

Municipal Death Projections Consistent with IPSS (2018) *Regional Population Projections for Japan 2015-2045*

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This study estimates number of deaths in the future and reveals geographical patterns at prefectural and municipal levels. Using vital rates adopted in IPSS (2018) *Regional Population Projections for Japan 2015-2045* (hereafter "RPPJ"), we develop estimation methods for future deaths to be consistent with the results of RPPJ (i.e., results about changes in future age-specific population statistics derived by the municipality). Moreover, while RPPJ set future vital rates up to the age group 90+ in its implementation, it is anticipated that regional death disparities of the highest age group will expand by the year 2035 when baby boomers born in 1946-48 (the largest cohort in Japanese society) will be 85+. We evaluate whether and how much we can improve death projections by accounting for regional differentials in the extent of population aging within the highest age group.

The results show that, although we found evidence for future deaths to be projected more accurately by taking into account the geographical distribution of baby boomers, the improvements in the municipal death projection for the highest age group were at the most 5% in the half of the municipalities. Based on the estimated future deaths, we highlight the fact that future deaths will start to decrease in 70% of municipalities by 2040-2045 along the way of Japanese depopulation.

Keywords : Regional population projections, population aging, depopulation, death projections, regional differentials of mortality