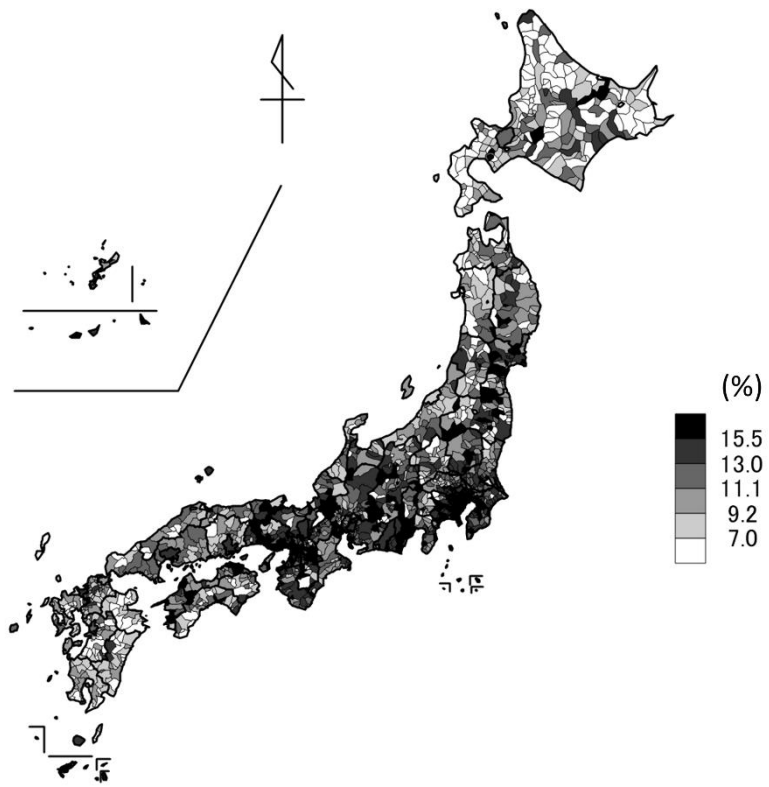
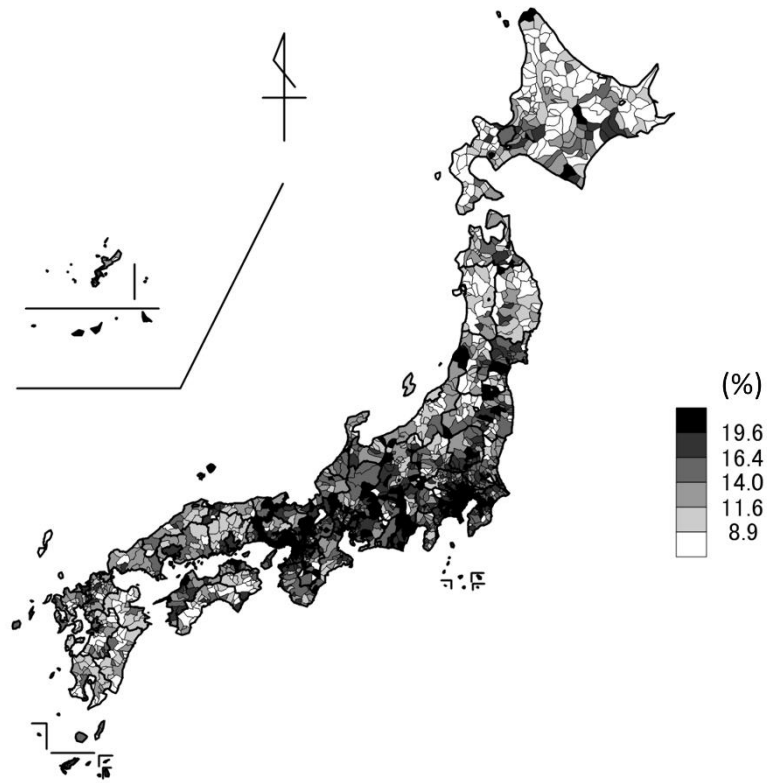


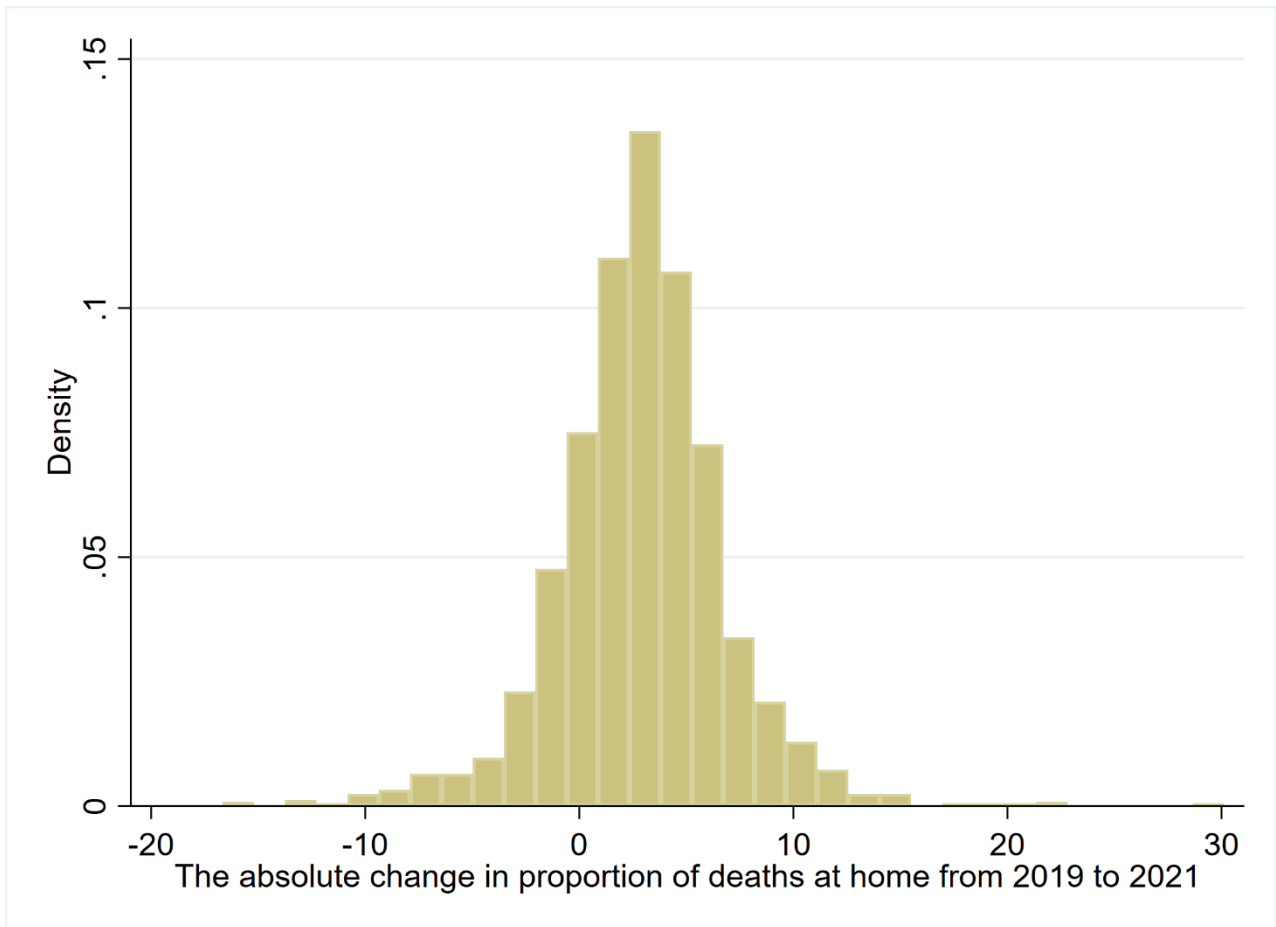
Supplementary Appendix 1. Proportion of deaths at home in 2019 at the municipal level



Supplementary Appendix 2. Proportion of deaths at home in 2021 at the municipal level



Supplementary Appendix 3. Distribution of the change in the proportion of deaths at home in 1,696 municipalities



Supplementary Appendix 4. Multivariable linear regression analysis for changes in the proportion of home deaths with medical and LTC resources divided by 75 years and above

| | Coefficient | 95%CI | p-value |
|--|-------------|----------------|---------|
| Medical resources* | | | |
| The number of hospital beds | -1.73 | -0.38 to 0.04 | 0.103 |
| The number of general clinics | 0.17 | -0.03 to 0.37 | 0.087 |
| The number of conventional HCSCs | 0.23 | 0.05 to 0.41 | 0.012 |
| The number of enhanced HCSCs | 0.53 | 0.34 to 0.72 | <0.001 |
| The number of home visiting nurses | 0.27 | 0.07 to 0.47 | 0.009 |
| LTC resources* | | | |
| The number of beds in LTC welfare facilities | -0.50 | -0.68 to -0.31 | <0.001 |
| The number of beds in LTC health facilities | 0.06 | -0.12 to 0.24 | 0.514 |
| The number of beds in LTC medical facilities | -0.06 | -0.25 to 0.12 | 0.499 |
| Population density (population per km ²) | 0.43 | 0.19 to 0.66 | <0.001 |
| Cumulative number of COVID-19 cases † | 0.48 | 0.26 to 0.69 | <0.001 |
| The percentage of home deaths in 2019 (%) | -1.24 | -1.43 to -1.04 | <0.001 |

*All medical and LTC resources were divided among 10,000 people aged 75 years and older.

† The cumulative number of COVID-19 cases was divided by 1,000 total population in each prefecture.

All variables were standardized prior to analysis, and standardized coefficients were interpreted. Municipalities with no home deaths in 2019 or 2021 were excluded from the analysis (n=1,696).

Abbreviations: HCSCs, home care support clinics/hospitals; LTC, long-term care.

Supplementary Appendix 5. Characteristics of the absolute change in home deaths rates >2.9% and ≤2.9%

| | Absolute change in deaths rate ≤2.9% | Absolute change in deaths rate >2.9% |
|--|---|---|
| | n=847 | n=849 |
| | Median (IQR) | Median (IQR) |
| Medical resources* | | |
| The number of hospital beds | 2368.6 (0–3779.6) | 2468.0 (959.6–3724.5) |
| The number of general clinics | 181.5 (135.4–230.2) | 201.5 (152.8–247.6) |
| The number of conventional HCSCs | 19.3 (0–40.6) | 22.6 (0–41.3) |
| The number of enhanced HCSCs | 0 (0–5.9) | 0 (0–13.5) |
| The number of home visiting nurses | 88.5 (0–151.7) | 119.0 (45.9–184.8) |
| LTC resources* | | |
| The number of beds in LTC welfare facilities | 193.5 (142.9–280.4) | 166.6 (125.3–236.6) |
| The number of beds in LTC health facilities | 113.1 (0–169.9) | 96.3 (42.2–149.7) |
| The number of beds in LTC medical facilities | 0 (0–4.5) | 0 (0–2.7) |
| Population density (population per km ²) | 136.1 (43.2–371.9) | 344.4 (81.3–1394.7) |
| Cumulative number of COVID-19 cases † | 7.5 (4.8–11.9) | 9.0 (5.8–14.6) |
| The percentage of home deaths in 2019 (%) | 11.0 (8.5–14.0) | 11.5 (8.3–14.3) |
| Change in the percentage of home deaths between 2019 and 2021 (%) | 0.8 (–1.0–2.0) | 5.0 (3.8–6.6) |

*All medical and LTC resources are shown per 10,000 people aged 65 years and older.

†The cumulative number of COVID-19 cases is shown per 1,000 total population in prefecture level.

Abbreviations: IQR, interquartile range; HCSCs, home care support clinics/hospitals; LTC, long-term care

Supplementary Appendix 6. Multivariable logistic regression analysis for changes in the proportion of home deaths with cutoff set at 2.9%

| | Odds ratio | 95%CI | p-value |
|--|------------|-----------|---------|
| Medical resources* | | | |
| The number of hospital beds | 0.93 | 0.82–1.04 | 0.205 |
| The number of general clinics | 1.26 | 1.04–1.54 | 0.021 |
| The number of conventional HCSCs | 1.01 | 0.91–1.12 | 0.865 |
| The number of enhanced HCSCs | 1.33 | 1.19–1.50 | <0.001 |
| The number of home visiting nurses | 1.10 | 0.98–1.24 | 0.114 |
| LTC resources* | | | |
| The number of beds in LTC welfare facilities | 0.82 | 0.74–0.92 | <0.001 |
| The number of beds in LTC health facilities | 0.98 | 0.88–1.08 | 0.661 |
| The number of beds in LTC medical facilities | 0.99 | 0.89–1.11 | 0.898 |
| Population density (population per km ²) | 1.66 | 1.34–2.05 | <0.001 |
| Cumulative number of COVID-19 cases† | 1.26 | 1.11–1.43 | <0.001 |
| The percentage of home deaths in 2019 (%) | 0.66 | 0.59–0.76 | <0.001 |

*All medical and LTC resources were divided by 10,000 people aged 65 years and older.

†The cumulative number of COVID-19 cases was divided by 1,000 total population in each prefecture.

All variables were standardized prior to the analysis. Municipalities with no home deaths in 2019 or 2021 were excluded from the analysis (n=1,696).

Abbreviations: SD, standard deviation; IQR, interquartile range; HCSCs, home care support clinics/hospitals; LTC, long-term care