

# **(J)AGES Data User Guide**

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(J)AGES Data Summary and User Guide

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## Introduction

### Foreword

This user guide defines the data held by JAGES that are made publicly available for the purpose of promoting broad research. This use guide consists of two parts, Part 1: JAGES Data and Part 2: Use of JAGES Data, and users of JAGES data should familiarize themselves with the contents of this manual and use the data in accordance with the compliance requirements.

## Overview of JAGES

### 1. From AGES to JAGES

The JAGES was initiated in 1999 as a joint research project with two municipalities in Aichi Prefecture. The project started as AGES: Aichi Gerontological Evaluation Study because it was a joint research project with the municipalities in Aichi Prefecture. The project has been conducted with the following three main objectives;

- To promote empirical gerontological research on the older adults from multifaceted perspectives such as physical, psychological, and social.
- Promote social epidemiological research to elucidate the social determinants of health (SDH).
- Realize a healthy and long-lived society with a high level of well-being and small disparities in well-being through the development of a comprehensive benchmark system for long-term care prevention policies and evaluation studies of community interventions.

Later, in 2003, the number of municipalities participating in the survey was expanded to 15 municipalities in 3 prefectures, and the scope of the project was extended beyond Aichi Prefecture, so the name of the joint research project was changed from "Aichi Gerontological Evaluation Study (AGES)" to "Japan Gerontological Evaluation Study (JAGES)," and it has continued to this day. In 2003, the JAGES project expanded to include 15 municipalities and collected data from approximately 30,000 people. Since 2010, the JAGES project has conducted surveys every three years, with the 2010 survey covering approximately 112,000 people in 31 municipalities, the 2013 survey covering approximately 138,000 people in 30 municipalities, and the 2016 survey covering approximately 200,000 people in 41. In the 2016 survey, 41 cities, towns, and villages collected data for approximately 200,000 people, and in the 2019 survey, 66 cities, towns, and villages collected data for approximately 265,000 people.

### 2. Expected Results of the JAGES

The JAGES has been carried out in cooperation with local governments and with the three aforementioned objectives, from which the following three outcomes are expected to be derived by conducting analyses using JAGES data.

- a. Demonstrate the importance of "social determinants of health

b. Reveal the reality of "health inequalities

c. Identify directions for reviewing government and community care prevention strategies.

Part I

JAGES Data Section

## 1. Summary of AGES and JAGES data

The intended audience of this user guide is researchers working on their first analysis of the (J)AGES dataset. This document includes information related to surveys during five periods: Wave 1 (AGES 2003), Wave 2 (AGES 2006), Wave 3 (JAGES 2010), Wave 4 (JAGES 2013), Wave 5 (JAGES 2016), the cohort data sets (i.e., data on certification of long-term care need and mortality with the respective wave data as baseline) and panel data sets joining multiple wave data. There are some extra survey data in this, including Wave 0 (Taketoyo 2000), Wave 1 (Takahama city, Aichi prefecture, Kashiba city and Totsukawa village, Nara prefecture, 2004) and Taketoyo 2008, but they are omitted in this document.

### Beginning of the AGES Project

The AGES Project started in 1999 and was performed on Takahama city and Taketoyo town in Aichi prefecture. Subsequently, surveys were conducted in 2003 on 7 insurers/10 other cities and towns in Aichi prefecture and 12 insurers/15 cities and towns in Kagawa prefecture and Kochi prefecture (Nankoku city and Susaki city).<sup>1</sup> (**AGES 2003** or Wave 1)

### From the AGES to the JAGES

The 2006 survey surveyed nine cities, towns and villages (nine insurers) of the communities surveyed thus far. The survey results can be used as cross-sectional data. (**AGES 2006** or Wave 2)

The 2010–2011 survey was conducted in August 2010–January 2012 expanded beyond Aichi prefecture and included 26 insurers in 32 cities, towns and villages.<sup>2</sup> With this explanation, the Aichi Gerontological Evaluation Study (AGES) was renamed the Japan Gerontological Evaluation Study (JAGES). These survey results can also be used as cross-sectional data. (**JAGES 2010** or Wave 3)

The 2013 survey was conducted in October–December 2013 on 33 municipalities, including 19 insurers (25 municipalities) that participated in the JAGES survey from Oct to Dec in 2013. These survey results can also be used as cross-sectional data. (**JAGES 2013** or Wave 4)

Of AGES2003, **cohort03\_07** consists of the respondents from the six insurers in Aichi prefecture and their subsequent certification for long-term care need and morality followed up over a period of four years (1,461 days), and **cohort03-13** consists of the same data followed up for approximately 10 years. Furthermore, individuals from five insurers in Aichi prefecture in the 2003 and 2006 surveys could be matched. Panel data for this has been created<sup>3</sup>. (**panel03\_06**)

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<sup>1</sup> Surveys were subsequently conducted in 2004 on two insurers (Kashiba city and Totsukawa village) in Nara prefecture and Takahama city, Aichi prefecture. However, the details of the surveys were partially different, so they are treated as two different surveys and have rarely been included in academic analyses jointly with AGES 2003.

<sup>2</sup> Of these, Nishio city, Isshiki town, Kira town and Hazu town were merged in April 2011 into one city (one insurer) but consisted of one city and three towns at the time of data collection (four insurers), so 32 cities, towns and villages and 26 insurers are included in JAGES 2010 (Wave3).

<sup>3</sup> Theoretically, the same process as panel03\_06 is possible for two cities in Kochi prefecture, given that datasets for 2003 and 2006 are also available. However, this has not been done at the moment, as Aichi and Kochi cannot be compared directly due to the geographical and cultural differences between the two prefectures.



Panel data from two points in time (**panel10\_13**) combining the 2010 and 2013 surveys was created in January 2015. Since these are panel data on two points in time for 24 cities and towns, this enables analysis on multiple locations over time. Furthermore, **cohort10\_13** was created as three-year follow-up data for the subsequent certification of long-term care need and mortality of respondents in the 24 cities and towns studied in the 2010 survey. However, two sets of longitudinal data were not studied for the same follow-up period, depending on the insurer, and should therefore be treated with caution.

The details of the data sets currently being distributed are as follows (see the following page).

The 2016 survey was conducted from September 2016 to January 2017 on 39 municipalities, including the 27 municipalities (34 insurers) that participated in the 2013 survey. The regions included are distributed in 18 todofuken (prefectures, territories, urban prefectures and metropolises) in Hokkaido, Tohoku, Kanto-Koshinetsu, Chubu, Kinki and Kyushumunicipalities.

#### Project names

The survey and data primarily collected in Aichi prefecture are termed AGES, nationwide surveys and data collected on 2010 and later are termed JAGES, and (J)AGES is used to refer to both sets of surveys and data within this project.

# JAGES Distributed Data List (As of April 22, 2024)

	Data name	Description of data	City, town or village	N	Ver
<b>Presently distributed data</b>					
1	jages2010	2010 Cross-sectional data	Higashikagura town, Higashikawa town, Biei town, Towada city, Iwanuma city, Kashiwa city, Chuo city, Hayakawa town, Nagoya city, Handa city, Hekinan city, Nishio city, Tokoname city, Tokai city, Obu city, Chita city, Agui town, Higashiura town, Minamichita town, Mihama town, Taketoyo town, Isshiki town, Kira town, Hazu town, Watarai town, Totsukawa village, Takahashi city, Matsuura city, Nanjo city, Nakijin village (Total: 30 cities, towns, and villages)	94,000 people	v3
2	jages2013	2013 Cross-sectional data	Higashikagura town, Higashikawa town, Biei town, Towada city, Iwanuma city, Kashiwa city, Yokohama city, Niigata city, Chuo city, Hayakawa town, Nagoya city, Toyohashi city, Handa city, Hekinan city, Nishio city, Tokoname city, Tokai city, Obu city, Chita city, Tahara city, Higashiura town, Minamichita town, Mihama town, Taketoyo town, Watarai town, Totsukawa village, Marugame city, Matsuura city, Mifune town (Total 29 cities, towns, and villages)	118,000 people	v3.3
3	jages2016	2016 Cross-sectional data	Higashikawa town, Higashikagura town, Biei town, Otofuke town, Yoichi city, Tomamae town, Towada city, Mashiko town, Nagara town, Chuo city Hayakawa town, Mori town, Oyama town, Minamichita town, Mihama town, Taketoyo town, Watarai town, Matsuura city, Matsumoto city, Handa city, Hekinan city, Nishio city, Tokoname city, Tokai city, Obu city, Chita city, Higashiura town, Kashiwa city, Funabashi town, Hachioji city, Yokohama city, Niigata city, Nagoya city, Fukuoka city, Iwanuma city, Mifune town (Total: 36 cities, towns, and villages)	178,000 people	v1.2
4	jages2019	2019 Cross-sectional data	Yoichi town, Kuriyama town, Higashikagura town, Higashikawa town, Biei town, Tomamae town, Hachinohe city, Towada city, Rokunohe town, Sannohe town, Gonohe town, Nanbu town, Iwanuma city, Kosaka town, Katsurao village, Oarai town, Saitama city, Ichikawa city, Kashiwa city, Ichihara city, Mutsuzawa town, Nagara town, Hachioji city, Machida city, Yokohama city, Niigata city, Tokamachi city, Kaga city, Chuo city, Hayakawa town, Matsumoto city, Iida city, Oyama town, Mori town, Nagoya city, Handa city, Hekinan city, Tokoname city, Tokai city, Obu city, Chita city, Higashiura town, Taketoyo town, Toyonaka city, Moriguchi city, Yao city, Kadoma city, Shijonawate city, Taka town, Tenri city, Ikoma city, Tottori city, Chizu town, Fukuoka city, Matsuura city, Mifune town, Usuki city, Tsukumi city, Taketa City, Kokonoe town (Total: 60 cities, towns, and villages)	202,000 people	v2.4
5	jages2022	2022 Cross-sectional data	Yoichi town, Kuriyama town, Higashikagura town, Higashikawa town, Biei town, Tomamae town, Hachinohe city, Towada city, Shichinohe town, Rokunohe town, Tohoku town, Rokkasho village, Sannohe town, Gonohe town, Nanbu town, Iwanuma city, Katsurao village, Oarai town, Saitama city, Ichikawa city, Kashiwa city, Ichihara city, Yotsukaido city, Mutsuzawa town, Nagara town, Machida city, Higashimurayama city, Yokohama city, Niigata city, Tokamachi city, Komatsu city Kaga city, Hakui city, Awara city, Chuo city, Hayakawa town, Gero city, Godo town, Wanouchi town, Anpachi town, Ibigawa town, Ono town, Ikeda town, Oyama town, Mori town, Nagoya city, Hekinan city, Tokoname city, Tokai city, Obu city, Chita city, Higashiura town, Taketoyo town, Toyonaka city, Nishiwaki city, Tambasasayama city, Taka town, Kamikawa town, Tenri city, Ikoma city, Katsuragi city, Oji town, Koryo town, Tottori city, Iwami town, Chizu town, Hirado city, Matsuura city, Mifune town, Tsukumi city, Taketa city, Kokonoe town (Total: 72 cities, towns, and villages)	193,000 people	v1.0
6	cohort10-13	2010-2013 Cohort data ("Data on certification of long-term care need" and "Data on imposed long-term care insurance" combined with 2010 Cross-sectional data).	Higashikagura town, Higashikawa town, Biei town, Towada city, Iwanuma city, Kashiwa city, Chuo city, Nagoya city, Hekinan city, Nishio city, Tokoname city, Tokai city, Obu city, Chita city, Agui town, Higashiura town, Minamichita town, Mihama town, Taketoyo town, Isshiki town, Kira town, Hazu town, Watarai town, Matsuura city (Total 24 cities and towns)	82,000 people	v 3.2
7	cohort10-16	2010-2016 Cohort data	Higashikagura town, Higashikawa town, Biei town, Iwanuma city, Kashiwa city, Chuo city, Nagoya city, Tokoname city, Minamichita town, Mihama town, Watarai town, Nishio city, Matsuura city (total 13 cities and towns)	55,000 people	v1.3
8	cohort13-16	2013-2016 Cohort data	Higashikagura town, Higashikawa town, Biei town, Iwanuma city, Kashiwa city, Chuo city, Nagoya city, Hekinan city, Nishio city, Tokoname city, Tokai city, Obu city, Chita city, Higashiura town, Minamichita town, Mihama town, Watarai town, Matsuura city, Toyohashi city, Niigata city, Yokohama city, Hayakawa town, Taketoyo town (Total: 23 cities and towns)	98,000 people	v1.3
9	cohort (10-13panel)-16	"Data on certification of long-term care need" and "Data on imposed long-term care insurance" combined with 2010 or 2013 survey data.	Higashikagura town, Higashikawa town, Biei town, Iwanuma city, Kashiwa city, Chuo city, Nagoya city, Tokoname city, Minamichita town, Mihama town, Watarai town, Nishio city, Matsuura city (Total 13 cities and towns)	65,000 people	v1.1
10	10-19cohort	2010-2019 Cohort data	Higashikagura town, Higashikawa town, Biei town, Iwanuma city, Kashiwa city, Chuo city, Nagoya city, Hekinan city, Tokoname city, Taketoyo town, Matsuura city (Total: 11 cities and towns)	46,000 people	v3.0
11	13-19cohort	2013-2019 Cohort data	Higashikagura town, Higashikawa town, Biei town, Towada city, Iwanuma city, Kashiwa city, Niigata city, Chuo city, Hayakawa town, Nagoya city, Hekinan city, Tokoname city, Tokai city, Obu city, Chita city, Higashiura town, Taketoyo town, Matsuura city, Mifune town (Total 19 cities and towns)	73,000 people	v1.1
12	16-19cohort	2016-2019 Cohort data	Higashikagura town, Higashikawa town, Biei town, Tomamae town, Towada city, Iwanuma city, Kashiwa city, Nagara town, Hachioji city, Niigata city, Chuo city, Hayakawa town, Matsumoto city, Nagoya city, Hekinan city, Tokoname city, Tokai city, Obu city, Chita city, Higashiura town, Taketoyo town, Matsuura city, Mifune town (Total 23 cities and towns)	91,000 people	v1.1

Presently distributed data		Description of data	City, town or village	N	Ver
13	10-22cohort	2010-2022 Cohort data	Iwanuma City, Kashiwa City, Chuo City, Hekinan City, Tokoname City, Taketoyo Town, Matsuura City	28,000 people	v1.0
14	13-22cohort	2013-2022 Cohort data	Towada City, Iwanuma City, Kashiwa City, Niigata City, Chuo City, Hayakawa Town, Hekinan City, Tokoname City, Chita Hokubu Wide-area Union (Tokai City, Obu City, Chita City, Higashiura Town), Taketoyo Town, Matsuura City, Mifune Town	52,000 people	v1.0
15	16-22cohort	2016-2022 Cohort data	Tomamae Town, Towada City, Iwanuma City, Kashiwa City, Nagara Town, Yokohama City, Niigata City, Chuo City, Hayakawa Town, Oyama Town, Hekinan City, Tokoname City, Chita Hokubu Wide-area Union (Tokai City, Obu City, Chita City, Higashiura Town), Taketoyo Town, Matsuura City, Mifune Town	93,000 people	v1.1
16	19-22cohort	2019-2022 Cohort data	Kuriyama Town, Tomamae Town, Hachinohe City, Towada City, Rokunohe Town, Sannohe Town, Goto Town, Nanbu Town, Iwanuma City, Katsurao Village, Oarai Town, Kashiwa City, Ichihara City, Mutsusawa Town, Nagara Town, Machida City, Yokohama City, Niigata City, Kaga City, Chuo City, Hayakawa Town, Oyama Town, Mori Town, Nagoya City, Hekinan City, Tokoname City, Chita North Regional Union (Tokai City, Obu City, Chita City, Higashiura Town), Taketoyo Town, Taka Town, Tottori City, Chigashira Town, Matsuura City, Mifune Town, Tsukumi City, Takeda City, Kokonoe Town	117,000 people	v1.1
17	panel data set	•2010, 2013, 2016, 2019 and 2022 Cross-sectional data •10-19,13-19,16-19,10-22,13-22,16-22 and19-22 cohort data All have unique keys attached to them, so merge them yourself.	Depends on merged data.	Depends on merged data	v3.1
18	jages2010 with medical checkup data	Health checkup data added to 2010 cross-sectional data	Chita city, Higashiura town, Tokai city, Minamichita town, Taketoyo town, Tokoname city (Total: Six cities and towns). *Distributed data excluded missing data for Obu city.	10,000 people	v1
19	jages2010 with changes in long-term care need class	Follow-up data on changes in degree of long-term care need and mortality of 2010 survey participants	Higashikagura town, Higashikawa town, Biei town, Towada city, Iwanuma city, Kashiwa city, Chuo city, Matsuura city, Watarai town, Nagoya city, Nishio city, Isshiki town, Kira town, Hazu town, Hekinan city, Minamichita town, Mihama town, Taketoyo town, Agui town, Tokoname city, Tokai city, Obu city, Chita city, Higashiura town (Total 24 cities and towns)	For the 24 cities and towns in the 2010 cross-sectional data	v0
20	jages2010.16 with changes in long-term care need class	Follow-up data on changes in degree of long-term care need and mortality of 2010 and 2013 survey participants	Higashikagura town, Higashikawa town, Biei town, Chuo city, Minamichita city, Mihama town, Watarai town, Matsuura city, Hekinan city, Tokoname city, Northern Chita Extended Association, Kashiwa city, Yokohama city, Niigata city, Nagoya city, Nishio city, Iwanuma city, Toyohashi city, Taketoyo town (19 cities, towns and villages)	17 insurers	v1
21	requiring help jages2016	Persons requiring assistance with unique key persons certified as requiring care 2016 cross-sectional data	Tomamae town, Towada city, Iwanuma city, Kashiwa city, Nagara town, Hachioji city, Yokohama city, Matsumoto city, Oyama town, Mori town, Tokai city, Obu city, Chita city, Higashiura town, Fukuoka city, Mifune town	4,064 people	v1.0
22	requiring help jages2019	Persons requiring assistance with unique key persons certified as requiring care 2019 cross-sectional data	Kuriyama town, Higashikagura town, Higashikawa town, Biei town, Tomamae town, Hachinohe city, Towada city, Rokunohe town, Sannohe town, Gonohe town, Nanbu town, Iwanuma city, Kosaka town, Katsurao village, Oarai town, Kashiwa city, Ichihara city, Mutsuzawa town, Nagara town, Hachioji city, Machida city, Yokohama city, Niigata city, Tokamachi city, Chuo city, Hayakawa town, Oyama town, Mori town, Handa city, Hekinan city, Tokoname city, Tokai city, Obu city, Chita city, Higashiura town, Taketoyo town, Toyonaka city, Ikoma city, Tottori city, Chizu town, Fukuoka city, Mifune town, Usuki city, Taketa City, Kokonoe town	9,137 people	v1.1
23	requiring help jages2022	Persons requiring assistance with unique key persons certified as requiring care 2022 cross-sectional data	Higashikagura town, Higashikawa town, Biei town, Tomamae town, Hachinohe city, Towada city, Shichinohe town, Rokunohe town, Tohoku town, Rokkasho village, Sannohe town, Gonohe town, Nanbu town, Iwanuma city, Katsurao village, Saitama city, Kashiwa city, Ichihara city, Yotsukaido city, Mutsuzawa town, Nagara town, Machida city, Higashimurayama city, Yokohama city, Niigata city, Tokamachi city, Komatsu city, Awara city, Chuo city, Hayakawa town, Gero city, Godo town, Wanouchi town, Anpachi town, Ibigawa town, Ono town, Ikeda town, Oyama town, Mori town, Hekinan city, Tokoname city, Tokai city, Obu city, Chita city, Higashiura town, Taketoyo town, Toyonaka city, Tambasayama city, Taka town, Kamikawa town, Ikoma city, Oji town, Koryo town, Tottori city, Iwami town, Chizu town, Hirado city, Matsuura city, Mifune town, Taketa city	10,152 people	v1.0

\*In the case that panel data are used, they should be combined by the individual researchers using the “uniquekey”.

\*Subjects in the “10-13-16panel (including withdrawals)” consist of 55,000 individuals living in 13 cities, towns, and villages, out of 100,000 respondents of the 2010 survey, who could be followed up with long-term care need, mortality, and relocation until 2016. Although the sample has been narrowed down, it includes data on certification and mortality until 2016. On the other hand, the “13-16panel (including withdrawals)” data are on a study of approximately 130,000 participants from the 2013 cross-sectional data. Although this does not include certification and mortality data until 2016, the researcher can use the survey identification number and combine it with the 13-16cohort to include it.

\* “Maximum snowfall data” was added (April 2018). This was calculated by finding the mean annual snowfall of the past 30 years by small region (jages2010\_scode). Please contact the JAGES Data Administration Office if you wish to use this data.

\*The distributed data is limited to the ages2003 dataset with cause of death. If you wish to use this data, an application must be made in advance to the Ministry of Health, Labour and Welfare. The data on applications for the use of this data are updated every year in January-March. Please contact the JAGES Data Administration Office for this information.

#### Sampling methods

Subjects of the AGES and JAGES surveys are generally adults aged 65 and above who are not certified with long-term care need. Data from some municipalities may partially include data on individuals with long-term care need, but individuals with long-term care need are excluded from the dataset for analysis that will be distributed to researchers (with the exception of Nakijin village).

Survey subjects will be selected in units of cities, towns, and villages. The list of older adults people, aged 65 years and above, was created based on the one of the following choices that was more convenient for the municipality: the Long-term Care Insurance First Insured Person List or the basic resident register. Individuals requiring long-term care were excluded based on the Long-term Care Insurance long-term care certification data. The sampling frame consisted of the remaining individuals. All individuals were generally included if the number was less than 5000, except in the case of budgetary restrictions or the size of the city, town, or village. In the case that this included more than 5000 individuals, questionnaire booklets were distributed to 5000 randomly-selected individuals.

## 2. Using the data

### Definition of terms

Several terms will be defined first for data sharing.

Wave	A cluster of surveys that were conducted on target areas** in the same period * using the same questionnaire booklet.
Questionnaire booklet	A questionnaire used for data collection in various surveys.
Version	A type of questionnaire booklet from the same period. For example, pages 1-10 are composed of common (core) items, and pages 11-12 are composed of optional items with different content. In Wave 3, five versions of questionnaire booklets A, B, C, D and E were used (however, version E was only used in Nagoya, and Kashiwa in surveys conducted in 2011).
Data set	A single or combined data obtained in each wave. Takes the form of a table (spreadsheet) used for analysis and is composed of cases*** (columns) and variables (rows).

\* A wave does not necessarily include surveys that were conducted within the same year. Some surveys may continue into the next year.

\*\* Surveyed geographical or administrative areas where study populations were sampled. In general, the (J)AGES survey takes samples from the first insured persons aged 65 years within areas covered by the insurers. In most cases, there is one insurer for each administrative city, town, or village. However, there were some exceptions among the insurers that have participated in our surveys so far: The Aichi Prefecture Northern Chita Extended Association covers four cities and towns, the Hokkaido Taisetsu Association covers three towns, and Nanjo city and Nakijin village are both in the Okinawa Prefecture Extended Association for Nursing-care Insurance, which is jointly formed by two cities, eight towns and 18 villages of the 41 total cities, towns and villages of Okinawa. Although Isshiki town, Kira town, and Hazu town in Aichi prefecture were merged with Nishio city in April 2011, the survey was conducted in January 2011, so the dataset treats these as four insurers, three towns, and one city.

\*\*\* =Respondents (insured persons).

### Wave

7 major waves that are widely used in large-scale cross-sectional studies, cohort studies, and panel studies (ages2003, ages2006, jages2010, jages2013, jages2016, jages2019, jages2022) have been completed within the (J)AGES thus far. The surveys conducted in Taketoyo town and Takahama city in February 2000 were preliminary surveys (Wave 0). The outlines of each wave are displayed in TableV-1.

**TableV-1 Summary and participating insurers of surveys of each wave**

Wave name Waves in <b>bold print</b> are main waves Short names are in parentheses ( )	Outline	Surveyed region (prefecture)	Survey participant insurers Insurers included in panel data in <b>bold print</b> , insurers included in cohort data are shaded.
<b>wave 1</b> <b>(AGES2003)</b>	15 cities, towns, and villages (12 insurers included 1 extended association) in Aichi, Kagawa, and Kochi prefectures were surveyed in 2003-2004.	Aichi  Kagawa Kochi	Northern Chita Extended Association (Tokai, Obu, Chita cities, and Higashiura town), Handa city*, <b>Tokoname city, Taketoyo town, Mihama town, and Minamichita town</b> Higashi-kagawa city, Ayauta town, Onohara town Nankoku city, Susaki city
<b>wave 2</b> <b>(AGES2006)</b>	Conducted in nine total cities, towns, and villages, including Aichi prefecture, Nara prefecture and two cities in Kochi in 2006-2007.	Aichi  Nara Kochi	<b>Towns of Tokoname, Agui, Mihama, Minamichita, and Handa city</b> Totsukawa village Nankoku city, Susaki city
<b>wave 3</b> <b>(JAGES2010-2011)</b>	In progress since 2010. Extended largely beyond Aichi prefecture, in 32 cities, towns, and villages (26 insurers**) nationwide, and is thus called the JAGES (Japan Gerontological Evaluation Study). *Insurers participating in the survey on the left are only those included in the distribution data.	Hokkaido  Aomori Miyagi Chiba Yamanashi Aichi   Mie Nara Okayama Nagasaki Okinawa  Total 11 prefectures	Taiseiki Extended Association (Higashikagura, Higashikawa, Biei towns) Towada city Iwanuma city Kashiwa city Chuo city, Hayakawa town Nagoya city, Northern Chita Extended Association (Tokai city, Obu city, Chita city and Higashiura town), Handa city, <b>Tokoname city, Agui town, Taketoyo town, Mihama town, Minamichita town</b> , Hekinan city, Nishio city, Isshiki town, Kira town and Hazu town Watarai town Totsukawa village Takaha city Matsuura city Nakajin village, Nanjo city**  Total 24 insurers
<b>wave 4</b> <b>(JAGES2013)</b>	33 cities, towns, and villages in 14 prefectures were surveyed in 2013.	See JAGES Distributed Data List	
<b>wave 5</b> <b>(JAGES2016)</b>	41 cities, towns, and villages were surveyed in 2016.		
<b>wave 6</b> <b>(JAGES2019)</b>	66 cities, towns, and villages in 25 prefectures were surveyed in 2019.		
<b>wave 7</b> <b>(JAGES2022)</b>	76 cities, towns, and villages in 32 prefectures were surveyed in 2022.		

\*Although Handa city is included in the cohort data with 2003 as the baseline, it is not included in the panel data.

\*\*Nakijin village and Nanjo city in Okinawa prefecture are both in the Okinawa Prefecture Extended Association for Nursing-care Insurance, with 28 member cities, towns, and villages. However, caution must be paid to the fact that it does not cover all the member cities, towns, and villages unlike the Taisetsu Extended Association in Hokkaido or the Northern Chita Extended Association in Aichi prefecture.

## Reference) Outlines of surveys not included in main waves and participating insurers

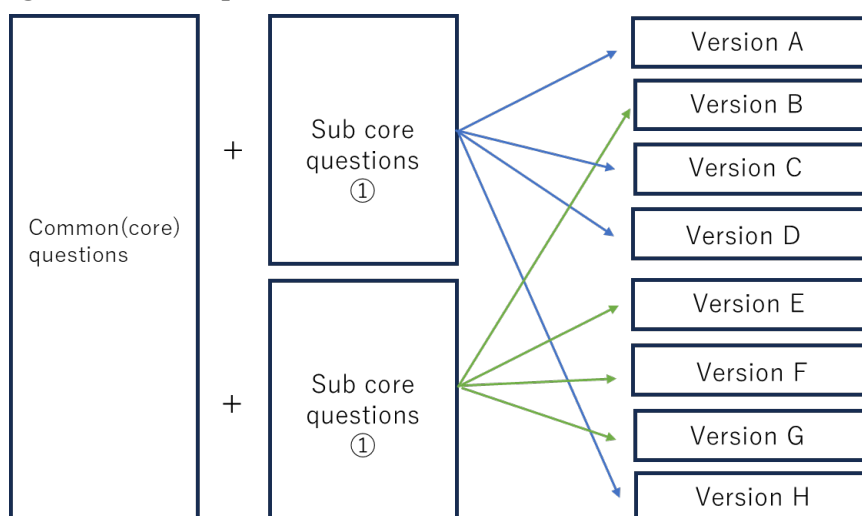
Wave 0 (Taketoyo 2000)	Conducted in one city and one town in Aichi prefecture in 1999-2000.	Aichi	Taketoyo town, Takahama city
wave 1'	Conducted in one city and Aichi prefecture and one city and one town in Nara prefecture in the same period as Wave 1. However, the details of the questionnaire booklet are very different from Wave 1, so it is treated as a different wave, but is not treated jointly with waves 2 and after, either.	Aichi Nara	Takahama city Kashiba city, Totsukawa village
Taketoyo2008	Surveyed one town in Aichi prefecture in 2008.	Aichi	Taketoyo town

### Questionnaire booklets and versions

In general, data collection for (J)AGES surveys used questionnaire forms called the “Questionnaire booklet.” The content of the questionnaire booklets are not always the same and vary slightly between waves. Furthermore, the “Basic Questionnaire booklet” is the standard form within the same wave, but there are several other versions as follows. This is to avoid putting a lot of stress of respondents by having a large number of questions in order to include more exploratory questions in the questionnaire booklet.

A questionnaire booklet within one wave is composed of common (core) questions that are included in questionnaires for all respondents, and of optional questions that are included in specific versions of the questionnaire. For example, in Wave 2, the composition of each version is shown in Fig. V-1.

**Figure V-1 Composition of each version in Wave 7**



Furthermore, since there were certain items that were deleted from or added to questionnaires depending on insurer requests or policies, details of questionnaire forms with the same version of the same basic questionnaire booklet may not be completely identical.

Versions may be named directly to express the contents of the questionnaire booklet (dementia, family/abuse, oral/nutrition), simply be categorized by an alphabet (A, B, C), or be named by the area surveyed. Table V-2 displays the list of versions in each wave.

**Table V-2 Versions included in each wave (on individuals aged 65 years and older)**

Wave name Waves in bold print are main waves	Version	Contents of optional items	Notes
<b>Wave 1 (ages2003)</b>	Dementia*	Dementia	In Aichi prefecture, respondents were randomly assigned to three groups and given one of three versions. In Kagawa and Kochi, all respondents answered the questionnaire booklet that included all optional items.
	Family/Abuse*	Family/Abuse	
	Oral/Nutrition*	Oral/Nutrition	
	Takahama Dementia	Frequency of shopping and of hospital visits	
<b>Wave 2 (ages2006)</b>	A	Community SC/Society/Values/Relationship with grandchildren	Respondents from the respective insurers of three towns in Aichi prefecture, two cities in Kochi prefecture, and one village in Nara prefecture were randomly assigned to three groups and given different versions.
	B	Abuse/Community social capital	
	C	Sleeping habits/Pets	
	Tokoname	No oral/No Hasegawa scale	The same questionnaire booklet was used on all respondents in Tokoname city.
	Taketoyo	Local items (original items of municipalities)	The same questionnaire booklet was used on all respondents in Tokoname city.
	Handa	Optional item: Abuse Hasegawa Dementia scale and items related to private information were deleted.	The same questionnaire booklet was used on all respondents from Tokoname city.
<b>Wave 3 (jages2010)</b>	A	Family long-term care/treatment/lifestyles	Respondents of each insurer (with the exception of Nagoya and Kashiwa cities) were randomly assigned to four groups and given different versions.
	B	Oral/Optimism scale/Self-rated level of happiness	
	C	Community social capital/Abuse	
	D	Self-rated standards of living/Sleep/Dementia/Past SES/Bathing	
	E	Physical activity	For Nagoya and Kashiwa cities, version E was added to the abovementioned versions A-D. Samples of each insurer were randomly assigned to five groups and given different versions.
	Hayakawa town	Local items (original items of municipalities)	The same questionnaire booklet was used on all respondents from Hayakawa city
	Nakijin	Local items (original items of municipalities)	The same questionnaire booklet was used on all respondents from Nakijin village
	Nanjo	Local items (original items of municipalities)	The same questionnaire booklet was used on all respondents from Nanjo city

\*The versions in Wave 1 with items “Dementia,” “Family/Abuse,” and “Oral/Nutrition,” in books such as *Kensho “Kenkou kakusa shakai” [Validating Health in Unequal Society]* (Igakushoin, 2007), may be indicated as “Chiho” [Dementia], “Kaigo” [Long-term care], and “Syoku-sha” [Diet and Social life] in some documents.

The variables representing versions in each dataset are numebr2 for AGES2003, qstn3vs7 for AGES2006 and file for JAGES2010, respectively.

\*For WAVE 4 and beyond, see Researcher Member Page (<https://www.jages.net/group/researcher/>) > Questionnaire with Variable Names



### 3. Data set

As previously stated in “1. Definitions of terms,” a data set is an aggregation of single or combined data obtained in each wave to facilitate analysis. Data users submit the Commitment form, Application form, and Proposal form to the JAGES head office and receive the data set they need in a format that can be analyzed using statistical software such as SPSS or Stata.

#### (1) Dataset types

Datasets created using (J)AGES data are broadly categorized under the following three types.

Cross-sectional data	Aggregation of data from one wave.
Cohort data	Cross-sectional data and subsequent outcomes (death, certification of long-term care need or unable to follow up) and data on numbers of days between that outcome from baseline.
Panel data	Combined of all variables of wave data of two or more time points.

## (2) Relationship between Waves and Data sets

The area (insurers) covered by each wave are contained in the following data sets.

**Table V-3\_1 Relationship between Waves and Datasets (wave1-wave3)**

\* (Shaded terms are extended associations, not names of cities, towns, or villages)

		Wave 1 (ages2003)			Wave 2 (ages2006)		Wave 3 (jages2010)	
Data type	Prefecture	Aichi prefecture		Other two prefectures	Aichi prefecture	Other two prefectures	Cohort follow-up	Other
		Cohort follow-up	Other		Cohort follow-up			
	Number of insurers	6	1	5	6	3	9	15
	Insurer	Tokoname Agui Taketooyo Mihama Minamichita Handa	Northern Chita	Higashikagawa Ayauta Onohara Nankoku Susaki	Tokoname Agui Taketooyo Mihama Minamichita Handa	Nankoku Susaki Totsukawa	Tokoname Taketooyo Hekinan Nagoya Matsuura Iwanuma Chuo Kashiwa Taisetsu	Northern Chita Handa Agui Mihama Minamichita Nishio Isshiki Kira Hazu Totsukawa Watarai Takahashi Towada Okinawa <sup>1)</sup> Hayakawa
Cross-sectional	ages2003	○	○	○				
	ages2006				○	○		
	jages2010						○	○
Cohort	cohort03_07	○						
	cohort03_10	○						
	cohort06_10				○ <sup>2)</sup>			
	cohort10-19						○ <sup>3)</sup>	

1) As for the Extended Association, surveys have covered three member towns in the Taisetsu Extended Association and four member cities and towns in the Northern Chita Association, that is, the surveys have covered all member cities and towns of said insurers. However, only Nakijin village and Nanjo city are surveyed among the 28 member cities, towns and villages of the Okinawa Prefecture Extended Association for Nursing-care Insurance.

2) Longitudinal studies by panel data are impossible for the Handa city surveys on 2006 and 2010 because they were taken under the condition that individuals would not be identified.

3) cohort10-22 does not include Nagoya City and Taisetsu Regional Union.

**Table V-3\_2 Relationship between Waves and Datasets(wave4-wave6)**

\* (Shaded terms are extended associations, not names of cities, towns, or villages)

		Wave4 (jages2013)		Wave5 (jages2016)		Wave6 (jages2019)		
		Cohort follow-up	Other	Cohort follow-up	Other	Cohort follow-up	Other	
Number of insurers		14	10	19	12	36	17	
Insurer		Taisetsu	Mihama	Taisetsu	Otofuke	Kuriyama	Kaga	Yoichi
		Towada	Minamichita	Tomamae	Yoichi	Tomamae	Chuo	Taisetsu
		Iwanuma	Totsukawa	Towada	Mashiko	Hachinohe	Hayakawa	Kosaka
		Kashiwa	Watarai	Iwanuma	Mori	Towada	Oyama	Saitama
		Niigata	Handa	Kashiwa	Oyama	Rokunohe	Mori	Ichikawa
		Chuo	Nishio	Nagara	Minami	Sannohe	Nagoya	Hachioji
		Hayakawa	Toyohashi	Hachioji	chita	Gonohe	Hekinan	Yokohama
		Nagoya	Tahara	Niigata	Mihama	Nanbu	Tokoname	Tokamachi
		Hekinan	Marugame	Chuo	Watarai	Iwanuma	Northern	Matsumoto
		Tokoname	Yokohama	Hayakawa	Handa	Katurao	Chita	Iida
		Northern		Matsumoto	Nishio	Oarai	Taketoyo	Handa
		Chita		Nagoya	Funabashi	Kashiwa	Taka	Toyonaka
		Taketoyo		Hekinan	Fukuoka	Ichihara	Tottori	Kusunoki
		Matsuura		Tokoname		Mutsuzawa	Chizu	Yao
		Mifune		Northern		Nagara	Matsuura	Tenri
				Chita		Machida	Mifune	Ikoma
		Taketoyo		Yokohama	Tsukumi	Fukuoka		
		Matsuura		Niigata	Taketa	Usuki		
		Mifune			Kokonoe			
		Yokohama						
Cross-sectional	jages2013	○	○					
	jages2016			○	○			
	jages2019					○	○	
	jages2022							
Cohort	cohort 13-19	○						
	cohort 16-19			○ <sup>6)</sup>				
	cohort 13-22	○ <sup>4)</sup>						
	cohort 16-22			○ <sup>5)</sup>				
	cohort 19-22					○		

4) cohort13-22: does not include the Taisetsu Regional Union and Nagoya City.

5) cohort16-22: does not include the Taisetsu Regional Union, Hachioji City, and Matsumoto City, but includes Oyama Town.

6) cohort16-19: Yokohama City is not included.

**Table V-3\_3 Relationship between Waves and Datasets(wave7)**

\* (Shaded terms are extended associations, not names of cities, towns, or villages)

		Wave7 (jages2022)
Number of insurers		63
Insurer		Yoichi Hayakawa
		Kuriyama Gero
		Taisetsu Anpachi
		Tomamae -gun
		Hachinohe Ibi
		Towada Oyama
		Shichinohe Mori
		Rokunohe Nagoya
		Tohoku Hekinan
		Rokkasho Tokoname
		Sannohe Northern
		Gonohe Chita
		Nanbu Taketoyo
		Iwanuma Toyonaka
		Katsurao Nishiwaki
		Oarai Tambasa
		Saitama -sayama
		Ichikawa Taka
		Kashiwa Kamikawa
		Ichihara Tenri
		Yotsukaido Ikoma
		Mutsuzawa Katsuragi
		Nagara Oji
		Machida Koryo
		Higashi Tottori
		-murayama Iwami
		Yokohama Chizu
		Niigata Hirado
		Tokamachi Matsuura
		Komatsu Mifune
		Kaga Tsukumi
		Hakui Taketa
		Awara Kokonoe
		Chuo
Cross-sectional	jages2013	
	jages2016	
	jages2019	
	jages2022	○
Cohort	cohort 13-19	
	cohort 16-19	
	cohort 13-22	
	cohort 16-22	
	cohort 19-22	

### (3) Community data

Community data are added to the data on six cities and towns in Aichi prefecture in the AGES2003. See the document by Tomoya Hanibuchi for community data.

JAGES2010 data includes data on elementary school districts. See “AGES deta no shikibetsu hensuu kodo bukku [AGES Data Distinguished Variables Code Book]” (September 17, 2012) by Doctoral Institute for Evidence Based Policy (EBP) for JAGES2010 community data codes. We expect to receive more detailed data on community information from the areas where the insurer can provide us data.

### Panel Data set

Large-scale AGES surveys prior to Wave3 were only conducted in 2003 and 2006, so they had already been joined in a panel (wide format) and the data set had been provided to data users by the AGES Administration Office. However, the cross-sectional data sets (ages2003, ages2006) that were the basis of the combined data set had been cleaned. In addition, the combinations of panels would increase as cross-sectional data would increase in the future. For that reason, we have been outsourcing the generation of panel data set as of February 2013. Please see the explanatory document, which is also expected to be provided by the contractor that will create the data set.

### Variables and values

All variables are given unique variable codes that are combinations of letters, numbers, and underscores.

Example:

srh\_4\_\_4

adl\_3\_\_4

tret\_2\_4

Although this rule is not always strictly followed in data sets ages2006 and later, in ages2003, the digits signify the following: The last digit generally signifies the survey year, and the number of answer choices are separated by an underscore. In ages2003, the underscore may be repeated to follow the eight-digit rule for many variables. Please note this carefully.

The first three or four digits	The questionnaire topic is expressed in short form in letters.
	One underscore
	The number of answer choices
	One or two underscores
The last one or two digits	Survey year (represented year)

For example, srh\_4\_3 is on questions related to self-rated health, has four answer choices, and was used in the Wave 1 survey in 2003-2004. Furthermore, the same topic of self-rated health can have more than one variable: The variable for a question with five choices in the 2006-2007 survey has the code of shr\_5\_7, and one with four choices has the code of shr\_4\_7.

When only one answer is allowed per question, the question corresponds to one variable, and the number attributed to the selected answer choice is the value. When multiple selections are allowed, one answer choice corresponds to one variable, and the values are “yes” or “no” (or “applies” or “does not apply”).

### (1) Values for variables for optional items

- If there are multiple versions of the same data set, the value for variables for the group that had optional items that are not included in the questionnaires that other respondents received will be “System missing value (no value entered).” However, unanswered questions are also treated as “System missing value,” and there is no way to distinguish between the two in the data entry process. To check whether a variable is particular to a version, cross-tabulate with the version-specific variable. The variables representing versions in each data set are numebr2 for AGES2003, qstn3vs7 for AGES2006 and file for JAGES2010, respectively.

### (2) About variable labels

- Not all variables and values are labeled. The breakdown of variables and values can be checked in the ① Questionnaire booklet with variable name (2003 version/2006 version/2010 version/2013 version/2016 version/2019 version/2022 version: PDF files), and the ② Variable list(Excel file).
- For analysis, it is convenient to use your own labels for variables and values.

### (3) Missing values

Missing values may be expressed as 0, 9, 90, 98, 99 or a blank (or a “.” in some statistical software).

There is no manual regarding missing codes in the 2003 data. According to the 2003 code book from the member’s page, there are three possibilities: 0, 99, or system missing value (either a blank space or “.”).

In the 2006 survey, missing values may be expressed as “90: Missing from version,” “98: No response or system missing,” or “99: Resistance response.” The following are possible reasons for missing data.

- 1) Missing from version -- the respondent did not get that version of the questionnaire booklet.
- 2) System missing -- the respondent did not get that version of the questionnaire for reasons other than “missing from version.” (Ex.: Questions that only respondents who answered “yes” to the previous question would answer.)
- 3) No response -- The respondent did not answer that question despite being asked for a response.
- 4) Resistance response -- the respondent failed to answer a question correctly, so a value other than one of the options has to be entered in the data entry stage for convenience. (Ex.: Multiple answers are circled for a question that asks for only one answer.)

In the 2010 survey, there are two types of missing data: “-9999: Resistance response” and “Blank space or ‘.’” The following are possible reasons for missing data.

- 1) Missing from version--the respondent did not get that version of the questionnaire that contained the optional question.
- 2) Missing option--the respondent did not a subject of that question for reasons other than “missing from version.” (Ex.: Questions that only respondents who answered “yes” to the previous question would answer.)

3) No response--The respondent did not answer that question despite being asked for a response.

4) Resistance response--the respondent failed to answer a question correctly, so a value other than one of the options has to be entered in the data entry stage for convenience.

Resistance responses may include the following cases.

--The answer choices are "yes" and "no," and both have been circled.

--The question asks the subject to select three answers, but five answers have been selected.

--A question asks about frequency, and the answer choices are "Almost every day, two to three days a week, once a week, one to two times a month, several times a year, or none" but two answers, "two to three days a week" and "once a week" are circled.

- In general, 1) and 2) must be excluded from analysis. As for 3) and 4), the researcher must evaluate which is appropriate according to the purpose; exclude it from the analysis or generate a new category of "invalid / no response" to be included in the analysis.
- Even if core items and optional items in the versions have also been deleted at the discretion of the municipality (insurer). For necessary variables, if all the subjects of a municipality (insurer) are missing values, it is necessary to exclude them from the analysis. Check all variables to be used before analysis by cross-tabulation with the city, town, or village (munif\_\_4 for AGES2003, new\_muni in AGES2006, mcode for JAGES2010).
- The way of dealing with missing values can impact the overall results, interpretation, and results of the analysis and research. It is also an ethical issue and requires serious consideration by the researcher. Items coded as 0, 9, 90, 98, 99 or -9999 can be entered temporarily with a blank space (or "."). Then the researcher him/herself can refer to the questionnaire booklet, variable search file, or code book, compare its meaning to the purpose of their analysis, and re-code as needed, or otherwise treat the missing values with responsibility. See Paul D. Allison, (2001), *Missing Data*, Sage Publication and other references for methods to deal with missing values.

#### (4) Filled questionnaire booklets PDF

The JAGES Administration Office stores the filled questionnaire booklets in PDF format after data entry has been completed. These PDF files, which are the raw source of the entered data, can be viewed by the JAGES data user after consulting the Administration Office, explaining the purpose for the request, and being approved that the intent is appropriate.

#### (5) Definitions of response rate and follow-up rate in panel data

1. Response rate is calculated from distribution number and response number of cross-sectional data.

2. Indicate that surveys form were re-distributed to [number of survey subject] and responses received back from [number of survey participant]..

\*The follow-up rate varies depending on the research question, so it is not defined by the Administration Office.

Ex. 2010-2013 panel data



Numbers of 2010 cross-sectional data distributed in the municipalities covered by the 10-13panel: 141,452

Numbers of cross-sectional data responded from the municipalities covered by the 10-13 panel: 92,272 (Baseline response rate: 65.2%)

Of these, the 2013 survey from was distributed to 77,714 individuals, and responses were received from 62,438.

#### **4. During paper writing**

##### Ethical considerations

The JAGES project was approved by the ethics review board related to research involving humans at Nihon Fukushi University.

Application number 10-05, Approved on July 27, 2010

Study title: Japan Gerontological Evaluation Study (JAGES) project on a large-scale cohort

The 2013 survey has also been approved by the ethics review board.

Application number 13-14, Approved on August 6, 2013

Study title: Japan Gerontological Evaluation Study (JAGES) project on a large-scale cohort

The 2016 survey was approved by the National Center for Geriatrics and Gerontology and Chiba University.

[National Center for Geriatrics and Gerontology]

Receipt number: No.992 Approved January 27, 2017

Project name: JAGES (Japan Gerontological Evaluation Study) epidemiological research on health and lives of elderly in 40 Japanese cities, towns and villages included disaster-struck areas

[Chiba University]

Receipt number: 2493 October 21, 2016

Project name: JAGES (Japan Gerontological Evaluation Study) Epidemiological research on health and lives of elderly in 40 Japanese cities, towns and villages included disaster-struck areas

The 2019 survey was approved by the National Center for Geriatrics and Gerontology, Chiba University and Japan Agency for Gerontological Evaluation Study.

[National Center for Geriatrics and Gerontology]

Receipt number: 1274—2 December 18, 2020

Project name: Japan Gerontological Evaluation Study (JAGES) - Epidemiological study on the health and life of the older adults, including in disaster-affected areas.

[Chiba University]

Receipt number:3442 December 11,2020

Project name: Japan Gerontological Evaluation Study (JAGES) - Epidemiological study on the health and life of the older adults, including in disaster-affected areas.

[Japan Agency for Gerontological Evaluation Study]

Receipt number: 2019-01 October 10, 2020

Project name: Japan Gerontological Evaluation Study (JAGES) - Epidemiological study on the health and life of the older adults, including in disaster-affected areas.

The 2022 survey was approved by the Chiba University.

[Chiba University]

Receipt number: M10460 November 1, 2022

Project name: Japan Gerontological Evaluation Study (JAGES) - Epidemiological study on the health and life of the older adults, including those in disaster-affected areas.

A copy of the abovementioned report on the ethics review is stored under the JAGES-related ethics review list on the JAGES member researcher's page of the JAGES website, and it can be viewed and downloaded.

## Grants

In writing the paper, indicate the survey methods, etc. With regard to grants, follow the paragraph in Publishing Results of the Commitment Form. An example follows.

As a general rule, indicate the information below on grants regardless of which year the data you used comes from. This is with consideration for the fact that ongoing research funds are involved in the processing or writing of past data, and because it is recommended to list all research funds that may be involved in the future exhaustively to avoid conflicts of interest. This rule has been implemented since May 2017.

\*However, delete information on past research funds as appropriate when using new cross-sectional data only.

### (1) Papers in English

[Using data for which all research funds were listed]

This study used data from JAGES (the Japan Gerontological Evaluation Study). This study was supported by Grant-in-Aid for Scientific Research (19K02200, 20H00557, 20H03954, 20K02176, 20K10540, 20K13721, 20K19534, 21H00792, 21H03153, 21H03196, 21K02001, 21K10323, 21K11108, 21K17302, 21K17308, 21K17322, 22H00934, 22H03299, 22J00662, 22J01409, 22K01434, 22K04450, 22K10564, 22K11101, 22K13558, 22K17265, 22K17364, 22K17409, 23K16320, 23H00449, 23H03117, 23K19793→If necessary, please add your own JSPS grant) from JSPS (Japan Society for the Promotion of Science), Health Labour Sciences Research Grants (19FA1012, 19FA2001, 21FA1012, 22FA2001, 22FA1010, 22FG2001), the Research Funding for Longevity Sciences from National Center for Geriatrics and Gerontology (21-20), Research Institute of Science and Technology for Society (JPMJOP1831, <sup>†</sup> RISTEX, JPMJRX21K6) from the Japan Science and Technology (JST), a grant from Japan Health Promotion & Fitness Foundation, contribution by Department of Active Ageing, Niigata University Graduate School of Medical and Dental

Sciences (donated by Tokamachi city, Niigata), TMDU priority research areas grant and National Research Institute for Earth Science and Disaster Resilience. The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the respective funding organizations.

<sup>†</sup> Please include this grant if your research is related Research Institute of Science and Technology for Society (RISTEX) (Prof. Naoki Kondo)

\*If you use the Iwanuma data for your research, please be sure to add the information of grant from NIH(National Institutes of Health(R01AG042463)).

(If listing on the necessary research funds)

This study used data from JAGES (the Japan Gerontological Evaluation Study). This study was supported by Grant-in-Aid for Scientific Research (20H00557, 20K10540, 21H03153, 21H03196, 21K17302, 22H00934, 22H03299, 22K04450, 22K13558, 22K17409, 23H00449, 23H03117 →If necessary, please add your own JSPS grant) from JSPS (Japan Society for the Promotion of Science), Health Labour Sciences Research Grants (19FA1012, 19FA2001, 21FA1012, 22FA2001, 22FA1010, 22FG2001), Research Institute of Science and Technology for Society (JPMJOP1831, <sup>†</sup>RISTEX, JPMJRX21K6) from the Japan Science and Technology (JST), a grant from Japan Health Promotion & Fitness Foundation, TMDU priority research areas grant and National Research Institute for Earth Science and Disaster Resilience. The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the respective funding organizations.

<sup>†</sup> Please include this grant if your research is related Research Institute of Science and Technology for Society (RISTEX) (Prof. Naoki Kondo)

\*If you use the Iwanuma data for your research, please be sure to add the information of grant from NIH (National Institutes of Health(R01AG042463)).

### 【Home care and living survey】

This study used data from JAGES (the Japan Gerontological Evaluation Study). This study was supported by Grant-in-Aid for Scientific Research (21K17322), also supported by crowdfunding through the academic crowdfunding platform "academist", and we are grateful to R. Kawaguchi, A. Sato, K. Sekiguchi, M. Tanaka, H. Morikawa, and C. Yamamoto. The views and opinions expressed in this article are those of the authors and do not necessarily reflect the official policy or position of the respective funding organizations.

#### Details on the main six research funds

##### 1. JSPS Grants (15H01972)

- ① Principal Investigator: Katsunori Kondo (Professor of the Center for Preventive Medical Sciences, Chiba University)
- ② Study title: Elucidating the process of generating well-being disparity in the elderly and Social capital
- ③ Study period: 29105-2017 2015 Grant-in-aid for Scientific Research from JSPS

##### 2. Japan AMED “Research and Development Grants for Longevity Science”

- ① Principal Investigator: Katsunori Kondo (Professor of the Center for Preventive Medical Sciences,

Chiba University)

- ② Study title: Study to promote the prevention of long-term care through community-building
- ③ Study period: October 15, 2015-March 31, 2018  
2015 Research fund from Japan AMED

3. 2016 Health Labour Sciences Research Grants (H28-Choju-Ippan-002)

- ① Principal Investigator: Katsunori Kondo (Professor of the Center for Preventive Medical Sciences, Chiba University)
- ② Study title: Study to promote the prevention of long-term care through community-building
- ③ Study period: 2016-2018  
2016 Health Labour Sciences Research Grant (Policies for Longevity)

4. Japan AMED “Personal Health Records (PHR) Utilization Project”

- ① Principal Investigator: Katsunori Kondo (Professor of the Center for Preventive Medical Sciences, Chiba University)
- ② Study title: Developing a Utilization model of Personal Health Records (PHR) as a Strategy for Preventing Long-term Care
- ③ Study period: 2016-2018  
2016 Research fund from Japan AMED

5. Research Funding for Longevity Sciences from the National Center for Gerontology and Geriatrics (29-42)

- ① Principal Investigator: Takao Suzuki (Co-investigator: Katsunori Kondo)
- ② Study title: Comprehensive study of a Longevity Cohort
- ③ Study period: 2017

6. Japan AMED Research on strengthening regional management functions through the use of data tools for regional diagnosis and the promotion of regional problem identification

- ① Principal Investigator: Naoki Kondo
- ② Study title: Research on regional management support through the use of regional diagnostic tools for the promotion of comprehensive regional care
- ③ Study period: 2017-2018

- Consult with the applicable research organization if you wish not to list grants from for-profit organizations.
- See the paragraph in the VI document for grant information for details on grants for each survey year.

# Part II

## Using JAGES data Section

## **1. Compliance and Data Use Procedures for the use of JAGES Data**

Contact the JAGES Agency (dataadmin.ml@jages.net) if you wish to use the data. Use of data sets other than those listed in the JAGES Distributed Data List may be discussed, and they may be available for use under conditions specified by the JAGES Agency. For more information, please contact the JAGES Agency.

The cohort03-13, cohort10-13 data sets with data on cause of death are scheduled for limited distribution in the future. If you wish to use this data, an application must be submitted in advance to the Ministry of Health, Labour and Welfare. The data on applications for use are updated every year in January-March. Please contact the JAGES Agency for this information.

### **Compliance in the use of JAGES Data**

The following compliance rules must be followed when using JAGES data. In the event of non-compliance, may result in a request immediate return of the data and may prohibit or restrict future use of JAGES Data.

#### **Use only for research of public interest.**

JAGES data is collected using public research grants and funds commissioned by local governments. It also contains data that may only be used in research studies that contribute to increasing healthy life expectancy and public health, such as local government health promotion policy and action planning, and social epidemiological studies that explore the social determinants of health.

For these reasons, analyses using JAGES data are permitted only for research that is in the public interest. Specifically, this includes analyses for the purpose of presentation at academic conferences, publication in academic journals, etc., and analysis conducted for the planning, management, evaluation, etc., of government and municipal policies.

JAGES board members will make the final judgment on "public interest" based on discussions of research plans among researchers in the process of data use applications, which are submitted according to the procedures described below.

#### **Obtaining local government permission**

If the researcher plans to make a presentation in a form that includes the name of the specific municipality, the content of the research should be reported to the relevant municipality at the stage of preparing the research plan, and permission for the analysis and publication of the analysis results should be obtained (including the procedures prescribed by the municipality such as ethical review and personal information review board).

If you plan to publish the results of your analysis, such as in a presentation at a conference or in an article, you must contact the local government in advance and obtain permission, regardless of the form of publication.

#### **Do not share the data with others.**

In response to the implementation of the revised Personal Information Protection Law in 2017, data holders will be thoroughly identified. Applicants for data use must report information on prospective data holders to the JAGES Organization Secretariat at the time of application. If there is a change in the data holder during the period of data use

permission, the applicant must notify the JAGES Organization Secretariat of such change using the Data User Addition/Deletion Form.

In principle, data use is limited to individuals. If an organization or group wishes to use the data, it should contact with the JAGES Secretariat in advance and obtain permission. If permission is granted for use by an organization or group, the application must be made by the head of that organization or group.

Share the data with others without notifying the JAGES Secretariat may result in the data not being available for future use. Legal action may also be taken under the Personal Information Protection Law.

There is no problem if the names of persons not listed in the data use application are added as co-authors when the research results are published, but the use of the data must be limited to the applicant.

The data may be used by persons other than those listed on the application form only when organizing and analyzing the data for research assistance, but the person who submitted the application must be present in such cases.

### **The applicant must be submit research plan before starting the use of JAGES Data.**

To avoid conflicts with other JAGES data users regarding the content of the analysis, etc., a research plan should be submitted in advance for each paper. Even if you already have the data, you must submit a research plan for a new topic online if you wish to analyze a new topic.

The submitted research proposal will be discussed on the mailing list of researchers who have conducted analyses using JAGES data in the past to ensure that there are no conflicts, etc. If there are similar studies in the past, the research plan will be revised (or withdrawn), co-researchers will be added, co-authors will be added, etc. as necessary.

If no objections or other issues are raised within the specified time period, the JAGES Board Member will conduct a final review from the perspective of the appropriateness of the use of JAGES data and other factors, and make a final decision on whether or not the data can be used. All reviews will be conducted on a first-come, first-served basis.

When submitting data to journals, etc., please comply with the rules and regulations of each journal to which the data will be submitted, in addition to the rules and regulations in this user guide. In addition, authors must comply with the "Uniform Rules for Submission to Biomedical Journals" of the International Committee of Medical Journal Editors (ICMJE). If there are any discrepancies between the rules and regulations in this guide and those of the journal to which the manuscript is to be submitted, please contact the JAGES Secretariat in advance (in addition to the above, if there are other laws, regulations, etc. that must be followed during the research phase, these must also be followed).

If it is found that an external presentation will be made without registering a research plan, the JAGES Secretariat may request the withdrawal of the abstract. In addition, the use of the data may be prohibited or restricted in the future if it is believed that malicious use has been made of the data.

Undergraduate and graduate students who wish to submit an application should do so under the joint name of a faculty advisor who will be responsible for data management and follow the procedures below. The same procedure should be followed for working undergraduate and graduate students (those attending a university while working).



- (1) The faculty advisor should contact the Board member of JAGES Agency in advance to discuss the details of the research plan.
- (2) The student should apply for the research from his/her own account. However, before applying, the student must complete the following three items and check all three checkboxes on the application screen.
  - The student has received approval from the applicant's faculty advisor to apply for this research plan.
  - The faculty advisor has reviewed and approved all content of this research plan.
  - The student explains to his/her faculty advisor that the responsibility for data management rests with the faculty advisor and the student, and the faculty advisor has agreed to this.
- (3) Enter the name of the faculty advisor who will be responsible for data management, etc., in the "Applicant" column on the research application management screen.
- (4) Both the student and the faculty advisor must sign the written pledge to be submitted after the research plan is approved.

**Data must be analyzed after disconnecting from the Internet.**

Data should be saved only to CD-R or an external hard drive and should be removed from the computer after the analysis is completed.

The JAGES data distributed does not contain information that identifies individuals, but it does contain many items that should be taken into consideration, such as illness and economic status, and thus may be considered "personal information requiring special consideration" under the revised Personal Information Protection Law.

The Secretariat of JAGES Agency will send data to those who have been authorized to use JAGES data through the cloud only in the manner specified by the Secretariat of JAGES Agency. The data must be stored in a place that is not connected to the Internet immediately after receiving the data from the Secretariat of JAGES Agency.

**The research plan and the research results should be presented at the JAGES research meeting, etc. organized by the JAGES Agency.**

The research plan should be presented again at the research meeting when the research plan is approved or when the analysis is completed, and advice should be obtained on whether there are any flaws in the analysis and on the direction of consideration for future presentations at academic conferences and the writing of papers.

If, during the data analysis period, if it becomes necessary to revise the analysis method or to change the independent variables or objective variables, it would be reported and consulted with the research group, the ML for data analysts, and the Secretariat of the JAGES Agency, and make the necessary revisions.

**When a paper is published, it will be presented at a press conference organized by the JAGES Agency.**

Since JAGES data can only be used for research of public interest, when the analyses are published in a paper, etc., press release materials will be prepared, and the research results will be widely disseminated to the public by presenting them at a press conference.

In addition, press release materials will be posted on the JAGES website. In principle, the press release materials may be reprinted or cited for the purpose of promoting the use of the research results to the general public. Reproduction of the press release material may be made "not reprintable" by decision of the author. In this case, please clearly indicate this in the press release material you prepare.

- Past press releases may be freely quoted and reprinted in principle.
- Data will not be loaned to those who do not agree to the above.

### **Acknowledgement and Research Funding Statement**

When publishing research results, be sure to include the acknowledgements and research funding listed in this user guide.

When publishing research results, "JAGES (Japan Gerontological Evaluation Study)" should be stated in full when the results are first published.

The source of the data should also be indicated as appropriate to the subject, method, content, etc. of the study.

### **Submission of various reports**

The following items should be reported promptly according to the prescribed form.

- Variables used in the analysis
- Methods used to create secondary variables (syntax, etc.)
- Data use beyond the data use period
- Deletion of data
- English notation of variable names and questions, when publishing results in English

### **Data Maintenance Cooperation**

If the researcher is asked to share some of the burden of data collection, cleaning, and analysis work associated with the JAGES, the researcher should comply with such requests to the greatest extent possible.

In addition, any errors in the data discovered during the analysis should be immediately reported to the JAGES Secretariat, and active participation in improving the quality of the data is required.

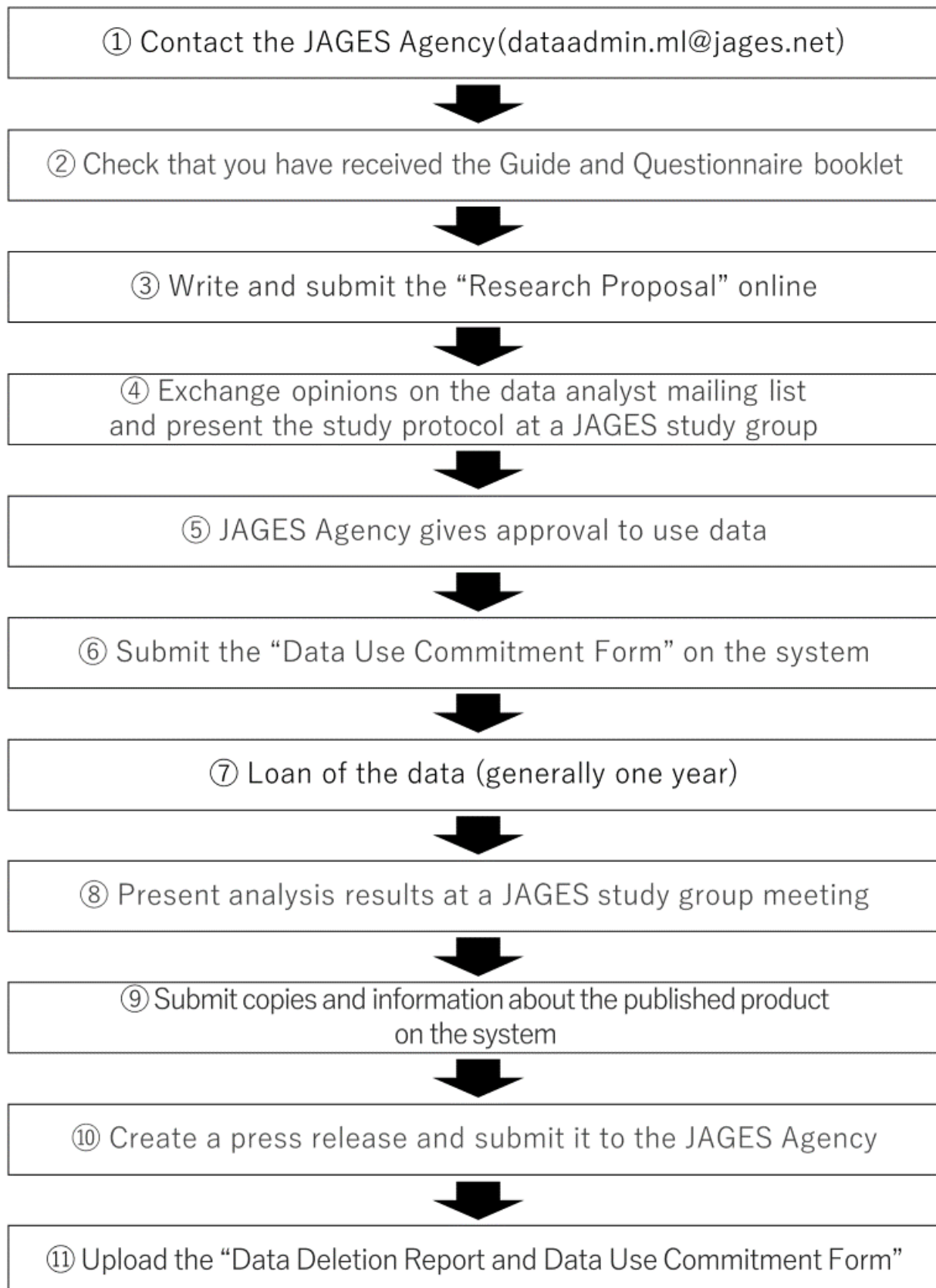
### **Subscription to the mailing list**

In order to facilitate the exchange and sharing of information among data users, the email address must be registered on a dedicated data user mailing list.

### **Other Prohibited Items**

- The individual data should be confidential and shall not be used to identify individual subject of survey.

- The data provided shall not be used for commercial purposes.
- The contents of the loaned data and information obtained through this analysis, such as research trends of the research group, shall not be disclosed to any third party without permission.
- In addition to the above-mentioned compliance items, carefully read the attached "User's Manual".-



## Description of steps for using the data

### ① Contact the (dataadmin.ml@jages.net)

Communicate to the JAGES Agency your wish to use the data. The JAGES Agency will send you information such as the “(J)AGES Data Summary and User’s Guide” and “Questionnaire booklet.”

### ② Check the Guide and Questionnaire booklet you have received.

A. Use the Guide, Questionnaire booklet, and previous references related to JAGES (see the list of published papers on the JAGES website)

- to understand previous and current research related to JAGES
- to examine the validity of the topic of research that the applicant is seeking to initiate
- to understand whether the topic can be tested using JAGES data

The reason a review of previous studies is done within (J)AGES is to avoid competition with other researchers (\*). This prevents overlapping study topics and increases the productivity of the JAGES overall. If you wish to study topics that are similar to other researchers’ protocols, we may ask researchers with potentially overlapping study topics to directly make arrangements with each other as needed.

\*Competition of research details will be determined by whether the papers cannot be published independently due to markedly similar study topics.

Previous studies within (J)AGES can be searched on the (J)AGES website at <http://www.jages.net>.

### B. Plan the type of analysis to perform.

See research papers on members’ pages and set a research question upon understanding of the overall mission of JAGES.

Those who wish to use JAGES data must read this guide (in particular, the section “Using the data”) thoroughly to learn about the structure of the data sets before selecting the dataset and variables. Make a plan for which variables from which datasets to analyze before obtaining the actual data set. See the following on how to select the data set and variables.

### C. Selecting the data set

The structure of the data to be used must be understood before selecting the data set. Use cross-sectional data for investigating the relationships between variables through one survey (one time-point). Use cohort data for examining how a variable at a single baseline time-point is associated with subsequent mortality or long-term care need. Use panel data for observing changes in variables covered in surveys taken over two points in time. See the previous study on JAGES website for analysis and outcomes by data structure.

There are two methods for searching the variables to be used: ① Questionnaire booklet with variable names (2003 version/2006 version/2010 version/2013 version/2016 version/2019 version/2022 version: PDF files), ② Variable

list (Excel file). To check whether a variable has been surveyed in cities, towns and villages in all surveys, see on Questionnaire Items by Version (December 5, 2012 Complete version).

③ Write and submit the “Research Proposal” online

Create an account on the JAGES website, log in, and write and submit the research proposal online.

[Details to be indicated in the research proposal]

1. The conclusions of previous studies related to the topic you wish to study and objectives that remain to be studied as indicated in the previous study or studies
2. Study design (ex. cross-sectional study, cohort study, panel data analysis, multi-level analysis)
3. Data set to be used (please indicate the name of the data set)
4. Intended analysis model (ex. Cox proportional hazards model, logistic regression analysis) and objective and explanatory variables (please indicate specific variable names and details) intended to be studied in the analysis
5. Hypotheses and expected outcomes

④ Exchange opinions on the data analyst mailing list and present the study protocol at a JAGES study group

A research proposal submitted online is automatically posted on the analyst mailing list (j-ages@googlegroups.com) after it has been checked by the JAGES Agency. Gather opinions from JAGES members on the mailing list, and hold discussions as needed based on the opinions. Present the study protocol again at a JAGES study group. Revise the protocol as need in response to the discussions.

- You will receive information about registering to the data analysis mailing list (j-ages@googlegroups.com) after making the online submission of the research proposal. Make a registration application if you proceed to making an actual data analysis.
- This step can be replaced by a substituting person (study team member) or discussions using the mailing list for applicants who cannot participate in multiple study groups due to cost or location (ex. those abroad or in a distant location).
- The JAGES Agency may request revisions to the research proposal.

⑤ The JAGES Agency gives approval to use data

When the members have approved the research proposal, the applicant makes revisions based on their advice on the system.

⑥ Submit the “Data Use Commitment Form” on the system.

Upload the “Data Use Commitment Form” (Format 1) on the study application management screen.

⑦ Loan of the data (generally one year)

The data set is mailed or handed over in person at a study group or another occasion. Conduct analysis, publish, and write per the research proposal.

Contact for data inquiries ;

JAGES Agency

Manager: Naoki Kondo

Data Management: Ryo Takase

Communications: Kyoko Moriya

Japan Agency for Gerontological Evaluation Study (JAGES)

394-11-133-6, Shourenji, Kashiwa-shi, Chiba, 277-0814 Japan

e-mail: dataadmin.ml■jages.net

<Supplementary information>

1. About the mailing list

info.ml■jages.net- For announcing study group-wide events, etc. General mailing list with over 170 registered individuals (Managed by: Miyaguni ( JAGES Agency))

j-ages■googlegroups.com- For inquiries on data patch information or analysis, discussion about questionnaire booklets, and for exchanging and updating information related to analysis and research. This mailing list is also used for consulting and posting research proposals, and for consultations related to posted papers (Managed by: Miyaguni)

\*Change the ■ to @ for the above mailing addresses for posting

2. Starting a new analysis on the same data

To simplify the procedure, submit only a proposal for starting a new analysis using the same data (submission of the Commitment Form can be omitted).

1. Proposal form: including the research proposal

2. Commitment form: only at initial submission of the research proposal

3. Data Deletion Report Form: including the research proposal

3. Application to use an updated version of the same data set

To simplify the procedure, submission of the proposal and commitment forms can be omitted when requiring a new version of the same data set for an approved research project. In general, the data can be used for one year from the initial request for the data set.

#### 4. If you wish to request an expedited review of your research protocol (added on 2023.10.3)

The review may be expedited depending on the circumstances. If you wish to expedite the review, please contact the JAGES Organization Secretariat individually. Please note that we may not be able to meet your request for expedited review after review of your situation.

#### <Caution>

For the study focusing on Iwanuma using nationwide data (disaster-struck versus non-disaster struck areas), you are not required to receive Collaborative Institutional Training Initiative (CITI) (<https://edu.citiprogram.jp/defaultjapan.asp?language=japanese>), but ethical approval should be obtained from your affiliated institution. Furthermore, the NIH does not need to be included in the acknowledgments for studies that do not focus on Iwanuma. Use of independent items from Iwanuma data must be approved by Professor Kawachi.

Iwanuma PJ has received research funding from the NIH. Accepted papers must be registered with PubMed Central (PMC). Failure to do so may result in suspension of the grant.

Some journals may register your paper with them, but if your paper is accepted by a non-registered journal, you will need to follow the procedures on your own.

#### Reference: Method A to D

<https://www.nihlibrary.nih.gov/services/editing/pubmed-central-submission-assistance>

Iwanuma PJ's research proposal should be registered using the Data Access Application Room for Researchers Participating in Specific Projects of JAGES. Please add "[Iwanuma PJ]" to the beginning of the title of the research project.

The following six data sets are currently available for Iwanuma research (as of July 12, 2023).

- ① Iwanuma10-13 panel & cohort
- ② Iwanuma10-13-16panel & cohort (ver. 2)
- ③ Iwanuma 4wave panel cohort
- ④ Iwanuma 2010-13 panel & 13-19 cohort (5) Iwanuma2019cohort
- ⑤ Iwanuma2019cross\_sectional
- ⑥ Iwanuma2019crossdata\_BDHQ



- ⑦ Iwanuma5w panel cohort\_distribution
- ⑧ Iwanuma2022cross\_distribution

#### About co-researchers

When submitting a research proposal for the Iwanuma Project, please include the following researchers as co-researchers. Please enter the names of your co-researchers in the "Special Note" column.

All Iwanuma studies: Dr. Ichiro Kawachi and Dr. Hiroyuki Hikichi

Using BDHQ data: Dr. Satoshi Sasaki, University of Tokyo

New to Iwanuma research: Dr. Katsunori Kondo or Dr. Jun Aida

## 2. Steps for Data Analysis

#### Outline of the procedure

Analysis and publication are completed per the research plan within one year of registration, through the study proposal management system. Make another presentation at a study group upon completion of analysis for advice on possible additions to be made to the analysis and how to write the discussions for future presentations at conferences or thesis writing.

If changes to the method of analysis or independent and objective variables are required during the data analysis phase, report the changes, consult the study group or data analyst ML (j-ages■googlegroups.com) and the JAGES Agency, and make appropriate revisions.

If the results of the analysis are not seen after one year of system registration, the JAGES Agency will communicate with the data user. Depending on the situation, the data user may be required to submit the “Data Deletion Report and Commitment Form” to the JAGES Agency, and each analyst must safely destroy the loaned data set (memory media) responsibly. You can once apply for an extension of the loan period.

#### Cautions in handling data

- JAGES study data is managed with stricter standards than other research data. Personal information is deleted from distributed data. This is because it contains many fields through which it may be possible to identify individuals by combining fields. Furthermore, if there is even one instance of leaked data, we may lose the privilege to conduct future joint research with the cities, towns, and villages.
- Individuals who have applied to use data are recorded and managed so that the individual who is likely to have caused the leak can be identified in the event of data leakage.
- Saving on a device connected to the internet increases the risk of data theft or other damage (servers at national universities and international research institutions have been victims of such malevolent acts).
- Therefore, throughout the process, from commencement of analysis to the deletion of data, data users are required to strictly comply with this rule of processing data on computers disconnected from the internet.
- Furthermore, do not save data onto the hard disk of a computer connected to the internet.

- Data should be saved only to a CD-R or an external HDD, and it should be disconnected from the computer after completion of the analysis.
- About the secondary variable syntax library

The loaned dataset generally includes an ID to be used for matching various data with survey response data, and does not include secondary variables (GDS, SOC) that are created by processing (calculating) multiple variables. Secondary syntax (statistical data processing software for analysis) or the secondary variable code list, found in the “Dataset creation Tips” on (J)AGES member pages, can be used in using secondary variables.

- Immediately report any abnormal data found in the process of analysis to the JAGES Agency. The syntax and description should be submitted for newly created secondary variables that can be shared (use Document 5 Secondary variable New Syntax Report form). The mailing list (j-ages■googlegroups.com) may be used to request for opinions of other members before reporting or submitting to the JAGES Agency.

At completion of data analysis

- ⑧ Present analysis results at a JAGES study group meeting

Obtain advice from the study group before external publication.

- ⑨ Publish the fruits of your work within one year of the registration of the research proposal, and upload copies of the published papers on the study application management system.
- ⑩ Submit information about the published product (abstracts for conferences, supplements, newspaper, and website articles) to the JAGES Agency by e-mail.

Example for research papers: JAGES T, JAGES H, JAGES K. Title. Journal of ○○. 2018, 111 (22) 、 22-33, doi:110.1241/××.60.502. (peer review)

- ⑪ Create press releases for the general audience and the mass media and submit them to the JAGES Agency (see the press release list under “About JAGES” on the HP).
- ⑫ After the end of the data use period, upload the “Data Deletion Report and Data Use Commitment Form” via the study application management screen. Each analyst is required to safely destroy the loaned data set (memory media). Submit the “Data Deletion Report and Data Use Commitment Form” when the analysis must be interrupted for any reason.

As a general rule, the data loan period is two years. However, an application for an extension of the data use period can be made in special cases, such as being in the middle of a review for a submitted thesis or being near the completion of the research. In that situation, upload the “Application for Extension of Data Use and Commitment Form” via the study application management screen.

- Please share the version name of the data and the statistical software program used for the analysis among the co-authors. In the past, there have been cases where we have lost them and had difficulty responding to inquiries.

- In principle, press releases can be reprinted in consideration of our philosophy of making our research results widely useful to society. No prior notification is required when citing the press release.
- In principle, past press releases may be freely quoted and reproduced.
- If a researcher does not wish to have the press release reprinted freely, he/she should indicate so in the body of the press release. If there is no statement in the body of the press release by the author to the effect that "reprinting is prohibited," the press release may be freely reprinted or modified.
- Those who cannot agree to the above will not be loaned data.

## Internal Regulations and Documents for Submission

### **JAGES (Japan Gerontological Evaluation Study) Internal Regulations for Core Members and Members**

November 23, 2013

Revised January 5, 2014

Revised February 11, 2014

Revised May 15, 2017

- The Research Project Leader (Principal Investigator) is to be voted on by core members.
- Core members are several individuals appointed by the Principal Investigator.
- Members are individuals approved by core members at a core members' meeting, who have been judged to have made commensurable contributions to JAGES and who have also expressed their intent to become a core member. For example, they are determined comprehensively based on grants they have obtained (including co-researchers), previous joint research with municipalities in the survey field, first authorship of peer-reviewed papers, researchers and former researchers who undertook administrative tasks, and participation in study groups multiple times.
- Researchers undertaking administrative tasks have both the rights and obligation to participate in core member meetings.
- Information about core members and members will be published on the website.
- The organization as of 2014 and later is as follows:

Research Project Leader (Principal Investigator): Katsunori Kondo

Core members (core investigators): Toshiyuki Ojima, Jun Aida, Naoki Kondo, Masashige Saito

November 23, 2013

January 5, 2014

May 15, 2017

These internal regulations aim to designate the points that should be considered in determining the authors for manuscripts of studies based on (J)AGES project data.

These regulations are modelled after the Recommendations for the Conduct, Reporting, Editing, and Publication of Scholarly Work in Medical Journals of the International Committee of Medical Journal Editors (ICMJE).

(<http://www.icmje.org/recommendations/browse/roles-and-responsibilities/defining-the-role-of-authors-and-contributors.html>).

The ICMJE recommendations are as follows.

- 1) Substantial contributions to the conception or design of the work, or the acquisition, analysis, or interpretation of data for the work AND
- 2) Drafting the work or revising it critically for important intellectual content AND
- 3) Final approval of the version to be published AND
- 4) Agreement to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

The author must meet all four abovementioned conditions.

The names of individuals who have expressed their intention to be involved in the study as a co-author at the stage of presentation and discussion of the research proposal, and who made contributions that meet the above conditions, will be given co-authorships for the study.

If single-authored papers are conventional in the academic field or journal for submission, publication under one author is allowed under the following conditions. The JAGES project name must be indicated in the body of the text or acknowledgments even if the paper is published under one author's name.

- In general, the first paper must be submitted in the form of a co-authored paper as mentioned above.
- Approval must be obtained in advance at a core members' meeting.
- However, papers that present outcomes of JAGES in non-original papers, such as tutorial papers, may be exceptions to this rule.
- Obtain approval after consultation in a JAGES core members' meeting if you are not sure.

List all core members and members on the website starting in 2014.

The internal regulations will be implemented starting with submissions made on January 1, 2014.

## Cautions in Using (J)AGES Data

Version1.1 Revised October 31, 2009  
Version1.2 Revised September 22, 2010  
Version1.3 Revised October 20, 2010  
Version1.4 Revised February 20, 2013  
Version1.5 Revised April 18, 2014  
Version1.6 Revised November 20, 2014

### Rights of users

- (1) Receiving and using the dataset that has been approved for use
- (2) Results of analysis may be published in the form of conference presentations or papers.

### Obligations of users

- (1) In making an application, the attached “Application form,” “Commitment Form,” and “Proposal Form” must be submitted to the administration office to obtain approval from the Project Leader (Katsunori Kondo).
- (2) Items in the “Commitment Form” must be strictly adhered to in managing the data set.
- (3) See attachment “User’s Manual” for use of the data set.
- (4) Report analysis results to study groups hosted by the (J)AGES project by participating as much as possible. This is the condition to be met in the event of external publication of results.
- (5) Researchers who contributed to creating or analyzing used data should be added as a co-author, or their names should be indicated in the Acknowledgments, and previous studies should be appropriately referenced in publishing results.
- (6) Note the acknowledgments and study funds indicated in the “(J)AGES Project Data Summary and User Guide.”
- (7) Variables used in the analysis and methods for creating secondary variables (Syntax, etc.) and variable names and questions in English should be reported according to the designated format if published in English.
- (8) This should be adhered to as much as possible if tasks related to surveys related to project execution, data cleaning and analysis are partially shared.
- (9) Errors in data that are detected through the analysis should be reported promptly to the Administration Office to improve quality of the data.
- (10) For smooth information exchange and sharing between data users, register user’s email address to the data users’ mailing list.

### Other cautions

- (1) For the data set, set two types: “General members’ set” and “Project promoting members’ set.” Promoting members have priority for using newly constructed data for a certain period.
- (2) Project promoting members include members who have made important contributions to tasks related to constructing the data (ex. survey design, data cleaning).
- (3) The author’s information (name, affiliation, position, field of specialization, research achievements) is to be indicated on the JAGES website for publications made using the data.
- (4) Names of co-authors other than the applicant may be included for publishing results, but the right to use the data is exclusive to the applicant.
- (5) In principle, the fees for transport for (J)AGES study groups will be paid by the following parties:
  - ① The person who presented their research on the day of the study group meeting.
  - ② The first author of a reviewed original article using JAGES data within two years of publication (the author must be a designated speaker at the study group meeting).
  - ③ A member of a JAGES-related organization that won external funds and who appropriated the research fund to the Principal Investigator.
- (6) Indicate the full term: JAGES (Japan Gerontological Evaluation Study) at the first appearance of the term in papers or abstracts.
- (7) As much as possible, include “JAGES project” in the titles of papers or conference abstracts. Furthermore, include terms in the title so that it is clear whether it was a “longitudinal” or “cohort” study, particularly for longitudinal studies. If it is a panel study, make sure that the title or abstract clearly indicates that it is one.

## Written Pledge of JAGES Data Use

Drafted on 8/4/2013  
Revised on February 20, 2018

I pledge to comply with the following terms when using the JAGES dataset.

### Terms of Use

#### Purpose

- 1 (a) The dataset provided may only be used for the purpose of academic or policy-making/implementation analysis specified in the submitted research proposal. It shall be secondary analysis in nature.
- (b) In principle, the dataset provided may be used only by the individual who has submitted the research proposal. If a group of individuals or an organization wishes to use the dataset, the head of the group or the organization shall obtain permission in advance from the JAGES principal investigator and the administrative office concerned. The responsibility for data use must always be identified.

#### Protection of personal information

- 2 The data user must protect personal information in the data, and must not specify individuals in the dataset.

#### Prohibition of duplication

- 3 (a) The dataset provided must not be duplicated without the principal investigator's permission.
- (b) Once the research specified in the research proposal has been completed, or when it is discontinued, the data user must immediately return the dataset or report to the JAGES head office that the dataset has been deleted and is not restorable. Besides, he/she must ensure that all the users of the same dataset have deleted it from their computers and external hard disk drives, and it is not restorable.

#### Prohibition of secondary distribution

- 4 (a) The dataset provided may be used only by the data user(s) on the approved JAGES research proposal. Data users may not provide the dataset to a third party.
- (b) If the registered data user wishes to have a third party use the data for data cleaning and/or analysis, the registered data user must report the location and computer to the JAGES head office in advance and must accompany the third party during the work.

#### Prohibition of commercial use

- 5 The dataset provided may not be used for commercial purposes.

#### Data handling

- 6 (a) The data user must be mindful of data security. The data user may not use file-sharing programs or send the dataset by e-mail as an attachment, and must handle the dataset with care, avoiding unnecessary movement of the data.
- (b) Storage and analysis of the dataset shall be undertaken on a computer or another storage medium that is not connected to the Internet.

#### Security obligations

- 7 The data user may not release the information obtained through data analysis, such as data content or the research groups' plans, to a third party, without the principal investigator's permission.

#### Publication of findings

- 8 (a) Any journal publications or conference presentations must be preceded by a presentation or report in a monthly research group meeting.
- (b) At the time of publication/presentation, the author must list the names of researchers that contributed to the data acquisition and/or analysis as co-authors or mention them in the acknowledgements. The author must also adequately cite past research from the JAGES project.
- (c) At the time of publication/presentation, the author must provide correct information on data, such as information on study participants, research methods, and research findings.
- (d) A copy of deliverables, such as journal articles, must be sent to the JAGES head office (preferably in PDF format).
- (e) A journal article must be accompanied by an acknowledgement that the work was accomplished with the use of JAGES project data. Furthermore, the author shall obtain permission for publication from his/her co-authors in advance.

#### Suspension or termination of data use

- 9 If the data user violates any of these terms or any of the items specified in *The Outline of the JAGES Project Data and the Guide to their Use*, he/she will not be allowed to use the dataset. If the data user does not comply with the instructions made by the JAGES head office, he/she will not be allowed to use the dataset. In these cases, the use of all JAGES datasets, including the one already provided, may be suspended or prohibited thereafter.

#### Disclaimer

- 10 The data providers are not accountable for any inconveniences derived from data use by the data user.

I hereby acknowledge that I have read and understood the terms set out above. I take full responsibility for all the other users of the dataset listed in the research proposal.

Signature and date

Title and institution

## Data Deletion Report and Commitment Form

(Created October 5, 2015)

(Revised March 23, 2018)

(Revised August 2, 2021)

### Report

I hereby report that I have (completed / interrupted) use of JAGES data and submit the results of the research to the JAGES Administration Office.

**1. Study title**

**2. Data set**

**3. Works:**

### Commitment Form

1. We hereby agree that all users of data listed in the research proposal have permanently deleted all individual data provided and datasets saved on computers and external hard drives with the end of the use of the JAGES data.

2. We hereby agree that all users of data listed in the research proposal will permanently delete all data sets saved on computers and external hard drives after completion of the analysis in the case that the same data set is being used for another research plan.

Month

Date

Year

Affiliation/Position name

Name (Signature)



## Application for Extension of Data Use and Commitment Form

(Created February 20, 2015)

(Revised March 23, 2018)

(Revised August 2, 2021)

### Report

Two years have passed since the application to use JAGES data. I hereby request an extension of data use for the reason below.

Title of the research proposal for the previous application

1. The paper we submitted is still under review.

Journal title:

Article/paper title:

Month    Day    Year of submission:

2. We are nearing completion of the work.

Expected completion of analysis (month    / year    )

Submitting journal or presenting conference title:

3. Other

(Report your current status of analysis)

Month	Date	Year
Affiliation/Position name		
Name (Signature)		

## Secondary Variable New Syntax Report

(Created February 20, 2013)

We created a new secondary variable syntax that we believe can be shared by many analysts and submit it herein.

- 1 . Statistical software used and dataset (Ex., SPSS, JAGES2010v1)
- 2 . Variables used (Ex: gds\_2sf10 gds\_2sa10 gds\_2ai10 gds\_2em10 gds\_2br10 gds\_2fg10 gds\_2be10 gds\_2hp10 gds\_2nd10 gds\_2hm10 gds\_2fr10 gds\_2lb10 gds\_2vt10 gds\_2nh10 gds\_2oc10)
- 3 . Newly created secondary variables and variable name (Ex.: GDS score s\_gds\_x10, GDS3 group s\_gds3c10)
- 4 . Explanation on the secondary variable (Ex.: GDS score s\_gds\_x10 is a score of responses to the GDS15 items with 0 minimum or 15 maximum points. If there was a missing value for even one item, the entire GDS score was treated as a missing value. The GDS3 group s\_gds3c10 divides GDS scores into three groups based on the s\_gds\_x10 of 0-4 points (not depressed), 5-9 points (depressive tendency), and 10-15 points (depressed).

Month

Date

Year

Affiliation/Position name

Signature

Stamp