



Title	Comprehensive visualization of welfare services for the elderly in a small-sized municipality : a case study of information compiled by the manager of the health and welfare division, Tsurui Village, Hokkaido [an abstract of entire text]
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Citation	北海道大学. 博士(環境科学) 乙第7114号
Issue Date	2021-03-25
Doc URL	<a href="http://hdl.handle.net/2115/82050">http://hdl.handle.net/2115/82050</a>
Type	theses (doctoral - abstract of entire text)
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File Information	Kazuya_TAKAMATSU_summary.pdf



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**Comprehensive visualization of welfare services for the elderly in a small-sized municipality: a case study of information compiled by the manager of the health and welfare division, Tsurui Village, Hokkaido**

(小規模自治体における高齢者福祉事業の俯瞰的可視化:  
北海道鶴居村保健福祉責任者が集約した情報に関する事例研究)

Kazuya Takamatsu

Due to the declining birthrate and aging population, the population is declining in many regions, increasing the elderly's percentage in the population. For those small-sized municipalities, the maintenance of the local community is an inevitable challenge. As the elderly people make up a large portion of the population, the need for welfare services will inevitably increase to maintain the lives of the elderly people. Many municipalities have their own welfare services for the elderly people, such as transportation, daily safety checks, and shopping support.

The provision of welfare services by municipalities is based on applications for use by the individuals or their families. Therefore, it is difficult for municipalities to quickly grasp the living conditions of elderly people who have not applied for welfare services. Some elderly people may not be able to speak up to receive the welfare services they need, such as those who cannot apply for welfare services or those who cannot obtain support from others. As a result, there is a possibility that welfare services have not reached all elderly people who need them. The lonely deaths of elderly people would be an example of this inference. Even if municipalities conduct questionnaires to all elderly people in an attempt to find elderly people who are not receiving welfare services, they hardly obtain

responses with 100% the response rate. In addition, it is not realistic to expect municipal staff in charge to visit all elderly people to check if they are qualified for their needs of welfare services, considering the number of staff in charge and the time and effort to spend.

This doctoral dissertation conducted two case studies focusing on the “Daily Living Information File,” a file compiling information on the welfare services used by the elderly in Tsurui Village, Hokkaido, Japan, a small-sized municipality, from the perspective of “No one will be left behind” as a spirit of the Sustainable Development Goals (SDGs) (United Nations, 2015). Two case studies based on the “Daily Living Information File” are (1) to demonstrate the presence of the elderly who may be left out of regular social services and (2) to discuss the requirements to ensure that no one is left out of the safety list of the elderly in emergency events such as disasters.

The “Daily Living Information File” is a Microsoft® Excel file created by the manager of the health and welfare division in June 2018 to compile each elderly’s access information on the welfare services or absence of their responses to questionnaires (hereafter called as “the information on the use of welfare services”) held by each section under the division. The file targets all senior citizens aged 65 years and older (777 people as of April 1, 2018), from the viewpoint of eliminating whether the presence of the elderly who do not know the welfare services are available (so-called “No one will be left behind” perspective). The “Daily Living Information File” contains (1) personal information such as name, age, and address, as well as the presence or absence of the user information on the welfare services (2) by laws and regulations and (3) by the Tsurui-original. When staff in charge finds an elderly people facing a problem in his/her daily work,” he/she can immediately refer to the staff in charge of the appropriate welfare

service by using the “Daily Living Information File” to ascertain the presence or absence of the user information on welfare services outside of his/her jurisdiction. Since the “Daily Living Information File” includes necessary information such as name, gender, and date of birth, the protection and management of personal information must be considered in accordance with the Law Concerning the Protection of Personal Information and the Tsurui Village Regulation Concerning the Protection of Personal Information. The other items are only listed with the presence or absence of the information on the use of welfare services, which is relatively easy to manage and share within the health and welfare division.

Chapter 2 demonstrated what kind of information can be extracted from the “Daily Living Information File.” The file effectively worked the Health and Welfare Division new to find 30 elderlies out of a total of 777 elderlies. The interviews confirmed that none of the health and human services division had known their living conditions. By implementing a “Visit survey for grasping the actual living conditions of the elderly,” one of the Tsurui-original projects established targeting about 50 elderly each year, the department will not pass unnoticed these elderly’s living conditions anymore. In other words, the “Daily Living Information File” should allow us to achieve “No one will be left behind,” a spirit of the SDGs, at the level of grasping after one year. Using the “Daily Living Information File,” it was attempted to visualize elderly’s situations such as percentage of living alone, age, and certification of nursing care in each district and to investigate their reasons. Many of the results were as the staff in charge had grasped or imagined but were also found to be different from what was imagined: e.g., cause of Tsurui Village’s lower percentage of certification of needed support/care than surrounding

municipalities.

Based on this demonstration, we propose the following two-step understanding of all elderly: the first step is to grasp a comprehensive view of whether there is or not the user information of welfare services using the “Daily Living Information File,” and the second step is to obtain detailed information referred to established administrative systems and others for the focused elderly. Although the “Daily Living Information File” contains necessary information taken care of to manage personal information, it is relatively easy to manage and share within the section in charge because it does not contain detailed information.

As an example of the advantages of a comprehensive grasping using the “Daily Living Information File,” we confirmed the characteristics of the elderly and welfare services by district and age group, which were known to those in charge of elderly welfare for a long time. As for the certification of the need for nursing care/support, we were able to find factors causing the lower certification rate than municipalities surrounding Tsurui Village, which are new to the staff in charge. As for the original purpose of developing the “Daily Living Information File,” we were able to examine whether there were the elderly who did not use any welfare services or did not receive any information.

About half of all elderly people can be identified from the questionnaire for the long-term care insurance business planning for the entire elderly and the utilization of clinics, respectively. When the two are combined, around 80% of the elderly were identified. On the other hand, when combined with the “Visits survey for grasping the actual living conditions of the elderly” and the status of those certified as requiring support/ care, we were able to identify around 50-70% of people who are likely to need welfare services. However, we found out that about 10% of the elderly people matching with no items left

unknown. For this 10% of the elderly, the staff in charge could not immediately recall their faces. Some of are the healthy elderly who do not need welfare services, and others are likely to be some so-called “left behind the elderly” who have no access to the welfare services they apply for, for whatever reason. When conducting the questionnaire for the long-term care insurance business planning, it would be a chance to identify more elderly requiring getting to know individually.

The person in charge will perform their tasks based on their experiences and judgment (so-called on-site knowledge) as in the past and can use the “Daily Living Information File” to provide new welfare services. Anyone just not the person in charge of elderly welfare for a long time can easily access and communicate about the information. To continuously use “Daily Living Information File,” future issues include integrating the information obtained from the “Daily Living Information File” into the field knowledge of the staff in charge and/or incorporating information based on field knowledge into the “Daily Living Information File.” By doing so, we would be able to provide welfare services that meet the needs of a super-aged society as well as the actual living situations of the elderly.

Chapter 3 discussed the case in which the “Daily Living Information File” was used to extract people to be checked for their safety during a large-scale power outage “blackout” following the Hokkaido Eastern Iburi Earthquake in September 2018. The “Daily Living Information File” ensured comprehensiveness, flexibility, and convenience in the extraction process of persons matched with unexpected blackout requirements under the condition of the limited number of staff assigned. This study demonstrated that the “Daily Living Information File” could be used, even in emergencies, to extract people

according to new requirements and circumstances, although the government recommends using “List of Persons in Need of Evacuation Support” in normal times. Although the “Daily Living Information File” must be carefully managed since it contains personal information, an ingenious contrivance made it relatively easy to manage without including detailed information was also found. There is a challenge that the “Daily Living Information File” has not been updated after the earthquake and does not ensure its reliability.

Although it is recommended to use “List of Persons in Need of Evacuation Support” behavior at the time of disaster during, the case study of Tsurui Village proved that the “Daily Living Information File” in need of evacuation behavior at the time of disaster can be used in an emergency situation and ensured the flexible response with new requirements and situation to extract persons qualified. In consideration of updates, the amount of information to be included should be discussed in the future. It was also fortunate that they were able to handle information on a laptop computer during a power outage, as in the case of Akkeshi Town in Hokkaido, Japan, which was introduced in the “Casebook on evacuation behavior support for people requiring evacuation behavior” (Cabinet Office, 2017). Storing the information in paper form as well would be less comprehensive and convenient, but it would be able to handle more severe emergencies than this one.

In the case study of Tsurui Village, an increase in the burden of the updating process was also pointed out by the staff in charge. In addition to formulating business continuity plans (BCPs), it would be possible to prevent forgetting to update the information and conduct simulated drills, for example, by updating information and identifying those who are affected, in conjunction with comprehensive disaster drills and the like, which are conducted every year in many municipalities. In small-sized municipalities, the number

of people on the rolls is limited, while the administrative staff is also being reduced, and the government is providing a variety of welfare services. Furthermore, linking disaster response and daily living information is essential to deal with the increase in the number of natural disasters due to climate change and the depopulation caused by declining and aging populations.

These case studies revealed that Tsurui Village successfully visualized many welfare services in a small-sized municipality close to the residents. The “Daily Living Information File,” a small Microsoft® Excel file, is the opposite of a large-scale system developed in a large city, but it turns out that both have similar roles. This doctoral dissertation demonstrated that even such a small file could play a sufficient role in providing a comprehensive view of the elderly welfare services in the village, although the system’s form and scale depend on the size of the municipality. Notably, it is shown that they extracted applicable persons under unexpected requirements with ensuring comprehensiveness, flexibility, and convenience, even in emergencies. The “care plans” of care managers introduced in Okada (2011) and the “List of Persons in Need of Evacuation Support” in the Casebook (Cabinet Office, 2017) are both limited in their target, a part of all elderly. Neither the previous studies nor the Casebook contains any academic research studying disaster responses using compiled user information of welfare services in all elderly as a “Daily Living Information File.” This dissertation reveals the significance of the “Daily Living Information File” from an academic perspective. On the other hand, updating the information becomes a challenge. Generally speaking, the more detailed information included in the file, the more time and effort it takes to update the information. As a result, the file will not be updated. The



“Daily Living Information File” compiled by the health and welfare division has not been updated since it was made. As discussed in Chapter 3, to be updated frequently, there may be ways to reduce the amount of information, create an incentive to update, or make it mandatory. However, this research could not indicate which one is effective. In addition, this research has not discussed how unique the “Daily Living Information File” is compared with other municipalities. These points remain challenges for this study. If other municipalities have a file/database like the “Daily Living Information File” or similar cases, a comparative study could be done. This study shows the potential of compiling information on the use of welfare services to ensure that no one will be left behind in the aging society with declining birthrates and provide welfare services suitable to individual elderly people. This study is a case study of Tsurui Village, a small-sized municipality, but it is expected that more and more municipalities will introduce the trial like this study.