A Study on Facility Supply from the Withdrawal Process of Care-Needing Elderly Facilities in Sanin Region and Mountainous Areas -A Case Study of in Yamaguchi Prefecture-

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Abstract

At present, Japan faces the serious problem of population decrease by low birthrate and aging. Especially, this problem is remarkable in Sanin District including the northern area of Yamaguchi Prefecture. Therefore, the purpose of this study is to consider the facility supply method for the future in a society with population decline, by investigating the entry and withdrawal of care facilities for the elderly in the northern area of Yamaguchi prefecture, such as Hagi city, Nagato city, and Mine City. The results are as follows. 1) Although the total number of facilities is decreasing slightly in Hagi city, it is not changing in Nagato city and Mine city. 2) By the kinds of facilities, nursing homes and group homes tend to enter newly while long term care wards and day care facilities tend to withdraw. Since the number of facilities in three cities is hardly changing, it is thought that these tendencies depend on Nursing-care-insurance revision rather than population decline. 3) Although entry and withdrawal facilities occur in each central area of 3 cities, entry and withdrawal hardly occur in other areas. In order that a corporation for profit may enter into a nursing care market positively, entry and withdrawal of facility managed by asocial welfare corporation in each area and a corporation for profit doesn't enter into a small market, entry and withdrawal of facilities rarely occur except the central area. At present, since the elderly population over 75 years of age is increasing although population decline. However, it is predicted in 2030 that the elderly population over 75 years of age will decrease. It is most important to observe the entry and withdrawal of care facilities for the elderly carefully in order to design the facility supply method with population decline.

Keywords: population decline; entry and withdrawal of care facilities; care facilities for the elderly

1. Introduction

According to the national census in 2015, the total population of Japan was 127,900,000 people, and the population of about 947,000 people decreased as compared with the national census in 2010. Namely, Japan faced the decrease in population for the first time. In whole Japan, while it is predicted in 2050 that population over 75 years of age decreases, in the local city in Japan, it is predicted in 2030 that population over 75 years of age decreases. Because of the decrease in elderly population, it is necessary to reconsider the supply method of care facilities for the elderly. Although

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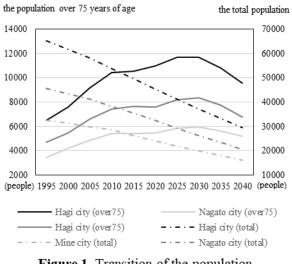


Figure 1. Transition of the population over 75 years of age

there are some existing researches on the facility supply in consideration of the increase in an elderly population, there is almost no research on the

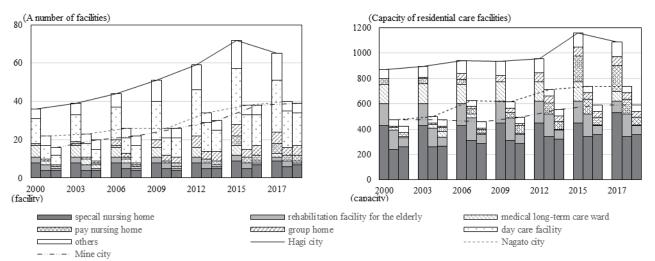


Figure 2. The relationship between the sort of service and the number of facilities

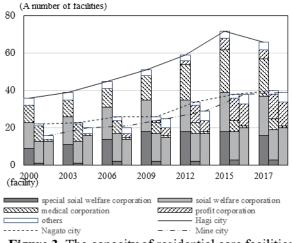


Figure 3. The capacity of residential care facilities

facility supply in consideration of the decrease in an elderly population. From the social background above, the purpose of this study is to consider the facility supply method for the future in a society with population decline, by investigating the entry and withdrawal of care facilities for the elderly in the northern area of Yamaguchi prefecture, such as Hagi city, Nagato city, and Mine city.

2. Method

2.1 Outline of survey area

Transition of the population over 75 years of age is presented in Figure 1. In the point that the population over 75 years of age decreases after 2030, transition of the population in three cities is similar. In some merged old municipalities, the elderly population over 65 years of age has already decreased as of 2015. A lot of municipalities in Yamaguchi prefecture were merged in the 2000s. In

Figure 4. The relationship between the management corporation of facilities and the number of facilities

2005, old Nagato city merged neighboring municipalities into present Nagato city, and old Hagi city merged neighboring municipalities into present Hagi city. In 2008, old Mine city merged neighboring municipalities into present Mine city. Hagi city is located in the northern part of Yamaguchi prefecture and develops around a center of old Hagi city. Economic disparity was spread between old Hagi city and merged other municipalities. Nagato city is located in the northwest part of Yamaguchi and adjacent to Hagi city. Because fishery is the main industry, Nagato city develops around a fishing port. Mine city is located in the mountainous area of Yamaguchi and adjacent to Hagi city and Nagato city. In Mine city, each center of old merged municipality develops.

2.2 Method of this research

In this study, two following methods are used. (1)Creating a database with statistical data

The database of care facilities for the elderly was made by collecting various statistics from 2000 through 2017 about the elderly facilities which welfare section of each municipality office in Yamaguchi prefecture owned.

(2) Confirmation survey into database

The interview survey to each municipality office was carried out and the latest information of elderly care facilities was collected on the Internet in order to confirm whether the information of them listed in statistics was right. Browsing the HP on the Internet was November from September, 2017.

3. Transition of the number of facilities

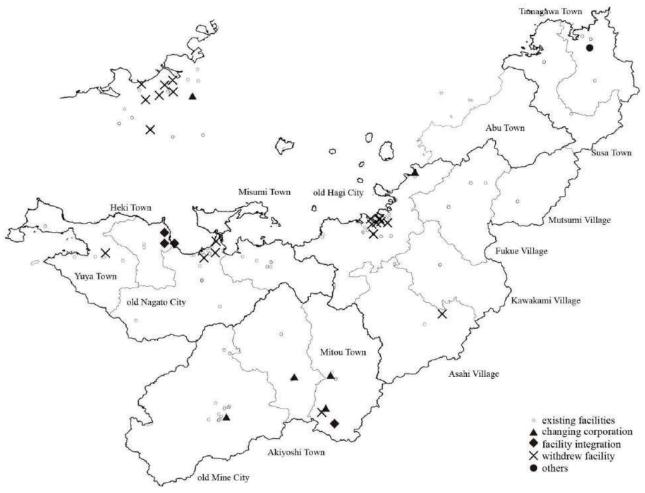


Figure 5. A location map of facility

	2	2000~		2003~			2006~			2009~			2012~			2015~		
specail nursing home				1														
rehabilitation facility for the elderly																1		
medical long-term care ward	1			1	1		1	3	2	1						3		
pay nursing home							1											
group home																		
day care facility																5	3	5
others																		

Table 1. The number of withdrawal facilities table

Table 2. The number of withdrawal corporations

		2000~		2003~			2006~			2009~			2012~			2015~		-	
special soial welfare corporation														1			3		
soial welfare corporation							1												
medical corporation		1			1	2					1						4		
profit corporation														1				3	4
others					1			1											1
	*	10	left : Hagi city middle : Nagato city ri									ri	ght	:	Min	e cit	y		

3.1 The kinds of service

Figure 2 indicates the relationship between the kinds of service and the number of facilities. In Hagi city, the number of facilities increased, but

declines after 2016. In Nagato city and Mine city, the number of facilities hardly changes in recent years. As the reward of day care facilities was reduced by revision in 2015 of Nursing Care

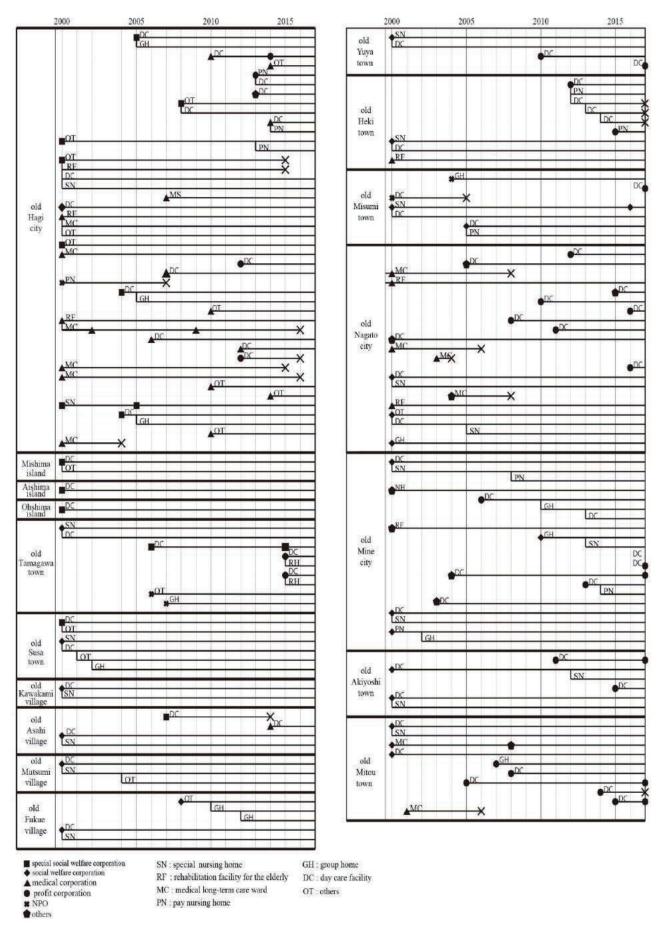


Figure 6. A chronological table of facility

Insurance Law, the number of day care facilities is decreasing. Similarly, since long-term care wards are abolished in 2017 by a health care overhaul, the number of long-term care wards is decreasing. Instead of long-term care ward, the number of pay nursing homes and group homes is increasing.

3.2 Management corporation of facilities

Figure 3 indicates the relationship between the management corporation of facilities and the number of facilities. The number of the facilities managed by a social welfare corporation and a profit corporation is increasing. In Japan, a profit corporation was not able to enter the care welfare business market before introduction of nursing care insurance. Therefore, an entry of a profit corporation begins in 2000, and the number of entries of profit corporations is increasing rapidly in recent years. In Hagi city, because facilities were supplied by the special social welfare corporation which was established by the local government, there were few entries of a profit corporation. In addition, after 2015, the number of the facilities which were managed by a medical corporation, a profit corporation and a special social welfare corporation is slightly decreasing. In Nagato city, the number of the facilities managed by a medical corporation was the largest in 2003, but it is decreasing after 2015.

3.3 Capacity of residential care facilities

The capacity of residential care facilities is presented in Figure 4, and it is counted with the number of beds of facilities. The number of beds of residential care facilities is increasing in Mine city and Nagato city, and it is decreasing in Hagi city. Since it is predicted that the population over 75 years of age increases in three cities until 2030, it is thought that the demand of residential care facilities increases. Moreover, in order that a long-term care ward is abolished in 2017, it is thought that a long-term care ward was switched to a pay nursing home from 2012 through 2017 in Hagi city. The residential care facility can be classified into three types, such as a long-term care ward, a rehabilitation facility for the elderly and a special nursing home. In Hagi city, a rehabilitation facility for the elderly was switched to a special nursing home in 2016, since the number of total beds did not change. In Nagato city, although a long-term care ward was abolished from 2006 through 2009 and the number of beds of facilities was decreasing, a pay nursing home was established in 2010 and the number of beds tends to increase slightly. Though Mine city and Nagato city are similar, Mine city is different from Nagato city in the point where not a pay nursing home but a special nursing home was established.

4. Withdrawal situation of facilities

The number of withdrawal facilities is presented in table 1 and the number of withdrawal corporations is presented in table 2. The withdrawal facilities on a database include the facilities which changed the name or the management corporation. Since the reward of day care facilities was reduced and long-term care wards were abolished, the ratio that a day care facility and a long-term care ward occupy is high in withdrawal facilities. A location map of facility is presented in figure 5. In Mine city, the facility keep operating by changing corporation. In the central area of Nagato city and Hagi city, a lot of facilities were withdrawn. In Nagato city, four small day care facilities was margered into one large day care facility. Although entry and withdrawal facilities occur in each central area of three cities, entry and withdrawal hardly occur in other areas. A chronological table of facilities are presented in Figure 6. In order that a profit corporation may enter into a nursing care market positively, the corporation doesn't enter into a small market. In order that a social welfare corporation provide equal service, it enter into a small nursing care market.

5. Conclusions

The results of this paper are as follows.

 Care facilities for the elderly are affected by legal revision of Nursing Care Insurance Law and changing law of a health care overhaul. Nor ever, as long-term care wards were abolished in 2017 by a health care overhaul, long-term care wards were switched to nursing homes and rehabilitation facilities for the elderly. Although these changes of facilities occurred at about 2006 in Nagato city and mine city, they occurred at about 2015 in Hagi city.
A lot of entry and withdrawal facilities were located into the central area. Although the changes of management corporations and facility name may often occur, the function as care facilities for the elderly was maintained in many case. In other areas except the central area, there were almost no entry and withdrawal facilities, and there was only one facility which was established at relatively early time by a social welfare corporation.

The purpose of this study is to consider the facility supply method for the future in a society with population decline. But in the future research, the number of survey areas will be need to increase in whole Yamaguchi prefecture, since the number of survey areas is little at present.

References

- Mishima, S.(2015) Establishment Situation of Day Care Facilities for Elderly-people in Hagi City -The Supply Process of Day Care Facilities for Elderly-people by Social Welfare Corporation "Hagi Syakaifukusi Jigyoudan" in Hagi City (Part 1) -, Proceedings of annual research meeting Chugoku Chapter, Architectural Institute of Japan (AIJ), 38(501), 501-504
- Mishima, S.(2016) Comparison of construction patterns of day care facilities for the elderly before and after the introduction of nursing care insurance – Location trend analysis by the viewpoint of management organization in Yamaguchi Prefecture –, Architectural Institute of Japan(AIJ), 725, 1463-1471
- Ishibashi N.(2016) Development of Day Care Facilities in Hagi northern region - The Supply Process of Day Care Facilities for Elderly-people in Hagi northern region (Part 1) -, Proceedings of annual research meeting Chugoku Chapter, Architectural Institute of Japan (AIJ),39(505), 517-520