

Promoting healthy ageing and universal health coverage through research

Key driving factors of knowledge translation based on the Japan Gerontological Evaluation Study (JAGES)

In Japan, which has one of the longest life expectancies in the world, the Japan Gerontological Evaluation Study (JAGES) has been working on knowledge translation for healthy ageing since the 1990s. This brief provides an overview of the JAGES initiative, highlights its main achievements and contributions through knowledge translation, identifies the key driving factors of its knowledge translation activities, and discusses the implications for other countries that are increasingly facing similar health and social challenges as a result of population ageing.

What is JAGES?

The JAGES initiative originally started in 1999 as a multidisciplinary research project with a primary focus on social welfare, public policy, health sciences and evaluation research. Population surveys of older people have since been conducted in collaboration with an increasing number of local municipalities throughout the country every three to four years. The research findings have continuously contributed to policy improvements for the provision of long-term care in Japan. The survey that originally commenced in only two municipalities in 1999, has since expanded to 41 municipalities across Japan with approximately 200 000 respondents by 2016–17.

Main achievements and contributions of JAGES

1. Creation of scientific evidence on ageing and health

- ✓ Developed a high-quality, multi-site, multi-year survey database on older people's health and its determinants in Japan.
- ✓ Through research based on survey data, identified and introduced new concepts from the fields of public health and social epidemiology, such as health inequalities and social capital, to public policy debates on ageing and health in Japan.
- ✓ Published approximately 400 academic articles, including over 100 English peer-reviewed academic papers and ten books, and obtained more than 50 academic awards since 2004.

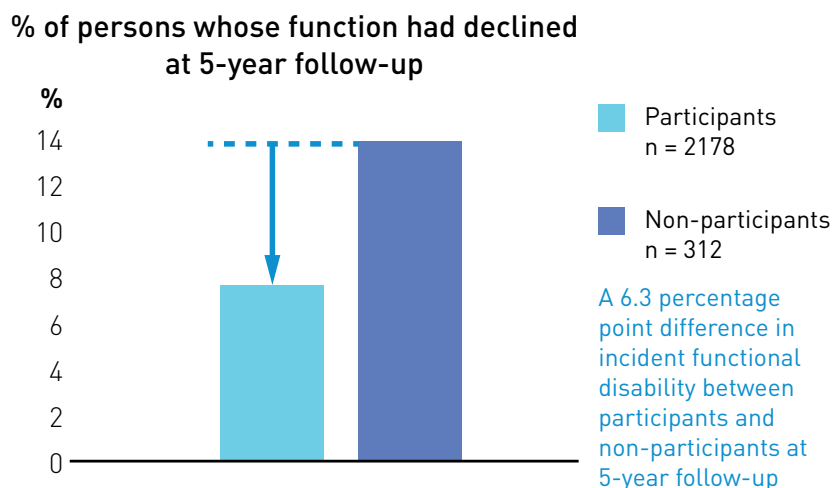
2. Translation of research to national policies

- ✓ Research findings have informed national policy improvements, such as the design of a 10-year national health policy called "Health Japan 21 (2013–22)", development of a new long-term care policy, and guidelines issued by non-health sectors, such as the Ministry of Land, Infrastructure, Transport and Tourism and the Japan Sports Agency.
- ✓ Visualized stark health disparities between different social classes and communities in Japan, stimulating national policies that reconsider the assumption of an egalitarian society.
- ✓ Provided practical, evidence-based solutions to minimize evident health gaps in the country, through the provision of community-based primary prevention of functional decline and risk of dependence on long-term care.

3. Translation of research to local government practices

- ✓ Established a practical and scientific 'Plan-Do-Check-Act' (PDCA) process for municipal governments to manage their programmes for preventing functional decline among older people.
- ✓ Created a scalable, community-based intervention programme model, in collaboration with municipalities, to prevent functional decline among older people through increasing their opportunities for social participation. Demonstrated its long-term effects and benefits (see Fig. 1).

Figure 1. The JAGES intervention suppressed the occurrence of functional decline



Source: Hikichi, H, Kondo, N, Kondo, K et al. Effect of community intervention program promoting social interactions on functional disability prevention for older adults: propensity score matching and instrumental variable analyses, JAGES Taketooyo study. *Journal of Epidemiology and Community Health* doi: 10.1136/jech-2014-205345

Key driving factors of JAGES knowledge translation

1. Win-Win relationships between knowledge producers and users

Identifying mutual benefits to create win-win situations and outcomes is key to building relationships with stakeholders. The JAGES survey offers municipal administrators scientific evidence that strengthens their programme implementation, and researchers can identify issues that are of relevance to decision-makers. The resulting government-academia collaboration contributes to the quality of data collected, including a survey response rate of about 70%.

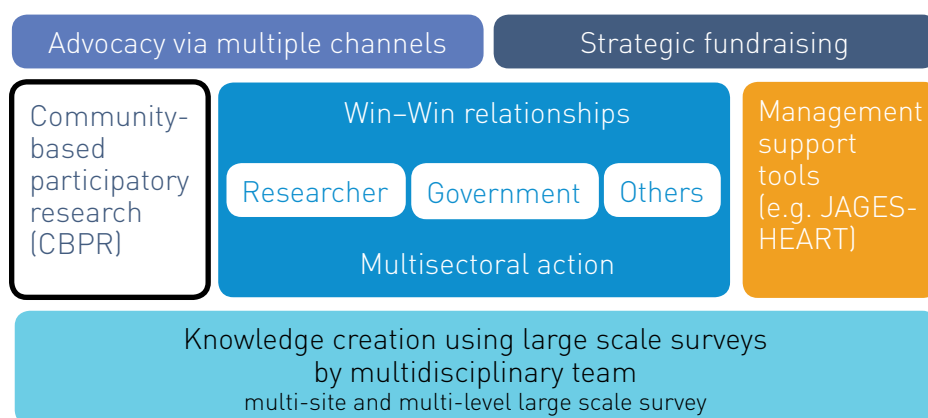
2. Multisectoral action

By collaborating with multiple departments in local government and with non-public sector stakeholders – such as private companies, non-profit organizations and health experts – JAGES broadens the relevance of its research to fields beyond the health sector. This increases the value of the research itself, and can also inform the development of comprehensive policies and interventions.

3. Knowledge creation using large-scale surveys conducted by a multidisciplinary team

The scientific knowledge produced from survey data collected from thousands of older people over two decades, and from multiple locations across Japan, lies at the core of JAGES. The initiative offers semi-open access to its data and conducts monthly meetings welcoming researchers from multiple disciplines to analyse the data and contribute to the knowledge creation process. This enables the high level of research productivity.

Figure 2. Key driving factors of JAGES' knowledge translation



4. Community-based participatory research (CBPR)

JAGES conducts and facilitates CBPR in selected communities, working in equal partnership with the municipal officials, community organizations and local residents. The main objective is to utilize the research evidence and co-create locally appropriate interventions for preventing functional decline of older people through enhancing their social participation. Implementation is followed by evaluation to assess the effectiveness of the programme and improve resulting interventions.

5. Management support tools

JAGES has developed a range of data visualization tools to enable municipal administrators to easily extract and analyse locally relevant data from the JAGES database and identify local priorities. One of the tools, the *JAGES Health Equity Assessment and Response Tool* (JAGES-HEART), is based on the WHO *Urban Health Equity Assessment and Response Tool* (Urban HEART). This tool allows users to observe changes in population health indicators over time, for example, before and after an intervention. The Japan Ministry of Health, Labour and Welfare adopted this tool as a prototype for an online benchmarking tool for community-based integrated care for older people.

6. Advocacy through multiple media channels

In addition to its academic publications in peer-reviewed journals, JAGES uses a proactive and diversified approach to disseminating its scientific research outcomes and knowledge translation outputs to a wide audience through lectures and symposia, books and scheduled press releases. This helps to create a social and policy climate that is not only receptive to, but also demanding of, research and knowledge translation on ageing and health.

7. Strategic fundraising

Strategic fundraising is necessary to sustain the activities and administrative body of JAGES. The researchers' sensitivity to social and policy trends and their ability to detect or foresee high-priority policy issues is key to obtain research funds especially from government agencies.

Lessons for promoting knowledge translation on ageing and health in other countries

- **Create a climate and context that is favourable towards knowledge translation on ageing and health: Take advantage of the global momentum towards improving the lives of older people.** A policy climate and context that is favourable towards research on ageing and health and evidence-based policy making is a key enabler of knowledge translation. Global momentum has been created by recent global commitments to achieve healthy ageing and universal health coverage in view of global population ageing. This provides an opportunity to raise related issues on the policy agenda in all countries.
- **Build relationships between knowledge producers and users: Start small, identify mutual interests and be persistent.** Building productive relationships between knowledge producers and users is another key enabler of the knowledge translation process. Identifying and integrating related stakeholder needs before research begins can help build win-win relationships. Where resources are limited, this can start on a small scale and be gradually extended over time through the demonstration of successful research applications. Funders can also facilitate these types of collaborations by making it a condition of their funding.
- **Produce quality, longitudinal data: Adapt survey methods to the local context but keep them consistent within the country and across time.** The quality of data is essential in order for it to have value for science as well as policy-making. Survey methods should be adapted to the constraints and opportunities in the local context but should be kept the same across time and place (especially within a country) to ensure consistency and comparability of resulting data. As much as possible, longitudinal data should be developed over time to enable analysis of trends and causal relationships. Allowing open access to the data can help improve the quality of data through the scrutiny of others, and maximize its potential for producing useful evidence.

- **Produce actionable knowledge: Aim the research toward identifying modifiable problems and potential intervention points.** In order to have added value for knowledge users, research should point to modifiable problems and risk factors, such as socially-determined health inequalities, and illuminate potential entry points for intervention that can be acted upon. Community-based participatory research, with its emphasis on full and equal participation of community members, is an effective method to facilitate local innovations for problem-solving through the application of research.
- **Get the knowledge into the hands of users: Use data visualization tools and disseminate research strategically.** Some creativity is required in communicating the research outputs to various audiences, and in order for the information to be fully understood and used. Data visualization and programme management tools that display quantitative information in a meaningful way can be very effective. Using a strategic approach to proactively disseminate research outcomes to different audiences in the appropriate format can also enhance the process and impact of knowledge translation.
- **Have a long-term vision and commitment to strengthen research and knowledge translation on ageing and health.** Investing early in these areas will help encourage a well-developed system for research and knowledge translation that can inform policies on health and universal health coverage well in advance of, or just in time to address, the challenges of population ageing.

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