

Comparative Analysis on the Cremation Rate of the Capital Area and the Increase Rate of Cremated Bodies Using the Online Cremation Reservation Service in Funeral Information System

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Abstract

In the study, we show the annual average increasing rate of death bodies in the capital area was 2.1% while the annual average increasing rate of cremated bodies was 4.5%. As the annual average increasing rate of cremated bodies was about 2.1 times higher than the annual average increasing rate of death bodies, the increase rate of cremated bodies contrast to the increase rate of death bodies was relatively high. Also, the cremation rate of the capital area was increased by 9.5% from 80.3% in 2011 to 89.8% in 2017 while the increase rate of cremated bodies was 27.2%(N=21,694 people) from 79,866 people in 2011 to 101,560 people in 2017. Thus, the increase rate of cremated bodies contrast to the increase of cremation rate of the capital area was relatively very high. On the basis of 2017, the utilization rate of public cremation facilities in by capital area was 94.5% in Incheon Metropolitan City, 91.1% in Seoul Metropolitan City, and 20.9% in Gyeonggi-do, which showed huge differences in the utilization rate of public cremation facilities in the jurisdiction area of by capital area.

Focusing on the actual state shown in the results of this study above, it would be necessary for Seoul Metropolitan City to carry forward a supply & demand policy of cremation facilities through the extension of cremation furnaces, for Gyeonggi-do to carry forward a policy to build the public cremation facilities focusing on the basic local government in the jurisdiction area, and for Incheon Metropolitan City to enforce the measures for the joint use of cremation facilities with the basic local government in the adjacent Gyeonggi-do jurisdiction area in order to improve the efficiency of the operation of cremation facilities.

Keywords: *Capital Area, Cremation Rate, Funeral Information System, Cremation Facilities, Jurisdiction Area.*

1. Introduction

Since the cremation rate of the whole nation of Korea exceeded 50% for the first time in 2015(52.6%), it

has been continuously increased annual, and it finally reached 84.6% in 2017. Also, the cremation rate of the capital area was close to 90%(89.8%)[1].

As the rate of elderly population in 65 years or up contrast to the whole population was 7.3% in 2000, Korea entered the aging society. As the rate of elderly population in 2017 was 14.2%, Korea entered the aged society[2]. Like this, due to the increase of elderly population, the number of death bodies is continuously increasing annual in the whole nation. To operate all the cremation facilities in the whole nation through the unified reservation system, the Ministry of Health and Welfare has established and enforced the Online Cremation Reservation Service in Funeral Information System from 2011[3,4], and the cremated bodies using this service are increasing annual.

Thus, this study selected the research scope from 2011 when the Online Cremation Reservation Service in Funeral Information System was enforced in the whole nation, to January 21st 2019 when the Ministry of Health and Welfare announced the cremation rate of the whole nation and the cremation statistical data of 2017. This study also aimed to make suggestions for policies to improve the efficiency of using the public cremation facilities by analyzing the cremation rate of the capital area and the actual state of increase rate of cremated bodies using the Online Cremation Reservation Service in Funeral Information System.

2. The current state of death bodies and cremated bodies in the capital area

2.1 The current state of death bodies and cremated bodies by year

During the period from 2011 to 2017, the death bodies and the cremated bodies were increased annual. The average annual death bodies were increased by 1.8% in the whole nation, and 2.1% in the capital area while the annual average cremated bodies were increased by 5.3% in the whole nation, and 4.5% in the capital area [6]. Therefore, the increase rate of cremated bodies contrast to the increase rate of death bodies was relatively high. Also, the capital area contrast to the whole nation showed the relatively high annual average increase rate of death bodies while the increase rate of cremated bodies was low.

Table 1. The Progress of death bodies and cremated bodies by year(2011~2017)

(Unit : People)

Sort		2011	2012	2013	2014	2015	2016	2017	Average Annual Increasing Rate
Death Bodies	Whole Nation [A]	257,396	267,221	266,257	267,692	275,895	280,827	285,534	1.8%
	Capital Area [B]	101,218	105,225	106,061	106,987	109,510	112,874	114,074	2.1%
	Rate [$B \div A$]	39.3%	39.4%	39.8%	40.0%	40.0%	40.2%	40.0%	39.8%
Cremated Bodies	Whole Nation [A]	182,946	197,717	204,750	212,083	222,895	232,128	241,665	5.3%
	Capital Area [B]	79,866	85,584	88,922	91,820	95,146	99,047	101,560	4.5%
	Rate [$B \div A$]	43.7%	43.3%	43.4%	43.3%	42.7%	42.7%	42.0%	43.0%

2.2 The current state of cremation rate by year

In the results of comparatively analyzing the cremation rate in the whole nation and the capital area, the annual average cremation rate of the capital area was much higher than the annual average cremation rate in the whole nation. The annual average cremation rate of the capital area exceeded 80% in 2011 while the

annual average cremation rate in the whole nation exceeded 80% in 2015.

During the period from 2011 to 2017, the annual average increase rate of cremation was 1.6% in the capital area, and 2.3% in the whole nation [5], so that the whole nation was relatively higher.

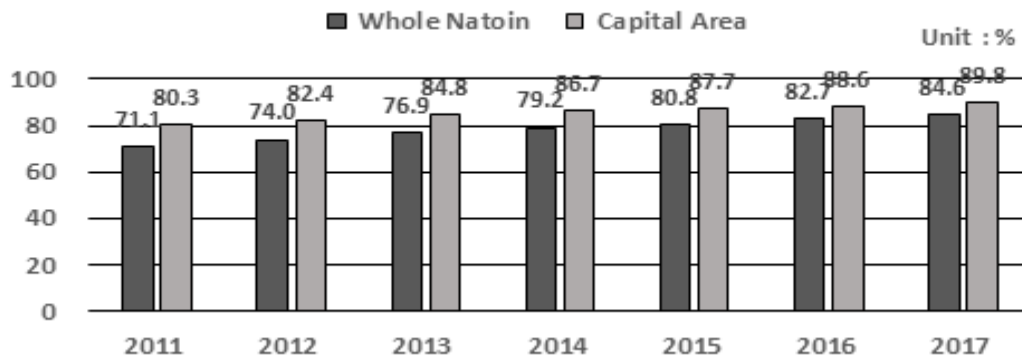


Figure 1. Progress of annual cremation rate in the whole nation and the capital area.

2.3 The current state of cremation rate by regional local government in the capital area

In the results of comparatively analyzing the current state of cremation rate by regional local government in the capital area, Incheon Metropolitan City was the highest continuously annual, which was followed by Seoul Metropolitan City and Gyeonggi-do in order. Also, the gap of cremation rates between Seoul Metropolitan City and Gyeonggi-do was gradually decreasing annual. On the other hand, Gyeonggi-do(1.8%) showed the highest annual average increase rate of cremation, which was followed by Seoul Metropolitan City(1.7%) and Incheon Metropolitan City(1.3%)[5] in order.

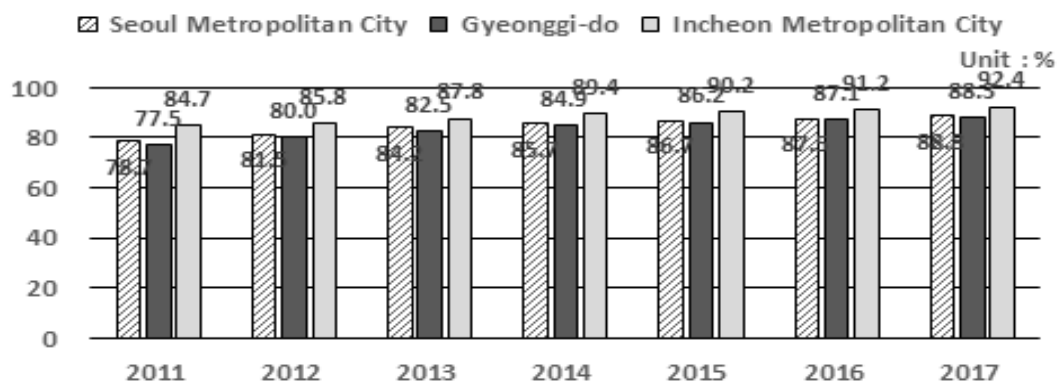


Figure 2. Progress of cremation rate by regional local government in the capital area

3. The current state of death bodies and cremated bodies using the Online Cremation Reservation Service in Funeral Information System by capital area.

3.1 Seoul Metropolitan City

The death bodies of Seoul citizens were increased by 6.5% from 40,320 people in 2011 to 42,932 people in 2017, which showed the continuous increase annual except for 2017. Also, the cremated bodies using the

Online Cremation Reservation Service in Funeral Information System for Seoul citizens were continuously increased by 20.1% from 31,751 people in 2011 to 38,141 people in 2017 [5]. Therefore, the utilization rate of the Online Cremation Reservation Service in Funeral Information System was increasing annual.

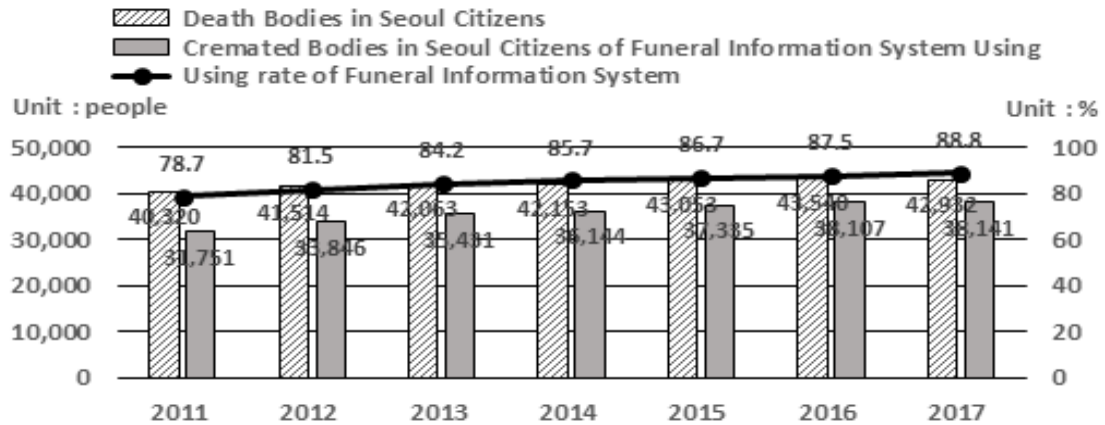


Figure 3. Progress of death bodies and cremated bodies using the online cremation reservation service in funeral information system of Seoul citizens.

The users of public cremation facilities in the jurisdiction area of Seoul Metropolitan City out of the cremated bodies of Seoul citizens using the Online Cremation Reservation Service in Funeral Information System were increasing annual from 23,676 people in 2011 to 34,758 people in 2017 [6] in proportion to the increase of cremated bodies while they were decreased in 2017 due to the decrease of death bodies. On the other hand, the rate of users of public cremation facilities in the jurisdiction area of Seoul Metropolitan City contrast to the cremated bodies of Seoul citizens using the Online Cremation Reservation Service in Funeral Information System reached the peak(96.2%) in 2013, which was continuously decreasing like 94.3% in 2014, 92.2% in 2016, and 91.1% in 2017.

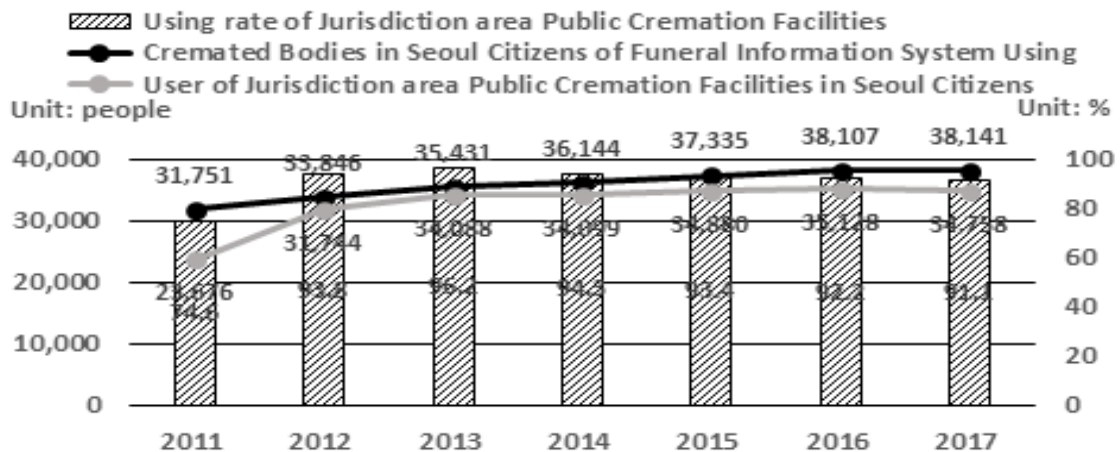


Figure 4. Progress of using public cremation facilities in the jurisdiction area of cremated bodies using the Online Cremation Reservation Service in Funeral Information System of Seoul citizens.

3.2 Gyeonggi-do

The death bodies of Gyeonggi-do citizens were increased by 17.5% from 48,394 people in 2011 to 56,852 people in 2017, which was showed the continuous increase annual. Also, the cremated bodies using the Online Cremation Reservation Service in Funeral Information System for Gyeonggi-do citizens were continuously increasing by 33.8% from 37,526 people in 2011 to 50,212 people in 2017[5]. Therefore, even though the utilization rate of the Online Cremation Reservation Service in Funeral Information System was increasing annual, it showed the lowest utilization rate out of the regional local governments in the capital area.

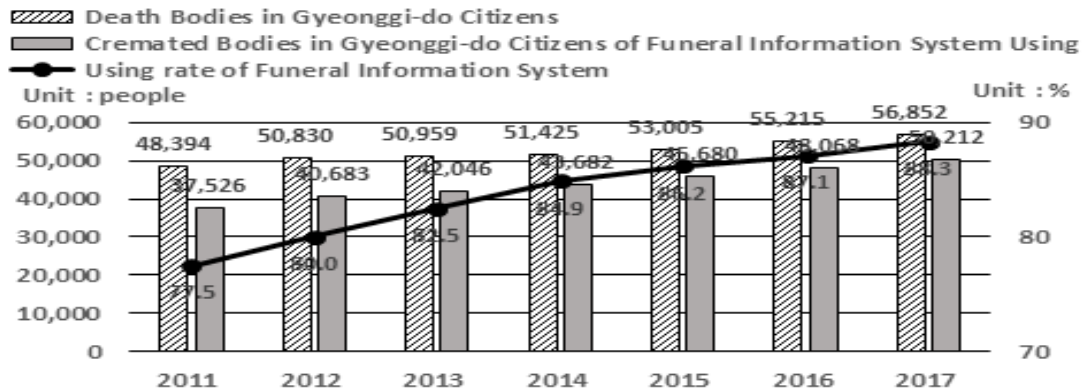


Figure 5. Progress of death bodies and cremated bodies using the online cremation reservation service in funeral information system of Gyeonggi-do citizens.

Out of the cremated bodies of Gyeonggi-do citizens using the Online Cremation Reservation Service in Funeral Information System, the users of public cremation facilities by basic local government in the jurisdiction area of Gyeonggi-do were also continuously increasing annual from 6,104 people in 2011 to 10,513 people in 2017 in proportion to the increase of cremated bodies [7-9]. Also, the rate of users of public cremation facilities in the jurisdiction area of Gyeonggi-do contrast to the cremated bodies using the Online Cremation Reservation Service in Funeral Information System showed the increase from 16.3% in 2011 to 20.9% in 2017 while it showed the lowest utilization rate out of the regional local governments in the capital area.

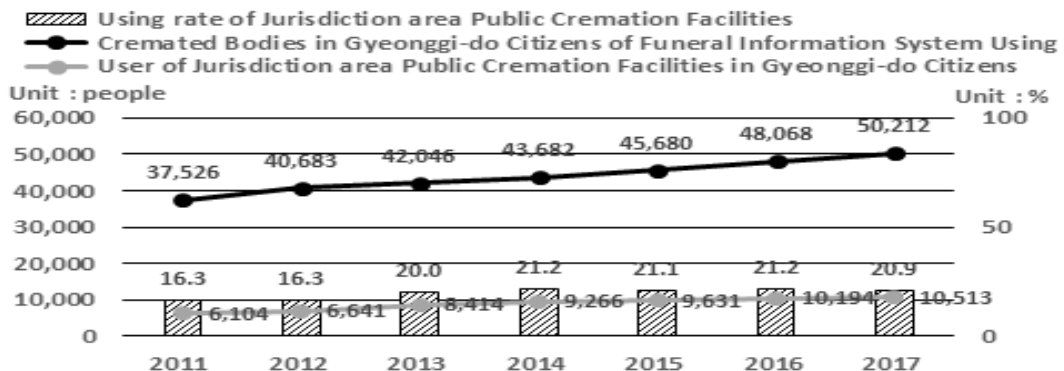


Figure 6. Progress of using public cremation facilities in the jurisdiction area of cremated bodies using the Online Cremation Reservation Service in Funeral Information System of Gyeonggi-do citizens.

3.3 Incheon Metropolitan City

The death bodies of Incheon citizens were increased by 14.3% from 12,504 people in 2011 to 14,290 people in 2017, which was continuously increasing annual. Also, the cremated bodies using the Online Cremation Reservation Service in Funeral Information System were continuously increasing by 24.7% from 10,589 people in 2011 to 13,207 people in 2017 [5]. Thus, the utilization rate of Online Cremation Reservation Service in Funeral Information System was continuously increasing annual, which showed the highest utilization rate out of the regional local governments in the capital area.

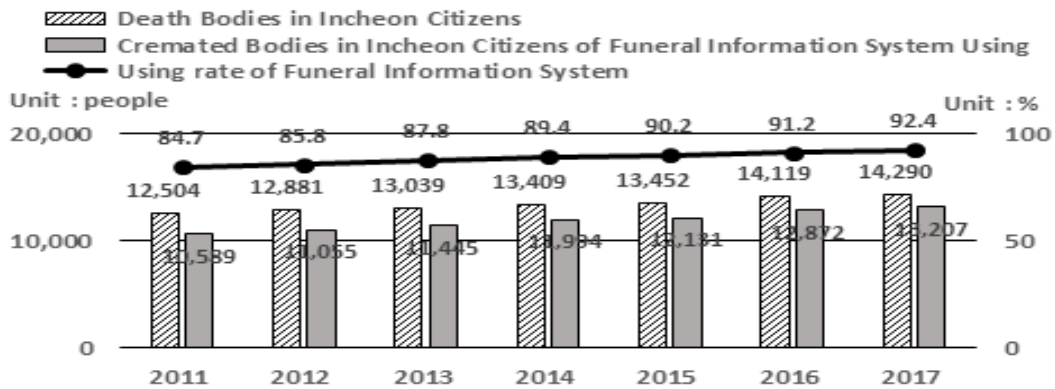


Figure 7. Progress of death bodies and cremated bodies using the online cremation reservation service in funeral information system of Incheon citizens.

Out of the cremated bodies of Incheon citizens using the Online Cremation Reservation Service in Funeral Information System, the users of public cremation facilities in the jurisdiction area of Incheon Metropolitan City were continuously increasing annual from 9,903 people in 2011 to 12,477 people in 2017 in proportion to the increase of cremated bodies [10]. Also, the rate of users of public cremation facilities in the jurisdiction area of Incheon Metropolitan City contrast to the cremated bodies using the Online Cremation Reservation Service in Funeral Information System was 93.5% in 2011 and 94.5% in 2017, which showed the highest utilization rate out of the regional local governments in the capital area.

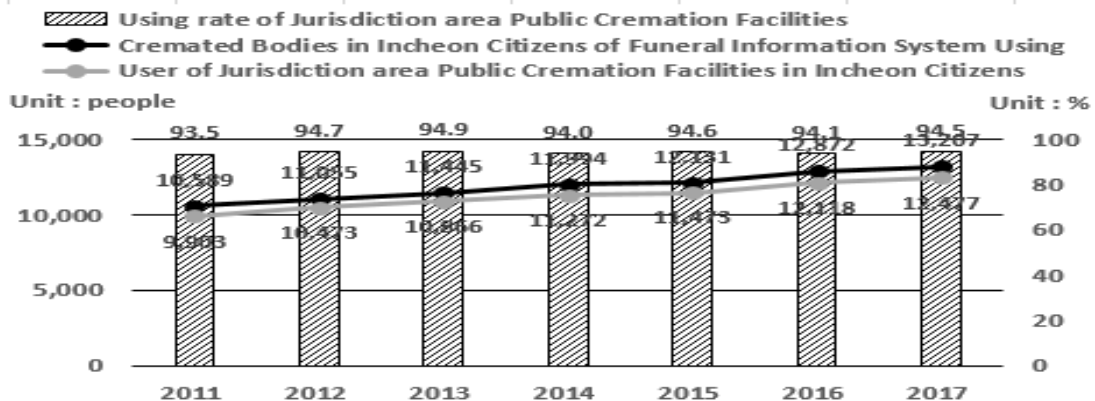


Figure 8. Progress of using public cremation facilities in the jurisdiction area of cremated bodies using the Online Cremation Reservation Service in Funeral Information System of Incheon citizens.

3.4 Discussion

The discussions of this study on the effects of the cremation rate of the capital area on the increase rate of cremated bodies using the Online Cremation Reservation Service in Funeral Information System could be summarized as follows.

First, the increase rate of cremated bodies was much higher than the increase rate of death bodies. During the research period of this study, the annual average increase rate of death bodies in the capital area was 2.1% while the annual average increase rate of cremated bodies was 4.5%, which was about 2.1 times higher. This result might be caused by the influence factor reflecting the annual average increase rate of cremation and increase rate of death bodies at the same time.

Second, the annual average increase rate of cremation in the capital area was relatively lower than the whole nation. During the research period of this study, the annual average increase rate of cremation in the whole nation was 2.3% while the rate in the capital area was 1.6%. As the average cremation rate of the whole nation was lower than the average cremation rate of the capital area, the width of increase rate of cremation was relatively high.

Third, the increase rate of cremated bodies was relatively very higher than the increase rate of cremation. The cremation rate of the capital area was increased by 9.5% from 80.3% in 2011 to 89.8% in 2017 while the increase rate of cremated bodies was increased by 27.2%(N=21,694 people) from 79,866 people in 2011 to 101,560 people in 2017. This result might be caused by the increase of cremation rate and the increase of death bodies.

Fourth, the utilization rate of public cremation facilities in the jurisdiction area of by capital area showed huge differences. On the basis of 2017, the utilization rate of public cremation facilities in the jurisdiction area of by capital area was 94.5% in Incheon Metropolitan City, 91.1% in Seoul Metropolitan City, and 20.9% in Gyeonggi-do in order. This result might be caused by the insufficient supply of cremation facilities compared to the demand for cremation.

4. Conclusion

Like this, focusing on the actual state shown in the results, this study aims to make suggestions for policies to by regional local government in the capital area as follows.

First, considering the difficulty to newly establish the public cremation facilities, Seoul Metropolitan City should meet the demand for cremation through the extension of cremation furnaces using the existing public cremation facilities. Second, considering the absolute shortage of public cremation facilities, Gyeonggi-do should carry forward the policies to establish the public cremation facilities in priority focusing on the basic local government in the jurisdiction area. Third, in order to improve the efficient operation of remaining cremation facilities in case when opening the public cremation facilities in neighboring Hwaseong City, Incheon Metropolitan City should enforce the measures for carrying forward the joint use of cremation facilities with basic local government in the nearby jurisdiction area of Gyeonggi-do.

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