"Let's take out the trash!"

A guidebook for local governments and CBOs to support elderly people

About the Second Edition (English version)

The original Japanese version of this guidebook was developed to help Japanese local authorities design and operate programs to support the elderly taking out their trash, based on our studies on the challenges of waste management in a super-aged society undertaken since 2012. As we realized that the issues of an aging society are not unique to Japan, we decided to edit and translate the original Japanese version into a new English version for the international audience. Most of the contents have been translated without any update or correction from the first edition. Readers should be aware that some parts of this Guidebook may only apply to the Japanese context.

About National Institute for Environmental Studies

The National Institute for Environmental Studies (NIES) is the only national institute in Japan conducting a broad range of interdisciplinary, integrated environmental research. Since its establishment in 1974, NIES has played the pivotal role in solving various environmental problems.

Preface: Waste management and an aging society

Development of waste management systems that reflect an aging population is a pressing need, in terms of both policy-making and infrastructure improvement. The wide range of issues related to this topic include helping elderly people who find it difficult to take out the trash (the subject of this Guidebook), treatment of wastes from medical care in the home, recycling of used adult diapers, disposing of large quantities of personal items that have been left behind, dealing with "hoarder houses" full of waste (a typical issue in senior households), and renewal of waste-treatment facilities in response to decreasing populations. Policies are required that consider the welfare of the elderly, in addition to the traditional concerns of proper treatment of wastes and the "3 Rs" (reduce, reuse, recycle). One of our important missions at the National Institute for Environmental Studies involves identifying new challenges arising from contemporary changes, carrying out research and studies to help resolve those challenges, and disseminating our findings to the greater society.

The core issue behind taking out the trash by the elderly is that more and more elderly people who need support in this household task are not getting it, in the face of the aging of society and increasing numbers of nuclear (one- and two-generation) family households. We have been working on this challenge since 2012 through means that include ascertaining the state of efforts by local governments through national surveys, interviewing municipalities that operate unique support programs, and interviewing senior households and conducting surveys of wastes with the cooperation of neighborhood associations in the city of Tsukuba, where the Institute is located. We have come to realize that helping the elderly to dispose of waste will not only ensure that waste is reliably collected from their households, but also improve their quality of life and help prevent isolation. In addition, many of the local governments and businesses interviewed described how their efforts have made waste collection operators feel more pride in and motivation for their work. These efforts also can be expected to foster trust in waste management businesses as a whole through their contributions to social welfare. Furthermore, these efforts could also help promote stronger community ties, create safer and more comfortable places to live, and revitalize local communities.

Aging societies with low birth rates will need to implement high-added-value initiatives given the limits of their resources. Local governments need to not only consider how to improve public services, but also strike a balance between such measures and related costs. This Guidebook is based on scientific research, and is filled with the creativity and expertise of the members of Japanese local governments surveyed in our research. We will be gratified if this Guidebook can contribute to the design and operation of waste collection systems that are highly effective for both those providing support and those receiving it.

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1 Background and goals of this Guidebook

1.1 Issues related to taking out the trash by the elderly

By 2035, one in three members of the population will be elderly

Japan is now a "super-aged" society, with the largest proportion of people aged over 65 ("elderly" hereafter) in the world. In 2016, the elderly percentage of the population stood at 27.3%, meaning that one in four people in Japan was an elderly person. Estimates are that by 2035, one in three people in Japan will be elderly (Fig. 1, Table 1).

Aging of the population affects a wide range of fields, and it is essential to respond to and prepare for these effects quickly. Issues in the area of waste management include the need to provide support to elderly people who find it difficult to take out the trash, as well as treatment of wastes from medical care in the home, used adult diapers, and other sources.
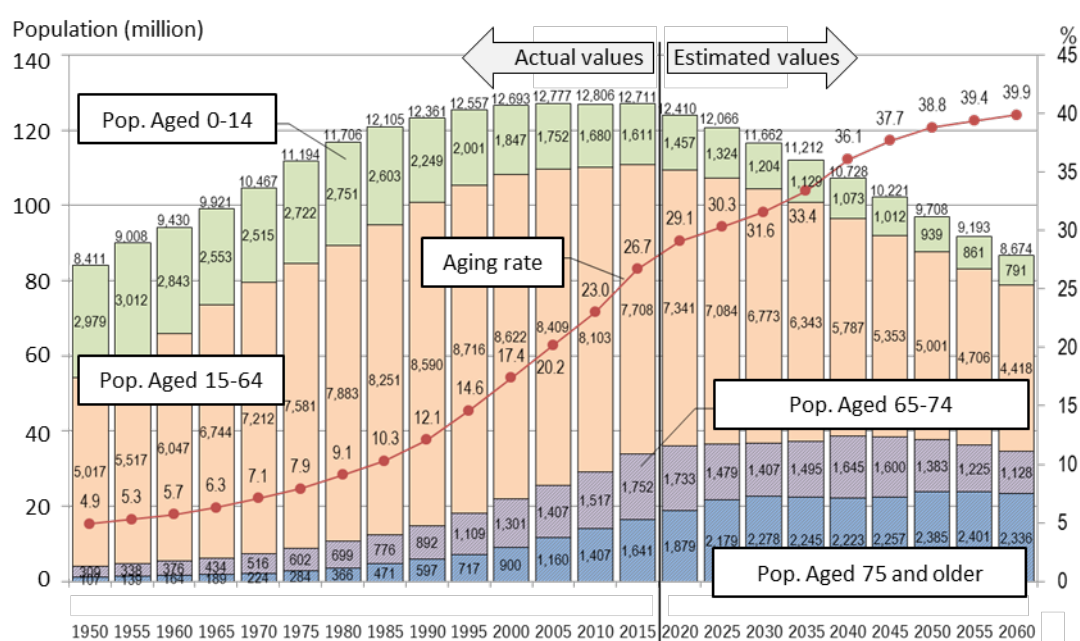
Source: Annual Report on the Aging Society 2016 [1], translated by the authors

Fig. 1 Historical and projected population trends in Japan

Table 1 Statistical data for Japan, a super-aged society

Indicator	Value (thousands)	percentage	Source
Total pop.	126,937	100.0 (%)	Ministry of Internal Affairs and Communications：Population Estimates (final figures as of November 1, 2016) [2]
Aged 65 and older	34,633	27.3	
Aged 75 and older	16,960	13.4	
Certified to require long-term care or assistance	6,292	5.0	Ministry of Health, Labour and Welfare: Report on the Long-term Care Insurance Project (Preliminary Edition, January 2017) [3]
Total households	50,361	100.0 (%)	Ministry of Health, Labour and Welfare: Comprehensive Survey of Living Conditions (2016 [4]
Household consisting of elderly aged of over 65	12,714	25.2	
Single households of person aged over 65	6,243	12.4	

Column 1: How old is elderly?

Most countries, including Japan, classify people aged 65 and older as elderly. Japan's Act on Social Welfare for the Elderly, enacted in 1963, specifies that those aged 65 and older are eligible for welfare programs for the elderly. However, while the average lifespan in 1963 was 67.21 years for men and 72.34 years for women, these numbers had increased by more than 10 years as of 2015, to 80.75 years for men and 86.99 years for women [5].

The Japan Gerontological Society and the Japan Geriatrics Society have recommended changing the definition of elderly to those aged 75 and older, categorizing those aged 65-74 as quasi-elderly, those aged 75-89 as elderly, and those aged 90 and older as super-elderly [6]. They argued that compared with 10-20 years ago, today's elderly have physical and mental functions comparable to those of people 5-10 years younger, and in particular most of those in the early elderly ages of 65-74 retain their physical and mental health and are active in society.

Many people older than 65 or 75 continue to work and play active parts in their communities. It is expected that in the future, the elderly will not be defined by age alone and healthy elderly people will put their life experiences and skills to full use by actively supporting society.

Waste collection in Japan: An overview

In Japan, local governments are responsible for the collection, treatment and disposal of municipal household waste, and the rules on segregating and taking out wastes differ from municipality to municipality. Citizens are required to sort their waste according to the local rules and take it out at a designated time to a designated place. Recyclables are included in this as part of the waste collection. Most municipalities distribute calendars to residents showing the dates of waste collection (Fig. 2).

There are two types of waste collection methods: door-to-door collection from each individual household and collection from waste collection points shared by multiple households. More than 70% of local governments in Japan use the latter method (for combustible household waste, according to survey data by the Ministry of the Environment in 2016). The waste collection points are managed and maintained by the residents, including daily cleanup. Neighborhood associations commonly play a major role in setting up new collection points and coordinate the duty of cleaning among residents.

Fig. 2 An example of a waste collection calendar

Structure of issues related to taking out the trash by the elderly

The essential issue related to taking out the trash by the elderly is that increasing numbers of elderly people find it difficult to take out the trash but are unable to receive the support they need (Fig. 3) [7].

The social factors behind this issue include aging of the population, increasing numbers of nuclear families, and weakening community ties. One-fourth of all households in Japan consist only of elderly people, and one-eighth consist of a single elderly person (Table 1). These numbers are increasing from year to year. In addition, the number of people certified under the long-term care insurance system as requiring long-term care or assistance has risen to 6.29 million. Among the households that include these people, 50.9% consist only of elderly people and 27.4% are single-person households [8]. This means that about one-fourth of elderly people who require long-term care or assistance in everyday living live alone, and another one-fourth live in situations in which both the recipient and provider of care are elderly. While in the traditional multigenerational household, the younger generation provides support in the home for the elderly generation, as more households consist of a single elderly person, more elderly people must take out the trash themselves. In addition, the traditional practice of mutual assistance in which neighborhood residents help the elderly with routine tasks such as taking

out the trash and shopping is decreasing, especially in urban communities. Thus, issues related to taking out the trash by the elderly are coming to the fore as traditional self-help and mutual assistance practices weaken.
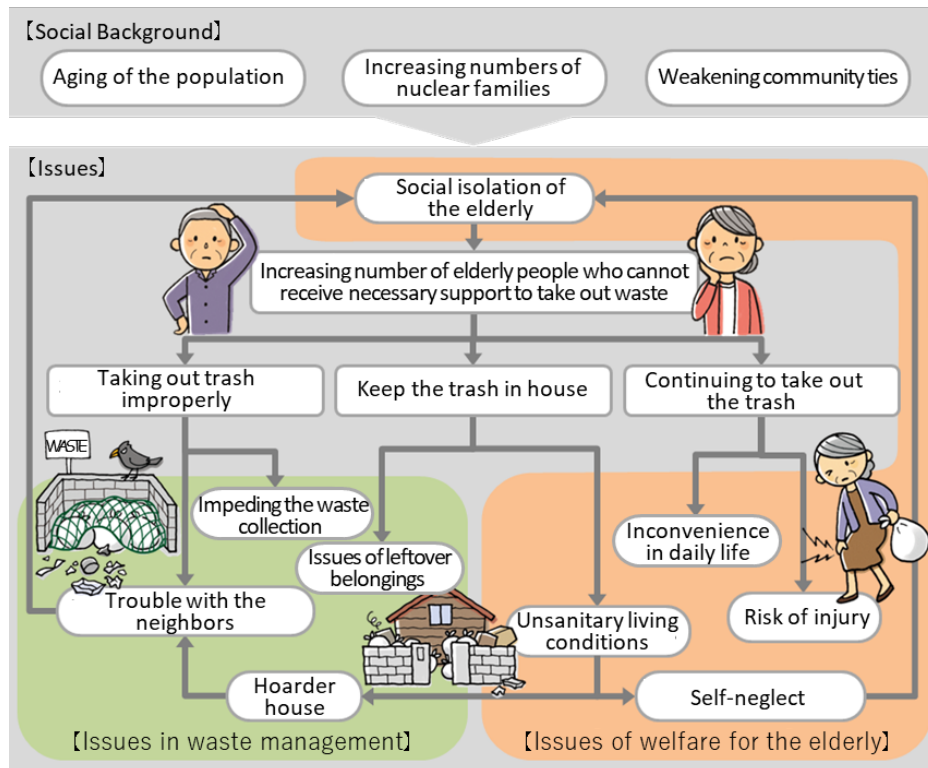
Fig. 3 Issues related to taking out the waste by the elderly

What happens with age? Three possible consequences

As people grow old, they start to find it difficult to move in the same way they used to, due to reduced muscular strength, lower back pain, osteoporosis, or other physical problems. Related conditions, such as a general physical weakening and arthritic rheumatism, make it difficult to carry a trash bag. Furthermore, the onset of dementia can make it difficult to remember the rules for segregating and disposing of wastes. These burdens increase when the collection location is farther away or when elderly people live in buildings with no elevator.

Although some elderly people receive assistance in everyday living from a visiting nurse provided by long-term care insurance or from family members who come to help, some are isolated and receive no assistance at all. In light of such differences, the inability to take out the trash by elderly people can lead to three different consequences: a) storing the trash in the house, b) taking out the trash improperly, and c) continuing to take out the trash even though it is too difficult.

a) Storing the trash in the house

If an elderly person cannot take out the trash generated in everyday living, the trash may simply accumulate to the point that their home becomes unsanitary. This could even lead to the house

filling with waste and becoming a "hoarder house". Unsanitary living conditions are considered a sign of elderly self-neglect [9] (see Column 2). These may lead in turn to a vicious cycle in which the elderly find themselves even more isolated from society. Furthermore, organizing and disposing of belongings left over when an elderly person dies can be a considerable burden on family members and can lead to various social issues [10]. Accumulation of unnecessary items due to the inability to take out daily and bulky trash can make this burden even more cumbersome.

b) Taking out the trash improperly

Even if elderly people receive assistance in everyday living, difficulties in following their local government's rules may result in improper waste disposal. For example, if elderly people want a visiting nurse to take out the trash for them but the nurse cannot be there at the correct time, then the nurse will be obliged to take out the trash at an inappropriate day and time. Likewise, family members visiting on weekends may have to take the trash out on an incorrect day, even if they know this might lead to trouble with the neighbors, or they may even take the trash away to dispose of at their own homes (which is not a good practice, as household waste supposed to be disposed of in the city where it was generated). These responses could impede waste collection and transport and lead to problems with neighbors.

c) Continuing to take out the trash even though it is too difficult

Elderly people without assistance in their daily living may continue to take out the trash despite the growing difficulty. Not only is this inconvenient and burdensome for elderly people, but it also can lead to increased risk of injuries from causes such as falling down stairs or slipping and falling when walking in the rain or snow to their collection point. Elderly people are more susceptible to falling due to their weakened muscles, and in many cases, osteoporosis may make them prone to broken bones. Injuries may in turn cause elderly people to lose their ability to walk unaided or to become bedridden.

In sum, taking out the trash by elderly people involves issues related mainly to waste management (impediments to waste collection and transport, problems related to waste collection locations, and issues of leftover belongings and hoarder houses) as well as issues mainly in the field of personal welfare (elderly people's lifestyles and living conditions, social isolation, and self-neglect).

Self-neglect refers to a situation in which elderly people, through failure or inability to carry out tasks of everyday living, fall into a state that threatens their mental and physical health and safety [11]. It can result after suffering the death of a spouse, problems in interpersonal relationships, loss of employment, disasters, cognitive conditions and similar causes. Self-neglect becomes apparent when elderly people do not eat properly, fail to bathe or do laundry, or fail to clean their homes. Eventually, unorganized trash begins to fill the home. Even when such conditions become threats to dignity and worsen elderly people's health and safety, those people may refuse offers of help from acquaintances or public agencies.

Because self-neglect and hoarder houses full of trash result from a combination of factors, they cannot be resolved through merely helping with taking out the trash. But even so, assistance with this task serves as a sign to the elderly that public agencies and the community are ready and willing to provide help when desired.

1.2 Current efforts in Japan

Support for taking out the trash by the elderly is provided by three main parties: the waste management or senior welfare departments of municipal governments and members of local communities.

Efforts by waste management agencies

Waste management agencies have introduced support programs for taking out the trash since 2000, and as of 2015, 23% of local governments offered programs supporting collection of ordinary waste, recyclable materials, and bulky waste. Such programs were in effect in roughly 80% of ordinance-designated major cities, but in less than 10% of towns and villages (see Data 1). These support structures are described in Chapter 2.

Efforts by senior welfare departments

The long-term care insurance program at the heart of the Japanese senior welfare system provides long-term care services in the homes of certified elderly people. Home helpers provide physical care and assistance with everyday living, and users can ask their helpers to take out the trash as part of this assistance, no matter what local jurisdiction they live in.

However, under the long-term care insurance assistance program, it can be difficult for home helpers to be present at the designated times for taking out the trash. In addition, some elderly people who have not been certified as requiring long-term care may need help taking out the trash, for example, when the waste collection location is far from their homes. For these reasons, the current long-term care system cannot resolve all issues related to taking out the trash by the elderly.

Some local governments provide programs to assist the elderly with everyday living separately from the long-term care insurance framework through contracts with social welfare associations or Silver Human Resources Centers (see Column 4). In some cases, elderly people may, for a small fee, request assistance from such programs with taking out the trash as well as other chores like changing lightbulbs and shopping.

Local community efforts

Examples of non-governmental mutual-assistance efforts by local communities include assistance provided by citizen volunteers recruited by nonprofits or by district and neighborhood associations as well as assistance provided by managers of apartment buildings. Some waste collection companies under contract to local governments also provide assistance to elderly people as part of their social-contribution initiatives.

1.3 Purpose of this Guidebook

This chapter has shown that for most local governments in Japan, helping the elderly take out the trash is an important and continuing issue of waste management and social welfare. This Guidebook was produced to help local governments consider systems that are suited to their situations and goals. Target readers include local government officers, community organizations, and waste collection businesses. This Guidebook does not specify the best way to help the elderly take out the trash; rather, it is intended to assist readers in considering such measures by describing different assistance structures and noting key points that should be addressed.

Chapter 2 outlines basic concepts to help understand the kinds of support systems for helping the elderly take out the trash envisioned in this Guidebook. Then, Chapter 3 will describe how to consider related structures related to these systems, including key points to be considered at each step, as well as case studies and research findings for reference.
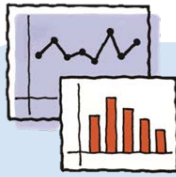
Data 1: State of efforts by local governments

A look at awareness of issues related to elderly people taking out the trash and the state of relevant efforts by local governments shows that larger municipalities, such as ordinance-designated major cities, were more likely to recognize these as issues to be addressed (Fig. A) and to have adopted support programs (Fig. B). Smaller local governments may be slower to introduce such efforts because self-help by family members and mutual assistance are more effective in small communities or because staff and budgets are limited.
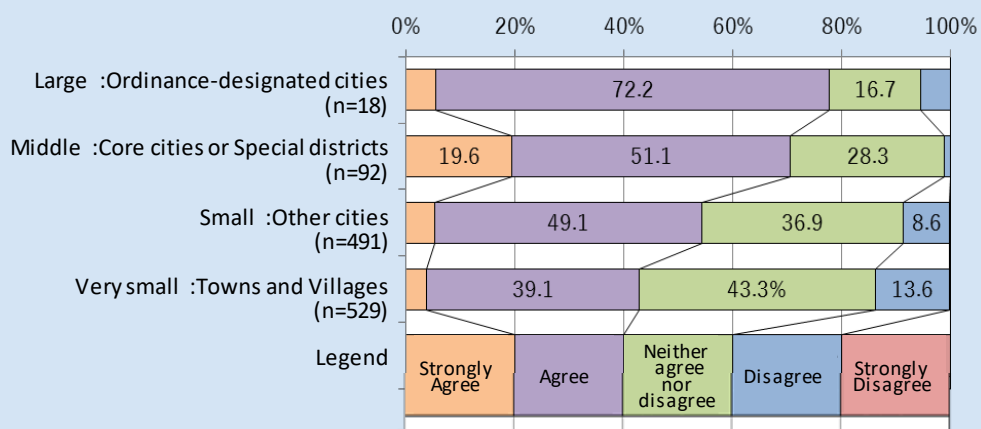
Fig. A   Do you think that many elderly people find it difficult to take out the trash? [12]
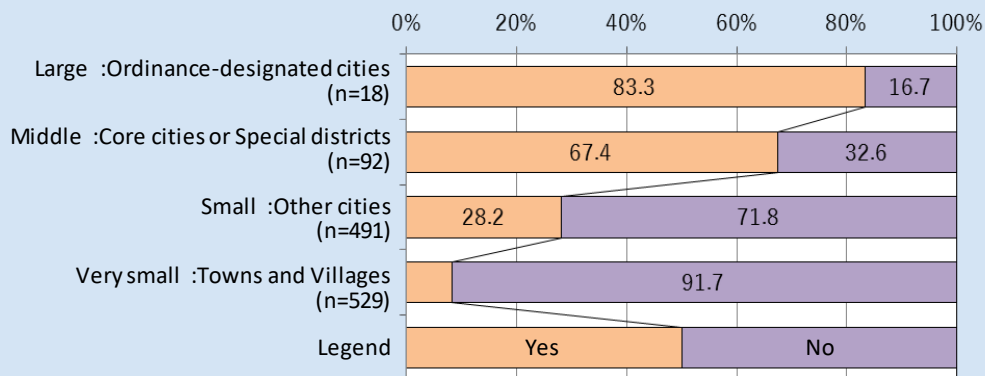
Fig. B   Do you provide programs to help elderly people take out the trash? [12]

Column 3: Implementing elderly-friendly waste segregation rules

In general, elderly people are cooperative in waste-segregation efforts, and desire to follow the rules and avoid wastefulness. Even so, they may find it difficult to follow waste-segregation rules that have changed, or they may have difficulty remembering the rules due to cognitive conditions. Here are some noteworthy examples of elderly-friendly practices by Japanese cities.

A simplified waste-segregation guide, with large letters and illustrations, was distributed to all households together with a more detailed segregation guide when the city of Higashi-Yamato in Tokyo changed methods of taking out the trash. The simplified guide was well received as being easy for seniors to understand.

The city of Minamata, Kumamoto Prefecture, separates food waste from other burnable waste, but it also distributes exemption stickers to people for whom such segregation would be difficult, such as the elderly and people with disabilities. Burnable wastes are collected, even when mixed with food waste, as long as this sticker is affixed.

Many local governments that provide assistance with taking out the trash also provide assistance with waste segregation. Waste collectors issue warnings when assisted elderly households have not properly segregated their wastes, but when this task appears to be beyond the user's capability, collectors segregate the wastes after collection.

Waste segregation guide for the city of Higashi-Yamato

Waste-segregation exemption sticker for the city of Minamata

To sum up, these elderly-friendly practices are implemented to first encourage elderly people to follow the rules through means suited to the elderly, and then to ease the rules when compliance has become too difficult.

2 Concepts of providing support for taking out the trash

2.1 Overview of support programs

As used in this Guidebook, "support for taking out the trash" refers to waste-collection systems in which others help elderly people who find it difficult to take out the trash. While the basic tasks involved are collecting and transporting wastes from elderly people's homes, the details of the system depend on who transports the wastes and where they go.

Communicating with elderly people when collecting wastes can help them feel reassured and more confident in everyday living. Waste collectors who see no trash put out for multiple consecutive collection days, or see or hear anything suspicious during collection, can inform the registered emergency contacts for an elderly household. This can lead to early detection of problems and help prevent serious incidents. Furthermore, activities that enlist neighborhood residents to help the elderly take out the trash can serve as an impetus to community building (Fig. 4). In these ways, support programs can also be expected to have other beneficial effects besides waste collection itself.
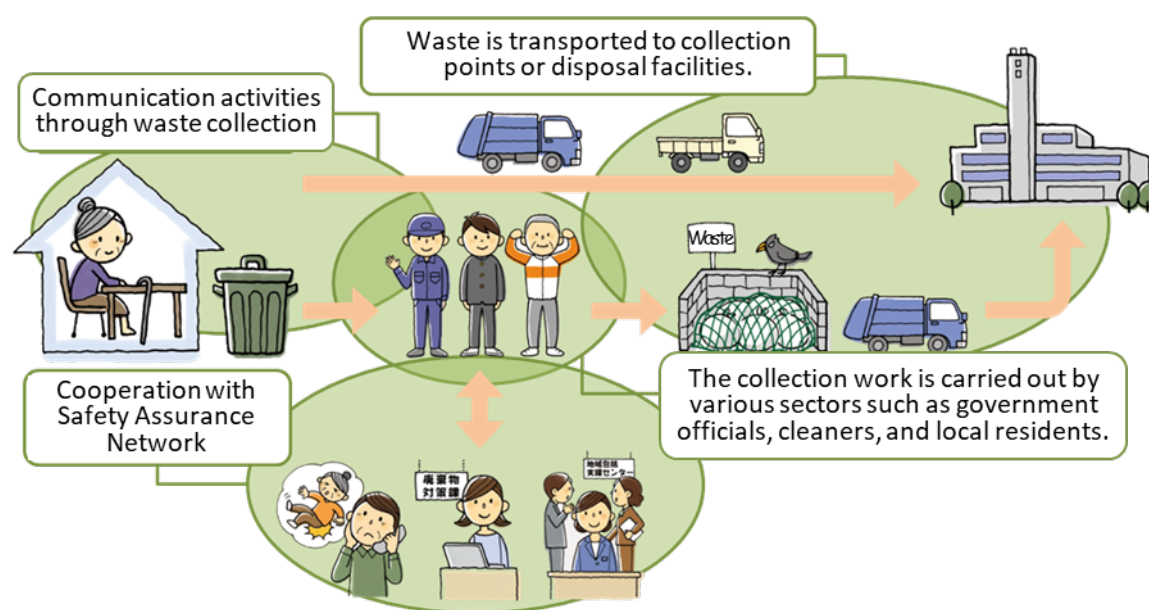
Fig. 4 Concepts in programs of support for taking out the trash

When local governments providing support for taking out the trash were asked what kinds of benefits they perceive, 43% reported "being able to collect wastes and recyclables from senior households reliably" and 28% reported "preventing homes from becoming full of waste." However, even higher percentages of local governments—79% and 59%, respectively—reported "improved convenience in daily living for senior households" and "improved welfare for senior households."

Some local governments also recognized the effects of deeper interaction in the community or contributions to community building through knowing the faces of people living in homes in the neighborhood. These findings show that such efforts involve a wide range of possibilities depending on how they are conducted.
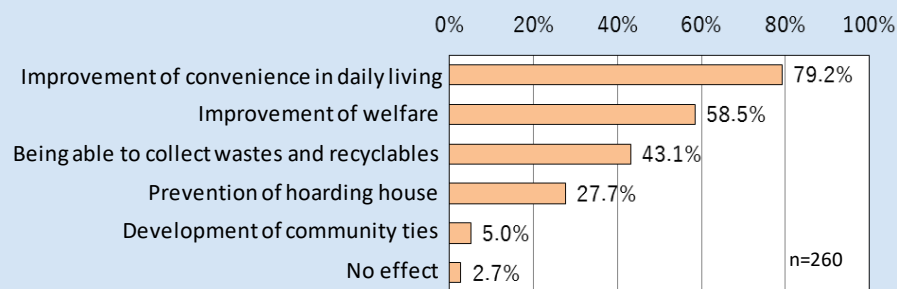
Effects of support programs recognized by local government officers [12]

2.2 Cooperation in support for taking out the trash

Actors in the waste management, senior welfare, and local communities

There are several sets of actors whose cooperation is desirable in efforts to help elderly people take out the trash. Those involved in collection of wastes include general (non-industrial) waste collection companies that serve local governments by contract. Relevant public agencies in Japan include the senior welfare departments of local governments, regional comprehensive support centers, social welfare associations, and Silver Human Resources Centers. Care managers (specialists in long-term care), home helpers (providers of long-term care in the home), and welfare commissioners are important actors who interact with the elderly directly and are familiar with their living conditions (see Columns 4 and 5). In addition, neighborhood residents, district and neighborhood associations, nonprofits, volunteer organizations, and other parties are actors who currently support the lives of elderly people in the community or can be expected to do so.

Column 4: Relevant actors in the senior welfare sector

The cooperation of various actors in the senior welfare field is important in programs of support for taking out the trash. Some main actors are described below.
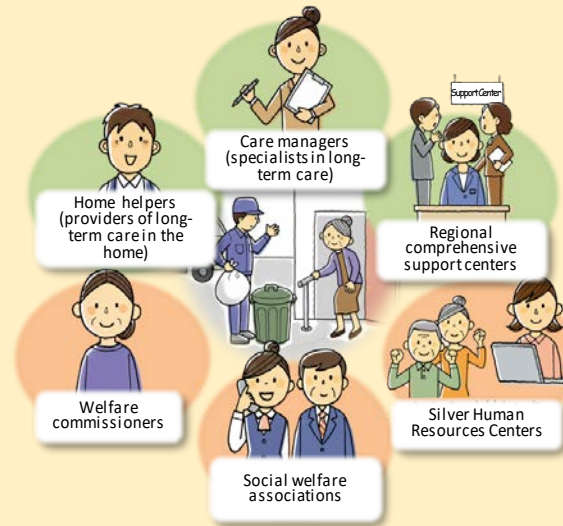
Main actors in senior welfare

Actor	Description
Regional comprehensive support centers	Agencies established by municipalities to serve as regional centers for senior welfare. With staff including public health nurses, licensed social welfare workers, and chief long-term care support specialists, they provide comprehensive support for the lives of seniors through activities such as general consultation services for the elderly and their families, preventing the need for long-term care, and service cooperation and coordination
Care managers (specialists in long-term care)	Assigned to home long-term care service providers, these care managers prepare care plans for elderly people certified as requiring long-term care or assistance and handle tasks such cooperation and coordination with other long-term care service providers.
Home helpers (providers of long-term care in the home)	Home helpers visit patients' residences to provide long-term care in everyday living activities, such as meals, using the restroom, and changing clothes and adult diapers, as well as other support in everyday living such as cooking, laundry, cleaning, and shopping for groceries and other daily necessities. They work for designated home care providers.
Welfare commissioners	These part-time local public officials contracted under the Commissioned Welfare Volunteers Act visit and protect seniors, people with disabilities, families with children, and others in their districts and respond to various requests for consultation from residents.
Social welfare associations	These are nonprofit private organizations established under the Social Welfare Act. In most municipalities, social welfare associations act as home service providers. In some cases, they operate regional comprehensive support centers under contract to municipalities.
Silver Human Resources Centers	These public-benefit corporations are established, in principle, for individual municipalities under the Act on Stabilization of Employment of Elderly Persons. They help vitalize local communities and give elderly people more reason for living by providing temporary, short-term, or light working opportunities to the elderly.

Why is cooperation essential?

Cooperation among all of these actors is essential to find elderly people who need help taking out the trash, encourage them to use the systems, and watch over them.

For example, even when a system is in place to help elderly people take out the trash, if those who need help are unaware of its existence, it will not attract users. Care managers and welfare commissioners know where to find elderly people who need help and are familiar to them. Home helpers can be expected to recommend the system to elderly people in their care. Possible ways to ensure that these actors understand the support program include distributing leaflets to support providers and informing them in seminars and training activities organized by welfare departments.

In addition, care managers and welfare commissioners living nearby can be designated as emergency contacts to enable swift responses when checking on the safety of elderly people. Welfare departments that operate networks to help protect the elderly (see Column 9) can prevent delays in collecting wastes through centralized responses to emergencies.

Column 5: Perspectives of care managers and helpers

Toru Matsumoto (Professor, University of Kitakyushu)

Although some aspects of their roles vary by local government, in most cases care managers are involved in applications for support programs for taking out the trash and home helpers are involved in taking trash to the front door of the elderly household. Both care managers and home helpers are deeply involved in helping the elderly with everyday living. Accordingly, we surveyed care managers and home helpers about advantages and problems in systems to help take out the trash. We collected 608 responses in total from four cities. Here we summarize the results from Omuta, Yanagawa, and Miyama, which had similar systems, and exclude results from Kitakyushu*.

When asked about slips and falls or injuries while taking out the trash, 31% of respondents stated that they had heard talk of near slips and falls or injuries, and 18% reported hearing of actual slips and falls or injuries. Respondents were then asked to assess the benefits elderly households receive from their supporting systems with respect to a) peace of mind in everyday living and in emergencies, b) reducing and preventing injuries, and c) good health, and we summarized the results in terms of quality of life (QOL) scores (see Fig. A).

Results showed that improving safety and peace of mind were evaluated positively, with scores higher than the neutral level of 3. In addition, we found that the main reasons why some elderly people don't use the support system (even when they are eligible to do so) were that they had help from family members or were able to take out the trash themselves. When asked about difficulties faced by elderly people not using home long-term care services, care managers reported cases of elderly people being unable to go outside (61%) and being unable to clean house (41%). Cases such as these accounted for 7-10% of those certified as requiring assistance of long-term care.

The following issues also were pointed out by the survey respondents:

- Applications and procedures to receive support are troublesome and time-consuming
- Helpers' schedules are difficult to coordinate as days and times for taking out the trash are determined by local governments
- Some elderly people not using home long-term care services would like help taking out the trash
- It is difficult to hold a cane in one hand and a heavy trash bag in the other
- Easing of conditions to use support should be considered in light of home designs and surrounding conditions
- Although cases of people certified as "nursing care level 1" with dementia symptoms are not eligible for assistance (in the city of Kitakyushu), it still is difficult for them to take out the trash

* Conditions for use of the support systems in surveyed areas:

    Kitakyushu: Independent households certified as long-term care level 2 or higher (a separate program is conducted simultaneously by the city council of social welfare)

    Yanagawa, Miyama, and Omuta: Persons aged 65 or older requiring long-term care or assistance, and using home long-term care services
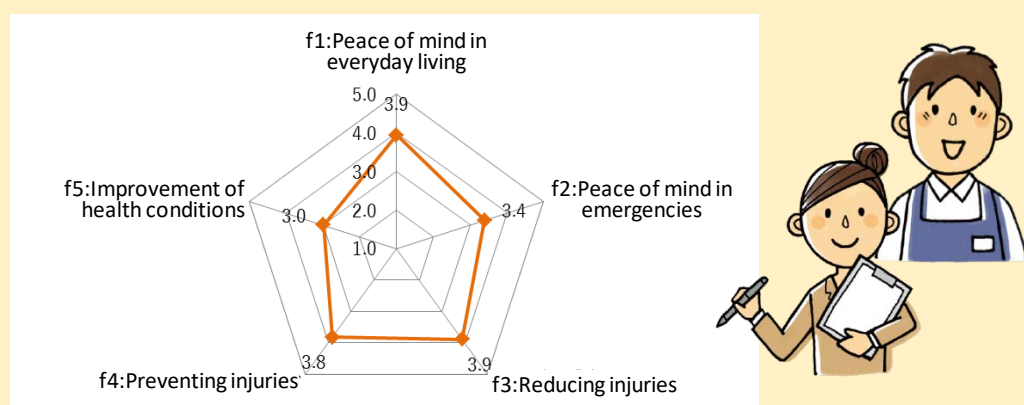
Fig. A Results of secondary-factor QOL assessment. A higher score indicates a higher quality of life

2.3 Two types of support programs

Programs to support taking out the trash are of two types (Fig. 5). Direct support programs are managed by local governments, in which a municipal agency or a waste-collection business under contract collects wastes directly from elderly people's homes. Community support programs are managed and operated by support organizations such as neighborhood associations or nonprofits, with financial backing from municipalities. These provide assistance to elderly households in taking the trash to the collection point.
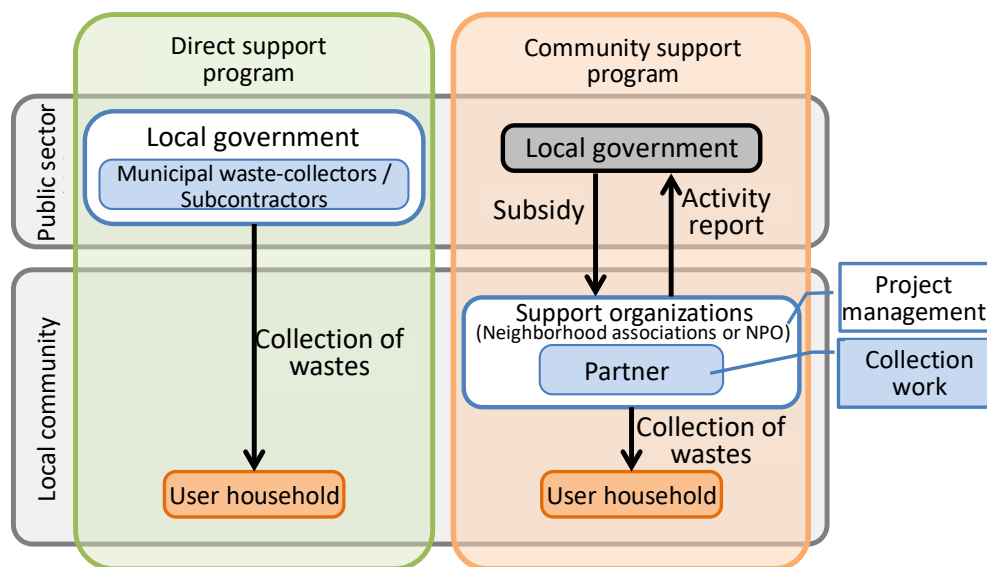
Fig. 5 Structure of direct support programs and community support programs

2.3.1 Direct support programs

In direct support systems, system operation is conducted by the local government and collection of wastes from user households is conducted by municipal staff, subcontractors, or both.

Municipalities with collection staff and vehicles can commence a direct support program within the scope of their current mission and resource. Some municipalities without their own collection resources have staff and vehicles who engage in activities such as patrolling for illegal dumping. In general, elderly people in Japan can be said to feel more comfortable when approached by public employees to check on their safety compared to private contractors. Public offices may be able to escalate their checking activities to intervention (for example, by breaking a lock and entering a home to rescue its inhabitants). On the other hand, as municipalities increasingly subcontract their waste-collection services, fewer local governments maintain their own collection staffs and vehicles. Thus, it might become difficult to maintain support programs by municipal resources alone as the numbers of elderly people eligible for assistance increase.

Subcontractors for services to help taking out the trash are typically private-sector businesses with general waste-collection and waste-transportation licenses (general-waste businesses) and Silver Human Resources Centers (see Data 3). Although local governments might explicitly describe these services in their contracts, in many cases the contractors themselves propose services to assist in taking out the trash as social-contribution activities. General-waste businesses may take this initiative to build relations of trust with local residents and governments, and to foster pride and motivation among their own employees for making this contribution to the community. However, watching over elderly people requires specific arrangements, particularly in light of issues regarding handling personal information such as emergency contacts. In addition, contracting agreements tend to emphasize efficiency of waste-collection activities more than the regulations for municipal collectors do.
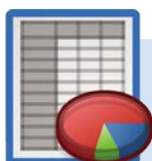
Data 3: Collection systems that support taking out the trash

A look at types of support programs for helping elderly people take out ordinary trash shows that 59% are direct support programs operated by municipalities, 25% are direct support programs operated by subcontractors, and 4% are community support programs (see Fig. A). Most subcontractors appear to be general-waste businesses and Silver Human Resource Centers.

Most local governments that operate their own general-waste collection resources also use them for direct support programs (86% of those with exclusively municipal services and 80% of those that combine municipal resources and subcontractors). Among local governments that subcontract collection of general wastes, 53% also subcontract their direct support programs; however, 30% operate direct support programs with municipal resources by dispatching staff in small vehicles to help elderly people take out the trash.
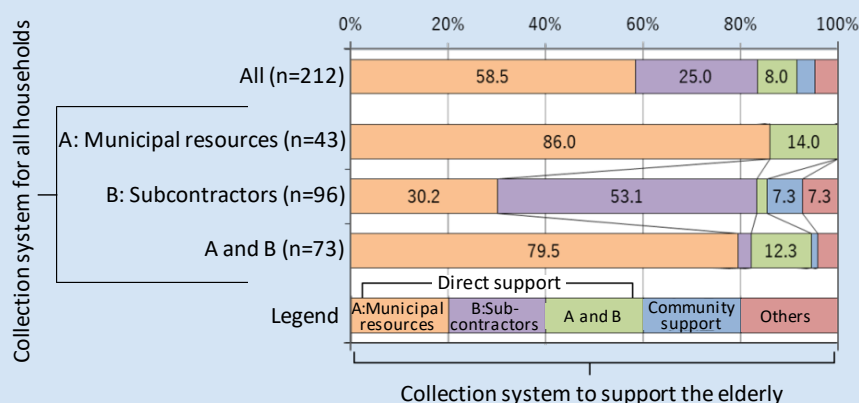
Source: Based on Kojima and Tajima (2017)[13], partially modified

Fig. A Collection systems with support for taking out the trash
  * Data on structures for collection of general wastes are from the dataset "waste processing and transportation (household wastes)" in the FY2014 general waste disposal fact-finding survey conducted by the Ministry of the Environment.

2.3.2 Community support programs

In community support programs, activities run by neighborhood associations or nonprofits in the community (support organizations) typically receive subsidies from local governments. The support organization decides matters such as waste collection methods and whether or not to provide additional services to watch over elderly people upon collection. It also manages and supports partners, the local volunteers who actually collect the wastes. A support organization may allocate its financial support to the costs of running the program, to the costs of its other activities, or to compensate its partners.

The activities of a support organization are expected to contribute to the maintenance and fostering of community ties. For example, when a school and a neighborhood association cooperate to form a support organization, they can be expected to foster intergenerational ties and interest children in their community by enlisting students at the school as partners. When a neighborhood association serves as the support organization, it can also compile information about elderly households that might need help in a disaster, contributing to activities such as evacuation guidance and checking on residents' safety in an emergency.

However, it is difficult to secure enough support organizations and partners to cover the entire area served by a local government. Although neighborhood associations constitute most support organizations, in some areas they face difficulties such as falling participation rates and decreasing activities. In such areas, they might not be able to form support organizations even if asked to do so. If elderly people who find it difficult to take out the trash receive no support in areas without support organizations, service provision could be plagued by inequality.

3 How to plan and run a support program

3.1 The planning process

As Chapter 2 indicates, different types and designs of support programs for taking out the trash have different preconditions and provide different advantages and disadvantages. The planning process to select and design the program best suited for a given locality is illustrated in Fig. 6.

The planning process has three steps. First, (i) determine the necessity for a program to support taking out the trash in light of actual conditions. Next, (ii) with these conditions in mind, consider basic policies including the type of support program (direct support or community support). Then, (iii) consider the design in more detail. If in this stage it becomes clear that there will be no choice but to use a different type of support program, repeat steps (ii) and (iii) as necessary. See sections 3.2–3.4 for more about these three steps.

At each step, it is essential to cooperate with related parties through consultations and exchange of opinions. These parties include waste collection businesses and, equally important, welfare-related parties who will have major roles in various aspects of the resulting support program.

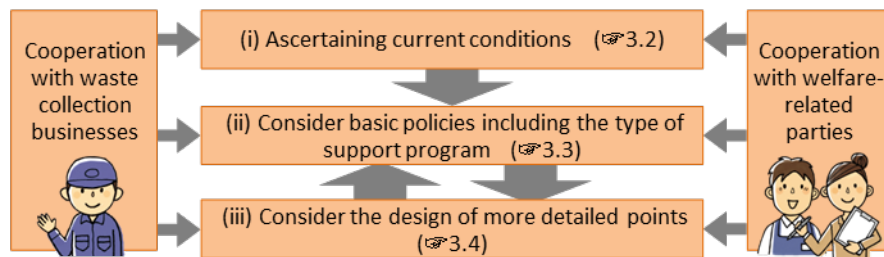**Fig. 6 The planning process for a support program for taking out the trash**

3.2 Ascertaining current conditions

The first information to consider is the current state of waste collection systems and methods in the area (Fig. 7). It is also important to determine how much a support system is needed for elderly people to take out the trash in the area and to learn about existing support structures addressing that need.
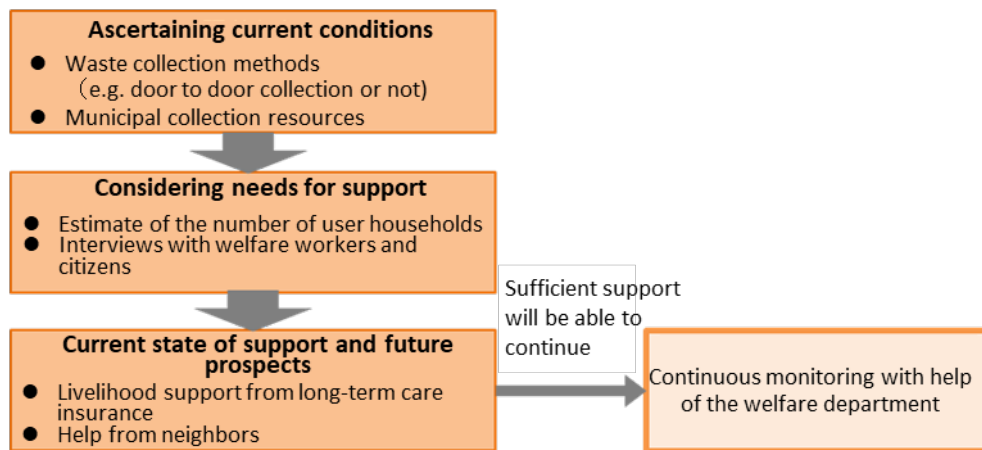
Fig. 7 Workflow of ascertaining current conditions

Current state of waste collection in the area

The first task is to determine what policies the current collection methods for ordinary household waste have in support of taking out trash by elderly people in the area. Support is usually needed when waste is collected at waste collection points rather than door-to-door service. However, as noted in section 1.1, even in cases where household wastes are collected door-to-door, elderly households may find it difficult to conform to local rules, such as early hours for taking out the trash. For such cases, measures can be considered that make it possible to take the trash out at other times (see Column 6). There may also be a need for support in cases where ordinary wastes are collected door-to-door, but recyclables are collected at centralized locations. And even when wastes are collected at individual residences, cases such as apartment complexes where waste is collected at centralized locations may be examples of places where support is needed.

At this time, information should also be gathered on the resources for and operation of ordinary waste collection in the locality. Facts to determine include the scope of collection operations currently subcontracted, future subcontracting plans, capabilities of municipal collection resources, types and quantities of vehicles available for use, and the capacity of administrative staff and current subcontractors to handle additional tasks.

Determine needs for support

The next step is to estimate the relevant needs in the area, such as how many elderly people face difficulties with taking out the trash and how that number will change in the future. The mean and median of the numbers of households using the support program in 131 local governments that had operated a direct support program for at least five years (as for June 2015) was 356 and 134 respectively. As a general rule of thumb, the more elderly households, the more user households, but no reliable estimation model exist. Possible indicators include the rate of aging of the regional population (percentage of residents aged 75 or older), the percentage of households consisting of elderly people living alone, and the number of people certified as requiring long-term care. Current local figures can be compared with national and prefectural averages, as well as what trends are forecasted for 5, 10, and 15 years in the future. If local figures are higher than national or prefectural averages or are projected to increase rapidly, it can be said that potential needs are high.

Program creators should consider that the number of users will most likely increase the longer a program has been in place. For example, in the city of Yokohama, which set relatively lenient conditions for use (see section 3.4.1), the number of support program users increased from about 2,400 households at the end of FY2010 to approximately 5,500 households at the end of FY2015. Factors such as the conditions of use and publicity methods will affect enrollment.

At the same time, attention must be paid to localized needs, such as those in areas with steep terrain or concentrations of older apartment buildings without elevators. It is important when conducting surveys to listen to the actual comments of residents, for example, by asking about their desire for help taking out the trash. However, because elderly people who truly have difficulty taking out the trash may find it hard to answer surveys, it is also important to consult with welfare agencies, regional comprehensive support centers, care managers, and welfare commissioners who help elderly people with their daily needs.

Column 6: Support in the city of Hino

Localities that collect household waste door-to-door may think that they do not need to provide support for elderly residents because there is no need to take the trash to collection points. However, the work schedules of home helpers or relatives may make it difficult for elderly households to take the trash out on the designated day for collection.

The city of Hino provides Handicap Boxes to such households so they can put their trash out on other than the designated collection days. It also distributes stickers to elderly people living in apartments with centralized collection locations, to be attached to trash bags that may be placed in these locations on other than designated days. The city publicizes the fact that such support is in place to avoid troubles with neighbors.

A Handicap Box allows elderly residents to put out trash and recyclables on other than designated days

Handicap sticker

Current state of support and prospects

Some elderly households receive help from neighbors or relatives in taking out the trash or use livelihood support from long-term care insurance or local governments. It is important to cooperate closely with welfare agencies to understand the state of such seniors and the support measures they use. Even localities with strong community solidarity, where it is considered a matter of course for neighbors to help elderly residents take out the trash, may come to need government support if this form of mutual aid becomes more difficult as the regional population ages.

When beginning new efforts to help elderly people take out the trash, it is important to learn about existing efforts in the community. These may provide reference information, coordinate with the proposed support program, or serve as models for expansion.

3.3 Considering basic policies

After ascertaining current conditions and determining a clear need for a support program, the next decision is whether to provide direct support or community support. If direct support is favored, it must be determined whether to rely on municipal resources or subcontracting. A comprehensive judgment should be based on evaluating support programs with respect to four topics: their scope, expected side effects, costs, and staffing requirements (Fig. 8).

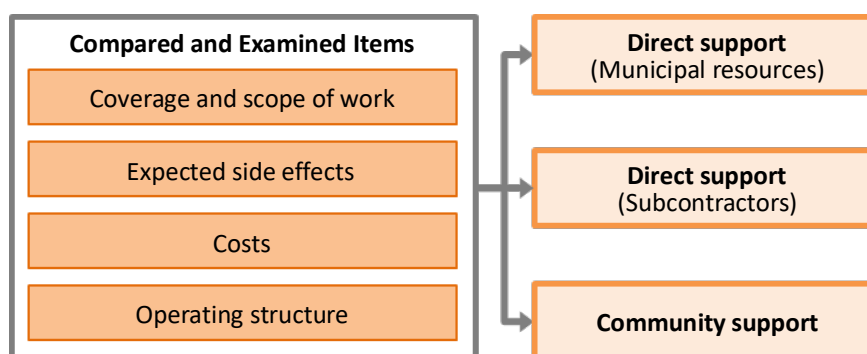**Fig. 8 Framework for considering basic policies**

Coverage and scope of work

An important consideration for a public service is impartiality: all residents should receive the same services. Given sufficient resources, a direct support program can provide the same services to the entire municipality, but a community support program can only provide services where supporting organizations exist.

Another consideration is that a direct support program transports wastes directly from user households to waste treatment facilities, whereas a typical community support program merely transports trash to waste collection locations.

Expected side effects

In a community support program, parties in the community work together to design and operate the system. A side effect is that the system may foster and strengthen community ties. Educational results may also be possible, for instance, by having children take part in waste collection. And if neighbors already cooperate to help elderly people take out the trash, then a community support structure may be an effective way of maintaining such activities.

In a direct support program, one possible side effect is that subcontracting services to local Silver Human Resources Centers can create employment opportunities for senior citizens. Another known side effect is that waste collection personnel gain more motivation and pride in their work by contributing to the community.

Costs

Annual costs of each type of support program being considered should be estimated and compared. Costs for a direct support program include the costs of purchasing collection vehicles, fuel, vehicle maintenance, and labor. When the proposed program uses the same resources used for ordinary waste collection, the cost is based on the percentage of operating hours needed for the added service. When services are subcontracted, cost estimates will need to be obtained from subcontractors based on the details of the proposed arrangement.

Costs for a community support program are the total of subsidies and other payments to the support organizations. These may include initial costs of starting the system and operating costs based on its actual use. While amounts may be set on a case-by-case basis, one example involved initial costs of 10,000 yen per support organization and operating costs of 150 yen/pickup, based on minimum wage (which averaged 823 yen/hour nationwide in FY2016) and assuming each pickup takes no longer than 10 minutes. This can readily be turned into an estimate of annual costs based on the collection schedule.

Operating structure

This section refers to both the organization's operating activities and the people who collect the trash. For a direct support program, staff to collect the trash need to be secured, and for a community support program, support organizations to operate the system and partners to collect the trash need to be secured.

When envisioning a direct support program that uses municipal resources, it should be considered whether the program can be conducted by reorganizing current staff and vehicles. Some local governments without their own waste collection resources provide staff support for helping the elderly take out the trash. If envisioning a subcontracting arrangement, companies that are

enthusiastic about contributing to the community are preferable, in light of the fact that support for the elderly will be provided along with waste collection.

For a community support program, it is important to consider first what kinds of members of the public (e.g., neighbors or students) and organizations (e.g., neighborhood associations or nonprofits) will conduct support activities. It is important to start by thinking about both the intended goals of the program and whether they can be realized in the subject areas (see Column 7).

Column 7: Case study on securing staffing

Two distinctive cases are introduced below to demonstrate the kinds of parties serving in community support programs.

(i) Support provided by capable seniors
- Support organization
  Inage Famille Heights Neighborhood Association, City of Chiba
- Partners
  Neighborhood association volunteers (average age: 80)
- Background
  The neighborhood boasts about 30 clubs with various activities, and senior residents usually gather for activities at group meetings and physical exercises.
- Results
  In addition to making program users happy, the city subsidies to the neighborhood association are used for other neighborhood activities.

(ii) Support provided through cooperation between a school and community
- Support organization
  Niigata City / Kameda West School Zone Community Association
- Partners
  Local middle-school student volunteers
- Background
  A citywide educational policy promotes ties between schools and social and community activities through "community education coordinators." Local organizations, such as neighborhood associations and parent-teacher associations, already cooperate with welfare commissioners and the local government to address community issues.
- Results
  In addition to making participants happy, the program creates opportunities for mutual understanding and cooperation between students and community members.

Activities can be expected to operate effectively in areas with strong ties among residents, such as in places where neighborhood associations are active and where diverse parties, such as neighborhood associations and schools, already cooperate. However, in some cases, direct contact with candidate parties may not enlist enough of them to proceed. It is important to start by consulting in advance with local government agencies, such as civic activity departments when planning to have neighborhood associations and nonprofits serve as staff, or the board of education when cooperating with schools. These consultations are extremely helpful, for example, by confirming feasibility. These agencies can also provide information about neighborhood associations and volunteer activities already active in the area. By first developing a successful model case with the most active organizations, it should become easier to gain the support of other local organizations.

Making an overall judgment on the type of support program

All four of the points just described must be taken into consideration in deciding on a type of support program. It also is important to consider the continuity of the program in future decades. Because judgment criteria cannot be generalized, some examples of approaches are given below.

- A direct support program provided by municipal resources is selected because it uses directly managed resources and provides service impartially.
- Impartial service provision is important, and municipal staff can provide direct support because there are not many user households at present. However, because the number of user households could increase in the future and because a local waste collection company is highly motivated to contribute to the community, direct support through subcontracting is selected.
- A community support program is selected because multiple neighborhood associations appear likely to cooperate on such a program and because they wish to make the program an opportunity for fostering community ties.

3.4 Detailed consideration of structures

The process of considering a support program requires close attention to several topics. First, it is important to envision what kinds of people would use the system (see 3.4.1) and decide on methods and standards to judge the eligibility of applicants (see 3.4.2). Decisions need to be made on the methods of trash collection (see 3.4.3) and, in the case of a community support program, what operational structure the program will need (see 3.4.4).

Communicating with and watching over elderly people are two other important functions of a program to support taking out the trash. It is important to think in practical terms about how these activities will be carried out (see 3.4.5). Lastly, methods of operation and improvement must be chosen (see 3.4.6), including recordkeeping, reporting, and managing the status of program users (Fig. 9).

In the case of a community support program, it may be that the support organization will take care of working out some of these details. Local governments in such cases should retain their responsibility to consider matters such as the scope of users, the services possible for support organizations, development of standard formats for application and reporting, and recruiting more support organizations.
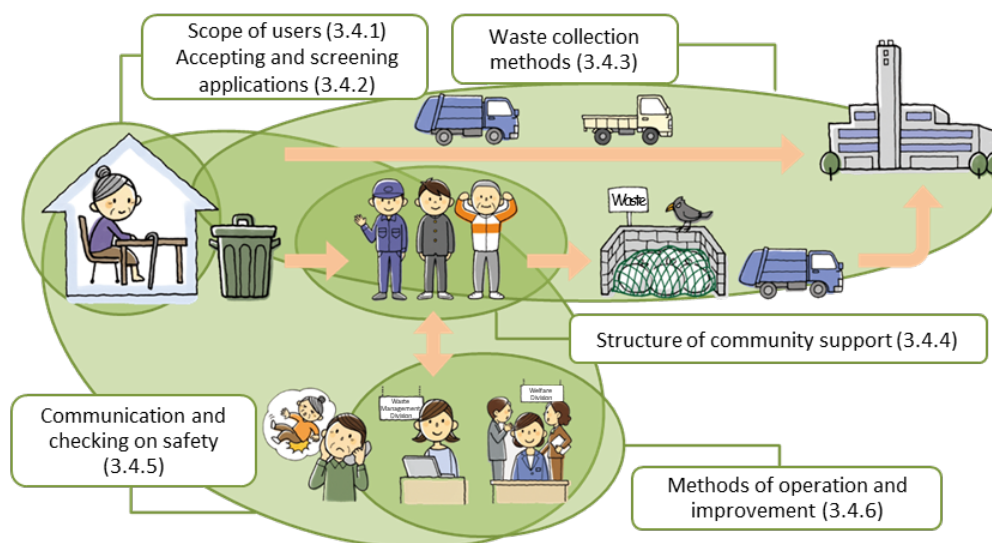
Fig. 9 Items to consider when planning a support program

3.4.1   Scope of users

Setting up usage requirements

Conditions for use of the program need to be considered and specified, such as age, household structure, and certification for long-term care or disability status. As shown in Data 4, these conditions vary widely among local governments. Although it is difficult to generalize, the following three steps are recommended.

(1) Decide the scope of support that <u>should be</u> provided

Persons eligible for support for taking out the trash are elderly people who find it difficult to do so but are not currently receiving the support they need. It can be difficult to take out the trash for various reasons, such as reduced ability to walk, difficulty in carrying trash bags due to arthritis, or inability to remember collection days due to cognitive conditions. The degree of difficulty may also reflect neighborhood conditions, such as areas with narrow streets that are inaccessible by waste collection vehicles, rural areas where waste collection points are sparse and distant, or apartment buildings with no elevators. Eligible persons may also include those with no relatives or acquaintances nearby or those using the long-term care insurance system who are unable to ask for help from their home helpers. The definition of eligibility can be broken down into detailed requirements such as age, household structure, and certification for long-term care. See Column 8 for a rough outline of physical conditions and necessary care for different categories of certification for long-term care in Japan.

As one example, an elderly person in the Long-term Care 3 category who lives alone and receives daily assistance from a home helper due to an inability to walk would clearly be eligible to use the service. However, opinions may differ as to whether an elderly person in the Support 1 category who can live alone but finds it a little difficult to walk due to joint pain should be eligible. Although supporting people like this may lessen their risk of falling when taking out the trash, relieving the elderly of responsibility for everyday tasks could lead to a weakening of their physical functions

and harm their self-esteem. Local governments need to consider these arguments and choose the solution that suits them best. In some case, these matters are covered in local governments' senior welfare policies. It is important to consult with welfare agencies and ensure consistency with their policies.

Column 8: Categories of elderly in the Japanese Long-term Care Insurance System

Elderly people must be certified to receive long-term care services under the Long-term Care Insurance System based on their physical condition and a written diagnosis from their primary physician. Those needing long-term care are divided into seven categories as summarized below.

Long-term care certification categories

Category	General summary of condition
Support 1	Able to handle everyday living activities (eating, using the restroom, bathing, and cleaning) at home alone but requiring protection or assistance for one or more complex living activities (shopping, financial management, managing medicines, using the telephone)
Support 2	Same condition as under Long-term care 1, but expected to see improvements in physical functions through appropriate use of long-term care services
Long-term care 1	Requires assistance in one or more complex living activities continually on a daily basis, and requires some assistance in everyday living activities due to causes such as instability in walking or weakness of the lower limbs
Long-term care 2	Requires daily assistance for multiple complex living activities or everyday living activities. Able to handle everyday living, but susceptible to possible problems due to signs of a cognitive condition.
Long-term care 3	Uses a cane, walker, or wheelchair due to difficulty in walking on one's own. Requires thorough assistance daily in some portion of complex living activities or everyday living activities.
Long-term care 4	Requires a wheelchair to move around and cannot complete everyday living tasks without constant assistance. Although thorough long-term care is required, able to engage in conversation. In some cases, the people who do not need nutritional assistance due to gastric fistula or IV are determined not to require complete long-term care and put in this category.
Long-term care 5	Largely bedridden at all times, finds it difficult to communicate intent, and cannot eat on his or her own. Finds it difficult to live without constant long-term care in all aspects of daily living.

Greater need for long term care (arrow, left margin)
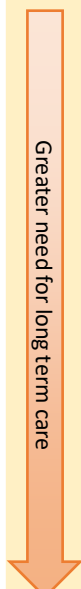
Sources: Based on the website of the Japan Foundation for Aging and Health [14] and on Takano (2012) [15]
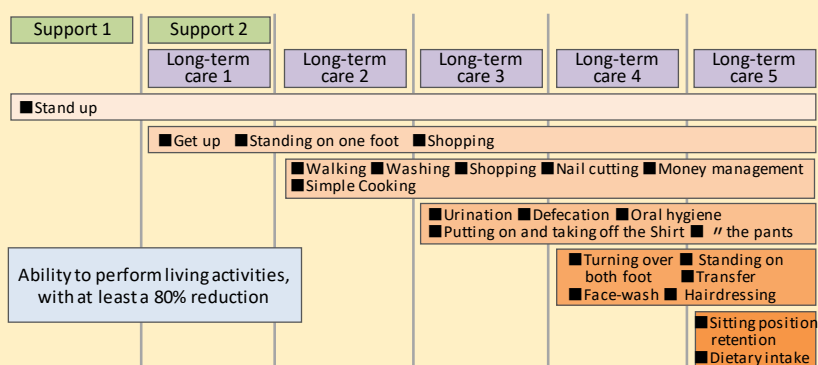
Source: Based on materials from the Long-term Care Insurance Subcommittee of the Social Security Council [16]
Everyday living abilities in which decreases are seen, by category of long-term care

(2) Specify the scope for which support <u>can be</u> provided

Although it would be desirable to provide support to all elderly people who need it, resource limits may compel a program to narrow the ranks of eligible persons. It is essential, then, to be able to estimate prospective numbers of users in advance of such a step.

When resources are limited, support might be restricted by region or season, for example, by providing support only in areas with steep roads or only during winter in areas prone to heavy snowfall. Some local governments have responded to budget restrictions by considering support for those in categories higher than Long-term Care 1 through a direct support program and using a community support program for those in category Long-term Care 1. Flexible thinking can make it possible to provide services to the greatest possible number of elderly people even in the face of resource restrictions.

(3) Clearly and flexibly specify requirements

Requirements for participating in a support program must reach a balance between satisfying the scope of the program as much as possible and setting restrictions correctly. One important task is to make the requirements for use as clear as possible (Fig. 10). These need to be specified so that there will be no differences in interpretation between operators and users of the support program. For example, if a requirement for use states that "users must be elderly people who find it difficult to take out the trash," but applicants are rejected strictly because they are able to take out the trash themselves using a wheelchair, then many elderly applicants might not receive the support they expected. This would be inefficient and could lead to dissatisfaction and disputes. On the other hand, if a requirement promises support to all elderly people who simply declare they find it difficult to take out the trash, then there would be no interpretation problem and fewer applicants would be rejected.
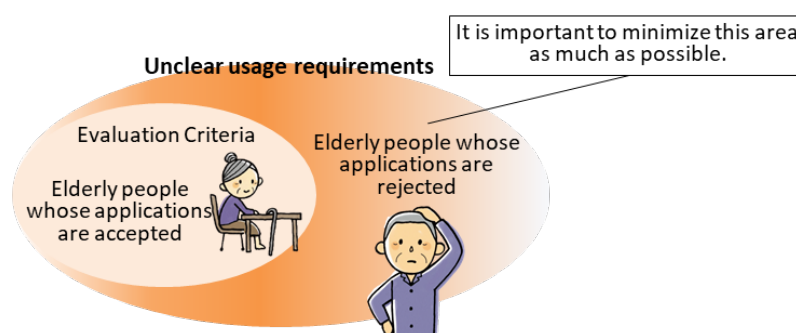
Fig. 10 Gap between usage requirements and screening decisions

Another important point when setting requirements is not to overlook people within the scope for whom support should be provided. When requirements become more and more specific regarding details such as household structure and certification for long-term care, some people who need assistance may be left out, such as those temporarily unable to take the trash out due to an injury. One way to avoid such situations is by enabling a flexible approach that offers a way to approve exceptional cases for people who do not fully satisfy the requirements for use.

Setting requirements must be based on the kinds of difficulties faced in taking out the trash and the degree of support needed in light of the conditions of long-term care. Because it is difficult for waste agencies to make such judgments on their own, they should seek out the specialized knowledge and experience of welfare agencies.

Additional tips for community support programs

If a local government requires a community support program to document long-term care certification, elderly applicants must provide personal information on the degree to which long-term care is required and other possibly sensitive subjects. This could place psychological and procedural burdens on both applicants and support organizations. Such cases can be avoided by eliminating highly specific eligibility requirements.

In a community support program, for example, the local government might set only a general scope of users (such as "elderly people who face difficulties in taking out the trash"), rather than issue detailed requirements, and leave questions requiring judgment to the support organizations, or the support organizations may set their own requirements. Respect for autonomous decision-making may encourage local residents to support the elderly and may lead to development of other activities as well.
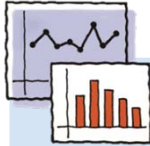
Data 4: Setting user requirements

About 70% of surveyed local governments set age requirements, most of which require users to be at least 65 years old. Among local governments with requirements based on household structure, about 40% required that others living with the elderly be unable to help taking out the trash due to youth, weakness, or other reasons, nearly 30% required that households consist only of seniors, and about 10% restricted their programs to single-person senior households (Fig. A). About 60% of local governments set long-term care certification as a requirement, although the required certification categories varied (Fig. B). About 90% of local governments also provided the service to people with disabilities, and about 70% offered approval of exceptional cases.
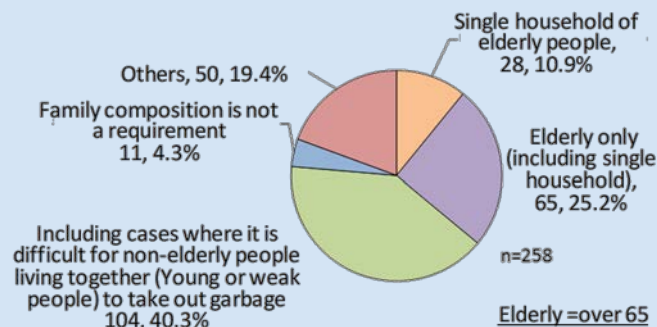
Fig. A Household structure requirements

Single household of elderly people, 28, 10.9%
Others, 50, 19.4%
Family composition is not a requirement 11, 4.3%
Elderly only (including single household), 65, 25.2%
n=258
Including cases where it is difficult for non-elderly people living together (Young or weak people) to take out garbage 104, 40.3%
Elderly =over 65
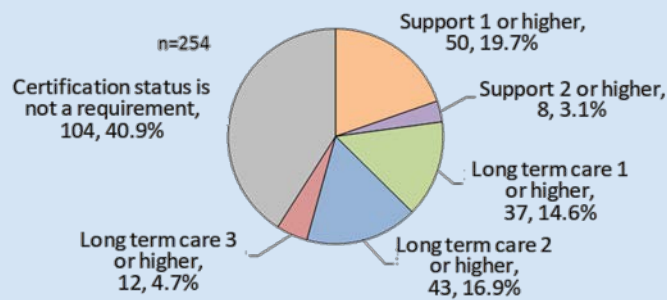
Fig. B Long-term care certification requirements

n=254
Certification status is not a requirement, 104, 40.9%
Support 1 or higher, 50, 19.7%
Support 2 or higher, 8, 3.1%
Long term care 1 or higher, 37, 14.6%
Long term care 3 or higher, 12, 4.7%
Long term care 2 or higher, 43, 16.9%

3.4.2   Accepting and screening applications

Information needed before starting support

Programs should distinguish between information needed in screening to determine eligibility for support and information needed before the start of support. The means of getting information include application forms, communication with the applicant when applications are submitted, telephone inquiries, and interviews at the applicant's home. Consider which agencies should obtain the necessary information and how, then establish related procedures. All such information should be recorded and managed appropriately.

Information necessary for screening

(a) Information related to applicant identity: name, address, contact data, gender, and age or date of birth of applicants and others living with them
(b) Information related to the user requirement: household structure, presence of helpers to take out the trash, long-term care certification status, issuance of a disability certificate, and similar data
(c) Reasons why applicants cannot take the trash out to the collection location (open question)

Information to be ascertained by the start of support

(d) A map or diagram showing the location to which the trash needs to be taken
(e) Whether or not to check on the safety of the user and emergency contact information as needed
(f) Usage of welfare services and other programs: days and hours of home helpers or day services

Employing common judgment criteria in screening

Particularly when applicants request support on an exceptional basis, it is essential to make decisions after asking detailed questions about their current practices of taking out the trash and everyday living. Some local governments ask whether or not the applicant goes shopping every day or rides a bicycle, then reject the application if the applicant answers yes because it considers someone capable of these tasks to be able to take out the trash as well. It is a good idea to prepare guidelines that prevent major differences in decisions from arising depending on the staff member who conducted the screening.

Notes on interviews

Sometimes an interview might not go smoothly, or the applicant might forget the agreed-upon method of taking out the trash after the interview. To avoid such difficulties, it is preferable to have a family member or care manager present during the interview.

Although in most cases the user takes the trash to the front door, in cases where the front door is in a common corridor or other common space (e.g., an apartment building), it is preferable to obtain the consent of the management association or the building owner during the interview. Some applicants in single-family residences ask if they can take the trash out the back door or to the edge of their lot, due to concerns about pests gathering at the front door or a desire to hide their reliance on support

from their neighbors. Furthermore, if the trash is taken out in containers and it is unclear which containers are subject to the service, then problems could arise: staff may find it hard to find the trash they should collect, leave some trash behind, or accidently take something that was not trash. It is a good idea to use materials such as maps and photos during the interview to confirm with the applicant where and how items will be taken out.

Additional tips for community support program

Because elderly people requiring care commonly find it difficult to submit an application on their own, or their family members live far away, it is a good idea to enable their care managers or welfare commissioners to file applications on their behalf. In addition, accepting applications at facilities other than municipal waste management departments, such as welfare departments, branch offices, and regional comprehensive care centers, can make it more convenient for elderly people to apply.

When a prospective user of a community support program has inquired with the local government about the service, the government agency should contact the program, if one exists, and have it contact the prospective user. If there is no such organization, the prospective user's neighborhood association should be contacted next, and if they cannot provide support then the welfare services agency should be asked to introduce the prospective user to support services.

In a community support program, screening may be entrusted to support organizations. Neighborhood associations, welfare commissioners, waste reduction committee members, care managers, or others can confirm that the applicant qualifies for support, sign the application documents, and submit them to the local government.

3.4.3   Waste collection methods

Types of waste and scopes of transportation

A program needs to specify the types of trash that may be transported on users' behalf and how far they will be transported. The main types of trash are ordinary wastes (burnable and mixed wastes), recyclables, and bulky wastes. Transportation may take one of five different scopes, as shown in Fig. 11.
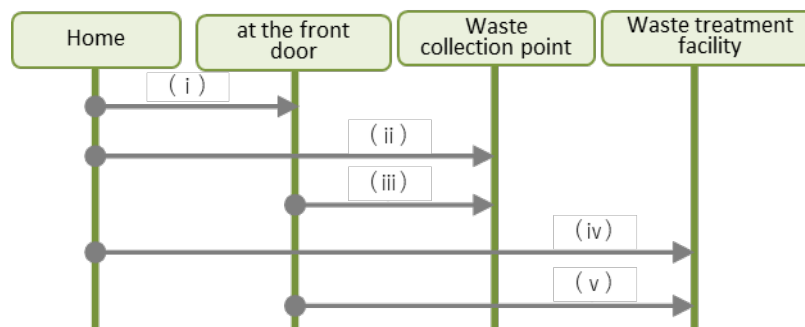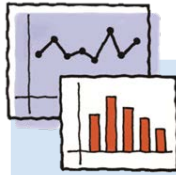

Fig. 11 Scopes of support for taking out the trash

When waste is collected at the house (scopes (i), (ii), and (iv) in Fig. 11), steps must be taken such as ensuring that the user will be home and the front door unlocked when the trash is collected. While many local governments enter users' homes to remove heavy and bulky wastes, most transport ordinary wastes and recyclables from outside front doors (see Data 5).

Waste may be transported to a local waste collection point (scopes (ii) and (iii) in Fig. 11). In that case, it is necessary to follow the rules, putting the trash in the collection point on the specified days and times. Community support programs are well suited for this option because partners in the program live in the same neighborhood. Taking waste directly to the waste treatment facility (scopes (iv) and (v) in Fig. 11) is the same as regular trash collection from individual homes. This option is best for direct support programs because the transport vehicles must meet the standards in the Enforcement Regulations to the Waste Management and Public Cleansing Act.

Assigning staff

Support programs may either collect wastes from individual users' homes en route during ordinary waste collection or collect wastes exclusively from users' homes. Many local governments that incorporate communication with users and checking on their safety take the latter approach to avoid delays in ordinary waste collection.

Data 5: Scope of transportation in support for taking out the trash

A look at the scope of transportation in support for taking out the trash for ordinary wastes and recyclables shows that more than 80% of local governments pick up the trash outside users' front doors, and the remainder pick it up inside their homes. Nearly 80% take wastes to treatment facilities, and the rest take it to collection points. On the other hand, for bulky wastes the largest share (about 50%) removes the wastes from inside users' homes. Among those governments, about 10% leave bulky items outside the front doors of users' homes, another 10% take them to collection points, and the rest take them to waste treatment facilities.
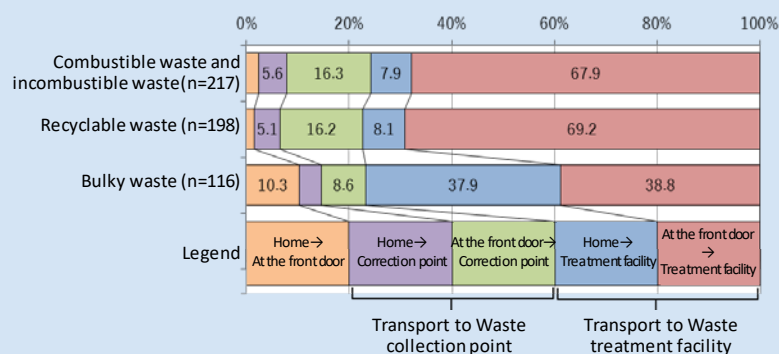
Fig. Scope of transportation for each waste type

It is important for support programs to ascertain users' conditions, for instance, knowing which users are absent due to hospitalization or which ones require special consideration due to recent health issues. Collection staff may be assigned one or two to a vehicle. When vehicles are assigned two staffers, staggering their individual shifts instead of having both of them change shifts at the same time is more effective in promoting information transfer among the staff. Examples of communication practices that can help reassure elderly users include always having the same collection staff visit the user's home or assigning staff in male-female pairs.

Collection vehicles

Suitable vehicles for collection service include small dump trucks and small compaction trucks, which are capable of use on narrow streets (see Photo 1). When collecting multiple types of waste at the same time, trucks can be fitted with dividers in the bed or similar means that prevent mixture of wastes.

Photo 1. Small dump trucks used to collect wastes in the town of Oki, Fukuoka Prefecture

How users take out the trash

If wastes are collected outside the user's front door, having users put out their wastes in covered containers (see Photo 2) can make it possible to put wastes out before the collection day. Some local governments supply these containers, while others have the users purchase them. For some households, such as those where residents use disposable diapers, more than one container may be needed. Users should be asked to follow the rules for separating wastes and recyclables as much as possible, keeping them separate using supermarket bags or other means when putting them into the containers.

In cases involving unusual objects, such as when an umbrella is left resting on a container, collection staff might not know whether or not it is intended as waste. Users should be informed of the need to refrain from placing items other than trash near the containers, to avoid their being collected by mistake.

Photo 2. Examples of covered containers placed outside the front door

3.4.4   Structure of community support

Recruiting support organizations, and increasing their numbers

Support organizations recruit new members and users by calling on neighborhood associations, schools, parent-teacher associations, senior clubs, nonprofits, and other organizations in the community. To attract cooperating partners, they do things such as distributing flyers to institutions or describing the support program at meetings of federations of neighborhood associations or training programs offered by waste-reduction promotion committees. When requests are received from an area without support organizations, local neighborhood associations or other parties can be approached to request their cooperation in starting or participating in a support organization.

Recruiting partners and matching them to user households

Support organizations may devote much effort to recruiting partners. Especially when starting a new support program, it is typical to recruit broadly and prepare a list of possible partners.

Next, households seeking to use the program are matched with partners. Matching is a time-consuming process that involves checking on the intentions of user households and prospective partners and confirming that their homes are not too far apart. When a neighborhood association or a nonprofit serve as the support organization, it may be asked to handle those arrangements. When elementary- and middle-school students serve as partners, their teachers should not be asked to handle matching, and the cooperation of parent-teacher associations and others linking the school with the community is essential.

If a partner is hard to find, for instance, because no candidate lives near a user, individual requests for cooperation may be made to friends or acquaintances living near the user. If finding such a partner is impossible, often officers of the neighborhood association or members of the civic committee handle the task. When multiple users live near each other, such as in an apartment complex, a single partner might support multiple households.

In community support programs, partners take the trash from the user's front door to the user's waste collection point, but sometimes another collection point is more convenient for the partner. In such a case, the neighborhood association or other party managing that collection location should be contacted first and its consent obtained, to avoid possible complaints from neighbors.

Making decisions on uses of subsidies and costs to users

Governments may wish to give support organizations full control over their subsidy as a gesture of respect for their autonomy. Some organizations have allocated their subsidies to activity costs and others have paid them to partners as compensation.

Community support programs sometimes report that elderly people receiving support have offered excessive gifts to partners, such as boxes of sweets, out of solicitude or concern for the partner. Some organizations charge users a small fee based on the argument that this will make users feel more comfortable than receiving support for free.

Developing a broad-based system

In a community support program, it takes time and effort to gather support organizations and partners, and it may take more than simply allocating budgeting and personnel by a government to ensure development of an effective support structure. Some local governments have started out with a community support program for taking out the trash but later switched to a direct support program because they could not secure enough partners. Local governments need to maintain and increase the numbers of support organizations and partners through continuous publicity activities.

## 3.4.5 Communication and checking on safety

Support programs can provide opportunities to notice changes in elderly users' conditions or possible problems. Even though welfare commissioners, home helpers, and others are responsible for protecting the elderly, elderly people's conditions can change at any time, so having as many people as possible look out for them is important to avoid problems and prevent isolation (see Data 6).

Safety checking and communication steps

There are three typical methods of checking on the safety of elderly users by support programs. These are listed below in ascending order of efficacy. Because safety checking could make waste collection much more time consuming, programs should consider which method is most appropriate in light of the waste collection structure and waste collection plans. Users may also be offered a choice of two or three of these.

(i) Little or no communication is attempted with users, but if staff members notice anything unusual, such as repeated failure to take out the trash (as specified by policy), staff may call out to the users, and if there is no response they then take measures such as alerting emergency contacts or the welfare agency.

(ii) Calling out to users any time they have not put out any trash, then taking action if there is no response or if anything seems unusual. If the trash has been put out, no communication is attempted.

(iii) Attempting to communicate with users on each visit and taking measures if there is no response or anything seems unusual.
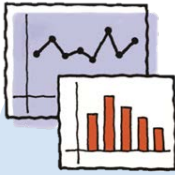
Data 6: Cases of finding irregularities

Of 153 local governments that included communication activities as part of a support program, about 40% reported identifying health concerns or problems affecting users. Many submitted detailed reports of such cases. Although 14 local governments reported discovering elderly people who had died alone, the outcome in most cases was early detection of conditions that prevented further problems. Some examples are provided below.

Example 1: A staff member called out to an elderly user but heard only an unintelligible response from the other side of the house. The user's emergency contact (a nurse) was contacted but could not confirm the user's safety. Next the user's son was contacted and with his consent, the local police were called. When the user still did not reply, the police broke the window and entered to find that the user had collapsed. An ambulance was called and the user recovered.

Example 2: A staff member called out to a user through the front door of her apartment, but there was no response even though it seemed that somebody was inside. Because the apartment's heater seemed to be on, the staff member called the local government office, which contacted one of the user's relatives. The staff member stayed on site until the relative arrived, then rescued the user and put her in an ambulance. Without this quick response, a fire might have started.

Example 3: Finding no trash outside the door, a staff member used the intercom to contact the user but got no response although it appeared that somebody was inside the home. The staff member called the waste management office, which then contacted the user's care manager, who found the user in the house and took him to the hospital where he recovered fully.

Example 4: Upon visiting the user's home, a staff member saw no signs that she was out of the house, yet there was no response to the doorbell or the telephone. The television was on but there were no signs of life. The section in charge of long-term care checked on her safety and found she had died in the bath.
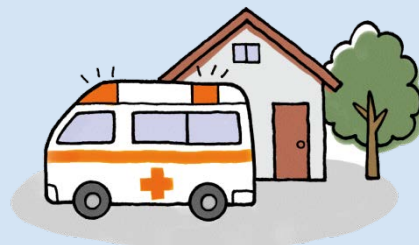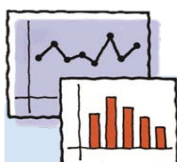
Data 7: State of implementing communication

Among local governments providing support for taking out ordinary wastes, three-fourths of them used communication measures, 38% for all users and 37% for users requesting them. Among sponsors of direct support programs, more than 80% of programs based on municipal resources attempted communication with users and nearly 60% of those based on subcontractors did. Among local governments attempting communication with users, 59% did so every time and 24% did so only when no wastes had been put out.
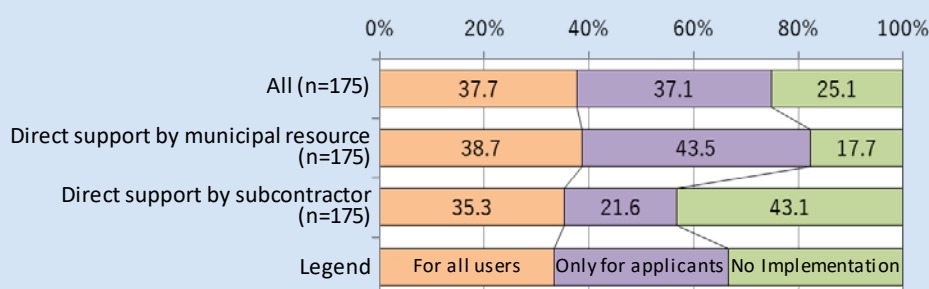
Source: Based on Kojima and Tajima (2017)[13], partially modified

Use of communication measures

Programs should determine in advance whether users want to be communicated with. Some users might prefer not to because it is difficult for them to use the intercom due to difficulties with walking, or they might not need to be checked on because they use a day service on waste collection days.

Some local governments reach out to users of support programs for special reasons, even if they do not communicate with users on every visit. Examples include safety checks after a major earthquake or during heat waves when the use of air conditioning can reduce the risk of heat stroke.

Service providers that do not have communication policies can monitor users' safety on a less intensive basis by notifying the welfare agency if monthly collection reports show that a user has not put the trash out for a long time.

How to respond when something unusual is noticed

The choice of emergency contacts can be important for cases in which something unusual has been noticed. Emergency contacts who are family members may sometimes live too far away to respond promptly in person, or they might be hard to reach by phone. For this reason, it is a good idea to enlist contacts who live nearby and can respond right away, such as welfare commissioners and care managers.

Emergency contacts may be contacted directly by support program staff who notice something unusual or be contacted by the waste management or welfare agency after being alerted by collection staff. The former case enables a swift response to an emergency, but it also could delay waste collection activities. The latter case could delay an initial response but also facilitate smooth coordination with other parties through centralized emergency responders.

Some local governments, with the user's prior consent, will break locks or windows to respond in an obvious emergency, such as when a groaning sound can be heard. A business might not be trusted to enter a user's home in this way, and thus such responses might be restricted to local government personnel and partners explicitly trusted by users. It is a good idea to decide on responses in anticipation of such emergencies.

First-aid training and defibrillator lessons can prepare waste collection staff to conduct effective emergency responses and alleviate any unease they may feel by not knowing what to do in an emergency.

Column 9: Safety Assurance Network

In many local governments, the welfare agencies have established a Safety Assurance Network to carry out efficient, effective protection of elderly users. Under a Safety Assurance Network, when a local resident or a business (such as a utility, newspaper, or delivery company) notices something out of the ordinary regarding an elderly person, the regional support center is contacted, which then takes charge of checking on the elderly person's condition and implementing emergency responses. Since these centers have necessary information such as emergency contacts for elderly people, a collection staff member can contact the center and then resume work, keeping delays in collection work to a minimum.

Column 10: Willingness to pay for a support program: Evaluation by family members of the elderly

How do the families of elderly people regard the support programs provided by local governments for taking out the trash? We asked 1,052 people with elderly parents living far away who favored them using support programs for taking out the trash about the reasons they would use such programs. These respondents were also asked how much money they were willing to pay for such a support program on their parents' behalf [17].

The most common reason for wanting a parent to use a support program was concern about injury due to falling, cited by 64% of the respondents, followed by the fact that taking out the trash seemed physically difficult, cited by 42%, and the fact that the service would help check on their safety, cited by 39%。
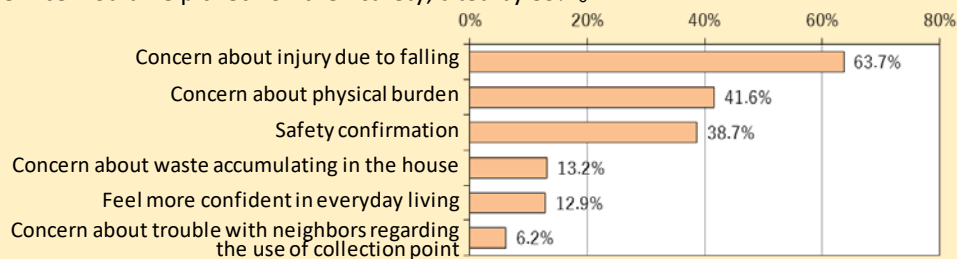
Reasons why family members favor using support programs [17]

The average amount these respondents were willing to pay was 3,603 yen/month (43,234 yen/year) when communication and checking on safety were involved, and 2,912 yen/month (34,946 yen/year) when these were not involved. These findings show that family members of elderly people value support for taking out the trash highly. They also indicate that communication services can help reassure family members living apart from their elderly relatives.

<u>Helpful practices</u>

Sometimes elderly people using communication services may be out of the house for various reasons. Users must be asked to notify the waste management agency in advance when they will be absent, otherwise time could be wasted trying to check on their safety. Survey results showed that for some local governments, repeated instances of unnecessary checks led to communication efforts becoming a mere formality. Other local governments took different ways to facilitate checking on safety:

- ✧ Having elderly users use "absence tags" when they would be out of the house, hanging them in places where only waste collection staff would notice them. This method is convenient for users, but to avoid alerting burglars, users need to pick a discreet location to hang their tag.
- ✧ Taking no action when a notice card is displayed indicating that communication attempts are unnecessary, thereby saving contact attempts for unusual situations arising when the card is not displayed.
- ✧ Placing a form in the mailbox if the user seems not to be home when a communication attempt is made, asking the user to contact the municipal office by 15:00 that day. The municipal office takes action if contact is not made.

Notes on communication with elderly users

In addition to a desire for help in taking out the trash, elderly people may have other reasons for wanting to use a support program, such as a general sense of reassurance (see Column 11). For elderly people living alone, a chat with a waste collection staff member might be their only conversation of the day. Some local governments providing support have trained collection staff to interact in friendly ways with elderly people. Efforts that reflect consideration for elderly people, such as pleasant greetings and chatting, are desirable as long as doing so does not impede waste collection activities.

It is essential to understand that elderly people requiring support often take time to do simple everyday tasks and might not be able to answer an intercom or telephone right away. For example, some local governments let the phone ring 20-30 times when calling user households. In addition, dedicated training is an effective way for support workers to learn basic knowledge about elderly people with cognitive conditions and how to interact with them.

Additional tips for a community support program

In a community support program, if partners are neighborhood residents, they might be able to tell whether or not the elderly user is out for day services or being visited by a home helper when they collect wastes, and thus that there is no suspicion of anything out of the ordinary, even without speaking with the user. Also, since asking partners to respond to emergencies may put them under psychological pressure, it is desirable to decide on unobtrusive methods to watch over through discussions with individual partners to avoid placing too much of a phycological burden on them.
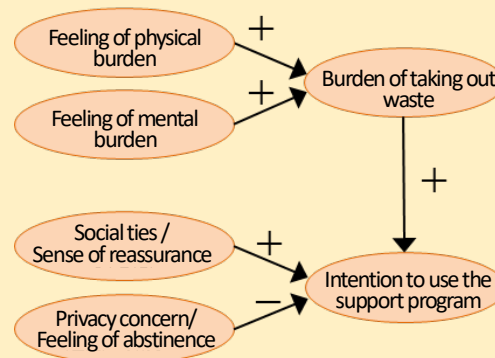
Column 11: Psychological factors related to enlisting in a support program

Sometimes, despite all efforts at publicity, fewer than expected user households sign up for a support program. What psychological factors affect people's inclination to use support for taking out the trash? Results of a survey of 386 elderly people showed that their inclination to use support for taking out the trash is influenced by the psychological factors shown in the figure below [18].

The greater the burden of taking out the trash seems for elderly people, the more likely they are to want to use a support program. Positive factors are the social ties and sense of reassurance that come from communication and checking on safety, and negative factors include privacy concerns related to others seeing their trash and a feeling of not wanting to be a burden.

The survey showed that direct support programs led to a stronger sense of reassurance, in that services were provided by public employees, and community support programs led to more resistance to support due to privacy concerns and a feeling of not wanting to be a burden vis-a-vis partners who were familiar to users.

Source: based on Kojima and Tajima (2015) [18], partially modified

Psychological factors related to intention to use a support program

The survey results show that support programs need to take into account this sense of reserve on the part of elderly people and their desire for ties with the community.
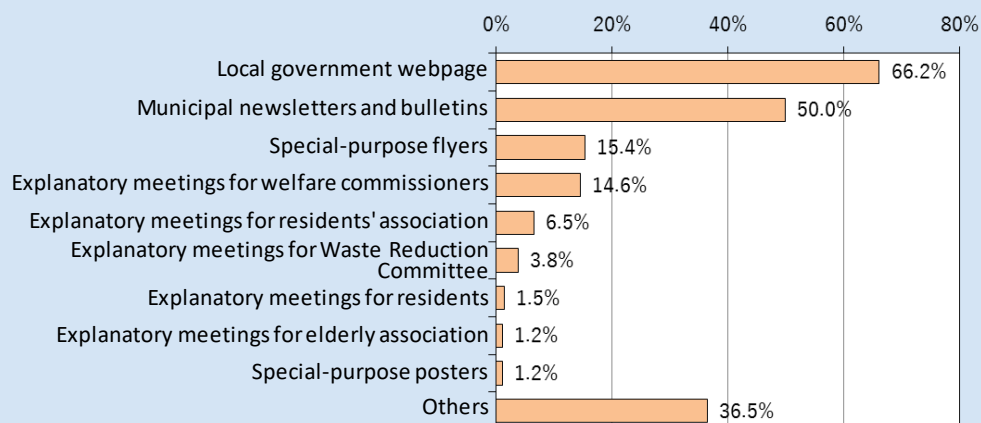
Publicizing the program among elderly people

As detailed in Data 8, many local governments publicize their programs on their websites or in community bulletins. In local governments where numbers of user households increased, care managers and welfare commissioners understood the programs and encouraged elderly people who needed support to use them. When preparing care plans for elderly people certified to require long-term care or assistance, care managers incorporated support for taking out the trash. Welfare commissioners should visit single-person elderly households regularly and learn about their challenges to gain information on which elderly people might need support. When beginning a support program, it is important to request the cooperation of welfare commissioners and care managers in preparing lists of elderly people who need support. Welfare commissioners and care managers have found success in having flyers distributed at regional comprehensive care centers and home long-term care support sites as well as holding training sessions and explanatory briefings.
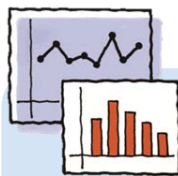
Data 8: Public relations methods

The most common methods of raising awareness among residents were posting information to the local government website (66%), publishing information in municipal newsletters and bulletins (50%), distribution of special-purpose flyers (15%), and explanatory meetings for welfare commissioners (15%). Other methods cited included raising awareness through regional comprehensive care centers, home long-term care support sites, and social welfare councils.

Local government webpage	66.2%
Municipal newsletters and bulletins	50.0%
Special-purpose flyers	15.4%
Explanatory meetings for welfare commissioners	14.6%
Explanatory meetings for residents' association	6.5%
Explanatory meetings for Waste Reduction Committee	3.8%
Explanatory meetings for residents	1.5%
Explanatory meetings for elderly association	1.2%
Special-purpose posters	1.2%
Others	36.5%

Public relations methods for support programs [12]

Periodic meetings among related parties

Periodic opportunities for all of the parties involved in a support program to gather together, share information on performance and outcomes, and discuss related issues can help to enhance

cooperation. In particular, while cooperation between waste management and welfare agencies is very important, they may have different ways of thinking and organizational cultures. Periodic meetings are useful for gradually breaking down these barriers and sharing goals and challenges.

Records and reports

Keeping records of matters such as living conditions in user households, the form of support provided, and details of safety checks is very important for effective and efficient waste collection and protection activities. Each user household should have its own separate file used to retain application forms and records of interview and survey results, details of checking on safety, and other information.

Preparation of daily and monthly work reports by waste-collection staff can help identify anything out of the ordinary, such as a household that has not put trash out for a while.

Suspension, resumption, cancellation

Sometimes elderly people will not need support for a while due to lengthy travel, hospitalization, or a stay at eldercare facilities. If waste collection staff are not informed, they will continue to visit the household, making collection activities less efficient, or even expend unnecessary effort checking on the user's safety. It is important to ask users and their related parties to notify the program quickly if support is not needed and how long the service hiatus will be. Support programs should decide in advance on the conditions for suspending service, such as the length of time when no trash has been put out and the user household cannot be contacted and arrange procedures for cases in which the user household requests that the service be suspended or discontinued.

Handling of personal information

Information on subjects such as a user household's family structure and long-term care certification status is personal information that must be handled with care. It must be managed in accordance with the local government's information security regulations and may not be provided to support organizations or subcontractor businesses without first checking with the persons concerned.

At the same time, there are situations where information sharing is useful, such as when the welfare agency learns that a user is staying at a care facility, but the waste management agency cannot decide whether or not to suspend support for lack of that information. It is desirable to set up a structure for necessary sharing of personal information among related agencies within the increasingly strict guidelines of municipal offices.

Revising the support structure

It is conceivable that as the numbers of user households increase with the aging of the population in the future, the initial program design may no longer be able to handle all demand. It is desirable to conduct a review of the structure of support programs at the same time basic general waste management plans are revised or reviewed. The information in this Guidebook should be useful for reference during such a review.

Surveys and research activities

Survey on composition of wastes in Morinosato Danchi, city of Tsukuba [Publication 19)]

Subjects: 75 households in Morinosato Danchi
Date: December 2012
Content of survey: Combustible wastes collected three times over two weeks, separated into 22 categories, and weighed

Awareness/activity survey on wastes in Morinosato Danchi, city of Tsukuba [Column 11, Publication 18)]

Subjects: Households of all members of the Morinosato Danchi Neighborhood Association
Date: February 2013
Methodology: Printed questionnaires
Number issued: 1,162; Valid responses: 937; Valid response rate: 80.6%
Content of survey: Time taken to take out the trash, awareness of taking out the trash and support for doing so, etc.

Questionnaire survey on efforts to support the elderly in taking out the trash [Publication 8,12, 13, 20, 21, 22)]

Subjects: Waste-management sections of local governments nationwide
Dates: June-July 2015
Methodology: Printed questionnaires sent by post
Number issued: 1,741; Valid responses: 1,127; Valid response rate: 64.7%
Content of survey: Recognition of issues, presence or absence of support programs, content of support programs, performance, results, issues, etc.

Interview survey on efforts to support the elderly in taking out the trash [Publication 13, 21, 22)]

Subjects: Eleven local governments carrying out distinctive efforts (city of Abiko, city of Ushiku, town of Oki, town of Kamikatsu, city of Chiba, city of Tokorozawa, city of Niigata, city of Hino, city of Minamata, city of Yamagata, city of Yokohama)
Dates: 2012-2017
Content of survey: Background of setting up support program, content of support program, performance, results, issues, etc.

Survey to quantify convenience of support for taking out the trash by the elderly [Column 10, Publication 17)]

Subjects: People who had elderly parents living far away and would like them to use support programs for taking out the trash
Date: February 2016
Methodology: Internet survey
Valid responses: 1,052
Content of survey: How much money subjects were willing to pay for such a support program on their parents' behalf

Review meeting on programs to support the elderly in taking out the trash

Date: March 2017
Attendees: Town of Oki, city of Chiba, city of Tokorozawa, city of Niigata, city of Hino, city of Yokohama, Prof. Toru Matsumoto of the University of Kitakyushu, 3R Promotion Forum General Secretary Hiroshi Fujinami, Ministry of the Environment (observer), National Institute for Environmental Studies, Japan Waste Research Foundation (secretariat)

Agenda: Efforts by each local government, recommendations on the draft Guidebook

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