

# Japanese Study of Aging and Retirement (JSTAR)

## Current status and beyond

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# Japanese Study of Aging and Retirement (JSTAR) since 2007

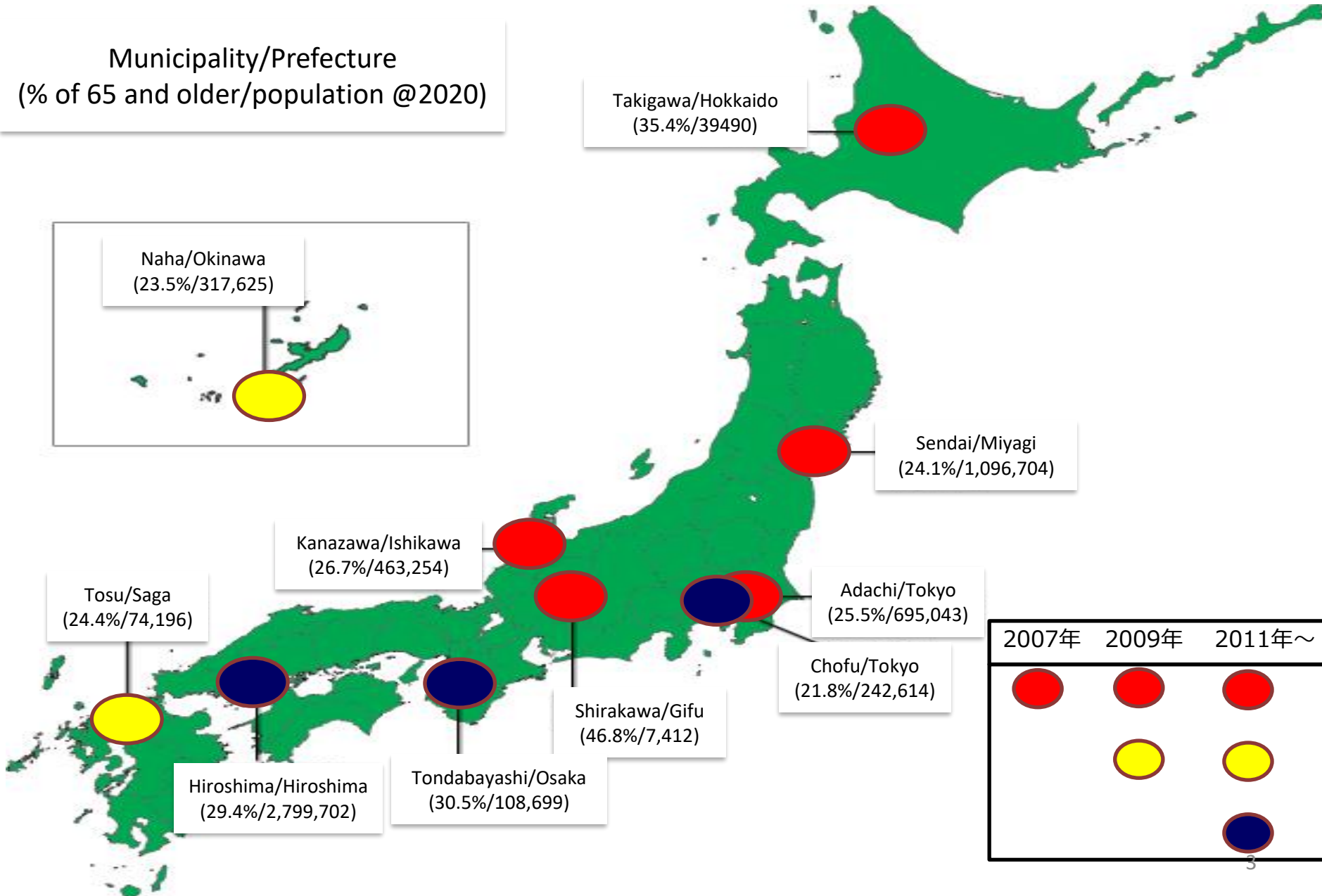
In memory of Dr. Masaru Yoshitomi, former president of Research Institute of Economy Trade and Industry (RIETI) who understood and supported the project since 2005



# JSTAR

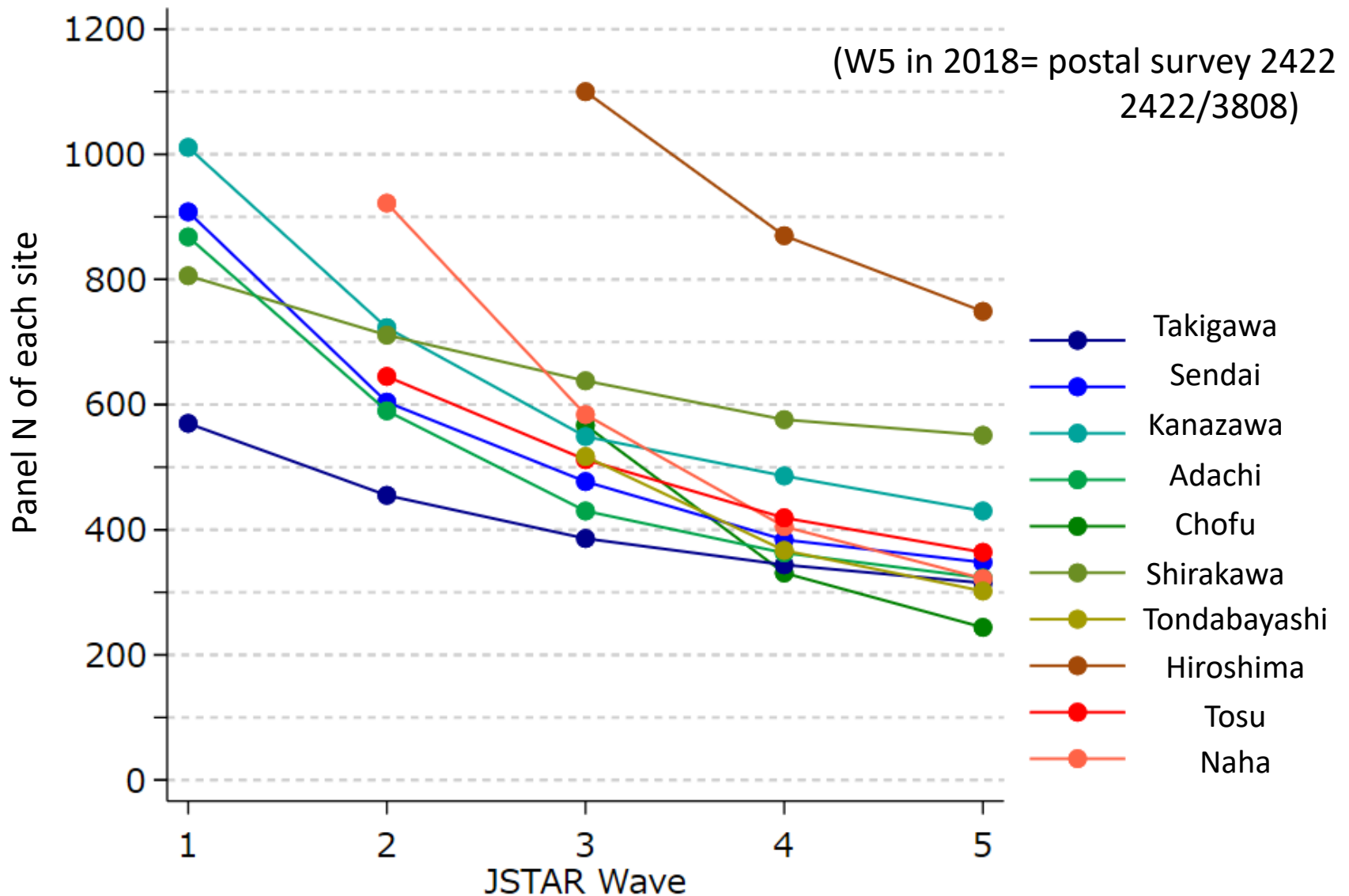
## 10 participating municipalities

Municipality/Prefecture  
(% of 65 and older/population @2020)



# Panel status

N= 4163 -> 5473 -> 6458 -> 5483 interviewed



# JSTAR data use

- 373 Applications for data use approval
  - Primarily international applications for comparative purposes
  - Global harmonization data usage is not included
  - Papers: <https://www.rieti.go.jp/en/projects/jstar/>
- Data 2007, 2009, 2011, 2013 are publicly available.
- Data 2016 is expected to be accessible soon (hopefully by 2024)
- Data 2018 (postal life-history survey) is currently undergoing data preparation.

# JSTAR beyond

- A plan to conduct a post-corona survey with functional measurements is under consideration (anticipated in 2024 or 2025)
  - Yet, the current research grant led by Yasuyuki Sawada can only cover this endeavor once.
  - Additional endeavors to secure funding will be necessary.
- An imperative need for a thorough discussion regarding data archive
  - 'Mandated retirement leave from the university' of Hidehiko Ichimura (current PI) => Hideki Hashimoto or Yasuyuki Sawada will serve as co-PI.
  - Limited capacity of the current archive center at RIETI => a proposal to relocate the archive center from RIETI to the University of Tokyo

# APPENDIX (1)

## Recent study with JSTAR data use

### Projecting prevalence of frailty and dementia and the economic cost of care in Japan from 2016 to 2043: a microsimulation modelling study

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#### Summary

**Background** Dementia and frailty often accompany one another in older age, requiring complex care and resources. Available projections provide little information on their joint impact on future health-care need from different segments of society and the associated costs. Using a newly developed microsimulation model, we forecast this situation in Japan as its population ages and decreases in size.

**Methods** In this microsimulation modelling study, we built a model that simulates an individual's status transition across 11 chronic diseases (including diabetes, coronary heart disease, and stroke) as well as depression, functional status, and self-reported health, by age, sex, and educational strata (less than high school, high school, and college and higher), on the basis of nationally representative health surveys and existing cohort studies. Using the simulation results, we projected the prevalence of dementia and frailty, life expectancy with these conditions, and the economic cost for formal and informal care over the period 2016–43 in the population of Japan aged 60 years and older.

**Findings** Between 2016 and 2043, life expectancy at age 65 years will increase from 23.7 years to 24.9 years in women and from 18.7 years to 19.9 years in men. Years spent with dementia will decrease from 4.7 to 3.9 years in women and 2.2 to 1.4 years in men. By contrast, years spent with frailty will increase from 3.7 to 4.0 years for women and 1.9 to 2.1 for men, and across all educational groups. By 2043, approximately 29% of women aged 75 years and older with a less than high school education are estimated to have both dementia and frailty, and so will require complex care. The expected need for health care and formal long-term care is anticipated to reach costs of US\$125 billion for dementia and \$97 billion for frailty per annum in 2043 for the country.

**Interpretation** Japan's Government and policy makers should consider the potential social challenges in caring for a sizable population of older people with frailty and dementia, and a widening disparity in the burden of those conditions by sex and by educational status. The future burden of dementia and frailty should be countered not only by curative and preventive technology innovation, but also by social policies to mitigate the health gap.

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Projection of future prevalence of frailty and dementia in Japan

A remarkable decrease in prevalence due to improved educational attainment among older people despite of population ageing

Expected widening gap across gender and education levels

# APPENDIX (2)

## Recent study with 35 countries' harmonized data





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OXFORD

Occupational Health

### Retirement and cardiovascular disease: a longitudinal study in 35 countries

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#### Abstract

**Background:** Many countries have been increasing their state pension age (SPA); nonetheless, there is little consensus on whether retirement affects the risk of cardiovascular disease (CVD). This study examined the associations of retirement with CVD and risk factors.

**Methods:** We used harmonized longitudinal datasets from the Health and Retirement Study and its sister surveys in 35 countries. Data comprised 396 904 observations from 106 927 unique individuals aged 50–70 years, with a mean follow-up period of 6.7 years. Fixed-effects instrumental variable regressions were performed using the SPA as an instrument.

**Results:** We found a 2.2%-point decrease in the risk of heart disease [coefficient = -0.022 (95% confidence interval: -0.031 to -0.012)] and a 3.0%-point decrease in physical inactivity [-0.030 (-0.049 to -0.010)] among retirees, compared with workers. In both sexes, retirement was associated with a decreased heart disease risk, whereas decreased smoking was observed only among women. People with high educational levels showed associations between retirement and decreased risks of stroke, obesity and physical inactivity. People who retired from non-physical labour exhibited reduced risks of heart disease, obesity and physical inactivity, whereas those who retired from physical labour indicated an increased risk of obesity.

**Conclusions:** Retirement was associated with a reduced risk of heart disease on average. Some associations of retirement with CVD and risk factors appeared heterogeneous by individual characteristics.

**Key words:** Retirement, state pension age, heart disease, stroke, hypertension, diabetes, physical inactivity, smoking, binge drinking

Many countries have been increasing their state pension age (SPA); nonetheless, little consensus on whether retirement affects the risk of CVD.

Retirement was associated with a reduced risk of heart disease on average. Some associations of retirement with CVD and risk factors appeared heterogeneous by individual characteristics.



Thank you for  
your attention