Care (Kantaki)" have emerged as key components of the community-based care system. This paper explores the common challenges faced in super-aged populations and provides a comparative analysis of the functions, current status, existing issues, and future prospects of "Shotaki" and "Kantaki". By examining these two service models, the study aims to offer policy recommendations and practical insights to build a sustainable elderly care system.

Keywords: long-term care insurance, community-based integrated care, population aging policy, innovations in service delivery, home- and community-based services (HCBS)

1. Introduction

Japan became the world's first country to have a "super-aged population" in 2007, when the proportion of people aged 65 and over exceeded 21%. Since then, population aging has continued to intensify. According to the 2025 White Paper on an Aging Society, as of October 1, 2024, Japan had 36.24 million people age 65 and over, accounting for 29.3% of the total population (1). Of those, people age 75 and over accounted for 16.8%. By 2025, the entire baby boomer generation will have reached the age of 75 and over, causing what is commonly referred to as the "2025 Problem (2)". Moreover, as of March 2022, 6.9 million individuals had been certified as requiring long-term care or support, reflecting a 3.2-fold increase from the level in 2000 (3). In response to these significant demographic shifts, Japan has been actively promoting the establishment of a Community-based Integrated Care System and has expanded various forms of in-home support services (4).

Since the introduction of the Long-term Care Insurance system in Japan in 2000 (5), various forms of

care services have been developed, including home visits, outreach services, and institutional care. In 2006, with the revision of the Long-term Care Insurance Act, the Small-scale Multifunctional In-home Care service was established. Targeting groups of fewer than 29 individuals, this model integrates day care, short-term stays, and home visits into a comprehensive 24-hour service centered on "frequent community-based interaction", aiming to support older adults in continuing to live at home (6). However, the original design of the system focused on providing daily living support rather than medical care, which has led to certain limitations in accommodating older adults with high medical dependency.

In response to the increasing severity of care needs and the growing demand for medical support, Japan institutionalized the Nursing Small-scale Multifunctional In-home Care service (formerly known as "comprehensive services") in 2012 (7). By integrating home-visit nursing, this service has been positioned as a community-intensive care model, capable of accommodating patients with higher levels of medical dependency. Currently, both "Small-scale Multifunctional In-home Care (Shotaki)"

and "Nursing Small-scale Multifunctional In-home Care (Kantaki)" are increasingly recognized as core pillars of Japan's community-based long-term care system. This paper explores the common challenges faced in super-aged populations and provides a comparative analysis of the functions, current status, existing issues, and future prospects of "Shotaki" and "Kantaki". By examining these two service models, the study aims to offer policy recommendations and practical insights to build a sustainable elderly care system.

2. Key issues in a super-aged population

2.1. Rising national long-term care expenditures and increasing demand for at-home services and the growing demand for living at home

According to the 2023 Survey on the Actual Status of Long-Term Care Benefits by the Ministry of Health, Labour, and Welfare of Japan (8), the total number of individuals receiving preventive and long-term care services reached 67.08 million, representing a 1.9% increase compared to 2022. Of these, 10.81 million received preventive care services, while 56.29 million utilized long-term care services. These figures underscore the growing demand for care services among the elderly population. Correspondingly, national expenditures on long-term care benefits have continued to rise, representing a 2.9% increase compared to 2022. In terms of service types, notable increases in the number of service recipients were observed in at-home services (up 2.0%), home care support (up 1.2%), and community-based intensive services (up 1.5%), all of which exceeded the growth in facility-based services (up 0.6%). This trend indicates a growing preference among older adults for receiving care in familiar home environments rather than institutional settings, highlighting the increasing need for at-home care services.

2.2. Changes in family structure

Japan's family structure has undergone significant changes in recent decades, with a marked increase in the number of elderly people living alone. As of 2023, households with at least one member age 65 or older accounted for 49.5% of all households (9). Nearly one-third consisted solely of elderly couples or individuals living alone. This demographic shift has raised concerns about the physical, emotional, and social support needs of older adults living independently. At the same time, there is a growing preference among the elderly to spend their final days at home. According to the 2017 national survey on end-of-life medical care preferences, over 43.8% of respondents expressed a desire to die at home (10). This trend reflects an increasing inclination among older adults to seek comfort and dignity in familiar surroundings rather than in institutional settings.

Consequently, establishing sustainable, individualized home- and community-based care systems has become a critical challenge for healthcare and social support services. Addressing this issue is essential to achieving the goal of "aging in place" and ensuring quality of life in the final stages of life.

2.3. Rising mortality and the urgent challenge of end-of-life care

Japan is entering an era when it is often referred to as having "a population with an exceedingly high mortality", characterized by a continuous rise in annual deaths. In 2024, the number of deaths reached 1,605,298, an increase of 29,282 compared to the previous year. The mortality rate also rose from 13.0% in 2023 to 13.3% (11). The number of deaths is projected to increase to 1.6 million by 2030, peaking at 1.68 million in 2040 (12). This demographic trend underscores not only the accelerating aging of the population but also the growing demand for end-of-life and palliative care services. As shown in Figure 1, the number of Nursing Small-scale Multifunctional In-home Care (Kantaki) facilities has also been increasing year by year. However, ensuring appropriate and dignified end-of-life care for a growing elderly population presents substantial challenges. Hori *et al.* (13) warned that providing adequate care for all elderly individuals in their final stage of life will become increasingly difficult. Following the issue of so-called "care refugees (14)" — elderly individuals unable to access necessary long-term care — concerns have now shifted toward the emergence of "palliative care refugees", referring to those unable to receive proper end-of-life care. Japan now faces a dual crisis: the urgent need to reform care systems for frail older adults in a super-aged population with a declining birthrate, and the development of a comprehensive and inclusive framework for end-of-life care in the face of rising mortality. Addressing these challenges will require coordinated efforts among government agencies, healthcare facilities, and community-based services to ensure that all individuals can experience a peaceful, dignified, and well-supported end of life.

2.4. The increase in the number of patients with Alzheimer's disease (AD)

AD is a neurodegenerative disorder that affects millions worldwide and is expected to surge in prevalence due to aging populations (15). As Japan's population becomes even more super-aged, the number of people living with dementia has been steadily increasing. According to the Ministry of Health, Labour, and Welfare (16), as of 2022, approximately 4.43 million individuals age 65 and older had dementia, accounting for 12.3% of the elderly population. By 2060, this number is expected to exceed 6 million, accounting for more than 17% of the elderly

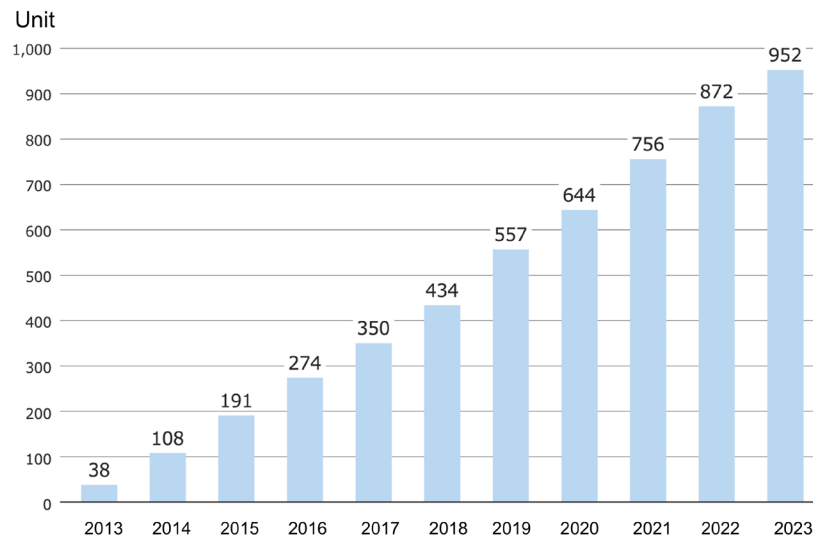


Figure 1. Trends in the number of Nursing Small-scale Multifunctional In-home Care (Kantaki) facilities. (Data Source: Ministry of Health, Labour, and Welfare. <https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/0000091038.html>).

population and posing a substantial challenge to the country's long-term care system. Against the backdrop of policy initiatives promoting "an inclusive society" (17), "Shotaki" and "Kantaki" have been positioned as key service models to facilitate community-based living for people with dementia. Although these care modalities have helped to facilitate living at home, significant limitations remain in terms of service coverage, professional capacity, and responsiveness to acute-phase needs. Facilities are disproportionately concentrated in urban areas, leaving rural and depopulated regions underserved. Moreover, "Shotaki" lacks the medical and nursing infrastructure necessary to manage the complex care requirements of individuals in moderate to severe stages of dementia — particularly in the management of behavioral and psychological symptoms of dementia (BPSD), medical decision-making, and end-of-life support. While "Kantaki" integrates nursing services, it frequently suffers from workforce shortages that hinder the delivery of high-intensity, continuous care (18). These gaps highlight the need for systemic reforms and strategic allocation of resources to meet the growing and diversified care demands of dementia patients.

2.5. The prevalence of severe frailty among the elderly

The influence of frailty on the health of the elderly has been a hot topic in recent years. As a dynamic and reversible geriatric syndrome, it has become one of the important public health problems emerging around the world (19). Based on a survey utilizing nursing care data, the health status of older adults across different age groups was examined, with a focus on identifying the major disease-related causes of health deterioration. The results indicated that, among the late-stage elderly population age 75 and over, the leading cause of requiring long-

term care in 2019 was dementia, accounting for 22.2% of cases. This was followed by age-related frailty, which constituted 16.5% (20). Frailty is a geriatric syndrome characterized by a multisystem physiological decline, increased vulnerability to stressors, and adverse clinical outcomes (21), which has led to a greater reliance on life care services. In terms of policy, "Shotaki" and "Kantaki" are considered particularly suitable for providing individualized and continuous support and health management for frail older adults. This facilitates the early detection of frailty symptoms, health education, and preventive interventions. In practice, however, "Shotaki" and "Kantaki" often fall short of meeting the complex needs of the frail elderly population. Moreover, there is a lack of systematic assessment tools (22) and evidence-based intervention guidelines for frailty (23), hampering the implementation of effective early-stage management.

3. Current Status of "Shotaki" and "Kantaki"

Differences between "Shotaki" and "Kantaki" are summarized in Table 1. As of April 2023, data from Japan's Ministry of Health, Labour, and Welfare showed that there were 994 "Kantaki" facilities nationwide, a considerably smaller number compared to 5,523 "Shotaki" facilities (24). The expansion of "Kantaki" facilities in urban areas in particular has been hindered by challenges such as attracting qualified medical personnel and concerns over operational profitability, as shown in Figure 2. A nationwide survey conducted in 2020 revealed that the number of "Kantaki" facilities was positively correlated with the number of "Shotaki" facilities, visiting nursing care providers, the total population, and population density but negatively correlated with the regional aging rate (25). This suggests that "Kantaki" facilities are more likely to be established

Table 1. The differences between "Small-scale Multifunctional In-home Care (Shotaki)" facilities and "Nursing Small-scale Multifunctional In-home Care (Kantaki)" facilities

Variable	"Shotaki" facilities	"Kantaki" facilities
Services provided	Daytime services, care, short-term accommodation	In addition to the aforementioned services, home care services are also provided
Participants	The elderly population with moderate-level care needs	Elderly people requiring medical care (such as intravenous injections, suctioning, and hospice care)
Medical treatment	Medical treatment is limited, so home nurses are provided through external cooperation.	There is always a nurse on-site who can provide immediate medical treatment.
Nurse allocation	Not necessary (can cooperate with external visiting nurses)	Mandatory deployment of at least 2.5 full-time nursing staff
Legal basis	Long-term Care Insurance Act (regional services)	Same as above (classified as comprehensive services)
Characteristics	Places great importance on family-style support and connections with the community	Provides integrated medical and nursing services

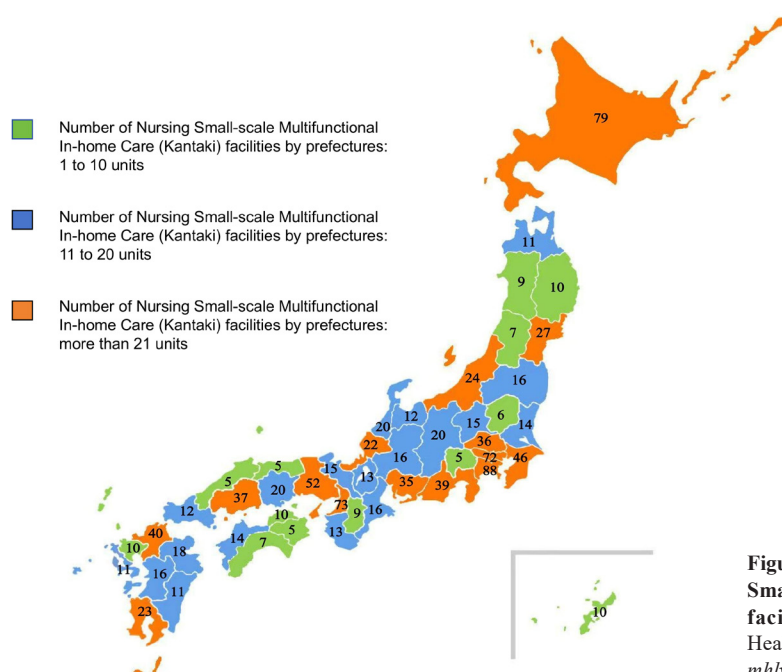


Figure 2. Distribution map of the number of Nursing Small-scale Multifunctional In-home Care (Kantaki) facilities by prefectures. (*Data Source:* Ministry of Health, Labour, and Welfare. <https://www.kaigokensaku.mhlw.go.jp>, as of July 2, 2025).

in densely populated urban areas rather than in regions with higher elderly population ratios. In sparsely populated areas, difficulties in recruiting staff and higher per-capita service delivery costs may act as significant barriers to implementation. Moreover, the survey also pointed out that many smaller municipalities still lack even a single "Kantaki" facility, reflecting a service coverage gap. Both "Kantaki" and "Shotaki" facilities face the issue of "implementation voids", as pointed out in a study by Kamiwada *et al.* (26). Such facilities have yet to be established in, many regions.

4. Problems with "Kantaki"

4.1. Limited awareness of "Kantaki"

A survey of community residents revealed a generally

low level of awareness regarding "Kantaki". As many as 63.3% of respondents indicated that they had "never heard of it", highlighting a significant gap in public recognition of this service (27). However, among those who were aware of "Kantaki", approximately half expressed a willingness to use it, suggesting that there remains substantial latent demand for this type of care. Moving forward, exploring strategies to enhance public awareness will be essential — clarifying what "Kantaki" facilities are, what services they offer, and how they can serve as a viable option for those in need of medical and long-term care within the community.

4.2. Insufficient nursing staff

The stagnation in the promotion of "Kantaki" services is not solely due to limited awareness among users but

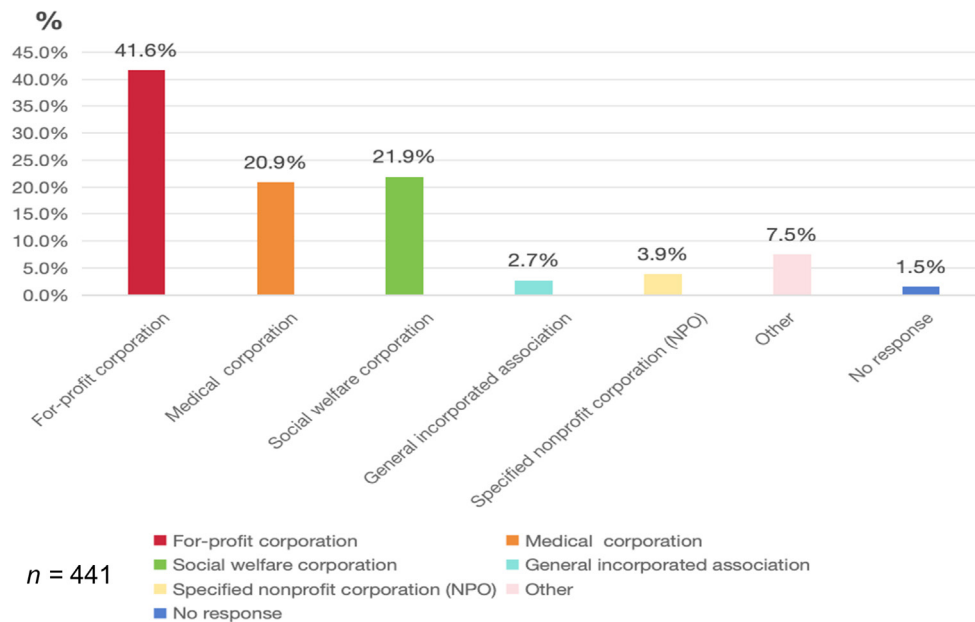


Figure 3. The operation of Nursing Small-scale Multifunctional In-home Care (Kantaki) facilities. (Data Source: https://www.murc.jp/wp-content/uploads/2024/04/koukai_240425_13.pdf).

also reflects limited understanding among healthcare professionals themselves, as well as a shortage of personnel with the flexibility and adaptability required for this type of care (28). In this new service model, how nurses should practically provide care remains unclear, making it a critical issue to address. Insufficient nursing skills have been associated with difficulties in handling complex tasks such as adjusting care plans or prioritizing needs, contributing to reduced self-efficacy among nurses (29). In reality, "Kantaki" nurses are required to provide a wide range of services, including assessing the necessity of medical consultations, responding to emergencies, and flexibly coordinating care arrangements. One study has indicated that nurses working in "Kantaki" facilities tend to experience low levels of self-efficacy (30). Improving nursing skills not only enhances professional autonomy but also helps increase nurses' self-efficacy (31). To promote the wider adoption of "Kantaki" services, nurses need to fully understand the scope of services they are expected to provide, their professional identity needs to be established, and their practical competencies need to be enhanced. Moreover, in order to improve job satisfaction and support the advancement of "Kantaki" services, tailored education and training programs should be developed based on the specific needs and capabilities of each facility. As a practical approach, online training programs to enhance nursing skills could be implemented, serving as a foundation for building a regionally based nursing support system.

4.3. Operational challenges

The operation of "Kantaki" services is primarily

undertaken by five types of legal entities: for-profit corporations, medical corporations, social welfare corporations, general incorporated associations, and specified nonprofit corporations (NPOs), as shown in Figure 3. Among these, for-profit corporations account for the largest share and constitute the main providers of "Kantaki" services. This distribution reflects the active involvement of private-sector entities in the expansion of community-based care and underscores the need for robust quality management and mechanisms of regulatory oversight.

According to Katahira *et al.* (32), one of the primary challenges faced by "Kantaki" services lies in the demanding nature of their operational structure, and particularly the need to manage irregular and overnight shifts. These burdens often result in persistent difficulties in attracting and retaining adequate care personnel. Such staffing shortages not only increase the workload of frontline workers but also jeopardize the quality and continuity of care, thereby threatening the sustainability of facility operations. To ensure the stable management of "Kantaki" services, a robust staffing system needs to be established, especially with regard to overnight care, which can effectively reduce the burden on caregivers, improve job satisfaction, and foster healthier working conditions. As Hayama *et al.* (33) have also emphasized, the development of care organizations depends not only on innovative service models but also on the establishment of a solid institutional framework. The overnight care system in particular serves as a critical "lifeline" for operational stability and should be prioritized in both policy design and workforce development. Future efforts should therefore focus on enhancing institutional

support for night-shift care systems to ensure service continuity, safety, and professionalism.

4.4. Multi-role integration

"Kantaki" facilities rely heavily on multidisciplinary collaboration involving nurses, care workers, rehabilitation therapists, visiting physicians, and care managers to deliver integrated and person-centered care. However, due to differences in professional backgrounds, role recognition, and the lack of structured communication systems, collaboration among these professionals is often fragmented. For instance, discrepancies between nurses and care workers regarding the assessment of clients' health status or emergency responses can hinder care continuity and service integration (32).

Moreover, many "Kantaki" facilities operate on a small scale and often lack dedicated care coordinators, which further impedes the timely sharing of information and role clarity within the team. A study has emphasized that clear delineation of professional roles, regular multidisciplinary meetings, and shared documentation systems are essential for effective team-based care and for meeting the individualized needs of frail older adults (34). To enhance the quality and consistency of care, crucial tasks are to promote interprofessional education, establish collaborative training programs, and implement digital platforms for the seamless exchange of information. Systematic approaches to coordination will be critical in enhancing the ability of multidisciplinary teams to respond to the growing complexity of geriatric care needs in community settings.

5. Expectations and challenges for the future

"Kantaki" plays a central role in Japan's community-based integrated care system, offering coordinated services such as day care, short-term residential care, at-home nursing, daily living support, and basic medical care. As the country becomes home to a super-aged population with a high mortality, "Kantaki" will be increasingly essential to facilitate "aging in place" and provide end-of-life care. However, significant challenges remain in expanding and optimizing its implementation.

A persistent shortage of human resources remains a critical bottleneck in the development of "Kantaki". This challenge is particularly acute in small and mid-sized localities, where the recruitment of qualified nurses, physicians, and interdisciplinary care professionals is often difficult, compromising the sustainability of service provision. As a central pillar of the "Kantaki" system, the nursing profession contributes not only to the delivery of medical care but also plays a vital role in interdisciplinary collaboration, end-of-life support, and community building. Going forward, an essential task will be to strengthen the social foundation that maximizes the potential of "Kantaki" through the enhancement of

nursing education, institutional reforms, and regional cooperation.

Despite its emphasis on multidisciplinary teamwork, "Kantaki" facilities frequently encounter operational challenges such as ineffective communication, unclear demarcation of roles, and insufficient mutual understanding among professionals, which limit the effectiveness of integrated service delivery. In response, the utilization of information and communication technologies (ICT) may offer solutions by enabling real-time visualization and efficiency-oriented management of care processes.

Moreover, significant regional disparities in facility distribution remain evident. While urban areas have made steady progress in establishing "Kantaki" services, development in sparsely populated regions has lagged due to higher operational costs and workforce shortages, resulting in persistent care "gaps". To address this, policy efforts should aim to implement incentive mechanisms that promote the equitable development of services across regions, particularly by supporting the establishment and sustainable operation of facilities in underserved areas.

Through the integrated implementation of these measures, "Kantaki" is expected to play an increasingly vital role in Japan's future elderly care system, helping to provide accessible, continuous, and person-centered community care.

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