厚生労働科学研究費補助金（長寿科学政策研究事業）
分担研究報告書

市町村別にみた介護保険サービス費用の地域差

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研究要旨

介護保険制度を導入してから約 20 年が経過した。日本では健康格差が拡大していることから、介護保険サービス費（以下：介護費）の地域差があるかどうか（どの程度あるか）を理解することが重要になっている。本研究では、介護費の地域差の実態を把握することを目的とした。データは、公開された介護保険事業状況報告のデータをダウンロードし二次利用し分析単位を自治体とした横断的な研究を行った。一人当たりの介護費であり、市町村別の介護費総額を、その市町村の（i）20 歳以上の人口（成人）、（ii）40 歳以上の人口（介護保険制度の被保険者）、（iii）65 歳以上の人口（主に介護予算を利用する）の数で割って推計した。結果、1724 の自治体のうち、1437 の自治体が最終的な分析対象となりました。一人当たりの高齢者介護費は、(i)20 歳以上では 26.6～253.9 千円（最大・最小比 9.5）、(ii)40 歳以上では 39.3～2903.0 千円（最大・最小比 7.5）、(iii)65 歳以上では 133.1～549.9 千円（最大・最小比 4.1）となっており、分母の年齢によって自治体間の地域差が大きく説明されていることが示唆された。

A．研究目的

Almost twenty years have passed since Japan introduced a nationwide long-term care (LTC) insurance system. Provided that health inequalities are widening in Japan, it is now important to understand whether (to what extent) there is a regional variation of LTC spending across the municipalities. This study aimed to assess regional variation in LTC spending.

B．研究方法

We used publicly-available municipality data from opened LTC claims data 2019 (i.e. also named as Statistics of Long-term Care Benefit Expenditures), portal site of office statistics of Japan.[9] The unit of analysis in this study is municipality in Japan. There are 47 prefectures in Japan, and each prefecture includes 15-179 municipalities. In total, there are 1724 municipalities in Japan as of year 2019. Of these, we excluded municipalities that belong to wide area union due to lack of

information on LTC spending because wide area union are insurers of LTC instead of included municipalities. Additionally, we exclude municipalities whose population is smaller than 2000, because these municipalities are not allowed to publish based on the guideline of LTC claims database.

Definitions of per-capita LTC spending

Per-capita LTC spending was calculated by dividing the total LTC cost in a municipality by the number of (i) people aged ≥20 (who pay tax to the municipality, part of which is used for long-term care), (ii) people aged ≥40 (who are insured in long-term care), and (iii) people aged ≥65 (who mostly use the long-term care budgets) in that municipality. We used these 3 denominators to see whether (to what extent) changing age of the denominator would affect regional variation between municipalities. The expenditures are presented in Japanese thousand yen (equivalent to 9.1 US dollars or 7.8 Euros as of September 2021)

（倫理面への配慮）

本研究は, すでに公開された介護保険事業状況報告のデータを二次利用したものであり、倫理審査委員会に諮る必要がない研究と考える。データは以下のホームページからダウンロードできる。

https://www.mhlw.go.jp/topics/kaigo/toukei/joukyou.html

C．研究結果

A total of 1437 municipalities were included in our final analysis after excluding those municipalities belonging to wide area union (n=219) and small municipalities (n=68) whose population is smaller than 2000 people. On average, there are 51.3% of women and 7.5% were 85 years old or older. Approximately 18.1% get certification for LTC in 65 years or older people, and 85.2% received LTC services among LTC beneficiaries. (Table 1)

Per-capita LTC spending

Among people aged ≥20, per-capita LTC spending varied substantially across municipalities with a mean of 119.7 thousand yen (SD 35.2 thousand yen), ranged from 26.6 to 253.9 thousand yen (max/min ratio 9.5). The regional variation became smaller among people aged ≥40 (from 39.3 to 293.0 thousand yen [max/min ratio 7.5]), and among people aged ≥65 (from 133.1 to 549.9 thousand yen [max/min ratio 4.1]), but still exist. (Table 1)

D．考察

This is the first study to examine municipal variation in LTC spending in Japan, using national LTC claims open data and other municipality-level statistics. Per-capita LTC spending among >20 years was more than nine times higher in the highest-spending municipalities than in the lowest. The regional variation of per-capita LTC spending among ≥40 years (max/min ratio 7.5) and that among ≥65 years (max/min ratio 4.1) were smaller, suggesting that age of the denominator explained largely, but not all, regional variation among municipalities.

Municipalities pay a portion of the LTC spending from the municipality's finances, therefore, municipalities with higher per capita care LTC spending also bear a higher financial burden. Our result showed a great variation in LTC spending among municipalities in Japan. Since regional variation explained by demographic differences is unavoidable, we also calculated per-capita LTC spending after changing the denominator from adults to ≥65 years old. however, there was still considerable variation in LTC spending among the municipalities.

Ｅ．結論

In summary, we used national LTC claims open data, which covers all municipalities in Japan. Our result showed a large variation in LTC spending even adjusted for age and sex distribution of different municipalities.

Ｆ．研究発表

１．論文発表

なし

２．学会発表

なし

Ｇ．知的財産権の出願・登録状況（予定を含む）

１．特許取得

なし

２．実用新案登録

なし

３．その他

なし

Ｈ．文献

1.

Table 1. Descriptive statistics for the demand, supply and structural covariates.

	20 years or older						40 years or older						65 years or older					
	Mean	Sd	Min	Max	CV	Max /Min	Mean	Sd	Min	Max	CV	Max /Min	Mean	Sd	Min	Max	CV	Max /Min
Per-capita LTC spending	119.7	35.2	26.6	253.9	29.4	9.6	151.4	37.6	39.3	293.0	24.8	7.5	296.3	48.1	133.1	549.9	16.2	4.1
Demographic information																		
Age groups																		
20-39 years (%)	21.8	4.6	10.0	38.2	21.3	3.8	-	-	-	-	-	-	-	-	-	-	-	-
40-65 years(%)	38.4	2.9	27.1	47.7	7.6	1.8	49.4	6.2	30.1	70.5	12.6	2.3	-	-	-	-	-	-
65-84 years(%)	32.3	4.7	17.2	45.7	14.5	2.7	41.1	3.8	25.4	52.4	9.2	2.1	81.6	4.0	69.6	90.9	4.9	1.3
85 years or older (%)	7.5	2.8	2.3	17.6	36.7	7.7	9.5	3.0	3.5	19.9	31.9	5.7	18.4	4.0	9.1	30.4	21.6	3.4
Gender																		
Female(%)	51.3	1.3	44.9	55.1	2.6	1.2	51.3	1.3	44.9	55.1	2.6	1.2	51.3	1.3	44.9	55.1	2.6	1.2

Abbreviations: LTC=long-term care; CV=coefficient variation.