

Population Aging Research Hub 2018–2020 Summing Up Report

March 2021





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Preface

Professor Hideyuki Okano

Dean of the Graduate School of Medicine, Keio University

Lead, Longevity Initiative, Keio University Global Research Institute

Japan is aging rapidly. Those over 65 years old already constituted 28.4% of the total population in 2019, which was the highest globally. Seen from a wider angle, population aging results from the incredible successes in improving health and



economic development in a country or region. This certainly applies to Pacific Rim countries, which have demonstrated remarkable development in the last few decades. Now, a similar global trend is becoming apparent. Hence, we are the frontrunner of future aging societies, and our experiences will be beneficial to the rest of the world.

In this context, APRU member universities have a special responsibility to expand the intellectual horizon to find solutions and train future leaders. We need to address the global challenges triggered by population aging, which will affect all aspects of life for individuals and society. How can we extend a healthy lifespan and not merely physical longevity? How is the extended lifespan supported financially? With a growing population with increasing needs and a declining proportion of contributors, how can we sustain the social infrastructure, including the much-lauded social security mechanisms of medical insurance and the pension system? All these are interlinked, and we are awaiting a new paradigm. This is the reason why Keio gives priority to its interdisciplinary research relating to longevity.

It was my privilege to accommodate the APRU Population Aging Research Hub at Keio for the last three years. It allowed us to work with excellent researchers from APRU member universities to advance studies on aging in the era of the 100-year Life Span and to disseminate many of results to society.

An undertaking such as this is truly a team effort, and I would like to show my appreciation to all those concerned for their unwavering support in helping us over these challenging but incredibly rewarding and fruitful three years.

序文

慶應義塾大学大学院医学研究科委員長 慶應義塾大学グローバルリサーチインスティテュート(KGRI) 長寿クラスター リーダー 教授 岡野栄之

日本社会の高齢化は急速に進んでいます。2019 年、65 歳以上が全人口に占める割合は 28.4%に達し、高齢化 率世界一となりました。高齢化社会は、大きく捉えるならば、人々が健康を維持増進し、国や地域が経済発展を遂げた その結果です。これはまさに、この 2、30 年の間に目覚ましい経済発展を遂げた環太平洋諸国にも当てはまります。世界の他の地域でも、明らかに同じ傾向がみられます。我々は未来の高齢化社会のフロントランナーであり、その経験は、世界の人々にとって役立つものとなるでしょう。

その意味で、私たち APRU(環太平洋大学協会)加盟の各大学は、高齢化の諸課題を解決するために地平を切り拓き、未来のリーダーを育成するという、特別な重責を担っています。私たちは、人口高齢化が引き起こす地球規模の課題に取り組まなければなりません。高齢化は、個人の生活にも、社会のあらゆる諸相にも影響を及ぼすからです。どうすれば、身体的寿命の延伸にとどまらず健康寿命を延ばすことができるのか?長くなった人生を資産面でどうサポートするのか?支援を必要とする高齢者が増える一方、支え手である若年人口が減るなかで、国民皆保険制度や年金制度などの社会基盤を、今後どのように維持存続しうるのか? これらの課題は、みな相互に絡み合っています。私たちは今、新しいパラダイムの出現を待っているのです。この現状こそが、慶應義塾大学が分野横断的な長寿関連研究を重視する理由です。

これまでの過去 3 年、慶應義塾大学が幹事大学として Population Aging Research Program (人口高齢化研究プログラム) を率い、APRU 加盟大学のすぐれた研究者と共に「人生百年時代」における高齢化研究を多角的に推進し、その成果の一部を社会に還元する機会を与えられたことは、まことに幸甚でした。関係各位のご支援、ご尽力にあらためて感謝申し上げます。ありがとうございました。

Executive Summary

Project Professor Hiroki Nakatani
Keio University Global Research Institute
Program Director, APRU Population Aging Research Hub (2018–2020)

Four years before taking over as host of the APRU Population Aging Program in January 2018 from the University of New South Wales, Keio University was selected as one of the designated universities for the Top Global University



Project in Japan—a ten-year project for 13 universities that conduct world-leading education and research. Keio had set its central theme as "Enhancing Sustainability of Global Society through Jitsugaku (Science)." The university thus established the Keio University Global Research Institute (KGRI) in November 2016 as a core education and research center to carry out cross-disciplinary research under the three initiatives of Longevity, Security, and Creativity. Since then, the APRU Population Aging Program has been an essential pillar of the Longevity Initiative of the KGRI.

During Keio's tenure to host the APRU Population Ageing Research Hub, two annual conferences (hosted by the Hong Kong University of Science and Technology in 2018 and by Keio in 2019) were held successfully, although the conference that was planned in 2020 was deferred to April 2021 and will instead be hosted by the University of Indonesia. The scope of the conference has been expanded to cover the health sciences, and service delivery for challenges unique to the senior population such as dementia and all aspects of the lives of senior citizens, including finance, employment, and social participation. Keio took advantage of being the host institution and advanced our collaborative work throughout Japan and around the world as seen in our various activities beyond the annual conferences. One noteworthy development is the increased engagement with the work of the WHO and business communities. The details of this are reported in this Summing Up report. I have full confidence that our joint work will further grow under the excellent leadership to be offered by the next Hub host, the National University of Singapore (Director: Professor Angelique Chan).

Finally, I wish to express my deep appreciation for the immediate past President of Keio, Professor Atsushi Seike, who invited me to serve as the Program Director of the the APRU Population Aging Research Hub; the current President, Professor Akira Haseyama, for his strong support of this project; Professor Hideyuki Okano, Lead in the Longevity Initiative at Keio, for his guidance; and Professor Masato Yasui, the Director of the Keio University Global Research Institute. I would also like to extend my appreciation to Professor John Piggott at UNSW, who offered timely advice as the past Hub Director, as well as the Steering Committee members for their guidance and collaboration.

総括

慶應義塾大学グローバルリサーチインスティテュート特任教授 APRU 人口高齢化研究プログラム・ハブ代表幹事(2018-2020) 中谷 比呂樹

2018 年 1 月、慶應義塾大学は、豪州ニューサウスウェールズ大学から、APRU Population Aging Research Program(「人口高齢化研究プログラム」、以下「プログラム」)の幹事大学としてのバトンを受け取りました(任期 2018-2020 年)。一方、慶應義塾大学は、その 4 年前から文部科学省の補助事業「スーパーグローバル大学 (SGU) 創成支援事業」を遂行してきました。採択された国内 13 大学(トップ型)には、補助期間の 10 年間に世界トップレベルの研究大学となることが求められています。慶應義塾大学は、SUG 事業の主題として「実学(サイエンス)によって地球社会の持続可能性を高める」を掲げ、2016 年 11 月に SGU 事業の核となる教育・研究基盤である慶應義塾大学グローバルリサーチインスティテュート(KGRI)を創設しました。KGRI では、SGU 事業の目標達成に向けて「長寿」「安全」「創造」の3つの研究クラスターを設置し、各クラスターにおいて分野横断的な研究教育活動を推進しています。本プログラムは、2018 年 1 月以来、学内では KGRI の1 プロジェクトと位置づけられ、「長寿」クラスターの活動の中でも重要な役割を担っています。

本プログラムの年次総会は、2018 年に香港科技大学(HKUST)、2019 年には慶應義塾大学の主催により実施され、いずれも成功裡に終えることができました。コロナ禍の影響で 2021 年 4 月に延期された 2020 年の総会は、国立インドネシア大学が主催する予定です。年次総会は、健康科学に関する分野から、認知症をはじめとする高齢者特有の課題解決のための支援サービスの提供、たとえば、金融資産の管理、雇用、社会参加といった分野まで網羅し、その知見を共有する場へと広がっていきました。慶應義塾大学は、幹事大学としての利点を生かし、たんなる年次総会の枠組みを超え、日本や世界の関連機関との連携をさまざまな形で進めていきました。特筆すべき成果の一つは、世界保健機構(WHO)ならびに産業界との繋がりを一層深めていく取り組みです。詳細については、本報報告書の別章に記載しています。これまで慶應義塾大学が WHO や産業界と築いてきた関係は、2021 年からの次期幹事大学(責任者:アンジェリク・チャン教授)であるシンガポール国立大学が、その卓越したリーダーシップによって、さらに拡充させてくださるものと確信しています。

最後になりましたが、私が本プログラム・ディレクターの職を担うべく、お声をかけてくださった慶應義塾 前塾長 清家篤教授、常にあたたかく支援してくださった現塾長 長谷山彰教授、研究代表者として力強く導いてくださった KGRI 長寿クラスターリーダー・岡野栄之教授、KGRI 所長・慶應義塾大学医学部 安井正人教授に、この場をお借りして、心からの感謝の意を表します。 また、前幹事校責任者として時期を得た助言を下さった豪州ニューサウスウェールズ大学のジョン・ピゴット教授、さらにはプログラム幹事会の諸先生のご指導とご協力にも感謝申し上げます。

Organizational Overview

From 1 January 2018 to 31 December 2020, the Population Ageing Hub directorship was based at Keio University, Japan. https://apru.org/apru-population-aging-program-migrates-to-keio-university/ Keio appointed Prof. Hiroki Nakatani as the Director of the Hub and positioned him internally under the Longevity Study Initiative of the three university-wide initiatives, which are headed by Prof. Hideyuki Okano, the Dean of the Graduate School of Medicine. The Hub had a dedicated office with video conference facilities at:

Room 5N6, Center for Integrated Medical Research Keio University School of Medicine 35 Shinanomachi, Shinjuku-ku, Tokyo 160-8582

Tel: +81-3-5315-4562

The contact point and administrative support was provided by:

Keio University Global Engagement Office 2-15-45 Mita, Minato-ku, Tokyo, Japan

E-mail: keio-geo@adst.keio.ac.jp

Tel: +81-3-5427-1899

The Steering Committee was set up and guided the overall direction of the Hub through virtual meetings. The membership is as below:

Chair

Professor Hiroki Nakatani, Project Professor, Keio University Global Research Institute

Members

Associate Professor Angelique Chan, Executive Director of the Centre for Ageing Research & Education, Duke-NUS Medical School, National University of Singapore

Professor Eileen Crimmins, University Professor, AARP Chair in Gerontology, USC Leonard Davis School of Gerontology, University of Sothern California

Professor Robert Cumming, Professor of Epidemiology and Geriatric Medicine, School of Public Health, The University of Sydney

Professor Chen Gong, Director of the Institute of Ageing Studies and a director of the Institute of Population Research, Peking University

Professor Ka Lin, College of Public Administration, School of Public Affairs, Zhejiang University

Professor Lan Liu, Associate Professor in Gerontology, Peking University

Professor Peter McDonald, Melbourne School of Population and Global Health, The University of Melbourne

Professor Albert Park, Head and Chair Professor of Economics, Chair Professor of Social Science, and Professor of Public Policy, The Hong Kong University of Science and Technology

Professor John Piggott, Scientia Professor, Director, ARC Centre of Excellence in Population Ageing Research (CEPAR), School of Economics, The University of New South Wales

Professor Tri Budi Rahardjo, Director of the Centre for Ageing Studies, Universitas Indonesia

Hub Activities

The Steering committee had four teleconferences (27 June 2018, 18 September 2018, 26 April 2019, and 16 October 2020). A face-to-face meeting was also organized around the 9th Annual Hub Conference hosted by the Hong Kong University of Science and Technology on 8 December 2018. At the 10th Annual Conference hosted by Keio, the University of Indonesia kindly agreed to host the 11th Annual Hub Conference in Jakarta under the theme of "Challenges and Resilience Related to Aging: Surviving Thriving toward Successful Aging." The Conference was initially planned for September 2020, but due to the COVID-19 pandemic, it was deferred to 7–8 April 2021.

At the 16 October 2020 teleconference, the Steering Committee welcomed the next Hub leadership of the National University of Singapore and the Hub's incoming Director, Dr. Angelique Chan. The tenure started on 1 January 2021.

The Hub's activities are summarized in Annex 1.

Annual Conferences

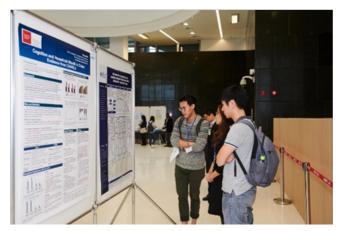
The Hub held annual meetings, of which details appear below:

(1) The 9th Annual APRU Research Conference on Population Aging, 8–9 December 2018, Hong Kong









The 9th Annual Conference was very successfully organized by the Hong Kong University of Science and Technology on 8–9 December 2018, under Professor Albert Park's leadership. The theme was "Dementia, Cognition, and Healthy and Productive Aging." The event details are available from https://apru.org/event/annual-research-conference-on-population-aging-2018/. There were excellent presentations from speakers selected by HKUST; in particular, the ones from Hong Kong SAR and Peking University. The Ph.D. Students Poster Sessions went well, with approximately 16–20 students selected from 140 submissions.

(2) The 10th APRU Population Aging Research Conference, 13–14 October 2019, Tokyo



The 10th Annual Conference was organized by Keio University under the theme of "A New Paradigm

in the Era of the 100-year Life Span: The Search for Social and Scientific Solutions." The event details are available from the following website:

https://www.keio.ac.jp/en/news/2019/Oct/24/48-64039/.

A conference report is also available:

https://apru.org/wp-content/uploads/2020/03/apru population aging conference report.pdf

The conference was supported by the World Health Organization, Western Pacific Region; the Japanese Ministry of Health, Labour and Welfare; and the Ministry of Education, Sports, Science and Technology of Japan. It was scheduled to be held on October 13–14, 2019. Unfortunately, the powerful Typhoon No. 19 (Hagibis) made landfall on 12 October, causing much destruction around Japan and paralyzing all transportation networks, both local and international. The Steering Committee announced their last-minute decision to hold the Conference on 14 October only with a condensed program as seen in Annex 2 (original program) and Annex 3 (shortened program), which allowed the panel presentations to be shared online while the keynote addresses, the four presentation tracks, and the poster session were maintained.

Despite the changes, the conference was a success with 109 participants from 19 countries and regions. The program, albeit shortened, covered a wide range of topics from cutting-edge health science research to socioeconomic research to address the challenges of a rapidly aging population that all countries will soon face. As recommended by the international review panel, 24 oral presentations and 25 poster presentations were delivered. Keio awarded the best paper presentation in each of the four domains: Healthcare and Technology, Economic and Society (Policy), Multi-sectoral Approach to Dementia, and Other.

Finally, academics and researchers had the opportunity to have direct dialogue with several ministers of governments from across the Asia-Pacific Region and the WHO Regional Director for the Western Pacific (WPRO), and find out how their work can help policymakers tackle the various issues relating to the aging population. The engagement of younger generations was highlighted, as they are now dealing with, and will continue to deal with, the realities and consequences of an aging society, despite the fact they are not being sufficiently involved in or taking part in policymaking. Indeed, the issues and challenges surrounding population aging will be of increasing concern to future generations.

Hence, further discussions with young people as the future leaders of society and the promotion of other interdisciplinary studies among universities must increase society's fortitude amid the "Silver Tsunami" and the struggle to create sustainable aging societies. Also, the conference served as the kick-off for a week-long series of aging-related events taking place across Japan in October 2019, which included the NIKKEI-FT Super Active Aging Society Conference on 15 October and the METI/MHLW Well Aging Society Summit on October 16–17 in Tokyo, as well as the G20 Health

Ministers' Meeting on October 19-20 in Okayama.

(3) The 11th APRU Population Aging Research Conference, 7–8 April 2021, Jakarta

The next conference was initially planned for September 2020, hosted by Universitas Indonesia; however, due to COVID-19, it was deferred to 7–8 April 2021 and will be held virtually. https://apru.org/event/apru-population-aging-conference-2020/

Hub-Supported Events

(1) Keio-APRU Population Ageing Hub Longevity Initiative High-Level Policy Discussion Meeting, 14 April 2018, Tokyo, Japan.

Taking the opportunity to visit Prof. Victor Dzau, the President of the National Academy of Medicine (USA), a high-level dialogue meeting was organized with the participation of policymakers from the Japanese House of Councilors, the Cabinet Office, Kanagawa Prefecture, and Keio University. The event is described in more detail at the following link, which also contains reports from the meetings and videos of the presentations:

http://www.kgri.keio.ac.jp/en/news-event/043782.html





The Academy later started a project to develop the "Global Roadmap for Healthy Longevity" (https://nam.edu/initiatives/grand-challenge-healthy-longevity/global-roadmap-for-healthy-longevity/), and this consultation served as a brain-storm for developing the initial concept of the project.

(2) Keio University Global Research Institute (KGRI) Lecture Series, 21 September 2018, Tokyo

Prof. Bernardino Ghetti, a Distinguished Professor at Indiana University, gave a lecture titled "The

Emergence of Tau in our Understanding of Frontotemporal Dementia." The summary of the lecture is available at: http://www.kgri.keio.ac.jp/en/news-event/047992.html

KGRI Lecture Series SKGRI



Date & Time: Friday, September 21th 19:00~20:00

Venue : 3th Building 1F rounge

Shinanomachi Campus, Keio University

Program

The Emergence of Tau in our Understanding of Frontotemporal Dementia.

> 【演者】 Bernardino Ghetti, M.D. Distinguished Professor, Indiana University Chancellor's Professor, Indiana University Purdue University Indianapolis Indiana University School of Medicine Department of Pathology and Laboratory Medicine



(3) Korea University: Technology and Aging Workforce: Maximize the Gains from Longevity and Long Working Life, 17–18 May 2018, Seoul, Republic of Korea



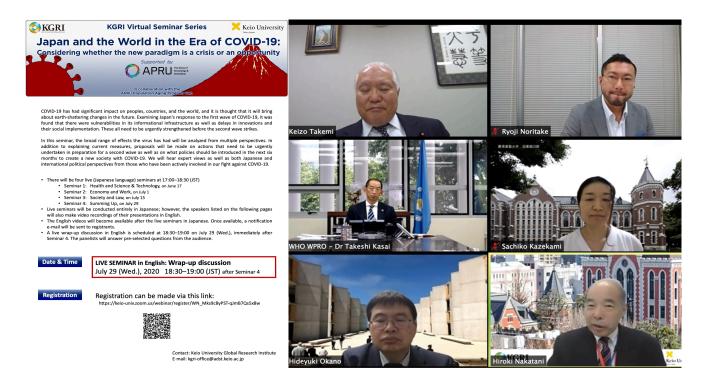
https://apru.org/event/technology-and-aging-workforce-maximize-the-gains-from-longevity-and-long-working-life/

(4) WHO Teams Field Visit to Japan, 19–25 January 2020, Tokyo

As a part of the preparation of the Regional Action Plan for Healthy Ageing in the Western Pacific (https://www.who.int/docs/default-source/wpro---documents/regional-committee/session-71/rc71-5-ageing-and-health-annex.pdf), the WHO Regional Office for the Western Pacific sent a high-level mission to Japan. The Hub facilitated the field visits, including critical policymakers and experts at APRU member universities in Japan, Keio, and Osaka University. The Action Plan was adopted at the 71st Session of the WHO Regional Committee for the Western Pacific, held virtually from 6–9 October 2020 in Manila.



(5) KGRI Virtual Seminar Series Japan and the World in the Era of COVID-19: Considering whether the new paradigm is a crisis or an opportunity, 17 June, 1 July, 15 July, and 29 July 2020, Tokyo



COVID-19 has had a significant impact on people, countries, and the entire world, and it is thought that it will bring about changes that will shatter the status quo in the future. Examining Japan's response to the first wave of COVID-19, it was found that there are vulnerabilities in its informational infrastructure and delays in innovations and their social implementation. These all need to be urgently strengthened before the second wave strikes. This seminar series focused on four critical areas, examined current measures, and discussed actions that need to be urgently undertaken in preparation for a second wave and what policies should be introduced in the next six months to create a new society in the era of COVID-19. The seminar series offered a unique opportunity to hear expert views and Japanese and international political perspectives from those actively involved in our fight against COVID-19. Although the live seminars were conducted entirely in Japanese, most speakers made video recordings of their presentations in English available online, and a live-summary session was also held in English. The total registered participants (both national and international) exceeded 1000, and each seminar had about 200–300 viewers.

The topics were:

Seminar 1: Health and Science & Technology, on 17 June

Seminar 2: Economy and Work, on 1 July

Seminar 3: Society and Law, on 15 July

Seminar 4: Summing Up, on 29 July

The full program is also available at:

https://www.kgri.keio.ac.jp/en/docs/Program KGRIVirtualSeminar COVID19 E 20200811 v9.pdf

(6) Nikkei Super Active Aging Conference, Tokyo

The first Conference was held on 15 October 2019, and the second was held on 16 November 2020. Population aging will rapidly progress throughout the world, and in Asia particularly, over the next half-century. To accommodate changes that aging brings about in societies, new ideas need to be developed and shared through cooperation at the global level. The Nikkei, a Japanese newspaper of high repute, initiated this international conference in 2019 and continued in 2020 with three pillars of discussion: health, finance and employment, and society. The conferences were attended by leading figures in government, industry, and academia from around the world. APRU was invited to join the supporting agencies such as the Japanese Ministry of Health, Labour and Welfare and the WHO Regional Office for the Western Pacific. News coverages that appeared in the Financial Times are attached as Annex 4 and Annex 5.

(7) Others

The Hub activities were well disseminated to faculty, staff, and students, as well as to Keio alumni (which includes the largest number of CEOs listed with the first section of Tokyo Stock Exchange of any Japanese university) through the web and the monthly publication Mita Hyoron. Keio hosting the 10th APRU Population Aging Research Conference in 2019, and the KGRI Virtual Seminar Series Japan and the World in the Era of COVID-19,2020 were covered in Mita Hyoron as shown in Annex 6 and 7 (in Japanese)

Acknowledgment

The Hub leadership is grateful for the dedicated support from the Keio University Global Engagement Office and the Secretariats of the Association of Pacific Rim Universities.

Annex

Annex 1

Summary APRU Population Aging Research Hub Activities 2018–2020 https://www.kgri.keio.ac.jp/en/project/2020/L20-03.html

Annex 2

10th APRU Population Aging Research Conference, 13–14 October 2019 (original program) Refer to pages 17–18 on the following report.

https://apru.org/wp-content/uploads/2020/03/apru population aging conference report.pdf

Annex 3

10th APRU Population Aging Research Conference, 13–14 October 2019 (shortened program) https://www.keio.ac.jp/en/about/global/20191013 aging conference program.pdf

Annex 4

NIKKEI Event & Seminar:

Nikkei Super Active Ageing Society Conference

An international conference aiming to resolve the issues of ageing, Tuesday 15 October 2019 https://events.nikkei.co.jp/17919/

https://apru.org/super-active-aging/

Annex 5

NIKKEI Event & Seminar:

The 2nd Nikkei Super Active Ageing Society Conference

An international conference aiming to resolve the issues of aging, Monday 16 November 2020 https://events.nikkei.co.jp/30016/

Annex 6

Hiroki Nakatani; APRU Population Ageing International Conference, Mita Hyoron 98–99, December 2019 (in Japanese)

https://www.keio-up.co.jp/mita/201912/

Annex 7

Hiroki Nakatani: KGRI Virtual Seminar Series Japan and the World in the Era of COVID-19: Considering whether the new paradigm is a crisis or an opportunity, 112–113, Mita Hyoron, October 2020 (in Japanese)

https://www.keio-up.co.jp/mita/202010/

List of Links

APRU Population Aging Program Migrates to Keio University (p. 5 and p. 6) https://apru.org/apru-population-aging-program-migrates-to-keio-university/

The 9th Annual Research Conference on Population Aging 2018 (p. 10) https://apru.org/event/annual-research-conference-on-population-aging-2018/

Keio University hosts the 10th APRU Population Aging Conference in Tokyo (p. 11–12) https://www.keio.ac.jp/en/news/2019/Oct/24/48-64039/

The 10th APRU Population Aging Conference Report (p. 11–12) https://apru.org/wp-content/uploads/2020/03/apru population aging conference report.pdf

Keio-APRU Population Ageing Hub Longevity Initiative — High-Level Policy Discussion Meeting on Challenges Posed by a Rapidly Ageing Society with Dr. Victor J Dzau, President, United States National Academy of Medicine (April 14, 2018) (p. 13)

http://www.kgri.keio.ac.jp/en/news-event/043782.html

Global Roadmap for Healthy Longevity (p. 13)

https://nam.edu/initiatives/grand-challenge-healthy-longevity/global-roadmap-for-healthy-longevity/

KGRI Lecture Series: (Sept. 21, 2018) "The Emergence of Tau in our Understanding of Frontotemporal Dementia." (p. 14)

https://www.kgri.keio.ac.jp/en/news-event/047992.html

Technology and Aging Workforce: Maximize the Gains from Longevity and Long Working Life (p. 14) https://apru.org/event/technology-and-aging-workforce-maximize-the-gains-from-longevity-and-long-working-life/

Regional Action Plan for Healthy Ageing in the Western Pacific (p. 15)
https://www.who.int/docs/default-source/wpro---documents/regional-committee/session-71/rc71-5-ageing-and-health-annex.pdf

KGRI Virtual Seminar Series Japan and the world in the Era of COVID-19 (p. 16) https://www.kgri.keio.ac.jp/en/docs/Program KGRIVirtualSeminar COVID19 E 20200811 v9.pdf Keio University



Point of Contact:
Global Engagement Office, Keio University
keio-geo@adst.keio.ac.jp