Advisory Committee of the WHO Centre for Health Development (ACWKC)

22nd meeting summary

WHO CENTRE FOR HEALTH DEVELOPMENT (WHO KOBE CENTRE)

8-9 November 2018

Advisory Committee of the WHO Centre for Health Development (ACWKC)

22nd Meeting Summary

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Executive Summary

The WHO Centre for Health Development (WHO Kobe Centre—WKC) was established in 1995 with the support of the Kobe Group and endorsement by the WHO Executive Board. The WKC's strategy for 2016-26 is to conduct research and synthesize evidence about health systems and innovations, particularly in the context of population ageing, to accelerate progress towards Universal Health Coverage (UHC). The 22nd Meeting of the Advisory Committee for the WKC (ACWKC) took place from 8 to 9 November 2018, in Kobe, Japan. Established in 1996, the ACWKC meets annually to discuss the research program of the WKC and strategic priorities. ACWKC members include representatives from each WHO region, the host country, the local area, and the Kobe Group.

The meeting discussed the Centre's research progress in 2017-18 and follow-up activities to the ACWKC recommendations in 2017. This included several activities that strengthened the WKC's foundations as a research center - for example, the WKC plan for Quality Assurance in Research and the draft Research Plan for 2016-26. Staff presented their accomplishments in 2017-18 and proposed programs of research for 2018-19 in the areas of innovations, service delivery, sustainable financing, metrics and measurement, and health emergencies.

At the end of the meeting, the Chair, Dr Viroj Tangcharoensathien, and Rapporteur, Professor Maged Al-Sherbiny, presented the Committee's conclusions and recommendations. The ACWKC noted the progress over the past year and the opportunity to discuss research programs for 2018-19. Specific recommendations include:

a) Reorganize the research around three themes of emergencies, metrics, and a combined theme of service delivery, sustainable financing, and innovations.
b) Ensure the alignment of the WKC programme of work with WHO's GPW13.
c) Incorporate the vice-governor's concerns related to depression, suicide and collaboration with KBIC under the ongoing work on dementia.
d) Plan for a mid-term review in 2022.
e) Balance the dissemination of results and capacity building while taking into consideration WKC constraints and consider outsourcing capacity building.
f) Maximize the impact of current and previous research investments through peer reviewed publications and policy papers.
g) Diversify resource mobilization.
h) Consider the use of the carry-forward budget from the past MOU with the Kobe Group to strengthen collaboration with local institutions on topics that are globally relevant.

The ACWKC also made detailed recommendations for each of the Centre's main research themes (service delivery, sustainable financing, innovations, metrics, and emergencies). It also made recommendations for maximizing the impact of existing research and fundraising. The next meeting will take place on November 2019.

Advisory Committee of the WHO Centre for Health Development (ACWKC) | November 8 & 9, 2018

Prof Al-Sherbiny

Dr Agyepong

Dr Tangcharoensathien

Vice Gov Kanazawa

Dr Barber

Dr Lindeman

Dr Uchimuno

Dr Hori

Opening

The meeting was opened by the Honorable Vice-Governor Mr Kazuo Kanazawa, Hyogo Prefecture, and the WHO Assistant Director-General (ADG) for UHC and Health Systems, Dr Naoko Yamamoto. The Honorable Kanazawa stressed the importance of local collaboration, and the ADG emphasized goals within the WHO 13th General Program of Work (GPW13) to accelerate the attainment of UHC globally and WKC's role. The participants concurred with the nomination of the Chair, Dr Viroj Tangcharoensathien, Secretary General, International Health Policy Program Foundation, Ministry of Public Health, Thailand, and Rapporteur, Professor Maged Al-Sherbiny, Senior Adviser, Higher Education in Direct Aid International, Kuwait. Apologies were communicated from Professor Dame Sally Davies, Chief Medical Officer for England and Chief Medical Advisor to the UK Government, United Kingdom, and Chair of ACWKC, who was unable to attend this year's meeting.[1]

Strategic overview and WKC Research Plan 2018-2026

Following the opening, the WKC Director, Sarah Louise Barber provided a strategic overview of the Center's progress in 2017-18 and responded to the ACWKC's recommendations from 2017. She presented the main achievements in research, including a monograph documenting the Japan Gerontological Evaluation Study (JAGES) and implications for other settings, ten country case studies on community-based social innovations (CBSI), the Association of Southeast Asian Nations (ASEAN) health research program studying different aspects of health systems responses to population ageing, research about current health systems responses to dementia, and five Japan implementation research projects. She also presented new initiatives about service delivery models for care throughout the life course and sustainable financing for UHC, including two joint research programs with the Organization for Economic Cooperation and Development (OECD) and the WHO European Observatory on Health Systems and Policies.

The main ACWKC recommendations from 2017 included developing a process to ensure sound research quality and methodology, developing a research plan aligned with the Center's strategy for 2016-26, further advancing the cross-cutting theme of ageing in the context of UHC and innovations, and ensuring a planned program of work rather than fragmented projects. The ACWKC also recommended to maximize impact by taking advantage of key international events to align WKC products and leverage WKC work.

In response to these recommendations, the Director presented the WKC Plan for Quality Assurance in Research, which outlines the quality assurance systems in place, guiding principles,[2] and detailed

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[1] WKC Advisory Committee members and profiles (https://extranet.who.int/kobe_centre/en/advisory-committee)
[2] Quality assurance plan for research, The WHO Kobe Centre, 25 May, 2018
(https://extranet.who.int/kobe_centre/sites/default/files/pdf/calls-tors/WKC_Quality%20assurance%20in%20Research.pdf)

operational annexes for implementation.[1] The Centre also expanded its Scientific Working Group for external technical review of research projects.[2]

The Director then presented the draft Research Plan 2016-2026, which aimed to create a coherent research program taking into consideration legacy projects, donor priorities, the GPW13, and the role of the WKC as part of the global WHO Secretariat within the UHC cluster and its mandate to contribute to UHC. The draft plan identified five core research themes: service delivery, sustainable financing, innovations, metrics and measurement, and health emergencies. Lessons learned from Japan are a cross-cutting theme.

The Research Plan aimed to address several challenges at WKC. The plan considers the transformation within the WHO Secretariat and focuses on impact in countries. It is designed to identify research themes that make a stronger contribution to UHC cluster goals and avoid duplication with other departments in WHO. By promoting broader themes, WKC will reduce fragmentation and move from unrelated small-scale projects to a coherent program of research. The plan aims to identify how to strengthen generalizability and replicability, and more explicitly inform policies in other settings and countries. It also sets for clear measures of success.

Moving ahead, WKC intends to shift fully toward UHC as the overarching framework for research in line with the GPW13, UHC cluster priorities, and the WKC strategy. Phasing out legacy projects, WKC will move towards greater coherence in designing programs of research, avoid funding one-off projects, focus on research within each designated theme, and aligning other activities, i.e., capacity building and training with a research theme. There will be an increased emphasis on the role of WKC staff carrying out their own research programs, synthesizing evidence, and maintaining knowledge hubs for policy-makers and researchers.

The Honorable Kanazawa led the discussion. He emphasized that the five themes chosen were in line with the recommendations from the Kobe Group. He suggested that the WKC may consider additional themes over the remaining eight years of the strategy, including depression. Finally, he stressed the importance of addressing local needs. Other ACWKC members suggested a mid-term review to consider lessons learned, progress made, and adaptations needed.

The ACWKC agreed on the importance of reducing fragmentation by establishing research themes aligned with the global agenda set forth in the GPW13. It advised using limited resources more strategically by matching global and local needs. It also emphasized the importance of disseminating and communicating research findings to local citizens, global research communities and national policy makers. In terms of generalizability, they recommended focus on the key lessons learned and principles rather than on the replicability of programs, which may not apply across different contexts.

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[1] Quality assurance plan for research: Annexes with operational details, 25 May, 2018.
(https://extranet.who.int/kobe_centre/sites/default/files/pdf/calls-tors/WKC_Annexes%20with%20Operational%20Details.pdf)
[2] WKC Scientific working group members (https://extranet.who.int/kobe_centre/en/scientific-wg)

Overview of technical sessions

Innovations

Drs Ryoma Kayano and Paul Ong presented progress for the research theme of innovations. Under this theme, the WKC aims to document and evaluate country-level innovations, to identify effective service delivery innovations, and to especially identify innovations that promote the involvement of patients and communities in health care. For each of these areas, there is a strong focus on elements and conditions that are replicable in other settings.

Strong progress has been made for a series of legacy projects started between 2014-2017. A global review of (CBSI) and lessons learned for sustainability, initiated in 2014, was completed in 2018 in cooperation with RAND Europe and academics in Japan. This project will produce ten case studies, two journal articles, and policy briefs for countries.[1] A systematic review of best practices in promoting health systems for non-communicable diseases in Japan was initiated in 2017 and is currently underway in cooperation with the Japanese National Institute for Gerontology and Geriatrics. The three-year Kobe Study for health systems management of early detection and intervention for dementia is in Phase 2 in cooperation with Kobe University and Kobe Municipality. Another project was started in 2017 with Wakayama Medical University for the development of new assistive technologies to enhance the quality of life of older people. This project is scheduled to be completed in 2019.

The proposed program of research in innovations for 2018-19 includes cooperation with WHO Western Pacific Regional Office (WPRO) on country-level innovations for accelerating UHC, a more rigorous evaluation of community-based service delivery innovations and studying the implications of the Kobe project on management of dementia for generalizability elsewhere.

Dr David A. Lindeman, Director Health, Center for Information Technology Research in the Interest of Society (CITRIS), University of California, Berkeley, United States of America, led the discussion. He emphasized the importance of maximizing the impact of the existing projects including wide dissemination of the CBSI project findings and the implications for implementation in different countries and sharing the results of the Kobe dementia study.

The ACWKC also discussed the scope of innovations and how the WKC should identify overlaps and gaps with other research themes to maximize impact. It was felt that the Kobe dementia study is still in progress and thus any follow-up would need to build on the results, which the WKC would not have until 2020 or 2021. It was suggested that innovations, specifically CBSI, should be considered in the context of service delivery. The ACWKC also discussed the difficulty of establishing a knowledge hub.

Service delivery

Dr Paul Ong presented the research theme of service delivery. The proposed research objectives include evaluating service delivery models that can adapt to population ageing, to provide evidence of innovations that support and accelerate health systems change, to generate evidence on integrated service delivery configurations, and to identify policy, financial and systems innovations that can

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[1] Community-based social innovations (https://extranet.who.int/kobe_centre/en/project-details/community-based-social-innovations).

empower older adults to determine their own treatment and care priorities. For each of these objectives, there is an emphasis on adoption and scale-up in different countries.

Dr Ong presented progress in 2017-18, including several legacy projects. The Japanese University of Occupational and Environmental Health (UOEH) is studying "big data" for improving health care provisions to accelerate UHC amid the rapid population ageing in Japan. This project will end in September 2019, and several peer review papers will be produced. Several new initiatives were launched in late 2017. WKC commissioned a rapid scoping review of service delivery models to maximize the quality of life for older people at the end of life. Key findings include a weak continuum and difficulty in shifting services between geriatric and palliative care.

At the core of the proposed research plan for 2019-20 is the nine country ASEAN research program for health systems, which was initiated in response to population ageing and currently covers services delivery, health financing and innovations. Four projects are through to the contracting stages (Cambodia, Malaysia-Myanmar, Philippines and Singapore), with the remaining under WHO Ethics Committee review. Future research will continue to map and categorize evaluated approaches and country practices, building on the rapid scoping review. WKC also plans to evaluate community-based innovations in service delivery, including models for integrating health and social care services.

Dr Irene Akua Agyepong, Public Health Specialist, Ministry of Health/Ghana Health Service, led the discussion. She urged WKC explicitly focus on population ageing rather than demographic transitions. The area of service delivery is appropriate, because this research focuses on how health systems respond to higher demand from the growing number of older people. Notably, while many countries in Africa are still relatively young, all countries need to consider both the current and future needs of their populations as they age. Dr Ageyepong emphasized that Japan's history of health systems development may be useful for other countries in planning their health systems development. It was emphasized that the research on Japan should consider implications for other countries.

The ACWKC discussed the importance of different serviced delivery models that vary by multiple factors, including income, culture, industrialization, and other factors. They discussed the needs and challenges of economic evaluation, and challenges in identifying successful models of care. Acknowledging limited resources, the ACWKC suggested a stronger focus. The research themes of innovations, health financing and service delivery could be merged together.

Sustainable financing

Dr Sarah Barber presented the new research theme of sustainable financing. The aims of this theme are to study the impact of population ageing on revenue generation and expenditures for health, to increase understanding of the role of the private sector and appropriate policy instruments to maximize their contribution to UHC, and to identify health systems and policy innovations that promote greater efficiency and quality under the consideration of population ageing.

Two research projects are underway. Joint research with the WHO EURO Health Policy and Systems Observatory aims to collate existing data to inform about the impact of population ageing on revenue generation for health and health expenditures. It is anticipated that this research will result in two policy

briefs to inform countries about the impact of population ageing on revenue generation for health and the impact of population ageing on health expenditures.

Secondly, joint research is underway with the OECD and universities in the EURO and WPRO regions to carry out nine country case studies (Malaysia, Republic of Korea, Thailand, Australia, England, France, Germany, Japan, and Maryland in the US) about how countries have institutionalized pricing as a policy instrument to promote UHC. The result in 2019 will be a joint WHO/OECD report with lessons learned for low and middle-income countries.

Future activities include the dissemination and continued collaborations as part of the EURO economics of health ageing evidence and policy options series, including the meeting of global researchers to discuss findings and identify additional data for research agendas related to low and middle-income countries in the context of UHC. In 2019, WKC will complete nine country case studies and engage country policy-makers in discussions of findings in cooperation with regional and country offices. WKC will also identify country priorities for focused studies on policies to promote greater efficiencies, i.e., shifting resources out of hospitals to primary care, health technology assessments, etc.

Professor Soonman Kwon, Professor, Department of Health Policy and Management, School of Public Health, Seoul National University, Republic of Korea, led the discussion. He emphasized the importance of considering expenditures on long-term care where data are available. He also noted that medical policies are an important source of inefficiencies, and their study may be an important area of work, assuming no overlap with other WHO departments.

The ACWKC noted that people's attitudes about their place of dying change over time and impact health expenditures at the end of life. This impact implies strong linkages with service delivery models. The ACWKC also noted the importance of studying expenditures by age.

Metrics and measurement

Dr Megumi Rosenberg presented the research theme of metrics and measurement. The main objective of this research area is to understand the limitations of existing metrics and measurements for monitoring UHC developed by the WHO and the World Bank (WB), and to identify alternative approaches that may be more pertinent to assess health system responses to population ageing. This area also encompasses research related to the broader issues of improving data quality, metrics and the translation of evidence to practice that can support countries progressing towards UHC.

The main highlight from 2017-18 was the completion of the study on lessons learnt from the JAGES on advancing UHC through knowledge translation for healthy ageing, which was carried out in collaboration with the National Centre for Geriatrics and Gerontology, Japan. Several key factors that facilitate the translation of research findings into national and local policies were identified, including 'win-win' partnerships between researchers and local governments, data visualization, and community-based participatory research. The relevance and applicability of these findings to low- and middle-income countries was discussed. The main report and a policy brief will be published by WKC by the end of 2018. Secondly, data collection has been completed for research led by the University of Hyogo to validate a survey instrument for assessing the caregiving skills of foreign professionals who undergo Japan's Technical Intern Training Programme to become part of the caregiving workforce for the

increasing older populations both in Japan and in their home countries. Interim findings suggest that the assessment, which is based on the comprehensive framework of the International Classification of Functioning, Disability and Health, is complicated by the fact that several of the tasks being assessed also require substantial Japanese language and cultural competency.

At the core of the proposed research plan for 2019-20 is a new program of research on measuring and monitoring UHC in the context of population ageing, which will be carried out in collaboration with the WHO Health Metrics and Measurement Cluster. Specifically, research based on literature reviews and secondary data analyses will be carried out to identify scientifically valid approaches to monitor UHC in a way that may be more relevant to assess health system responses to population ageing. This approach will be complemented by comparative country case studies that describe how countries have adapted their health system monitoring approaches. In addition, a study is planned in Malaysia and Myanmar as part of the ASEAN research, which will adapt and validate the JAGES survey instrument to collect data on health determinants, outcomes and service coverage among older people for comparisons between Malaysia, Myanmar and Japan.

The discussions for this session, led by Professor Kwon, centered around the plans for the new program of research on measuring and monitoring UHC. The importance of going beyond a focus only on older people and examining equity in coverage across the entire population was stressed. Comments were also made to underscore the limitations of existing metrics to assess the financial protection of older people. Possible sources of secondary data were identified, such as the WHO Study on global AGEing and adult health (SAGE), Demographic and Health Surveys (DHS), and the data being collected for the global monitoring of UHC. It was recommended that WKC conduct primary data collection and analysis of indicators as part of the Knowledge Hub.

Health emergencies and disaster risk management (H-EDRM)

Dr Ryoma Kayano presented the research theme of health emergencies and disaster risk management (H-EDRM). He emphasized the history of WKC, which was established after the Hanshin Awaji Earthquake in 1995. This history explains why WKC has engaged in emergencies since its inception.

Ongoing research since 2016 includes studying the long-term psychosocial impact on disaster survivors in collaboration with the National Center for Neurology and Psychiatry. In collaboration with the University of Hyogo, a study on post-disaster management of vulnerable populations is underway. A significant finding is the that older populations represent a vulnerable population disproportionately impacted by disasters. More information about this group will be addressed through a population-based survey of the survivors of the Kumamoto Earthquake in 2016. In addition, WKC contributed to the development of the WHO Emergency Medical Team Minimum Data Set, which is in a standardized format for post-disaster medical data collection.

Based on this progress, the WKC research objectives set forth include the identification of the research gaps in and the dissemination of H-EDRM knowledge and experience, the study of H-EDRM research architecture to enable standardization in research methods and address ethics issues, the execution of research that informs standardization in health data collection and management, the execution of research with focus on a holistic approach towards the health needs of survivors and the adaptability of

health systems to address health needs after disasters, and the study of specific health needs of vulnerable populations.

Future research will build on strong progress to date. WKC contributed to the establishment of the global WHO Thematic Platform for H-EDRM Research Network (TPRN). WKC was a part of the core group established in response to the implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030, convening global leading researchers that identified research needs for health emergencies.[1] WKC also organized an expert meeting in collaboration with the Asian Pacific Conference for Disaster Medicine 2018 to identify key research issues in five major research topics. WKC will continue to support research in these five key areas, including health data management, psychosocial management, community emergency and disaster risk management, health workforce development, and research methods and ethics. WKC will also participate in developing guidance on H-EDRM research methods and ethics in collaboration with leading researchers. As the secretariat of TPRN from 2019, WKC will organize its annual meeting and disseminate progress through its website.

Dr Atsuko Uchinuno, Vice President, the University of Hyogo, Japan, led the discussion. She emphasized the depth of experience that Japan has in managing emergencies and disasters and the importance of sharing such experience globally. She discussed the importance of fundraising and opportunities in Japan. The ACWKC also discussed the importance of a dissemination strategy, and possibilities for a more dynamic process - for example by creating an interactive program rather than a book. This would allow for regular updates and could attract more attention. It also concluded there is a need to analyze and prioritize gaps in capacities at the national level.

Capacity building

Mr Shinjiro Nozaki provided a summary of achievements in 2017 and 2018. In 2017, WKC started a collaboration with Kanagawa Prefecture for a capacity building program targeted at low and middle-income countries. WKC conducted the UHC Leadership Program in March 2017, the ASEAN UHC Policy Discussion Meeting in July 2017, and the UHC and Impact of Population Ageing Research Development Program in March 2018. Other events supported by the Kobe Group include local dissemination through seven WKC fora in 2017 and 2018, providing lectures to local universities and schools, and participating in local government technical committees for a range of topics including disasters and emergencies, influenza, tobacco control, and health promotion. WKC has also revamped its website for wide dissemination of its research outcomes and activities in both English and Japanese.

For 2018 and 2019 activities, WKC plans to hold three fora per year, including an annual event with local high schools. Future events will link together these activities with the research themes for better dissemination. Two meetings will be held in cooperation with the Kanagawa prefecture government in 2018. The first is a workshop in January to bring together researchers working on the OECD/WHO study on price regulation. As recommended last year, WKC will contribute to major events in Japan and

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[1] Chan and Murray, What are the health research needs for the Sendai framework? Lancet June 19, 2017 http://dx.doi.org/10.1016/S0140-6736(17)31670-7 (https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(17)31670-7.pdf)

internationally, such as the G20 summit, Health Ministers Meeting in 2019, and the Tokyo Olympic Games in 2020.

Professor Maged Al-Sherbiny, Higher Education Senior Advisor, Direct Aid International, Kuwait, led the discussion. He emphasized the importance of defining capacity building and made recommendations to support capacity building effectively. He suggested building on existing networks and developing partnerships. The ACWKC members noted that WKC could support WHO internal research and health systems capacity at WHO country offices. He also stated that it is important to separate out the two different activities of communication and capacity building as separate programs of work. WKC has emphasized clearly its program on communications. While local communication has been strengthened, WKC needs to focus on communicating to the international community. Capacity building is a separate program requiring a conceptual foundation about beneficiaries and objectives, including metrics to measure impact. It was also noted that WKC capacity is slim, and other partners are focusing on capacity building.

Maximizing impact and fundraising

The meeting chair, Dr Viroj Tangcharoensathien, held a special discussion on maximizing the impact of current research projects and fundraising. Suggestions were made to maximize the dissemination and reach of existing research products through such means as the expanding the website information, establishing listservs, and developing a database of academics and policy analysts that can be engaged through online surveys. It was also suggested to translate policy papers or white papers in several languages.

A discussion ensued about prioritizing research projects with institutions that have stronger potential for producing high impact articles or institutions that require capacity building. Suggestions were made for WKC to focus on peer reviewed publications as much as possible, including requiring peer reviewed publications as a condition of contracts. Others suggested that policy papers may have more impact in some countries than peer reviewed publications. Social media was also discussed as influential. A balance is needed. Members recommended that WKC first identify the target of the research findings to focus its limited time and resources.

Given that WKC relies on a single donor, the ACWKC recognizes the importance of diversifying funding sources. In terms of fundraising, it was recommended that moving from policy papers to practical tools, such as checklists, can be valuable both in providing information about implementation as well as a mechanism to raise resources.

Conclusions and recommendations

The ACWKC Rapporteur, Professor Maged Al-Sherbiny, and the meeting Chair, Dr Viroj Tangcharoensathien, presented the main conclusions and recommendations. Regarding the research plan, the ACWKC recognizes its importance to reduce fragmentation by organizing research around 5 research themes that align with GPW13. However, they recommended combining service delivery, sustainable financing, and innovations into one theme, and reorganizing the work around the resulting three research themes of the new combined theme (service delivery, sustainable financing, and innovation), emergencies, and metrics. The ACWKC emphasized the importance of WKC alignment with the broader WHO GPW13. Within the existing research themes and activities, it recommended to incorporate the concerns of the vice-governor and include topics on depression and suicide, and

collaboration with the Kobe Biomedical Innovation Cluster (KBIC) and the ongoing work on dementia. They recommended a mid-term review in 2022 to determine if reprioritization is needed.

To address the long time required for research project approval, following WHO Ethics Requirements and the Framework of Engagement for Non-State Actors (FENSA),[1] the ACWKC recommended that WKC consider meta-analysis, comparative research, and bigger projects rather than small individual projects to maximize impact and take into consideration implementation cycles.

The ACWKC recognized the need to balance dissemination and capacity building while taking into consideration WKC's financial and human resources constraints. It recommended to maximize the impact of current and previous research investments through peer review publications and policy papers. The ACWKC also recommended to diversify funding and carry out resource mobilization. It further recommended to consider the use of the carry-forward budget from past MOU with the Kobe Group to strengthen collaboration with local institutions in topics that are globally relevant. Lastly the ACWKC suggested WKC focus on principles and key issues for sharing experiences internationally, rather than replicating models from one setting to another.

For the innovations theme, as noted above, the ACWKC recommended combining innovations, sustainable financing, and service delivery into one cohesive theme. It recommended to maximize the impact of past projects (e.g. CBSI) by ensuring a wider dissemination of results. Further, it suggested to consider the relevance of knowledge hubs for policy-makers, but by focusing on policy analysts and identify alternative approaches to disseminate knowledge. Finally, it recommended WKC consider the nexus of primary health care (PHC), non-communicable diseases (NCDs) and UHC as the focus of the innovations research theme and to avoid duplication with other WHO departments.

For the service delivery theme, the ACWKC recommended that the WKC avoid the term "demographic change" and refer to "population ageing". It recommended that economic analysis be considered to assess the viability of models of care, though this process may be costly, by investigating the dynamics of industrialization, social change and cultural factors. The ACWKC advised this research will require diligence because of its complexity. Though typologies may be useful, there may be no such thing as "best" models of care. The ACWKC recommended to reduce the number of calls by focusing on a limited set of countries over the long term.

For the research on sustainable financing, the ACWKC recommended integrating this research into service delivery. Where data are available, they recommended studying long-term care and analyzing the care by its utilization and health expenditure based on age.

For the research theme of metrics and measurement, the ACWKC recommended to consider targeting middle-income countries and elaborate metrics beyond simple risk factors, e.g. measure real utilization and access to services related to NCDs or post-acute care. For financial protection indicators, it advised that measurements related to catastrophic payments for older people are conceptually possible, but this information is usually captured at the household level, i.e., catastrophic payments for household with older persons. It was recommended to consider measuring the social cost of informal care. The ACWKC

[1] Framework of engagement of non-state actors, WHA69.100, 28 May 2016
(https://www.who.int/about/collaborations/non-state-actors/A69_R10-FENSA-en.pdf?ua=1&ua=1)

recommended to consider building a network based on ASEAN research countries or SAGE countries for the Knowledge Hub. It recommended focusing on metrics for UHC holistically and not just UHC for elderly populations. Finally, it suggested that WKC consider metrics and measurement beyond conventional UHC indicators for equity monitoring and disaggregation beyond age.

For the research theme of health emergencies, the ACWKC recommended that WKC consider a more dynamic process for disseminating research results. This dissemination could be done, for example, by creating an interactive program rather than a book. This switch would allow for more regular updates and draw greater attention the research community and policy makers. It suggested a need to analyze and prioritize gaps in capacities, for example, by looking at outcomes of the Sendai Framework implementation within countries. The ACWKC recommended looking for opportunities for fundraising with the Science Council of Japan and other similar initiatives at the global level, such as CDC Atlanta.

In terms of capacity building, the ACWKC recommended that WKC distinguish between activities related to communication and dissemination from activities that promote capacity building. It suggested to balance strong local awareness and actively address the lack of recognition of WKC internationally. The ACKWC recognized that limited human resources in WKC should be taken into consideration when designing and implementing capacity building programs. It suggested that WKC play a role in supporting WHO countries offices in line with GPW13. It recommended to outsource capacity building programs to a network jointly funded by WKC and external partners. Lastly, the ACWKC recommended to develop clear metrics to track and document the impact of dissemination and capacity building activities.

To maximize impact, the ACWKC recommended that WKC focus on peer reviewed publications as much as possible. At the same time, it recognized that a balance is needed, since good policy briefs can have more policy impact than published papers, and WKC's major goal is not to publish. It suggested that WKC can be highly influential without publishing papers. The ACWKC recommended white papers and branded policy briefs for impact within countries. It recommended to leverage and strengthen appropriate communication tools, such as the website, listservs, etc., and identify effective mechanisms to reach out to targeted users of the information disseminated by WKC.

In terms of resource mobilization, the ACWKC recommended to focus on the 'how to'– i.e., implementation guidelines - in addition to policy guidance. This focus may provide WKC better visibility. It recommended to consider engaging in 'technical assistance' to capitalize and ensure the impact of research results. The ACWKC recommended to diversify the resource base and mobilize resources through joint work with other partners (e.g., OECD, EU Observatory, etc.) and explore other potential sources such as the private sector, foundations, and other government funds. It recommended to develop sessions for the mobilization of resources for potential partners. It recommended to explore potential models to access resources through co-funding from Japan Agency for Medical Research and Development (AMED) and Japan International Cooperation Agency (JICA) with the support of the Japan Ministry of Health, Labor and Welfare (MHLW).

Annexes

8 November 2018

09:00–09:30	**Opening of the meeting**	*(Agenda item 1)*
	Welcome address	Dr Sarah Louise Barber Director, WKC
	Welcome remarks	
	– Representative from the Kobe Group	Hon. Kazuo Kanazawa Vice Governor Hyogo Prefecture
	– Representative from WHO	Dr Naoko Yamamoto Assistant Director-General WHO (Video message)
09:30–09:45	Group photo	
09:45–10:00	*Coffee break*	
10:00–10:15	**Introduction of ACWKC members & statutory business** – Remarks by Chairperson, ACWKC – Appointment of rapporteur – Adoption of Agenda	*(Agenda item 2)*
10:15–11:15	**Research Plan & update on 2017 ACWKC Recommendations** – Questions and discussion	*(Agenda Item 3)* Dr Sarah Louise Barber Lead discussant Mr Kazuo Kanazawa
11:15–12:00	*Research Theme: Innovations* • Progress report • Proposed programme 2019–20 • Questions for discussion	*(Agenda item 4)* Dr Ryoma Kayano Technical Officer, WKC Lead discussant Dr David Lindeman
12:00–13:30	*Lunch*	

13:30–14:15	***Research Theme: Service Delivery*** • Progress report • Proposed programme 2019–20 • Questions for discussion	*(Agenda item 5)* Dr Paul Ong Technical Officer, WKC Lead discussant Dr Irene Agyepong
14:15–15:00	***Research Theme: Sustainable Financing*** • Progress report • Proposed programme 2019–20 • Questions for discussion	*(Agenda item 6)* Dr Sarah Louise Barber Lead discussant Professor Soonman Kwon
15:00–15:30	*Coffee break*	
15:30–16:15	***Research Theme: Metrics*** • Progress report • Proposed programme 2019–20 • Questions for discussion	*(Agenda item 7)* Dr Megumi Rosenberg Technical Officer, WKC Lead discussant Professor Soonman Kwon
16:15–17:00	***Research Theme: Health Emergencies*** • Progress report • Proposed programme 2019–20 • Questions for discussion	*(Agenda item 8)* Dr Ryoma Kayano Lead discussant Dr Atsuko Uchinuno
17:00–17:30	Wrap up Day 1	Chairperson

9 November 2018

09:00–09:15	**Recap Day 1/Programme**	Chairperson
09:15–09:45	***Research Theme: Capacity Building*** • Progress report • Proposed programme 2019–20 • Questions for discussion	*(Agenda item 9)* Mr Shinjiro Nozaki External Relations Officer WKC Lead discussant Professor Maged Al-Sherbiny
09:45–10:30	**Discussion** • Maximizing impact of current projects • Fundraising	*(Agenda item 10)* Chairperson
10:30–12:00	*Coffee break*	
12:00–12:45	**Conclusion/Recommendations**	*(Agenda item 11)*
12:45–13:00	**Other matters** – Dates of 23rd meeting of ACWKC (2019) – Any other business	*(Agenda item 12)* Chairperson
	Close of the meeting	*(Agenda item 13)* Chairperson

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ACWKC Members

Dr Irene Akua Agyepong, Public Health Specialist, Ministry of Health/Ghana Health Service, Ghana

Professor Maged Al-Sherbiny, Higher Education Senior Advisor, Direct Aid International, Kuwait

Professor Dame Sally Davies, Chief Medical Officer for England and Chief Medical Advisor to the UK Government, United Kingdom[1]

Dr Chieko Ikeda, Senior Assistant Minister for Global Health, Minister's Secretariat, Ministry of Health, Labour and Welfare, Japan[1]

Mr Kazuo Kanazawa, Vice Governor, Hyogo Prefectural Government, Japan

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Dr David A. Lindeman, Director Health, Center for Information Technology Research in the Interest of Society (CITRIS), University of California, Berkeley, United States of America

Dr Viroj Tangcharoensathien, Secretary General, International Health Policy Program Foundation, Ministry of Public Health, Thailand

Dr Atsuko Uchinuno, Vice President, University of Hyogo, Japan

Guests

Hon. Toshizo Ido, Governor, Hyogo Prefecture, Kobe, Japan[1]

Dr Hiroyuki Hori, Senior Coordinator for Global Health, International Affairs Division, Minister's Secretariat, Ministry of Health, Labour and Welfare, Government of Japan

Kobe Group

Dr Mitsuaki Yamamoto, Chief Executive Officer, Health and Welfare Department, Hyogo Prefectural Government[1]

Mr Akio Matsubara, Director General, Public Health Bureau, Health and Welfare Department, Hyogo Prefectural Government

Dr Wakiko Ajiki, Director, Medical Affairs Division, Public Health Bureau, Health and Welfare Department, Hyogo Prefectural Government; Secretary General of the WKC Cooperating Committee

Mr Kengo Okita, Deputy Director, Medical Affairs Division, Public Health Bureau, Health and Welfare Department, Hyogo Prefectural Government[1]

Mr Koji Yamamoto, Group Leader, Policy Planning and Coordination Group, Medical Affairs Division, Public Health Bureau, Health and Welfare Department, Hyogo Prefectural Government

Mr Ryo Fukushima, Policy Planning and Coordination Group, Medical Affairs Division, Public Health Bureau, Health and Welfare Department, Hyogo Prefectural Government

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[1] Unable to attend

Ms Reiko Hirade, Secretariat of the WKC Cooperating Committee (JCC)

Mr Masao Imanishi, Chief Operating Officer, Biomedical Innovation and New Industry Headquarters, City of Kobe[1]

Mr Masafumi Mieno, Director, Biomedical Innovation Cluster Department, Biomedical Innovation and New Industry Headquarters, City of Kobe

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Ms Mizuki Kitano, Research Division, Biomedical Innovation Cluster Department, Biomedical Innovation and New Industry Headquarters, City of Kobe

Mr Yasutoshi Hiraoka, Director, General Manager of Industry Division, Kobe Chamber of Commerce and Industry

Mr Kazuya Obe, Vice Chairman of International Business Committee, Kobe Chamber of Commerce and Industry

Mr Tetsu Miyazaki, Industry Division, Kobe Chamber of Commerce and Industry

Mr Yosuke Iwasaki, Kobe Chamber of Commerce and Industry

Mr Fumio Kubota, Kobe Chamber of Commerce and Industry

Mr Koichi Mizukami, General Manager, General Administration Department, Kobe Steel, Ltd.

Mr Kenji Nasada, Manager, General Administration Group, General Administration Department, Kobe Steel, Ltd.

Mr Jotaro Hayashi, Manager, General Administration Group, General Administration Department, Kobe Steel, Ltd.

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Dr Sarah Louise Barber, Director

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Ms Mamiko Yoshizu, Communications Officer

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[1] Unable to attend

The World Health Organization Centre
for Health Development (WHO Kobe Centre)

Research plan (2018 – 2026)

26 January 2018

The World Health Organization Centre for Health Development (WHO Kobe Centre)

Research plan 2018-2026

Acknowledgments

The World Health Organization Centre for Health Development (WHO Kobe Centre) Research plan

1. Background

The WHO Centre for Health Development (WHO Kobe Centre—WKC) was established in 1995 with the endorsement by the WHO Executive Board and the generous financial and material support from the Kobe Group.[1] WKC's strategy for 2016-26 is to conduct research and synthesize evidence about health systems and innovations, particularly in light of population ageing, to accelerate progress towards Universal Health Coverage (UHC). WKC set forth a vision in 2017 to become a global research centre, knowledge hub, and a centre of research excellence for countries striving to attain UHC.

WKC is guided by the WHO's General Programme of Work (GPW), the institutional mandate of WKC as a department under the WHO Headquarters (HQ) Universal Health Coverage and Health Systems cluster, and the broad goals set forth within WKC strategy for 2016-26.[2] The current research plan uses UHC principles as the overarching guidance within WKC's current ten-year strategy for 2016 -26. This strategy was endorsed and core funding was agreed upon in a Memorandum of Understanding signed by the WHO Director General and the Kobe Group. The unique approach of WKC is its focus on research for health systems of the future, with an understanding of the context across different geographic settings.

The 21st Meeting of the Advisory Committee for WKC (ACWKC) met on 16-17 November, 2017, and recommended that the centre develop a research plan aligned with its strategy for 2016-26, taking advantage of WKC's strengths and comparative advantage, while cognizant of its budget and human resource constraints. WKC strives to use the research plan to move towards a more coherent program of research rather than funding individual one-off research projects. In doing so, the research plan forms the basis of all WKC work, ensuring WKC alignment with the overall direction of the WHO Secretariat.

The plan will be reviewed mid-way through its implementation and in light of any changes in strategic directions following the implementation of the WHO 13th General Programme of Work (GPW13). It is accompanied by a Quality Assurance Plan and implementation guidelines, which articulate a code of conduct with which WKC ensures high quality research.[3]

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[1] The Kobe Group is composed of Hyogo Prefecture, Kobe City, Kobe Steel, Ltd., and the Kobe Chamber of Commerce and Industry.

[2] WKC Strategy 2016-2026. The World Health Organization (Accessible at http://www.who.int/kobe_/about/WKCstrategicplan.pdf)

[3] The World Health Organization Kobe Centre Quality Assurance Plan for Research (Accessible at https://extranet.who.int/kobe_centre/en/calls-tors)

2. Theory of change

WKC developed a theory of change to inform its research plan. In developing the theory of change, the impact on health was identified based on the WHO's GPW 13 (Figure 1). The GPW 13 sets forth the goal for the WHO Secretariat as a whole to meet the three "one billion" targets towards increasing by 1 billion more people with access to UHC, 1 billion more people with health security, and 1 billion more people with better health outcomes. To attain these goals, the theory of change maps out outputs, activities, and near-term and longer-term outcomes. The longer-term outcomes that are viewed essential to achieve the three billion goals include key changes in countries- i.e., health policy changes, improved service delivery models, sustainable health financing, better metrics for monitoring progress, and preparedness and response to natural disasters. The underlying assumption is that countries will dedicate sufficient resources, infrastructure, and policies to attain the three billion goals.

For WKC research plan, in the near-term, outcomes envisaged include new networks of research partnerships and communities of practice; seeding other research/ research calls from projects funded; the identification, evaluation, and scaling of innovations; and research capacity built in low and middle-income countries (LMICs). As a research institute, specific outputs that WKC will produce include technical reports, policy briefs, press and media reports, website updates, social media announcements, presentations, side events at national and international conferences, and peer reviewed papers. The specific activities that WKC will carry out include commissioning and conducting research, and capacity building for research. The plan also includes health emergencies and promoting standardized data collection to enable research for disaster response. Dissemination of knowledge will be critical through knowledge hubs, communities of practice and convening internal and external partners.

Figure 1. Theory of Change: How WKC's Research Realizes the GPW 13
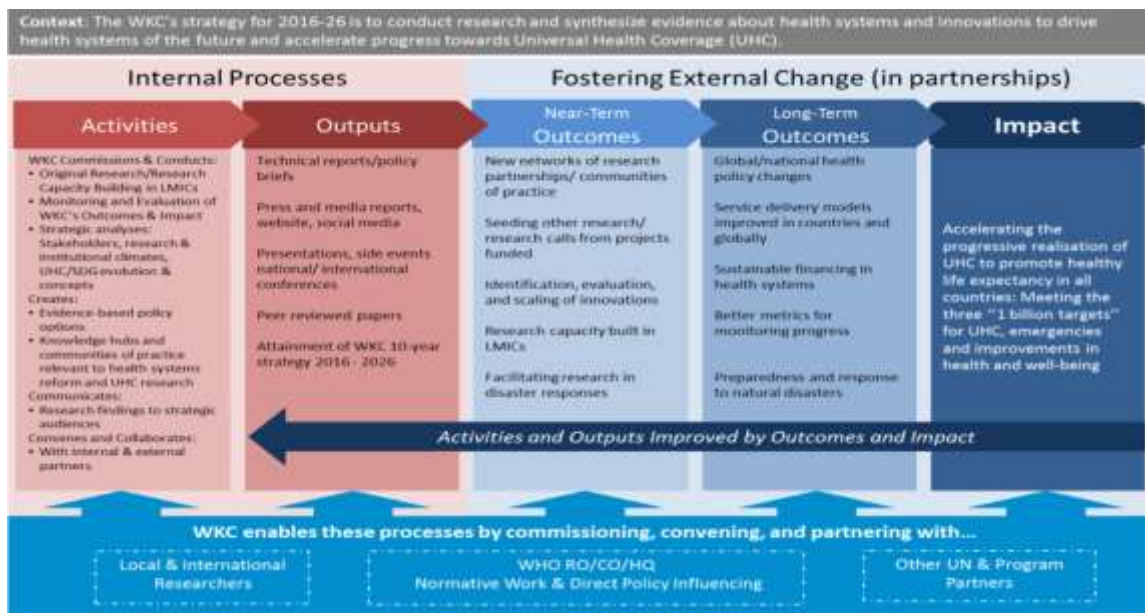
3. WHO's 13th General Program of Work

WKC works in close partnership with the global WHO Secretariat at all levels and is one department under the UHC and health systems cluster in WHO Headquarters (HQ). Thus, it follows the mandates and directions set forth within the WHO GPW, program budget, and global and regional resolutions. The GPW 13 provides the direction of the work of the WHO Secretariat as a whole for 2019-2023 and thus offers a strategic vision for WKC.

Figure 2. WHO's GPW 13: 2019-2023[4]
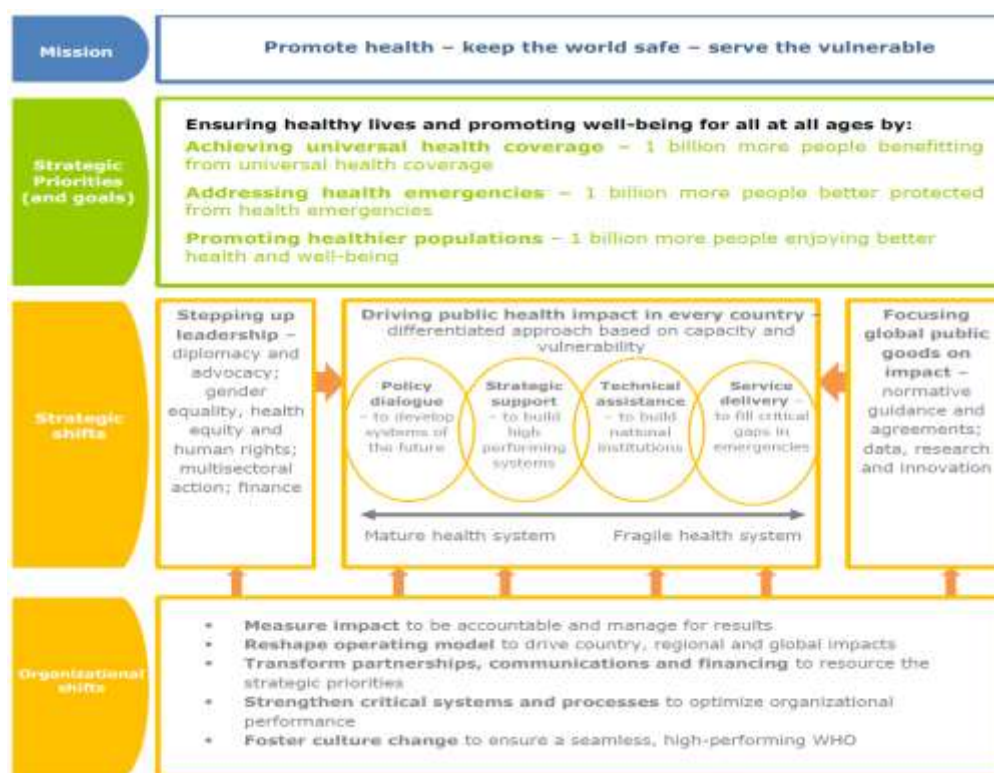
As illustrated in **Figure 2**, the GPW 13 aims to achieve the three "one billion" goals: advancing UHC to enable coverage and financial protection for 1 billion more people; addressing the needs of 1 billion vulnerable people in emergencies; and improving the health and well-being of 1 billion people.

These aims are to be achieved through three strategic shifts in how the WHO Secretariat works. These shifts include stronger leadership and evidence-based policy dialogue, a country-tailored approach to respond to the different needs across diverse country settings

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[4] Thirteenth General Program of Work, 2019-2023, The World Health Organization, WHA71/2018 (Accessible at https://www.who.int/about/what-we-do/gpw-thirteen-consultation/en/)

and measuring success by how well we have achieved these goals. Finally, these shifts imply organizational changes in the WHO Secretariat to be able to perform better. In country offices, the changes stress effective operating models, measuring our success, stronger partnerships, effective communications and a sustainable funding base.

By setting forth these strategic goals, the WHO Secretariat underscores its commitments to the Sustainable Development Goals (SDGs) as the basis for WHO's work. WKC's current strategy and research portfolio is fully aligned with the GPW13 areas to expand health care coverage and financial protection. Such goals emphasize the progressive realization of UHC as the overarching framework for WHO's program of work and provide the guidance for WKC's research. In addition, the GPW13 recognizes the importance of innovation to accelerate UHC. Innovation is defined broadly and goes beyond solely research and development for medical products to new ways of solving problems.

In addition, WKC was established immediately following the 1995 Great Hanshin-Awaji Earthquake. Thus, from its beginning, WKC has maintained a special mandate to promote effective prevention, preparedness and response to disasters, and understand lessons learned from the remarkable recovery and reconstruction of Kobe City and Hyogo Prefecture following the earthquake.

To ensure that the current research plans and areas are aligned with country needs, WKC works closely within the UHC cluster, including with the regional and country offices. WKC is also guided in its strategic direction by it Advisory Committee composed of members of each of the six regions of WHO. The ACWKC members are appointed by the Director General with the concurrence of each Regional Directors in all six WHO regions.

4. Categories of research

The WHO HQ Secretariat dedicated at least US$ 200 million to research in 2017 alone.[5] The vast majority of research reported in this informal survey is disease specific, with an estimated 2% (US$ 3.8 million) dedicated to any aspect of strengthening health systems or UHC. Of this amount, over half was carried out or commissioned by WKC. Therefore, it is important to note that WKC fills an important gap. This reported figure does not include funding from the partnership, the Alliance for Health Policy Research, that allocated US$ 17 million primarily on research capacity building in LMICs.

WKC is guided by the overall directions for research to accelerate UHC set forth in the WHO World Health Report 2013, "Research for Universal Health Coverage."[6] This report identifies eight main research categories to classify the kinds of research that accelerate UHC. The

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[5] Informal report: WHO and Research. The WHO Deputy Director General for Programs, March 2018.
[6] Research for universal health coverage: World health report 2013. World Health Organization. (Accessible at http://www.who.int/whr/2013/report/en/)

eight categories are listed in **Figure 3**. WKC supported research is non-clinical and focuses primarily on research related to *category 8*, health policy and systems research.

Figure 3. Eight categories of research studies to advance UHC[7]

1. Basic clinical research, including burden of disease
2. Etiological research
3. Research to advance disease prevention and well-being, including vaccines
4. Discovery and detection, screening and diagnostics
5. Research to develop treatments and therapeutic interventions
6. Research to evaluate treatments and therapeutic interventions
7. Studies about the management of specific diseases and conditions and resources needed
8. Health policy and systems research

WKC's research focuses on measuring the problem of health care access, coverage and financial protection and understanding the causes and barriers to overcoming these problems from a health systems perspective. Such research can include studies about the organization, financing, and delivery of health services in different community and country contexts; systems beyond the health sector that impact health; the policy, institutional and regulatory systems that underlie high quality care provision and good health; and the governance capacities in countries to lead and implement. This research involves an analysis of equities in health, well-being and access. Generally, health policy and systems research is multi-disciplinary, and explores the role of health systems across the spectrum of routine and emergency situations.

WKC-supported research is methodology neutral. Quantitative and qualitative designs or mixed methods may be applied to answer a given research question. Intervention research may involve investigating policy, systems and technological innovations to address health systems constraints, and ensuring that evidence about such solutions is incorporated into policy and practice. Implementation research is an important tool to test how well the innovation worked in real world settings. As such, research should, where possible, be embedded within health systems and co-designed with key stakeholders to achieve maximal update, impact and scalability. Evaluation of impact is critical, and evaluations can be designed prospectively to enable the assessment of impact in a rigorous way.

5. The process of identifying research themes

The process of identifying research themes started with the WKC Strategy 2016-26.[8] The vision articulated in WKC strategy is to research and foster innovative solutions and translate

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[7] Research for universal health coverage: World health report 2013, World Health Organization. (Accessible at http://www.who.int/whr/2013/report/en/)
[8] World Health Organization WKC Strategy 2016-2026 (Accessible at http://www.who.int/kobe_/about/WKCstrategicplan.pdf)

them into policies and actions to achieve sustainable UHC, in the context of ageing populations. The strategy also includes two main strategic objectives, each with four long-term research priorities as outlined in Figure 4.

Figure 4. Strategic objectives articulated in the WKC strategy[9]

Strategic Objective 1: Support cross-cutting research that leads to transformation of health and social delivery systems to enable the sustainability of UHC in light of the needs of older persons

Key long-term research priorities:
1. Enabling countries to plan for sustainable UHC through enhanced policy development and coherence
2. Developing comprehensive service/benefit packages for older populations under UHC
3. Supporting practical approaches to integrated/coordinated health and social delivery systems, and community-based (non-institutional) systems
4. Increasing local preparedness and resilience of health systems in the context of health emergencies.

Strategic Objective 2. Stimulate frugal social, technological and (health) systems innovations that help older populations better manage functional and cognitive decline over time

Key long-term research priorities:
1. Defining holistic home-based care systems to support older persons living at home/in their community for as long as possible
2. Investigating promising innovations
3. Conducting research on health and social system enablers and strategies for translating/ adapting/ scaling up the use of new innovations
4. Identifying ways to increase community engagement in design, development and use of innovations

The strategy is broad. As such, its operationalization requires further prioritization and refinement. The strategy thus further suggests a set of criteria to identify specific research themes. The specific criteria set forth include: addressing the unmet needs of rapidly ageing populations in the context of UHC; helping countries plan for sustainable UHC; research priorities in countries that are implementing UHC with rapidly ageing populations; and gaps in research and health system requirements for scaling up innovations. In addition, WKC needs to prioritize topics where its has specific advantages in addressing the research issue and does not duplicate research being done in other departments of WHO.

During its November 2017 annual meeting, the ACWKC recommended establishing research themes in recognition of the need for greater coherence in designing programs of research, and to link together the domestic and international research. More focused research themes are also useful in identifying lessons learned from Japan and elsewhere, ensure WKC alignment with the overall direction of the Secretariat, and leverage additional funds by demonstrating generalizability and cohesiveness.

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[9] World Health Organization WKC Strategy 2016-2026 (Accessible at http://www.who.int/kobe_/about/WKCstrategicplan.pdf)

To implement this recommendation, WKC evaluated achievements since 2006, and donor commitments. WKC also took into consideration the new changes and demands since 2017, including the imperatives within the newly established WHO GPW 13, the ACWKC recommendations, and opportunities to learn from Japan.

Figure 5. The process of identifying research themes

Pragmatic and systematic synthesis of existing commitments, legacy, WHO secretariat reform and new learning from WKC programs into concrete realisation of WKC 10 year research plan
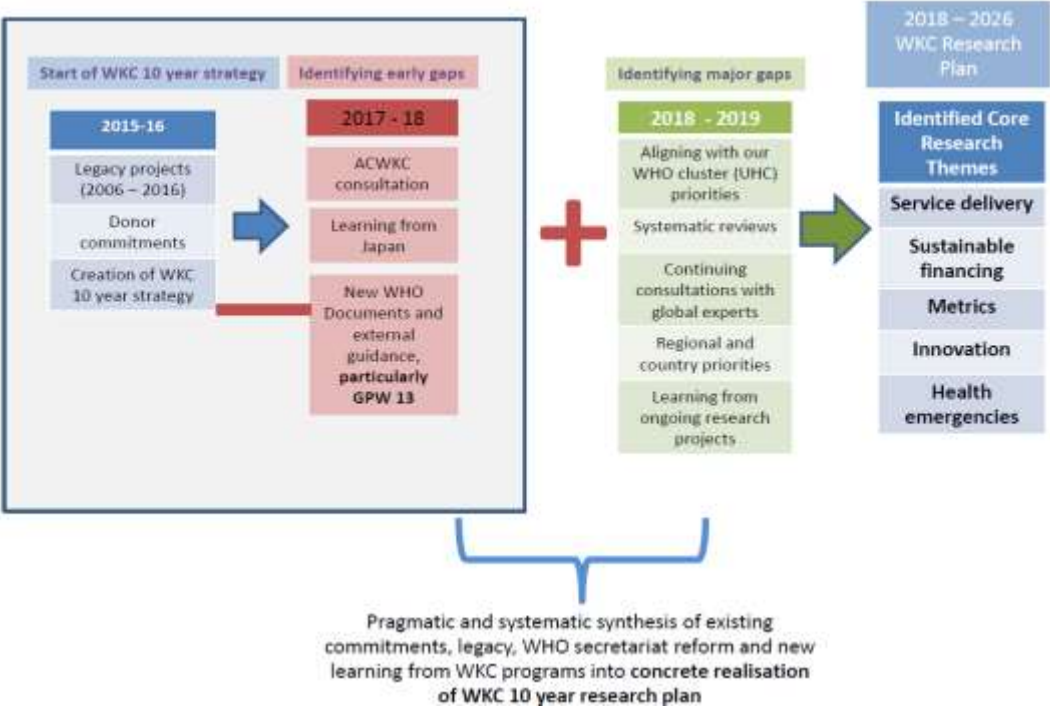
WKC then identified research gaps within the WHO UHC cluster priorities as well as regional and country guidelines, consultations with global experts, systematic reviews on specific topics, and learning from ongoing research projects. From this process, we identified three core research themes: service delivery (including innovations and sustainable financing), metrics and measurement, and health emergencies.

This process also identified what WKC will not engage in. This includes normative work, program implementation, standalone meetings and training programs, other areas unrelated to the research themes, research on specific diseases, and research that duplicates other technical programs.

6. Research themes

Applying these research themes from 2018 until 2026, WKC envisages that its research portfolio will continue to focus on several areas set forth in its existing strategy. The three research themes include: service delivery towards accelerating UHC; metrics and measurement; and health emergency and disaster risk management (Health-EDRM). Learning from Japan is a cross-cutting topic.

Under each of the three research themes, specific gaps are identified based on evidence from existing research projects, guidance under the GPW, and country needs and demands. For 2020 and beyond, it is envisioned that the research themes will continue to build on existing research, informed through systematic reviews of global research gaps, and guided by consultations with external experts, key partners and stakeholders.

6.1. Service delivery models, sustainable financing, and innovations

Service delivery models are at the heart of any health system. Countries with younger populations are focused on reducing mortality and illnesses – and thus measure success through such indicators as reductions in maternal and child mortality. With population ageing, health systems shift towards maintaining functional ability and improving quality of life, usually through managing multiple illnesses. Few countries have successfully shifted towards a people-centred approach and continue to rely on hospital-based acute models of care.[10] Thus, research is needed to understand how health care systems can evolve to better manage people with chronic diseases and complex multi-morbidities that may encompass physical conditions as well as mental health and social needs.

Sustainable financing is closely linked with service delivery. As populations age, policy-makers are concerned about the growth in health care expenditures that may become unsustainable. At the same time, population ageing and depopulation can impact health care financing systems that rely on payroll contributions, thus leading to concerns about generating sufficient and stable revenues to pay for health and social services. More research is needed to investigate the policy choices that affect changes in health expenditure growth and revenues.

Health resource constraints place pressure on policymakers to maximize all available health resources and reduce waste and inefficiencies. A key determinant of total spending is policy decisions about how patients are managed and funds are allocated throughout the health care system. Thus, options about efficiency are critical to determining total health expenditures. Moreover, governments frequently draw on the private sector to promote sustainability, optimal use of resources, and increased choice of care. However, a balance must be found to utilize private resources while addressing the market failures and equity concerns associated with private financing of health care. This recognition has resulted in deliberations across many countries about the role of the private sector in supporting the realization of UHC.

Innovation cuts across all areas of WKC research agenda. Innovations are defined broadly as new methods and approaches – whether policy, systems, or technologies – and implies the

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[10]WHO defines integrated people-d health services as an approach that places people and communities at the centre of health systems, and empowers people to take charge of their own health rather than being passive recipients of services. (See http://www.who.int/servicedeliverysafety/areas/people-d-care/ipchs-what/en/)

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translation of ideas to action towards UHC. Innovations are designed to solve specific problems and vary by country context.

WKC supports research leading to innovative solutions with the highest public health impact. Context matters greatly - countries with the lowest life expectancy, for example, tend to face health systems constraints such as low health spending, weak infrastructure, and few qualified health workers. In such settings, the priority for innovation is to extend access to basic health services through practical and frugal innovations. Countries with moderate levels of life expectancy generally have moderate levels of UHC attainment. The priority for innovation, therefore, is to improve service quality and efficiency and strengthen public health interventions, while also ensuring that people do not fall into poverty because of health spending. More developed settings are characterized by longer life expectancy and good health system functioning. Yet these countries strive to implement innovations to improve service quality and efficiency while controlling costs, and to empower patients and consumers.

Figure 6. Key research theme: service delivery, sustainable financing, and innovations (Annex 1)

- To evaluate and determine the elements for lessons learned from one setting to another to promote service delivery models that are resilient, adapt continuously and innovatively to population ageing and address multi-morbidities, including determining the role of the private health care sector.
- To provide evidence of country-level policy and systems innovations that promote quality primary care as systems respond to changes in disease burden and increases in life expectancy.
- To identify innovations that empower older adults to determine their own treatment and care options, and the implications for adoption and scaling up in countries and context for success.
- To study the impact of population ageing on revenue generation and expenditures for health and understand how countries have adapted continuously and made policy adjustments.

There are many research needs for innovations towards accelerating UHC. WKC focuses on identifying the areas for innovative solutions with the highest public health impact, studying inequities in access, identifying novel ideas through systematic reviews and horizon scanning, rigorous research to evaluate impact, operational research to promote scaling up of existing interventions that are cost-effective and provide greater value and higher quality of life, and research to understand the contexts under which innovations may work for replication elsewhere. Figure 6 summarize the key research areas for WKC.

6.2. Metrics and measurement

Metrics and measurement will focus on monitoring UHC in light of population ageing. An important question is how global monitoring efforts could be refined or augmented to better reflect the challenges that countries face under rapid population ageing. Another challenge is determining the feasibility for countries to develop indicators, collect data and track progress for conditions that are more prevalent among older persons (i.e., osteoarthritis, dementia, frailty, urinary incontinence, falls, delirium, cataracts, pressure ulcers, general multi-

morbidities). Under this research theme, WKC also seeks to strengthen the capacity of countries to achieve optimal data availability and use.

Given the importance of equity, it is important to identify the data requirements and investments to measure inequalities in healthy ageing, as measured by age-disaggregation at older ages. Moreover, some of the existing indicators, such as hospital capacity, may not fully reflect the responsiveness of the health systems to changing needs as populations age. Part of this work will revisit data already being collected to provide country-specific measures of service coverage, unmet need, and financial protection. Similarly, it is also necessary to examine how to measure the quality and content of care that older people are receiving, i.e., the number of contacts the person has had with the health service system and access to specialists; good patient-provider relations; availability of medical homes, as well as overuse and iatrogenic harms.[11] Figure 7 summarizes the WKC key research areas under the theme of metrics and measurement.

Figure 7. Key research theme: Metrics and measurement (Annex 2)

- To analyze the current research landscape related to the measurement of 'essential health services', 'financial protection', 'care quality' and 'equity in coverage' for older populations
- To document current country practices in measuring and monitoring UHC from the perspective of ensuring older persons' right to health (i.e., Availability, Accessibility, Acceptability and Quality (AAAQ) framework)
- To document effective approaches for research and knowledge translation to advance UHC in the context of population ageing
- To support the development of metrics and measurement tools that enable countries to monitor UHC in the context of population ageing

6.3. Health Emergency and Disaster Risk Management (Health-EDRM)

Over the past few decades, the frequency and severity of hazardous events including emergencies and disasters have increased. Climate change and demographic changes including unplanned urbanization have exacerbated the impacts of disasters. There is a continuing need to strengthen the health systems by evidence-based policy development and practice to reduce hazards and vulnerabilities and build capacities to address the increasing risks of different types of epidemics and disasters associated with natural and technological hazards. The focus on health as a key imperative for disaster risk reduction is highlighted throughout the 2015 Sendai Framework on Disaster Risk Reduction (SFDRR),[12] which is

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[11] Health outcomes among older persons including intrinsic capacity and functional ability are central to research. However, this area of investigation is being carried out by the Ageing and Life Course Unit of WHO and thus is omitted from the WKC research plan.

[12] The Sendai Framework, United Nations Office for Disaster Risk Reduction (Accessible at https://www.unisdr.org/we/coordinate/sendai-framework)

resulting from the 3rd UN World Conference on Disaster Risk Reduction (WCDRR) that followed the Hyogo Framework for Action 2005-2015.[13]

WKC was established following the Great Hanshin Awaji Earthquake 1995 that killed more than 6,000 people and displaced some 300,000 others. Since 2016, WKC has been involved as a central partner in the global movement to enhance scientific evidence to improve Health-EDRM, as represented by the WHO Thematic Platform for Health-EDRM Research Network (TPRN) and the Science and Technology Partnership facilitated by the United Nations Office for Disaster Risk Reduction (UNISDR). WKC also has continuously conducted dialogue with experts in Japan with extensive experience in prevention, preparedness, response and recovery from severe disasters. Through an expert meeting organized by WKC in collaboration with the Asia Pacific Conference for Disaster Medicine 2018, key research needs were identified for five major research topics. Based on the research gap analysis and recommendations, and the lessons and experience from Japan, WKC has selected several research areas to focus on during 2018-26 (Figure 8).

Figure 8. Key research areas: Health Emergency and Disaster Risk Management (Health-EDRM) (Annex 3)

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☐ To address the research gaps and information needs in the research architecture to enable standardization and address ethical issues.

☐ To carry out research to inform the most appropriate format and key content for health data collection and management, that enables greater standardization and comparative analysis of health impacts across disaster prevention, preparedness, response, and recovery.

☐ To carry out research that supports evidence-based policy development enabling effective disaster response, with focus on a holistic approach to the health needs of survivors through adaptable health systems.

☐ To study the specific health needs of vulnerable sub-populations, including older adults.

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Standardization in health data collection and management is an important prerequisite to enable research that informs policy options. Before, during and after emergencies, different stakeholders use different formats for health data collection and reporting. The lack of similar formats and comparability across settings inhibits evidence-based policy development for disaster prevention, preparedness, response and recovery, and the measurement of health impacts. WKC contributed to the development of a standardized post-disaster medical data collection methodology in collaboration with WHO Emergency Medical Team in 2017, which contributes to the future systematic collection of disaster survivors' medical data. The Sendai Framework has several targets including the reduction of mortality among affected persons, damage to health facilities and disruption to health services, which are vital to measuring health outcomes, and the effectiveness of actions taken by health and other sectors to reduce

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[13] United Nations Office for Disaster Risk Reduction (Details at https://www.unisdr.org/we/coordinate/hfa)

the risks and health consequences of disasters.[14] These targets and their associated indicators are also included in the SDGs and GPW 13. WKC will conduct research activities to promote systematic health data management, strengthen its linkage with research through the standardization of the process and methodology, and analyse data to inform evidence-based policy development, practice, monitoring and reporting.

Research during all phases of a disaster has been a challenge in Health-EDRM research. More than 90% of Health-EDRM literature focuses on the acute phase of a disaster. In contrast, fewer research projects focus on the effectiveness of prevention and preparedness measures and the long-term impacts of disasters on survivors. This may include the coordination of activities during response and recovery, the impact on health systems and their ability to adapt to emerging needs following disasters, and effective interventions after disasters that demonstrate good health outcomes over the long-term.

Advancing Health-EDRM practice requires more scientific evidence about activities in each phase of a disaster – including prevention preparedness, response and recovery – as well as a holistic needs approach encompassing physical, mental and psychosocial health and wellbeing. In 2017, WKC conducted a review of existing knowledge and experiences in Japan for mental health management in collaboration with a multi-sectoral expert working group. WKC will conduct further research to enhance evidence-based policy development and practice for effective and harmonized activities across all phases of a disaster, with focus on a holistic approach to the needs of survivors, the recovery of health systems, and catalysing action towards stronger health systems after emergencies and disasters.

Disaster risk management for populations with specific health needs is another major research gap. Population ageing and urbanization have resulted in increasing numbers of vulnerable people, including the poor, older adults and those with disabilities. Each of these groups have different vulnerabilities, capacities and networks requiring specific support before, during, and after disasters. However, lacking are health emergency risk assessments that take account the needs of these special populations. Responding to the increasing number of vulnerable populations, WKC will conduct research on inclusive risk assessment and risk management including vulnerability reduction and capacities, particularly with older populations.

WKC will also participate in developing guidance on Health-EDRM research methods and ethics in collaboration with leading researchers. As the secretariat of TPRN from 2019, WKC will organize its annual meeting and disseminate progress through its website.

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[14] Lo S, et al (2017). Health Emergency and Disaster Risk Management (Health-EDRM): Developing the Research Field within the Sendai Framework Paradigm. International Journal of Disaster Risk Science.

7. Lessons from Japan

WKC is supported to maintain an international presence in Kobe, Japan. WKC's location in Japan is strategic. For three decades, Japan's life expectancy has been ranked as the highest globally at 83.7 years and the longest healthy life expectancy at 74.9 years.[15] The incidence of catastrophic health spending is between 0.5 and 1.4%.[16] Japan has attained good health outcomes and has enabled people to live active and healthy lives at older ages. Health systems interventions, including early investments in both communicable disease control as well as primary prevention of non-communicable conditions in the 1950s to the 1970s were important factors.[17] Japan instituted a comprehensive insurance program in 1961, based on its commitment to equity in access, and its long-term care insurance program. Factors outside of the health sector were also critical – including education and food safety. By understanding how Japan achieved these outcomes – and the barriers that it faced – other countries can learn from this experience and leapfrog progress towards the progressive realization of UHC. This realization is particularly important given rapid population ageing in most countries across the world – particularly in the Asia Pacific region – and the relatively short time frame that countries have to invest in health systems to serve their populations within the foreseeable future.[18]

Many middle- and high-income countries also grapple not only with access but also financial protection, while controlling escalating health care costs. Japan has achieved good health outcomes and widespread service access while maintaining total health spending to 9 - 11% of GDP between 2005 and 2014.[19] One aspect of Japan's cost control is maintaining a system of price regulation for health services.[20] While all countries (including Japan) continue to strive for progressive realization, important lessons can be learned that inform other countries aiming for good outcomes at an affordable cost by 2030.

8. Maximizing generalizability to low- and middle-income settings

A critical issue for WKC research is ensuring external validity, in that research is generalizable to other settings to promote wide use in policy and practice. Given the WHO's GPW 13 and its emphasis on reaching people with basic services, it is important to ensure that research findings are applicable to low- and middle-income settings and are not limited to specific geographic regions. Thus, it is not only important to understand whether a health systems

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[15] Sendai Framework for Disaster Risk Reduction 2015-2030. United Nations, 2015.

[16] Global Health Observatory Data Repository, World Health Organization. (Accessed May 7, 2018 http://apps.who.int/gho/data/node.main.688)

[17] Ikeda N et al (2011). What has made the population of Japan healthy? Lancet, Vol 378 (9796), 1094–1105

[18] Barber S and Rosenberg M (2017(Aging and Universal Health Coverage: Implications for the Asia Pacific Region. Health Systems & Reform, Volume 3 (3), 154-8.

[19] Official Japanese government figures reported to the WHO. National health accounts database, World Health Organization (Accessed 7 May 2018 http://apps.who.int/nha/database/Country_Profile/Index/en)

[20] Ikegami, N. (2016). Universal health coverage for inclusive and sustainable development: lessons from Japan. The World Bank.

innovation or intervention is effective in a given context (i.e., low income countries, routine and emergency contexts, countries in fragile settings). It is equally important to understand its effectiveness in other countries, settings, and populations. This is a particularly difficult challenge for health policy and systems research, which is most often context specific. Special attention needs to be paid in terms of the key enabling factors for scalability and replication elsewhere. WKC will implement specific strategies in its efforts to increase external validity and enable generalization of findings across different settings, and particularly low- and middle-income settings.

Generalizability is possible where many different kinds of studies across different settings are carried out and result in similar conclusions. Thus, identifying research gaps and promoting the generation of bodies of knowledge are important. Where critical research areas exist alongside knowledge gaps, WKC will aim to identify such gaps through systematic review, meta-analysis or other means to encourage more investments in research.

WKC has developed its quality assurance plan, to ensure sound study design so that any one study can contribute to the body of evidence on a given policy or systems issue. Broadly proposals will be evaluated to more systematically recognize threats to external validity at the stage of study design. A right balance should be found between internal and external validity to enable generalizability and replication to other settings.[21]

While recognizing that research designs may vary based on the specific research question, strengthening external validity may include a stronger emphasis on randomization in the selection of sites and assignment of participants. Ensuring systematic analysis of people who declined to participate is important to understand the population under study. Where feasible, promoting multi-site studies and strata-based sampling can increase the generalizability of research findings.

For health systems interventions, researchers should also report about the extent to which implementation has successfully taken place across settings,[22] and how they determined the point in which implementation levels were sufficient to assess impact or outcomes.
In health systems research, change in one part of the system can have an important impact on another part; thus, it is important to analyse the effects on individuals (i.e., program drop out, selection) as well as effects on other aspects of the health systems (i.e., cost and sustainability).

Corresponding with good research theory and practice, health systems research projects should set forth a clear research theory and hypothesis, causal chain, and assumptions as a part of their research design. This will enable an assessment as to what extent the settings

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[21] Ferguson L (2004). External Validity, Generalizability, and Knowledge Utilization. Journal of Nursing Scholarship 36 (1), 16-22.
[22] Steckler A and McLeroy KR (2008). The importance of external validity. American Journal of Public Health 98 (1), 9-10.

and context are unique, whether they are applicable to other settings, and under what conditions the intervention could be replicated elsewhere. Evaluation experts propose that researchers systematically assess the extent to which the population surveyed represents the population when targeted for generalizing the findings. In this way, both similar and dissimilar characteristics are identified, which enable researchers to identify and rule- out irrelevant characteristics of the study population that do not affect generalization.[23]

The presentation of findings in a transparent and clear way to policy makers and researchers help others to interpret the findings, understand the limitations, and evaluate the extent such findings may be applicable to other settings. Researchers are increasingly cooperating with a range of partners – including implementers and decision-makers – to identify outcomes that are widely relevant for policy making – including for example cost, adverse events, and quality.[24] Where external validity is not systematically evaluated, such limitations should be noted in that such that the findings are not generalized to other settings, and that that the research findings are interpreted with caution based on the study design. By focusing on the extent to which specific human behaviors are the same across different settings, generalizability could focus on such behaviors with research carried out identifying different factors that modify impact.[25]

9. Measures of success

The measure of success for the research plan implementation will include the research products generated by the staff and the research partners, measures of research to policy and practice, and capacity building. These outcomes are based on the theory of change (**Figure 1**).

Research products will be an important measure of success. Research products can include peer reviewed journal articles and book chapters, WKC policy briefs, and other published materials. They may also include study protocols or survey instruments that are developed as a direct result of the research.

WKC has as part of its mandate the translation of evidence to policy and practice. This can be done through the publication of focused research products, such as systematic reviews. Evidence synthesis can be developed for end-users, to ensure accessibility. An assessment can be made as to whether the research has contributed to the development of WHO normative guidelines, regional frameworks or national policies.

The website and communications function of WKC can support the dissemination of evidence to local, regional and national governments and to the global community. Communication

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[23] Shadish WR at al (2002). Experimental and Quasi-Experimental Designs for Generalized Causal Inference. Houghton Mifflin Company.

[24] Tunis SR et al (2003) Practical clinical trials: increasing the value of clinical research for decision making in clinical and health policy. JAMA 290, 1624–1632

[25] Bates R and Glennester (2017). The Generalizability Puzzle. Stanford Social Innovation Review.

products to measure this success could include press releases, whether the media is picking up the information, poster displays, brochures, website development and numbers of people accessing the web materials. Information and evidence on their own will not lead to changes in country policies, programmes, or better performing systems. This bottleneck is more acute with rapidly emerging new issues, and those involving multiple sectors. WKC strives to support the translation and dissemination of findings into practical 'know-how' as a knowledge hub supported by dissemination and communication strategies.

Dissemination activities encompass several target audiences and strategies. WKC will continue to publish its research with its collaborators in the scientific community through peer reviewed journals, and WHO publications. It will also reach out to wider audiences with tailored communication products through appropriate media. Best practices will be identified, assessed and promoted in ways that inform policy, practice, and further research. We will take advantage of our networks of key partners and events to disseminate research findings globally and locally.

10. Key partners and events

Expanding on our existing collaborations, WKC will strive to build alliances and communities of practice on UHC in light of population ageing, and to develop and manage collaborations with universities, WHO Collaborating centres, research institutes, non-governmental organizations and experts to take forward specific research streams. These actions will also be organized in close coordination with other networks, platforms, and entities within WHO (i.e., HQ, regional and country offices). Close collaboration with WHO country and regional offices will ensure that the topics are relevant and appropriate to local needs. External experts will also be consulted, including members of the Advisory Committee of WKC (ACWKC) and WKC Scientific Working Group, among others.

Catalysing and leveraging collaborative research and building on existing networks is key to WKC's success. WKC will convene experts to advance specific research agendas and critical identify critical gaps. WKC will act as a convener to stimulate systematic research with a range of stakeholders with shared public health-related interests. Important local and international events can be used to highlight important health issues as well as increase the visibility of WKC. WKC will recognize the different categories of events to tailor messaging to different target audiences. For example, several high-level events are taking place including the G20 and the Health Ministers' meetings, the annual World Health Assembly and the Regional Committees. Such opportunities could be utilized to share research findings for policy-makers in the national government. Global academic conferences can be used to reach researchers and public health practitioners. Major public events are also taking place in Japan and specifically in the Kansai region. Such events can be used to reach the general public and local governments to promote health and evidence-based policies.

Annex 1. Summary of research theme: Service delivery, financing and innovations to accelerate UHC

Key research areas

- To evaluate lessons learned from one setting to another, including the role of the private health care sector, and service delivery models that are resilient, adapt continuously and innovatively to population ageing and address multi-morbidities.
- To provide evidence of country-level policy and systems innovations that promote quality primary care as health systems respond to changes in disease burden and increases in life expectancy.
- To identify innovations that empower older adults to determine their own treatment and care options, and the implications for adoption and scaling-up in countries and context for success.
- To study the impact of population ageing on revenue generation and expenditures for health and to understand how countries have adapted continuously and made policy adjustments.

Ongoing activities

- Research with University of Occupational and Environmental Health, Japan, using "big data" for improving health care provision to accelerate UHC amid rapid population ageing in Japan and implications for other countries.
- Research with Wakayama Medical University, to understand the experiences of assistive technology use among older people in Japan and implications for other countries.
- Partnership with King's College, London, to research service delivery models that maximise quality of life for older people at the end-of-life through rapid scoping review and systematic reviews
- Evaluating research proposals from universities in nine ASEAN countries to study how health systems respond to population ageing.
- Partnership with WHO EURO Health Policy and Systems Observatory to collate data to inform about the impact of population ageing on revenue generation for health and health expenditures
- Partnership with OECD and universities in the EURO and WPRO regions to carry out nine case studies about how they have institutionalized pricing as a policy instrument to promote UHC.
- Partnership with RAND Europe and Japan academia for a global review of community based social innovations and lessons learned for sustainability
- Research with Kobe University and Kobe Municipality on health systems response to the management of dementia patients
- Systematic review of Japanese literature for best practices in promoting non-communicable disease (NCD) prevention and control towards UHC
- In cooperation with the WHO Western Pacific Regional Office, documentation and evaluation of country level innovations for accelerating UHC

Expected results: 2018-19

1. Research papers about learning from Japan and implications for other countries in: the management of dementia patients, health systems primary NCD prevention and control, use of assistive technologies to enhance quality of life among older adults, improving health care provision to ensure UHC amid rapid population ageing experiences of assistive products use among older people.
2. Rapid global scoping review about service delivery models that maximise quality of life for older people at the end-of-life.

3. Research articles by nine ASEAN universities about systems response to population ageing.
4. Two policy briefs about the implications of population ageing on revenue generation and health expenditures
5. Nine country case studies on pricing mechanisms (Malaysia, Republic of Korea, Thailand, Australia, England, France, Germany, Japan, and Maryland in the US).
6. Joint WHO/OECD working paper on Pricing as a Policy Instrument to promote UHC
7. WHO publication about the global review of community based social innovations
8. Knowledge hub to document, evaluate and disseminate county level innovations for accelerating UHC

Annex 2. Summary of research theme: Metrics and measurement

Key research areas

- To analyze the current research landscape related to the measurement of 'essential health services', 'financial protection', 'care quality' and 'equity in coverage' for older populations.
- To document current country practices in measuring and monitoring UHC from the perspective of ensuring older persons' right to health (i.e., Availability, Accessibility, Acceptability and Quality (AAAQ) framework).
- To document effective approaches for research and knowledge translation to advance UHC in the context of population ageing.
- To support the development of metrics and measurement tools that enable countries to monitor UHC in the context of population ageing.

Ongoing activities

- New program of research on measuring and monitoring UHC in the context of population ageing (2018-2020), in cooperation with the Association of Pacific Rim Universities and other local and global academic institutions
- Collaborative research with the University of Hyogo on the development of a skills assessment tool for long-term care workers (2017-18)
- Documentation of the lessons learned from the Japan Gerontological Evaluation Study (JAGES) on advancing UHC through knowledge translation for healthy ageing (2017-18), in collaboration with the National for Geriatrics and Gerontology, Japan

Expected results: 2018-19

1. Working paper series on measuring and monitoring UHC in the context of population ageing
2. Knowledge hub on measuring and monitoring UHC in the context of population ageing
3. WHO monograph describing lessons learnt from the Japan Gerontological Evaluation Study
4. Research articles published about the ICF-based assessment tool development for care-skill training in Japanese long-term care system

Annex 3. Summary of research theme: health emergencies and disaster risk management (Health EDRM)

Key research areas

- To address the research gaps and information needs in the research architecture to enable standardization and address ethical issues.
- To carry out research to inform the most appropriate format and key content for health data collection and management, that enables greater standardization and comparative analysis of health impacts across disaster prevention, preparedness, response, and recovery.
- To carry out research that supports evidence-based policy development enabling effective disaster response, with focus on a holistic approach to the health needs of survivors through adaptable health systems.
- To study the specific health needs of vulnerable sub-populations, including older adults.

Ongoing and upcoming activities

- With the National Centre for Neurology and Psychiatry, Japan, and the Hyogo Institute for Traumatic Stress, study about the long-term psychosocial impact on survivors of natural disasters in Japan (2016-2018).
- With University of Hyogo and Kumamoto University, evaluate specific health care strategies among earthquake survivors (2018-2019).
- In cooperation with the WHO HQ emergency response team, carry out research to support the standardized methodology for health data management during disasters, as guided by commitments under the Sendai Framework, WHO GPW 13, and the SDGs.
- In collaboration with the WHO Thematic Platform for Health-EDRM Research Network, carry out review of Health-EDRM scientific evidence in each phase of a disaster (prevention, preparedness, response and recovery).
- Jointly with the Asian Pacific Conference for Disaster Medicine (APCDM), carry out a WKC forum that brings together stakeholders for the annual international conference for Health-EDRM scientific evidence improvement (2018).

Expected results: 2018-19

1. Research articles about the long-term psychosocial impact of disasters due to natural hazards on survivors, and the development of specific care strategies to maintain and recover survivors' health after disasters.
2. Research articles detailing recommendations for standardized methodology for health data management (collection, registration, utilization) after disasters.
3. Research articles detailing the existing Health-EDRM scientific evidence in each phase of disaster risk management cycle.
4. Report about the existing research gap and required inter-regional research collaboration for Health-EDRM, resulting from the WKC Forum in 2018.

Quality Assurance Plan for Research

The World Health Organization Centre for Health Development

(WHO Kobe Centre)

25 May 2018

Acknowledgements

Table of Contents

Annexes with operational details

Quality Assurance Plan for Research

1.0. Background

1.1. WHO's General Programme of Work

Research forms an important part of the WHO core functions articulated in the 12th General Program of Work. These include WHO's functions in *shaping the research agenda and stimulating the generation, translation and dissemination of valuable knowledge; articulating ethical and evidence-based policy options; and monitoring health situations and assessing health trends*.[1] A draft of the 13th General Program of Work highlights research and innovation as a vital part of WHO's work through advocacy for evidence based policies, normative guidelines, and shaping and scaling up innovations.[2] It is widely recognized that research is critical to WHO's constitutional mandate to support the attainment of the highest possible level of health for all.

1.2. The WHO Kobe Center

The objective of the WHO Kobe Center (WKC) is to carry out quality research in a systematic way with the aim of identifying new facts and innovations that promote Universal Health Coverage (UHC) in light of demographic changes. The endpoint of such research is to support national health systems towards UHC for the promotion of long and healthy lives and prevention of health-related financial hardship across populations. As such, the WKC seeks to create and disseminate research in cooperation with research partners to accelerate UHC in line with its strategic objective.

1.3. Guiding documents

As a department of the WHO headquarters, the work of the WKC complies with the WHO General Programs of Work[1][2] and complements the normative work being carried out by the WHO cluster for UHC and Health Systems. The research thus aims to builds on the 2013 World Health Report on *Research for UHC*.[3]

Research conducted by the WKC complies with the guidelines set forth for the Secretariat as a whole, including the *WHO Strategy on Research for Health*[4] and World Health Assembly (WHA) Resolution A63/22 2010 on WHO's roles and responsibilities in health research. It also complies with ethics standards set forth by the Secretariat including WHO's *Standards and operational*

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[1] World Health Organization, Twelfth General Program of Work: Not merely the absence of disease, 2014 (http://www.who.int/about/resources_planning/twelfth-gpw/en/)
[2] World Health Organization, draft of Thirteenth General Program of Work 2019-2023, EB142/3, 5 January 2018 (http://apps.who.int/gb/ebwha/pdf_files/EB142/B142_3-en.pdf?ua=1)
[3] World Health Organization, Research for Universal Health Coverage: World Health Report 2013 (http://www.who.int/whr/2013/report/en/)
[4] World Health Organization Strategy on Research for Health 2012 (http://apps.who.int/iris/bitstream/10665/77935/1/9789241503259_eng.pdf?ua=1)

guidance for ethics review of health-related research with human participants,[5] *Code of Conduct for Responsible Research,*[6] *WHO Policy on Misconduct in Research,*[7] *the Code of Ethics and Professional Conduct,*[8] as well as WHO's Framework for Engagement of Non-State Actors (FENSA).[9] FENSA is a process for identifying the risks and benefits of engagement with non-state actors, with the goal to protect and preserve WHO's integrity, reputation and health mandate. FENSA applies to all of WHO's engagement with non-state actors, including nongovernmental organizations, private sector entities, philanthropic foundations, and academic institutions.

1.4. Definition of research

The WHO Research Strategy and WHA Resolution A63/22 define research as the *development of knowledge with the aim of understanding health challenges and mounting an improved response to them. This definition covers the full spectrum of research, which spans five generic areas of activity: measuring the problem; understanding its cause(s); elaborating solutions; translating the solutions or evidence into policy, practice and products; and evaluating the effectiveness of the solutions.*[10]

The WKC's research to advance UHC implies focus on measuring the problems of access, coverage and financial protection and understanding the causes and barriers to overcoming these problems from a health systems perspective. This effort recognizes the hardware or building blocks of human resources, which includes medical product access, infrastructure and service delivery, financing and governance, and information systems, along with the software or mortar of people, which includes communities, organizations, processes, and values that make up a health system.[11] Research for solutions involves investigating policy, systems and technological innovations to address health systems constraints, and ensuring that evidence about such solutions is incorporated into policy and practice. Implementation research is an important tool to test how well the innovation worked in real world settings. Evaluation of the impact is critical, and evaluations should be designed prospectively to enable assessment of the impact in a rigorous way. The research carried out by the WKC is non-clinical and aims to

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[5] World Health Organization Standards and Operational Guidance for Ethics Review of Health-Related Research with Human Participants 2011
(http://apps.who.int/iris/bitstream/10665/44783/1/9789241502948_eng.pdf?ua=1&ua=1)
[6] World Health Organization 2017 Code of Conduct for Responsible Research
(http://www.who.int/about/ethics/code-of-conduct-responsible-research.pdf?ua=1)
[7] World Health Organization 2017, WHO Policy on Misconduct in Research (http://intranet.who.int/public-drives/PubDept/DGO-CRE%20-
%20Compliance%2C%20Risk%20Management%20and%20Ethics%20Office/ResponsibleResearch/pmr.pdf)
[8] World Health Organization, 2017, Code of Ethics and Professional Conduct
(http://www.who.int/about/ethics/code_of_ethics_full_version.pdf?ua=1)
[9] World Health Organization WHA 69.10, 28 May 2016. Framework of Engagement with Non State Actors
(http://www.who.int/about/collaborations/non-state-actors/A69_R10-FENSA-en.pdf?ua=1   )
[10] World Health Organization Strategy on research for health 2012.
[11] Sheikh K., Gilson L., Agyepong I.A., Hanson K., Ssengooba F., Bennett S. (2011) Building the Field of Health Policy and Systems Research: Framing the Questions. PLoS Med 8(8): e1001073. Doi:10,1371/journal.pmed.1001073

adhere to the standards and principles for good research practice. The WKC's research is methodology neutral. Depending on the questions being asked, quantitative and qualitative studies as well as mixed methods can be used. There are some important differences in quality assurance criteria depending on design, and these differences are taken into consideration when they are applied to specific research proposals (see **Annexes 1 and 2**).

1.5. Quality assurance systems

The purpose of this Quality Assurance Plan for Research is to set forth the principles for good research practices, which will in turn be used to institutionalize quality assurance processes through the routine management of research products. The institutionalization of quality assurance can be done through each step in the managing and carrying out of the research including design of the research plan, procurement procedures and competitive bidding, screening research applications, external review of technical merit, ethics review process, contracting research products, and monitoring and evaluating implementation.

As such, this Quality Assurance Plan for Research applies to all staff of the WKC, including technical, administrative and managerial staff, interns, volunteers, secondments, and visiting researchers. It also applies to all collaborators and contractors who participate in research activities in cooperation with staff of the WKC.[12] Furthermore, it is applicable to all research activities, including the funding, sponsoring, endorsing, or coordinating of research; providing technical advice either directly or through advisory groups; and directly conducting the research. Through its code of conduct, the WKC must ensure that contracting institutions uphold principles in line with the WHO Code such that any infringements may cause the WKC to terminate its collaboration arrangement following consultation with the legal bureau.

1.6. Quality assurance culture

Quality assurance will be cultivated among staff and researchers. Creating such a culture involves encouraging creative and critical thinking and constructive technical criticism among staff and researchers as a means to improve research quality. Such criticism should not be confused with personal criticism. The objective is to promote cooperation, intellectual curiosity, and excellence rather than solely promoting compliance with rules and procedures. Such an environment facilitates compliance with high scientific and ethics standards, as well as professionalism and an open exchange of ideas.

Meeting this objective can be done, for example, through regular in-house technical presentations and forums, with the presence of the Principle Investigator (PI) of the research if appropriate, to invite critiques from colleagues on research ideas, plans, progress and products. At the same time, staff capacity and competency to oversee and implement quality assurance

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[12] Individuals who work for WHO as non-staff members (including consultants, holders of Agreements for Performance of Work (APW), Technical Services Agreement (TSA) holders, Special Service Agreements (SSA) or letters of agreement, Temporary Advisers), and third party vendors, contractors or technical partners who have a contractual relationship with WHO.

in the research activities of the WKC should be ensured through the appropriate assignment of roles and responsibilities, performance management, and staff development and training.

2.0. Guiding principles

2.1. Relevance and impact

The research carried out by WKC staff and contracted researchers should clearly address policy relevant issues with the greatest public health impact and potential to improve global health goals. Activities should fall under the priorities set forth within the documents guiding WKC work (paragraph 1.3). Impact is one of the guiding principles for the WHO Secretariat as a whole in prioritizing research and innovation, and to ensure the greatest value for research spending. To achieve impact, the WKC also emphasizes dissemination and communication activities as part of each research program.

2.2. Excellence

Excellence is another guiding principle for the WHO Secretariat in carrying out high quality and peer reviewed research that is monitored and evaluated. Researchers and staff should strive to conduct research that is excellent in technical quality, and maximizes impact and generalizability both within and external to the study setting. Checklists that are appropriate to the research design will be used to increase technical quality and ensure consistently high quality (see **Annexes 1 and 2**).

2.3. Integrity

Research supported by the WKC should comply with high standards of integrity and honesty in all steps of the research process, including proposal submission, data analysis and reporting. In addition, the research should include appropriate acknowledgment of one's contribution and the contribution of others, and refraining from using the work of others without permission or acknowledgement and other infringement of intellectual property. All research products must be made available for monitoring and verification.

2.4. Freedom from conflict of interest

WKC staff – similar to all WHO staff —are expected to comport themselves with independence and act solely within the interests of WHO and without influence from external parties. As outlined in the *Code of Conduct for Responsible Research*:

WHO staff members are expected to conduct themselves with the interests of WHO only in view and under the sole authority of the Director-General. Professional and ethical conduct requires that the international character of WHO is respected and that staff maintain their independence and not seek or receive instructions from any Government, external entity, or person external to WHO. WHO staff members must ensure that personal views, convictions, previous experiences or future ambitions do not

compromise the objective scientific process, the performance of their official duties or the interests of WHO. Bias, prejudice, conflict of interest or undue influence must not be permitted to supersede the professionalism of their conduct. Staff members must exercise the utmost discretion in their actions, refrain from participating in any activity that is in conflict with the interests of WHO or might damage WHO's reputation, and respect and safeguard the confidentiality of information, which is available or known to them because of their official functions [13]

Those involved in carrying out and reviewing research should declare any conflict of interests, to identify any interest or circumstance that may conflict with their work at WHO, and take actions to resolve any potential conflicts of interest or recuse oneself. WKC staff are obligated to monitor and report any cases of misconduct that takes place during research implementation, including conflicts of interest that arise, misrepresentation, failure to follow ethics procedures or other wrongdoing. Wrongdoing is defined as "*intentional, knowing or reckless fraudulent behavior such as fabrication, falsification, plagiarism, misrepresentation or other practices that deviate from the principles of the Code of Conduct for responsible Research.*"[14]

2.5. Adherence to ethics guidelines and other legal agreements

Researchers and staff must adhere to ethics guidelines, including obtaining ethics approval from the WHO Research Ethics Review Committee as well as from any local Institutional Review Board where the research will be carried out. Appropriate handling of data and considerations of confidentiality must be incorporated into the research plan. Dignity and well-being of human subjects must be considered in all research plans. Similarly, actions that avoid unreasonable risk or harm to human subjects are to be enforced.

WKC staff are responsible for ensuring that the allocation of funding complies with the donor agreements and other legally binding guidelines. They must also ensure that any research investments made by the WKC achieve value for money, in that the financial investments are commensurate with the potential public health impact in improving global health and reducing health inequalities.

2.6. Intellectual property

All contracts or agreements will include provisions related to intellectual property, including ownership of data, and other research findings and scientific publications. Disclosure of research findings should comply with the agreements for the management of intellectual property. Research products funded through the WKC should be open to public access and disseminated on the website or other forums in line with the public health mandate of WHO. In particular, data funded by the WKC should be made publicly available where possible for secondary analysis.

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[13] World Health Organization 2017 Code of Conduct for Responsible Research
[14] WHO Policy on Misconduct in Research 2017; see pp 6-7.

2.7. Research capacity development

The WKC is committed to support research capacity development among staff and researchers to the greatest extent possible. It will work to ensure that the necessary resources and support are available to carry out research to the highest possible standard. This effort will be done through collaboration with academic institutions, the WKC Scientific Working Group (SWG), Advisory Committee for the WKC (ACWKC), and experts in relevant methods and subject areas; training and mentoring in high quality research and research ethics; and finally the institutionalization of quality assurance processes.

Special consideration will be given to developing research capacity in low- and middle-income countries (LMICs). Decisions to pursue such opportunities will be made by the WKC in the early phase of developing a research program, taking into consideration various factors including the state of current knowledge and capacity in the country of interest, the rationale and objectives for the research, stakeholder interests, resource availability, and the expected timeline for the research.

Such research capacity building may often involve a partnership between researchers and institutions in high-income countries with those in LMICs. In such circumstances, special attention will be paid to ensure the ethical conduct of research and the fair and appropriate distribution of resources, decision-making power and benefits to the research partners given the inherent disadvantage of researchers and vulnerability of populations in LMICs. This attention includes requiring that the research proposal identifies a PI (or co-PI) based in the LMIC in which the study will be conducted. The WKC will also ensure that the proposal articulates the expected benefits to the communities in the LMIC, roles and responsibilities of the research partners, shared ownership of research data and outputs (ideally placed in the public domain after completion of the study), and a dissemination plan which includes feedback to the research participants and communities in the LMIC.

3.0. Developing the research program

3.1. Identifying research themes

In order to ensure relevance and promote a coherent body of research carried out by WKC, the research plan moving forward for 2018-2026 will slowly converge towards a series of prioritized themes in order to produce, by 2026, a comprehensive body of evidence that addresses important gaps in knowledge or presents models and practical policy options that supports health policy and systems development for achieving sustainable UHC in light of demographic change. New research, meetings, and fora will be in line with the established research themes to ensure relevance and coherence of WKC activities. To identify themes, the WKC will consult internally within WHO to ensure alignment with WHO General Programme of Work and other internal strategies and priorities.

3.2. Matching themes to research methods and products

The WKC will determine the optimal research method (both quantitative and qualitative) and products for a given research theme or research question by taking into consideration various factors, including the state of current knowledge on the topic in certain countries, the expected target audience or end-users of the research findings, the technical expertise and capacity of the (potential or identified) researchers, and resource availability. This judgment may be made a priori to issuing a call for proposals or be determined in discussion with researchers who submit proposals. For example, the WKC will set forth in advance whether the research theme or question requires identifying evidence regarding a specific strategy, in which case an appropriate research product may be a global systematic review. Another example could be identifying gaps in existing research or collating research to inform policy makers, which may require a rapid review or focus group discussions. UHC country level implementation research, on the other hand, generally requires primary data collection to respond to the research question.

The exact nature of the research has implications for the implementation of the quality assurance process. For each case, the WKC determines the implementation requirements, i.e., an expression of interest for the research, the scope of the call for proposals, and the processes for internal screening, external technical review and ethics approval. Regarding ethics approval, a systematic review does not involve human research subjects and thus would not require approval from institutional review boards. Quality assurance criteria that are appropriate to the nature of the research question and research method/design will also need to be applied (see **Annex 2**). As such, the process would be tailored to each individual research study, and where appropriate, the quality assurance process would be expedited without compromising research quality.

3.3. Calls for proposals

In most cases, the WKC requires competitive bidding, where expressions of interest or calls for proposals are listed on the WKC website and widely disseminated to interested bidders. Such calls should be tailored to the specific nature of the work, type of contract (APW, TSA), and number of proposals to be potentially funded. While the specifications will vary, in general, several steps can be taken to ensure that the WKC receives quality research proposals from the appropriate groups of researchers. These steps include targeted communication and dissemination, clearly defining the scope of the call, facilitating competitive bidding, developing templates for screening, and using checklists for the proposal review and application requirements (see **Annex 3**).

4.0. Internal Screening

Before carrying out external evaluations of technical merit and quality, the WKC screens expressions of interest and proposals to ensure relevance and completeness (see **Annex 3**).

4.1. Expressions of Interest

In some cases, the WKC initially requests a submission of Expressions of Interest (EoI), which gives a brief overview of the proposed research. While the process may vary, rapid technical and administrative screening can be facilitated through standardized templates to incorporate key elements and criteria to determine eligibility for further consideration.

4.2. Proposals

Full proposals will undergo internal screening guided by specific technical guidelines and available checklists appropriate to the study design (see **Annex 2**). Such screening will include an assessment of the completed fields in the application, value for money, budget justification, and capacity building requirements.

5.0. External Evaluation

The external peer review process is essential to research quality assurance. It is also integral to the WHO research ethics review process. The WHO Research Ethics Review Committee requires the independent review of a research proposal, including the study protocol, budget, study materials, and other required documents and a satisfactory response from the PI to the reviewers' comments (see **Annex 4**).

5.1. External experts for technical review

The members of both the ACWKC and the WKC SWG provide support in terms of external reviews for WKC research initiatives.

The SWG is comprised of between 8-20 senior academics who are appointed by the WKC on a two-year rotational basis. The group gives periodic evaluation of proposals submitted, makes recommendations to translate research into policy options, carries out reviews of the evaluation of results for individual projects, and recommends potential funding sources for additional work. Generally, one to two members of the SWG should review large-scale proposals for scientific merit, where their expertise is aligned with the proposal objectives.

The ACWKC was established by the WHO Director-General in 1996 to serve as an Advisory Group of Experts to advise the Director-General and the WKC Director on technical and programmatic issues. The ACWKC provides high-level strategic recommendations to the WKC. Its nine members represent each of the six WHO regions, the host country (Japan), the local area (Kobe) and the donor (the Kobe Group). Members can serve as external reviewers where there is a strong proposal and their expertise is aligned with the proposal objectives.

In addition, ad-hoc reviewers will be identified from the global academic community in cases where specific expertise is required or members of the SWG and ACWKC are unavailable.

5.2. Process of external review

This external review process should generally be carried out for all types of research regardless of their method or expected products. The process of external review is coordinated by the WKC, who will communicate with the external reviewers and inform the research team about the review comments. Generally, the WKC will design an instrument for external review to evaluate technical merit, identify the appropriate external reviewers, ensure responsiveness to reviewer comments and completeness, and provide technical support where required.

6.0. Ethics Review Committee submission[15]

All research protocols must be cleared by the WHO Research Ethics Review Committee (ERC) prior to entering any contractual agreements to implement the research (see **Annex 5**). The ERC is a 27-member committee established and appointed by the WHO Director-General. Its mandate is to ensure that WHO supports research of the highest ethical standards. The ERC reviews all research projects supported financially or technically by WHO involving human participants.

6.1. Definition of research involving human participants

The WHO ERC defines "research involving human participants" as any social science, biomedical, behavioral, or epidemiological activity that entails a systematic collection or analysis of data with the intent to generate new knowledge, in which human beings (i) are exposed to manipulation, intervention, observation, or other interactions with investigators either directly or through alterations of their environment, or (ii) become individually identifiable through investigators' collection, preparation, or use of biological material or medical or other records.

6.2. Submission process

All research proposals involving human participants need to be submitted to the ERC Secretariat using an online submission portal, ProEthos. Documents to be submitted include:

- Research protocol
- Informed consent forms
- Associated study instruments, such as interview guides, questionnaires, etc.
- Data collection forms, case report forms, etc.
- Patient recruitment materials
- Final approval by the scientific/technical review committee or peer reviewers
- Comments made by the scientific peer review group

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[15] This section summarizes the review process described in detail on the WHO website: http://www.who.int/ethics/review-committee/review_process/en/ (Last accessed 2 March, 2018)

- PI's point-by-point response to the peer review
- A letter from the local/national ethics committee acknowledging receipt of submission for review or an approval from them.

6.3. Types of review

The ERC will determine the appropriate type of review. Most protocols considered by the WKC will fall into one of the following types of review:

- Full committee review of proposals for research that presents more than minimal harm to human subjects.
- Expedited review of proposals for research that presents no more than minimal harm to research participants.
- Exemption from ERC review for research that presents no possibility of harm or when the information being collected is available from the public domain.

The ERC determines whether the proposal requires expedited review (for exemptions) or full review. The length of time for approval for both expedited and regular reviews depends on the promptness of the responses from the PI to ERC queries.

7.0. Monitoring and Evaluating Research Products

7.1. Incorporating quality into the contractual mechanisms

The WKC seeks to be an evidence based research center that upholds and champions strong research. Where the WKC is a funder of research through a Technical Service Agreement (TSA) or other mechanisms, the WKC and the contracting institution should comply with the terms of the contract, including good research practices and adherences to ethics guidelines as outlined in the WHO *Code of Conduct for Responsible Research*.[16] The completion of appropriate checklists (see **Annexes 1 and 2**) and ERC project reporting forms will be incorporated into the deliverable requirements outlined in the contractual agreements. The WKC is responsible for monitoring progress, maintaining regular communications with the PI, evaluating the mid-term and final reports, and monitoring compliance with the WHO ethics guidelines (see **Annex 6**).

7.2. Monitoring progress

Regular communication with the PI is essential to ensure the quality of implementation. The optimal frequency of communication will vary depending on the study or the phase of the study, but at minimum a monthly check-in is required throughout the project period.

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[16] World Health Organization 2017 Code of Conduct for Responsible Research

A mid-term progress report will be required and scheduled according to the total duration of the project. The progress report will be evaluated with a focus on whether the research is progressing according to plan, noting any actual or anticipated changes to the plan, and whether there have been any new developments in the field that impacts the research design or relevance.

7.3. Evaluating the final research products

A template will be developed and used for the preparation of a final project report. Additional research outputs, such as manuscripts for journals, statistical analysis results, etc., could also be submitted and reviewed. The final evaluation will be based on the implementation of the research, achievement of objectives, and quality of the completed research.

7.4. Dissemination

Dissemination of the research is also a mechanism for quality assurance, as it increases transparency and accountability, and creates the opportunity for public review and critique. The WKC will therefore work closely with the research team to develop an appropriate communication and dissemination plan, from the launch of the project to the dissemination of its final products. Possible vehicles for dissemination include theme-based symposia, press releases to the mass media, social media, the WKC website and WKC knowledge hubs. As such, a specific communication plan will be designed for each product based on the target audience.

8.0. Measuring success

The research quality assurance plan will be linked to the research plan in order to evaluate implementation. Both plans will be evaluated in terms of research products, translation of research evidence to practice, and capacity building.

8.1. Research products

Research products will be an important measure of success. Research products can include peer reviewed journal articles and book chapters, WKC policy briefs, and other published materials. They may also include study protocols or survey instruments that are developed as a direct result of the research.

8.2. Evidence to practice

The WKC has as part of its mandate the translation of evidence to policy and practice. This translation can be done through the publication of focused research products, such as systematic reviews. Assessments can be made to evaluate whether the research has contributed to the development of WHO normative guidelines, regional frameworks or national policies. In addition, the website and communications function of the WKC can support the dissemination of evidence to local, regional and national governments and to the global

community. Communication products could include press releases, poster displays, brochures, and website development and numbers of people accessing the web materials.

8.3. Capacity building

The WKC has a responsibility to strengthen research capacity in line with WHO's organizational mandate. As a measure of fulfilling this responsibility, WKC will assess the number of research projects and products that successfully pass technical peer-review, gain ERC approval, and are completed, along with the number of participating LMICs. The WKC can also assess whether researchers were able to leverage additional research support (funding) or influence national policy using the results of the research.

Innovations

Background

Innovations are defined broadly as new methods and approaches – whether policy, systems, or technologies – and implies the translation of ideas to action towards Universal Health Coverage (UHC). Innovations are designed to solve specific problems and vary by country context. Countries with the lowest life expectancies, for example, tend to face health systems constraints such as low health spending, weak infrastructure, and few qualified health workers. For these settings, the priority for innovation is to extend access to basic health services. For countries with moderate levels of life expectancy between 60 and 70 years broadly represents those that are investing in the foundations of their service delivery and governance systems. The priority for innovation, therefore, is improve service quality and efficiency and strengthen public health interventions, while also ensuring that people do not fall into poverty because of health spending. Across all settings, innovations can be used to empower patients, consumers and communities to be fully engaged in promoting their own health.

The WKC research focus includes identifying the priorities for innovative solutions with the highest public health impact, studying inequities in access, identifying novel ideas for documentation and evaluation, rigorous research to evaluate impact, operational research to promote scaling up of existing cost-effective interventions, and contextual research to understand the contexts under which innovations may work for replication elsewhere.

Research objectives

1. To document and evaluate country-level health systems innovations for attaining UHC, and determine the conditions for generalizability elsewhere.
2. To identify effective service delivery innovations to improve quality of care and health and conditions for replication.
3. To identify effective innovations to promote involvement of communities in health care and conditions for scale up in different settings.

Progress report 2017-18

In cooperation with RAND Europe and Japan academia, global review of *community based social innovations (CBSIs) and lessons learned for sustainability* (Oct. 2014 –Dec 2018, $610,000). This research aims to provide evidence of the diverse models, functioning and range of health and social services that address the needs of older people in low- and middle-income countries. A global review of lessons learned CBSIs will be published, as well as eleven case studies from Chile, China, Iran, Lebanon, Russia, Serbia, Sri Lanka, Thailand, Ukraine, Viet Nam, and Japan.

The **Kobe dementia study (2017-20, US$ 600,000)** in collaboration with Kobe University and Kobe City aims to develop innovative approaches to early detection and prevention of dementia and models for effective patient management.
As part of WKC's collaborations with national academia, two research projects on technological innovations are underway. The University of Tokyo is implementing a project about *Learning from the experience of assistive products use among Older People*, which investigates the use of assistive devices in supporting ageing-in-place. Wakayama Medical University is implementing a project on the *Development of new assistive technologies to enhance quality of life of older people*, which aims to develop a tele-care system to improve/maintain ADLs for older people. (Nov 2017 – Oct 2018, $200,000). It is recognized that primary prevention of NCDs and specific public health activities played an important role in promoting healthy life expectancy in Japan, A systematic review of Japanese literature for *best practices in promoting non-communicable disease (NCD) prevention and control* is underway (2017-2018, US$ 80,000).

Proposed research program for 2019-20

The WHO Global Programme of Work sets forth the importance of innovations in building resilient health systems and supporting the progressive realization of UHC. In cooperation with the WHO Western Pacific Regional Office, we will systematically document and promote evaluation of country level innovations for accelerating UHC, with a focus on service delivery, governance, and other policy and systems innovations and conditions under which they may be replicable elsewhere. It is envisaged that this information can be used to create a knowledge hub for policy-makers and researchers. Should this effort be successful, WKC could expand on the documentation and evaluation of country level innovations and the knowledge hub to other regions of the WHO.

Expanding on and learning from the CBSI review, the WKC will focus on community based service delivery innovations in Japan and selected countries globally, to learn how countries conceptualize, fund, and sustain service delivery innovations to extend services to the primary level and link with social services. In doing so, WKC will promote more rigorous evaluation of selected community based models for replication elsewhere.

The multi-year Kobe Dementia study will provide many lessons learned and practical experience in Kobe municipality. We envisage carrying out additional research to understand the implications of this study for other settings, and promoting rigorous evaluation of interventions for patient management.

Service Delivery

Background

The WKC aims to conduct research on health systems innovations to leapfrog progress in achieving UHC, particularly in light of demographic change, and translate this research into concrete policy options, particularly for low and middle-income countries. Service delivery models are at the heart of the health system. Few countries have successfully implemented a person-centered approach- instead they continue to rely on hospital-based acute models of care. Thus, health care systems are ill-equipped to manage patients with chronic diseases and complex multi-morbidities – spanning physical and mental health, cognitive functioning, and management of severe symptoms and quality of life.

Research objectives

- To evaluate and determine the generalizability of service delivery models that are resilient and adapt continuously and innovatively to demographic change – yet remain relevant to all age groups.
- To provide evidence of innovations that support and accelerate health systems' change in response to changing disease burdens and increases in life expectancy across countries.
- To generate evidence on integrated service delivery configurations that promote quality of life, particularly at the end stages of life, and the implications for investments in sustainable UHC. To do this, we will study country level experiences, including Japan's, and the conditions for generalizability.
- To identify policy, financial and systems innovations that can empower older adults to determine their own treatment and care priorities, and the implications for adopting and scaling up these innovations in countries.

Progress report 2017-18

Several research projects aim to learn lessons from Japan. Research is underway with the University of Occupational and Environmental Health to understand **the evidence from "big data" for improving health care provision to accelerate UHC amid rapid population ageing in Japan**. This project will end in September 2018. Several peer reviewed papers will be produced. A second project with Wakayama Medical University studies **the experiences of assistive technology use among older people in Japan**. A peer reviewed research paper will be produced (2018–2019).

We have a partnership with King's College, London, to research service delivery models that maximise quality of life for older people at the end-of-life, using rapid scoping review and systematic reviews. A peer reviewed paper has been submitted to the Millbank Quarterly. A second call for research in 2018 builds on this research. Universities from 9 ASEAN countries are being developed to study how health systems respond to population ageing in terms of their financing, infrastructure, and workforce needs. These proposals are in different stages of development. Most projects will be undertaken in 2018-20. The research will result in peer-reviewed papers and policy briefs

Proposed research program for 2019-2020

The **nine ASEAN research proposals will be underway in 2019-20**, researching health systems responses to population change. It is anticipated that this research will be in different stages of implementation.

Building on the existing systematic review about service delivery models for end of life care, we will issue a call for proposals that studies the **impact of service delivery models on quality of care and quality of life** (2018- 2020). It is anticipated that this study could help to determine the viability of service delivery models across different settings. Continuing the theme of lessons from Japan, we will issue a call for proposals for Kansai-based researchers to evaluate **community based innovations in service delivery models**, both by communities and by service providers, especially for the integration of health and social care services, and their impact on quality of life for older persons (2019-20). To learn from countries that have good practices in integrated health and social care services, we will issue a call for proposals to identify the funds channelling mechanisms and financial innovations which optimise and enable collaboration across health and social sectors (2019 – 2020). We will also issue a call for proposals that will explore, compare and contrast within Japan and other socio-legal cultural contexts, the role of **advance care planning for improving quality of care and life** for people living with advance progressive diseases (2018 – 2020).

Sustainable Financing

Background. With population ageing, health care needs change and increase. Older people use more health care on average in comparison with younger people, resulting in higher per person spending. This observation contributes to fears among policy-makers that population ageing will lead to accelerating health care expenditures that will eventually become unsustainable. At the same time, population ageing can impact health care financing systems that rely on payroll contributions, leading to concerns about generating sufficient, stable revenues to pay for health and social services. More research is needed to investigate the policy choices that affect changes in health expenditure growth and revenues.

Health resource constraints also place pressure on policymakers to maximize all available health resources and reduce waste and inefficiencies. As such, governments frequently draw on the private sector to promote sustainability, optimal use of resources, and increased choice. However, a balance must be found to utilize private resources while addressing the market failures and equity concerns associated with private financing of health care.

Research objectives

- To study the impact of population ageing on revenue generation and expenditures to understand how systems can adapt continuously and innovatively.
- To study the role of the private sector and appropriate policy instruments to maximize its contribution to UHC.
- To identify systems and policy innovation that promote greater efficiency and quality, in light of population ageing.

Progress report 2017-18

Joint research collaborations were undertaken with the WHO EURO Observatory on Health Systems and Policies and the WHO HQ Health Finance and Governance Department (HFG) to collate existing data about health revenues and expenditures. These collaborations aim to inform about the **impact of population ageing on revenue generation for health and health expenditures**, and the implications for low and middle income countries (US$ 60,000).

Joint research was also undertaken in collaboration with the Organization for Economic Development (OECD), and universities in the European and Western Pacific regions on **institutional mechanisms to promote public-private collaborations**. The initial research aims to carry out nine countries case studies on pricing mechanisms and price regulation in Malaysia, the Republic of Korea, Thailand, Australia, England, France, Germany, Japan, and Maryland state in the US), to understand how they have institutionalized pricing as a policy instrument to promote UHC (US$ 220,000).

Proposed research program for 2019-20

In 2019, the joint OECD research program will produce two research briefs about the *Impact of population ageing on revenue generation* for health and the *Impact of population ageing on health expenditures*. We will seek opportunities to present this research among the global research network to discuss the findings and identify additional data for research agenda related to low and middle income countries in the context of UHC. Expanding on this work in the context of health expenditures, focused studies can be done related to achieving efficiencies, i.e., shifting resources out of hospitals to primary care, health technology assessments, etc.

The OECD research program will result in nine country case studies on price regulation (Malaysia, Republic of Korea, Thailand, Australia, England, France, Germany, Japan, and Maryland in the US), and a joint WHO/OECD working paper on how service pricing can be used as a policy Instrument to promote UHC. As a follow up to this paper, country specific presentations and discussions of findings with policy makers can be done in cooperation with regional offices. We will also identify additional countries for commissioning research about implementing mechanisms and institutions for pricing and purchasing functions based on existing case studies.

Agenda 6

Metrics and Measurement

Background

Achieving Universal Health Coverage (UHC) is among the targets of the Sustainable Development Goals (SDGs) for 2030. UHC means that every person receives the quality health services they need while ensuring that the use of these services does not result in financial hardship. Currently, the global standard of reference for measuring and monitoring UHC is a framework developed by the WHO and World Bank. While the global monitoring framework provides an important standard of reference, it is expected that the indicators for monitoring UHC will need to be adapted to local contexts to ensure their relevance in a rapidly changing environment. Specifically, as health development and population ageing progress in countries and globally, increasingly more countries will need to adapt their measurement and monitoring of UHC so that they are more relevant to the health systems challenges presented by population ageing.

With this background, WKC is focusing on understanding the current state of the art of measuring and monitoring UHC, i.e., essential health services, financial protection, care quality and equity in coverage, from the perspective of an older person's right to health. WKC also supports research to develop or improve tools for measurement and monitoring, as well as research focused on promoting knowledge translation from evidence to practice, for the advancement of UHC in the context of population ageing.

Research objectives

1. To analyze the current research landscape related to the measurement of UHC in the context of population ageing.
2. To document current country practices in measuring and monitoring UHC from the perspective of ensuring older persons' right to health (in view of the Availability, Accessibility, Acceptability and Quality (AAAQ) framework) within a system that is neither unfairly biased towards older people nor compromises the health of future generations.
3. To document effective approaches for research and knowledge translation to advance UHC in the context of population ageing.
4. To support the development of metrics and measurement tools that enable countries to better monitor UHC in the context of population ageing.

Progress report 2017-18

In cooperation with the Association of Pacific Rim Universities and other local and global academic institutions, WKC is preparing to initiate a new programme of work on *measuring and monitoring UHC in the context of population ageing* (2018-20, US$450 000). The expected outcome is a series of working papers which highlight either research or country practices that address the question of how UHC could be measured and monitored in a way that is responsive to population ageing and an increasing prevalence of chronic diseases and conditions. WKC will also develop a *knowledge hub* (2018-20, US$250 000) to manage the knowledge inputs to this project as well as to promote the dissemination and use of the final research products.

As part of WKC's collaborations with national academia, a project is underway with the University of Hyogo on the *development of an ICF-based assessment tool for care-skill training in the Japanese long-term care system* (Nov. 2017-Nov. 2018, US$85 000). This research will validate a tool for assessing the caregiving skills of foreign professionals who undergo Japan's Technical Intern Training Programme. This tool will help ensure the quality of care provided by the trainees of this programme, who are expected to help address the shortage of care workers in Japan to ensure UHC inclusive of long-term care. A significant portion of the facility surveys using the assessment tool have been completed

and qualitative interviews with facility managers are underway to validate the tool. Interim findings suggest the need to simplify the assessment tool as well as to improve awareness and understanding among facility managers about the relevance of the ICF framework to care workers' competency.

A project that is nearing completion is the documentation of the ***lessons learned from the Japan Gerontological Evaluation Study (JAGES) on advancing UHC through knowledge translation for healthy ageing*** (2017-18, US$90 000), which was carried out in collaboration with the National Centre for Geriatrics and Gerontology in Japan. This study identified several key factors for conducting research on healthy ageing which can then be translated into national and local policies that contribute to the advancement of UHC. Based on this case study, recommendations and implications for low- and middle-income countries have also been developed for promoting knowledge translation to advance UHC in the context of population ageing. The results will be published as a WKC monograph and policy brief by the end of 2018. (See the draft Executive Summary of this monograph, attached separately.)

Proposed research program for 2019-20

In 2019-20, activities under this research theme will focus on implementing the new research on ***measuring and monitoring UHC in the context of population ageing***. This includes commissioning several research papers that will focus on either (a) a review of the research literature and/or secondary data analysis to identify theoretically and empirically valid approaches to measuring the different dimensions of UHC for an ageing population, or (b) a country case study to demonstrate how a country facing population ageing is measuring and monitoring UHC to ensure that older people's right to health is realized and protected without becoming unfairly biased towards older people or compromising the health of future generations. WKC will work closely with the authors of these papers to develop them into a series of WKC working papers and policy briefs that can provide some guidance on how countries, from low- to high-income countries, can orient their UHC measurement and monitoring efforts in a way that is responsive to population ageing. WKC will also work with experts in knowledge management to develop and maintain a ***knowledge hub*** on this theme as a platform for creating and sharing new knowledge and facilitating networking.

WKC will also **disseminate the final products of the JAGES project** targeting researchers and local and national health officials in countries of all income levels to promote research and knowledge translation that can support the progressive achievement of UHC in the context of population ageing.

New research will also be initiated in ASEAN countries that contribute to the research theme on metrics and measurement of UHC in the context of population ageing. An example is a **survey research study that will be implemented in Malaysia and Myanmar** which will be one of the first studies in the respective countries to assess the determinants of health, health needs and service coverage among the older population, using an adaptation of the JAGES methodology. The protocol for this study has been granted approval by the WHO research ethics review committee.

Health Emergency and Disaster Risk Management (H-EDRM)

Background

Over the past few decades, the frequency and severity of natural disasters have increased due to factors such as unplanned urbanization and failure to mitigate climate change. At the same time, more people may be at risk of loss of life, physical disability, or mental health problems as a result of disasters, because of existing health inequities, and increasing numbers of older persons with less mobility. This underscores the continuing need to promote evidence-based policies in disaster preparedness and response. The importance of health was highlighted in the 2015 Sendai Framework on Disaster Risk Reduction (SFDRR) stemming from the 3rd UN World Conference on Disaster Risk Reduction (WCDRR) and the Hyogo Framework for Action 2005-2015.

The WKC was established following the Great Hanshin Awaji Earthquake 1995 that killed more than 6,000 people and displaced some 300,000 others. Since its establishment, health emergencies and disaster risk management (H-EDRM) have been among WKC's research topics. Given Japan's experience with earthquakes (1500 strikes annually), severe storms, volcanic eruptions, and landslides, WKC has continuously organized dialogue and consultations to capture lessons learned and experiences that are relevant to other countries. Since 2016, the WKC has been a central partner in the global movement endorsing scientific evidence to improve H-EDRM, as represented by the WHO Thematic Platform for H-EDRM Research Network (TPRN).

Research objectives

1. To study appropriate formats and key content for research during and after disaster response to enable standardization in health data collection, management, and analysis across multiple settings.
2. To research approaches that enable a holistic response to health needs of survivors including physical, mental and psychosocial support during all phases of a disaster
3. To identify special needs of vulnerable populations, including older persons, thereby increasing awareness of health risks and informing preparedness and response.

Progress report 2017-18

In collaboration with the University of Occupational and Environmental Health and Japan International Cooperation Agency (JICA), WKC contributed to the development **of standardized post-disaster medical data collection** methodology led by WHO Emergency Medical Team, which was adopted by its strategic advisory group in February 2017. A peer-reviewed paper describing this work is now under review.

Responding to the lack of scientific evidence in management of long-term health outcomes among disaster survivors, WKC has conducted a **review of policy and social innovation for long-term mental health management in Japan**, in collaboration with Hyogo Institute for Traumatic Stress, a leading research institute with expertise in this area in Japan (2016-17). A review paper for a peer-reviewed journal is under development. The review paper formed the basis of an expert consultation with 21 Japanese leading researchers. Subsequently, WKC conducted a nation-wide survey among disaster mental health professionals to identify existing research gaps and required policy actions. The objective was to improve policies for better management of long-term mental health conditions among disaster survivors (2017-2018). This research also resulted in an article for a peer-reviewed journal.

In collaboration with University of Hyogo and Kumamoto University, a **population-based survey is being undertaken to identify the risk and health needs of older adults after disasters**. It will be conducted in Mashiki-town, one of the most severely affected areas of the Kumamoto Earthquake in 2016. A pilot intervention program is being conducted to prevent depression and post-traumatic stress disorder (PTSD) among health and social service providers working in disaster-affected area. This research is intended to improve the management of mental health conditions for highly vulnerable populations.

Proposed research program for 2019-20

Building upon the progress of WKC H-EDRM research in 2016-17, WKC will expand its work in three areas. Regarding health data collection, WKC will work with global partners to **develop standardized methodology for health data management (collection, registration, utilization) after disasters.** This will be done by conducting literature reviews and convening a series of key stakeholder meetings, in collaboration with WHO HQ and ROs. Regarding the holistic response to health needs of survivors, WKC will **review existing H-EDRM scientific evidence in each phase of the disaster management cycle (mitigation, preparedness, response and recovery)** to identify the research gap in each phase and propose future research activities.

The Asia Pacific region is disproportionately affected by natural disasters. The Asia-Pacific Conference for Disaster Medicine (APCDM) offers the opportunity to take advantage of the global momentum represented by TPRN. To enhance the quality and outcome of our research program and to promote collaboration, WKC will **organize a global expert meeting at the Asia Pacific Conference for Disaster Medicine (APCDM) on 17 October 2018, in collaboration with WHO HQ, WPRO, SEARO, JICA and TPRN**. Following the expert meeting, WKC will open a call for proposals on H-EDRM research in line with the meeting recommendations. Subsequently, WKC also plans to **organize an annual symposium** to update knowledge and promote collaboration among global partners **thereby advancing the scientific evidence for H-EDRM**.

Capacity Building and networks

Background

WKC's main mandate is conducting policy research on Universal Health Coverage (UHC) and innovation in light of population ageing. Health systems strengthening towards attaining UHC offers a major opportunity to transform systems and appropriately plan for future health needs. Countries experiencing population ageing may not have fully understood its implications and potential impact on health and social service delivery systems. We take advantage of our networks of key partners and events to disseminate research findings globally and locally through capacity building programmes and specific dissemination activities. We started new collaboration with Kanagawa Prefecture from 2017 for capacity building programme for low and middle income countries.

Objectives

1. To share experiences in national and local decision making in leading reforms and programmes to transform health/social service delivery systems for ageing populations to attain UHC.
2. To share lessons and insights across countries for systems to respond to the needs of achieving UHC.
3. To share information and experience among countries to enable countries to design and implement trajectories (or roadmaps) for pursuing actions in their countries.
4. To disseminate information about WKC's research activities and contribute expertise locally in Kobe, Hyogo and Japan, as a service to the local community, and for awareness-raising, networking and advocacy purposes.

Progress report 2017-18

1) Capacity building programme in collaboration with Kanagawa Prefecture with the support of Japan's Ministry of Health, Labour and Welfare
• **UHC Leadership Programme: 27-31 March 2017,** was an opportunity to share evidence, data, information and case models for future policy options with UHC leaders in low and middle income countries.

•**ASEAN UHC Policy Discussion Meeting, 17-18 July, 2017** The "Policy Discussion Meeting on UHC and Population Ageing: Leading Health Reforms in the 21st Century for Universal Health Coverage (UHC), Ageing and Health Systems in ASEAN countries" was held in Yokohama, Kanagawa Prefecture.

• **UHC and Impact of Population Ageing Research Development Programme, 26-29 March, 2018.** The workshop focused on the development of research proposals for short-listed ASEAN researchers who responded to the July 2017 WHO research call for proposals about UHC research relevant to the planning and strengthening of national health systems.

2) Local capacity building and networking and dissemination activities
• Hyogo, Kobe World Meets for Youth: 11 February 2017. The WHO Kobe Centre and the G7 Kobe Health Ministers' Meeting Promotion Council organized a large meeting of Kobe and Hyogo Prefecture High School students exploring global health: "Kobe/Hyogo Youth Meeting the World" at the Kobe International Exhibition Hall on 11 February 2017. This event commemorates the 2016 G7 Health Ministers' meeting held in Kobe. During the full-day programme, about 500 high school students in Kobe and Hyogo experienced a wide variety of learning opportunities in order to be effective ambassadors and international citizens.

• WKC Seminar on Assistive Technology: 24 August 2017. The WHO Centre for Health Development (WKC) in cooperation with i CREATe 2017, and the 32th Japanese Conference on the Advancement of Assistive and Rehabilitation Technology in KOBE, organized a WKC Forum on the Role of Assistive Technology in Rapid Ageing in Asia and the World, on Thursday, 24 August 2017 at the Kobe International Conference Center. Dr Takaaki Chin, the General Chair of the 11th International Convention on Rehabilitation Engineering and Assistive Technology (i CREATe 2017) introduced

Dr Sarah Louise Barber, Director of WHO Kobe Centre, for opening remarks for welcoming the 200 participants in the WKC Forum.

• WKC Seminar with Health Promotion City Kobe: 23 September 2017. In commemoration of the establishment of "Health Innovation City Kobe," on 23 September, WHO Kobe Centre held a joint WKC Forum with Kobe City entitled, "Think about Health for All with the WHO Kobe Centre." This forum was held at the Kobe Portopia Hotel, and drew the attendance of approximately 150 members of the general public.

• WKC forum "High School Students' Day: Let's Discuss International Relations": 3 February 2018. On 3 February 2018, the WHO Kobe Centre, along with the Hyogo Prefectural Board of Education and Osaka University, organized the WKC forum "High School Students' Day: Let's Discuss International Relations" at the Kobe Fashion Mart Hall. About 450 students participated, mainly from high schools in Hyogo prefecture, and shared their views of what the world and Japan would look like in 2050.

• WKC forum "WHO Kobe Centre New Research Forum @ HAT Kobe Health Fair" on 7 April 2018. We held the HAT Kobe Health Fair jointly with Kobe City for World Health Day and the 20th anniversary of KOBE Biomedical Innovation Cluster. The forum introduced new research from the WHO Kobe Centre.

• WKC Forum "Global Action for Scientific Evidence Improvement in Health Emergency and Disaster Risk Management" on 16 and 17 October 2018. This forum will be held in collaboration with Hyogo Prefecture Disaster Medicine Center as one of public event at the Asian Pacific Conference for Disaster Medicine. We will invite international experts including from WHO HQ and regional offices for public event and experts meeting.

• WKC Forum "Lessons from Japan – Achieving UHC in light of Population Ageing" on 10 November 2018. This forum will be held in collaboration with Kobe Group as one of public event at the 72nd Annual Meeting of Japanese Society of National medical Services. It will be good opportunity to disseminate our research outcomes through implementation research with local researchers.

In addition, we are providing lectures to local universities and schools, contributing our expertise to local committees/meetings such as Healthy Kobe City Strategic Meeting. We are also improving our website for more effective dissemination of our research outcomes and activities.

Proposed program for 2019-20

According to the agreement with Kobe Group, we plan to have three WKC forum annually including one forum for education of local senior high school students. We also recognize the importance of linkage between these advocacy and dissemination activities for local public and our outcome of our research. They can be good opportunities for dissemination of research outcomes.

We also have a plan to strengthen our capacity building programme for low and middle income countries linked with our research outcomes, such as the workshop for price setting and price regulation in health care which will be held in January 2019 based on our case study research in collaboration with OECD. We plan to have 2-3 capacity building programmes annually in collaboration with Kanagawa Prefecture.

In addition, we can consider our contribution for the major events in Japan and internationally, such as G20 summits and Health Ministers Meeting in 2019 and Tokyo Olympic Games in 2020.

World Health Organization

Centre for Health Development

Understanding community-based social innovations for healthy ageing

Executive summary

Ioana Ghiga, Gavin Cochrane, Louise Lepetit, Catherine Meads, Emma Pitchforth

Preface

Community-based social innovations (CBSIs) are initiatives that seek to empower older people to improve their self-efficacy in caring for themselves and their peers, maintain their well-being and promote social cohesion and inclusiveness. While they have the potential to improve care and autonomy of older people, and to transform healthcare systems, more evidence is needed on CBSIs to improve our understanding of best practices and service delivery models that engage communities and span a spectrum of health and social services.

RAND Europe has been commissioned by the World Health Organization Centre for Health Development Kobe (WHO-WKC) to conduct a study on CBSIs for healthy ageing in middle-income countries.

The study aims to identify how these innovations are functioning across a number of rapidly ageing countries and the policies, programmes and health system factors underpinning their success. In particular the study focuses on the following features of CBSIs:

- The core roles, services and functioning (including feasibility of scale-up) of CBSIs for healthy ageing that seek to support older people to self-care and maintain their well-being.
- Their linkages with local services and sustainable partnerships to deliver health services strengthen social systems.
- The nature of enabling policies, programmes, financing and interactions with health/social delivery systems.
- Synthesising evidence on the effectiveness and cost-effectiveness of CBSIs in upper middle- and high-income countries.

Our study has two major components. In order to examine the evidence base for the effectiveness and cost-effectiveness of CBSIs, we conducted a systematic review of relevant literature on CBSIs for healthy ageing in upper middle- and high-income countries. From this literature we developed a typology to advance understanding of CBSIs. This informed and was complemented by a series of ten case studies of CBSIs, in collaboration with in-country partners.

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Executive summary

Health systems across both developed and developing regions are struggling to meet the diverse and complex needs of increasingly ageing populations. In response to these challenges a number of recent reports (Ong et al. 2016; WHO 2013) have highlighted the need for research into the role of innovations in providing health and social care. Community-based social innovations (CBSIs) are one type of innovation that may help to address the needs of older people. In the context of ageing, CBSIs are underpinned by three main principles, namely: the empowerment of older people to care for themselves where possible; a focus on social inclusion; and the maintenance of well-being in contexts of disease, disability and declining health (Ong et al. 2016).

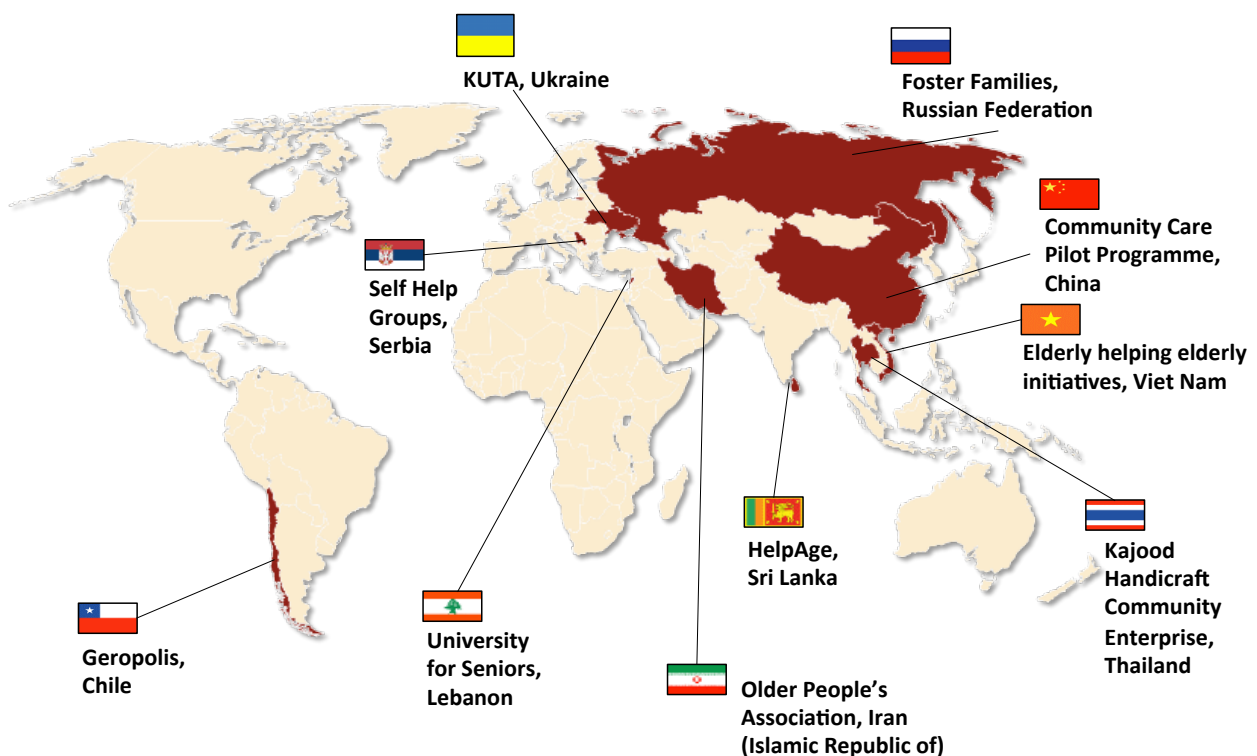The study aims to identify how CBSIs are functioning across a number of rapidly ageing countries and the policies, programmes and health system factors underpinning their success, as well as to examine the evidence base for the effectiveness and cost-effectiveness of CBSIs.

The study draws on evidence from a systematic review and ten case studies, raising several considerations regarding the CBSIs' impact on healthy ageing, as well as their sustainability and scale-up.

CBSIs' impact on healthy ageing

Given the exploratory nature of the research, when considering the range of 'health' impacts from the CBSIs, we employed the term 'health' very broadly in anticipation that it could incorporate physical and mental health and

Map illustrating the geographical distribution of the ten CBSI case studies

KUTA, Ukraine

Foster Families, Russian Federation

Self Help Groups, Serbia

Community Care Pilot Programme, China

Elderly helping elderly initiatives, Viet Nam

Geropolis, Chile

University for Seniors, Lebanon

HelpAge, Sri Lanka

Older People's Association, Iran (Islamic Republic of)

Kajood Handicraft Community Enterprise, Thailand

broader well-being. While well-being and health are different concepts they are not necessarily mutually exclusive (UK Department of Health, 2014). Given their subjective and objective dimensions it is difficult to separate them in this study. We did not seek to further define or restrict this conceptualisation as we were interested in understanding how the CBSIs themselves conceptualised and measured these types of outcomes. Moreover, we were guided by the 2015 WHO World Report on Ageing and Health which sets out a framework for action to promote healthy ageing. The report formulates healthy ageing as 'the process of developing and maintaining the functional ability that enables well-being in older age'   (WHO 2015, 28). Functional ability is viewed as a set of health-related features that support people in being able to engage in activities which they find valuable. It consists of the individual's intrinsic capacity (which is defined as the composite of all physical and mental capacities), environmental characteristics and the interaction between the individual and the environment (WHO 2015).

By positioning healthy ageing as a process, the question of well-being as an outcome becomes central.

Evidence from all the case studies showed that CBSIs have an impact on the well-being of older persons. The theme of older people feel they are still important members of the society came through in all case studies, with older persons finding that the CBSI activities provided a medium for them to interact with peers, be of help and live an active lifestyle. CBSIs that had an intergenerational dimension contributed to a greater perception of societal inclusiveness for older persons.

CBSIs can also help address several environmental factors. These initiatives contribute to creating receptive environments that ensure an 'ageing in place' process (such as in Russian Federation) or can help address the physical (geographical) challenges that older people can face, as shown by the activities run in Chile by Geropolis.

These CBSIs also contribute to ensuring the person–environment fit, which entails the dynamic and interactive relationship between older persons and their environments (WHO 2015). Involving older persons in managing or designing spaces brings an additional element of empowerment, which was highlighted as beneficial (e.g. involvement in the conceptual development of mural paintings in Chile).

The primary health benefit is psychosocial (e.g. well-being, social and mental health benefits from participating in activities with peers), which has implications at both an individual and a community level.

CBSIs have been shown to lead to improved perceived health status among older people, both self-reported and assessed. Involvement in CBSIs has often helped beneficiaries avoid social isolation and loneliness and offered them companionship and a sense of belonging, which in turn lead to mental health benefits.

Seen cumulatively these benefits can be considered at community level. Increased optimism and a more positive outlook on life in general, and forming a support network in which beneficiaries receive but also provide mental support, increase the capacities of communities to come together and increase social participation.

Some CBSIs also have physical health impacts, although there are limitations on what can be assessed, given the relative lack of medium- to long-term monitoring and evaluation (M&E) data.

As shown also from the results of the systematic review, currently the evidence for CBSIs leading to physical health impacts is limited and highly dependent on the particular CBSI activities. When these entail direct health service provisions it is more likely that health outcomes will be monitored and noticed (e.g. the case study from Sri Lanka). However, for many CBSIs, impacts on physical health are not the primary aim and therefore may not be expected; they are then also unlikely to be monitored.

There is also a significant group of CBSIs that focus on education, training and income generation. It can be argued that increased levels of knowledge and health literacy could lead to direct health gains, in particular in managing lifestyle factors relating to chronic diseases such as diabetes and hypertension.

CBSIs can help contribute to people-centred services.

One of the strategic policy directions of the Framework on integrated, people-centred services of the World Health Organization (WHO) is empowering and engaging people and communities (WHO, 2016). CBSIs are clearly demonstrating that they are empowering and engaging communities and helping build trust and social networks to support older persons. This can lead to empowering individuals to shape their environments, which contributes to the healthy ageing process as explained above. From the systematic review, evidence also points to CBSIs' potential to equip older people with new skills, offering a rewarding experience accompanied by a sense of empowerment and achievement, as well as leading to a greater independence and self-support.

Another way the CBSIs contribute to the attainment of people-centred services is through engaging and empowering informal carers. The case studies from China, Viet Nam and Russian Federation have shown how peers of older persons can take on functions that might otherwise fall within the remit of social or healthcare professionals and fill gaps in the continuum of care that exist especially in rural areas.

Sustainability and scale-up of CBSIs

Given that many of the CBSIs are low-cost and rely on either volunteers or older people as agents of change, most models appear to be relatively sustainable.

Evidence from the ten case studies suggests that most CBSIs are able to continue in their current form and can therefore be seen as a sustainable approach to providing care for older people. However, challenges exist in regard to increased demand on services or factors affecting the scale-up of the CBSIs. The reliance on volunteers was seen both as an advantage and a disadvantage for the sustainability of the programmes examined.

In order to scale up or expand activities, CBSIs may need to develop strategies for securing long-term funding.

While CBSIs may present a low-cost model for providing support to older people in middle- and high-income countries, many CBSIs face resource constraints in scaling up or expanding their services, either as a result of limited funding or increasing demand for services as a result of increases in ageing populations. Information gathered from our ten case studies suggests there is a need for CBSIs to develop strategies for long-term funding and/or fundraising activities.

While the mix of people, skills and governance structures varied considerably across the CBSIs examined, the role of leadership and key individuals as 'product champions' appears to be a significant factor in the success of CBSIs.

CBSIs rely on the supply of a number of key skills, including those of volunteers, health practitioners, trainers, M&E experts and administrators. A common feature of all the CBSIs we examined in the case studies was the crucial role played by key individuals in managing, delivering and advocating the activities of the CBSI.

M&E processes were limited across CBSIs, but were seen as crucial to learning and adapting, demonstrating success and potentially attracting the resources needed to scale up CBSIs.

While M&E was seen as a crucial component in learning in, adapting and scaling up CBSIs, the majority of cases identified had limited to no M&E

processes in place. Developing mechanisms for M&E may help CBSIs to demonstrate gains in relation to health and healthy ageing. Such M&E mechanisms would need to be cognisant of the individual beneficiaries as well as environment and the interaction between the two. This in turn can be used to demonstrate success to policymakers and leverage funding from donors.

While linkages to the immediate health and social care system appeared to be limited across the CBSIs, many considered strategic partnerships as an important factor in a CBSI's sustainability.

Despite limited linkages with health and social care actors, the CBSIs identified were establishing linkages with the wider ecosystem of actors involved in older people's day-to-day activities. Factors identified by interviewees affecting linkages with health and social care systems appear to be rooted in informal networks and relationships, leadership and skills of CBSI staff and the reputation and longevity of the CBSI.

The evidence gathered on CBSIs suggests that the external context in which a CBSI operates should be considered, especially with regard to the country or region's policy context towards older people.

Policy contexts conducive to CBSIs, for example providing national-level legislation and policies for older people's rights, were seen as an

enabling factor in the case of some CBSIs. CBSIs also have the potential to facilitate policy changes for older people through advocacy and the promotion of rights.

A CBSI typology

The research also sought to develop, test and define a typology for CBSIs. This specific aim was rooted in the need to: (1) provide a definitional and organisational structure to enable researchers and research users to organise evidence and establish a vocabulary that would facilitate a quicker identification of evidence and discussions around CBSIs; and (2) start to populate the typology in order to inform decision makers and implementers as to the relative advantages and challenges of different models.

The first draft of the typology was developed from the literature identified through the systematic review. This was complemented by the evidence from the ten case studies of CBSIs. The typology is organised around three main dimensions: empowerment of older persons, linkages with the health and social care services and scope, and scale and complexity. For each category of the typology we reflect on features, strengths and challenges.

In the table below we present the main types of CBSIs in our typology and their strengths and potential challenges.

Overview of characteristics of types of CBSIs

Typology category	Characteristics			Strengths	Potential challenges	Examples
	Empowerment	*Linkages with health and social care sectors*	*Scale*			
Foundational	• Low level of empowerment, with activities primarily focused on peer support	• Low level of linkage and coordination with local health and social care systems	• Small scale both in terms of the number of activities engaged in and the geographical area of operation	• Good opportunity to test or pilot a new intervention within a particular context • Requires a low level of funding, resources and skills	• Difficulties in scaling up interventions • Reliance on pre-existing networks or infrastructures (for example the Older People's Associations in the Chinese Community Care Pilot Programme) • Challenges in reaching a larger segment of the older population in a region • Health outcomes associated with these CBSIs are primarily related to reductions in social isolation and loneliness, with foundational CBSIs having limited ability to affect long-term health in older populations or change ageing-related policies	China and Serbia
User-driven	• Medium level of empowerment, with beneficiaries actively engaged in committees and meetings to help shape activities and courses offered	• Low level of linkage and coordination with local health and social care systems, beyond involvement in training courses, as they are often not explicitly designed as health interventions	• Small scale in terms of the geographical area of operation, often linked to a particular university • Primarily offers training and educational activities, including cultural and recreational activities, and relies on shared resources and membership fees to fund activities	• Well-being, social and psychological health appear to be the primary outcomes of the intervention, as well as increases in the health literacy of participants • Can be relatively low-cost, able to sustain activities with relatively little funding and able to generate funds through membership fees	• Tends to serve a particular type of beneficiaries, predominantly older women from relatively affluent socio-economic backgrounds • May not be appropriate for older people who have limited mobility or autonomy (e.g. bedridden or severely disabled) • Difficult to link to the health and social care system, as not primarily focused on health	Ukraine, Lebanon, Thailand
State-supported, networked	• Low level of empowerment as interventions tend to be more top-down, aimed at beneficiaries with limited agency	• Low level of linkage and coordination with local health and social care systems, beyond involvement in training courses, as often not explicitly designed as health interventions	• Several different activities on a small scale geographically, or operates a small number of activities on a medium-scale geographically	• Ability to reach those most in need • Ability to coordinate with the health system • Ability to operate across a larger area/scale up • Sustained and dependable funding/political support to run the programme • Can attract greater attention/visibility from other actors, such as universities, due to state support	• Reliant on state funding, difficult to adapt • Low level of empowerment for beneficiaries; however, this may mean interventions are more appropriate for older people with limited mobility or autonomy (e.g. bed-ridden or severely disabled)	Russian Federation and Viet Nam
Adaptive	• Medium to high level of empowerment, with beneficiaries actively engaged in all aspects of the CBSI, including designing and managing the CBSI activities and policy/advocacy activities	• High level of linkage and coordination with local health and social care systems, through referral systems and coordination on direct service provision as well as representation in national-level policymaking	• Large, complex interventions often spanning a large geographical region or operating at national level • Tends to require high levels of funding and able to reach a large proportion of the older population in a given region/country	• Able to reach a large number of beneficiaries • Able to adopt a more holistic approach • Potential for attaining health outcomes beyond social benefit	• Substantial human resources/skills needed	Chile, Sri Lanka, Iran (Islamic Republic of)

Considering the evidence gathered through all research strains, the following reflections for policy, research and practice of CBSIs are presented.

Policy implications	CBSI implications
Map and engage CBSIs at local level in view of understanding their potential in furthering efforts to ensure people-centred health services A greater understanding of CBSIs at national level could be ensured by undertaking a mapping exercise that could employ the typology created throughout this research. This could facilitate both public- and private-sector actors better understanding the opportunities for engagement with CBSIs. **Ensure a better understanding of the value for money that CBSIs bring** There may be an inherent assumption that CBSIs are cost-saving to health and social care systems, but this may not be the case and this will be important to ascertain. Capturing the societal costs of CBSIs, such as the time and resources given by volunteers, older people and family members, will be important to consider in addition to the range of societal benefits offered by CBSIs. **Create a policy environment conducive to moving CBSIs away from a continuous pilot stage through dedicated funding streams** A policy environment conducive to CBSIs' functioning should consider not only creating opportunities for accessing seed funding but also potential funding streams that could be accessed towards diversification of activities and scaling up. These could be in the form of national funds or credit schemes for CBSIs. **Foster spaces to ensure knowledge translation and networking between various actors** Policymakers could foster interactions through various initiatives (e.g. as part of already established events dedicated to ageing) between CBSI representatives and other local actors (e.g. health professionals). These spaces would need to consider incentive mechanisms for the latter category.	**Look for opportunities to collaborate with community groups operating in the same geographical area** Coordination with existing initiatives supporting older people may help ensure that duplication of effort is reduced and may support wider, national-level advocacy for older people's rights. **Build strategic partnerships with local policymakers or academia beyond the health and social care system, depending on the objectives of the CBSI** CBSIs should consider where there are opportunities to coordinate or collaborate with existing services. Adopting an ecosystem approach to partnerships, whereby the variety of stakeholders working on ageing-related issues are included in both formal and informal partnerships, can be seen as an important factor. **Promoting intergenerational activities, where applicable, may be an important feature in the sustainability of CBSIs and may help to reduce the stigma of ageing in middle-income countries** CBSIs should consider where there may be opportunities to promote intergenerational activities and what the incentives are for their involvement. **Embed M&E processes in CBSIs which are low-cost, effective and not burdensome** Specific M&E indicators for evaluating the impact of activities on older people's health (physical, mental and well-being) as well as potential broader healthy ageing benefits, may help CBSIs to demonstrate progress to donors. Coupled with this, M&E indicators can be used by CBSIs to set milestones and measure progress against their own objectives. **Create opportunities to disseminate learning and evidence of impact** CBSIs should consider advocacy and dissemination strategies to share learning among CBISs and the wider policy community working on ageing-related issues.

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Advancing universal health coverage through knowledge translation for healthy ageing: Lessons learnt from the Japan Gerontological Evaluation Study

Edited by Katsunori Kondo and Megumi Rosenberg

Executive summary

Population ageing is a global demographic trend that has significantly impacted high-income countries and is now increasingly affecting low- and middle-income countries *(1,2)*. Without well-informed planning and responsive actions, it will strain existing resources and undermine countries' efforts to achieve universal health coverage (UHC).

Knowledge translation (KT) involves interpreting research evidence and applying it to practice. It is fundamental to ensuring that health system responses to population ageing are evidence-based and appropriate to the specific context. The framework for KT on ageing and health *(3)* stipulates that a key enabling factor is a "context and climate" that recognizes ageing and health as a priority issue and that it is receptive to the use of evidence in policymaking. Important prerequisites for KT are linkage and exchange efforts to build positive relationships between researchers and knowledge users, and knowledge creation that is timely and relevant. The actual process of translating knowledge into practice must involve 'push' efforts to disseminate information to various stakeholders, facilitating 'pull' efforts to enable policymakers to identify relevant research, and "pull" efforts by knowledge users to ensure the proper use of evidence for decision-making. Finally, monitoring and evaluating these efforts are needed to improve the process and impact of KT.

The Japan Gerontological Evaluation Study (JAGES) offers a model of KT for healthy ageing in Japan, a high-income country at an advanced stage of health development and population ageing. The JAGES collects longitudinal, social epidemiological data on representative samples of community-dwelling, independent older people aged 65 years and older through a self-administered mail survey *(4)*. Data have been collected every three to four years since 1999. The latest survey conducted in 2016-17 yielded responses from about 200 000 older people from 41 municipalities across the country. The data enable researchers to generate high-quality evidence on the determinants of healthy ageing and health inequalities. The research has highlighted the importance of addressing the social determinants of health through a population-based approach in order to address health inequalities and the risk of becoming dependent on long-term care among older populations. This evidence has contributed to the reform of national policies on the provision of long-term care. The researchers also conduct implementation research, which is the scientific inquiry into questions concerning the implementation of policies and practices *(5)*, working closely with municipal officials to use the data and research evidence for priority-setting processes and for developing and evaluating programmes.

There are seven main facilitating factors that underlie the JAGES' KT. These are: (a) win–win relationships that are established among the various stakeholders, in which everyone has something to gain; (b) multisectoral collaborations that enrich both research and practice; (c) the production of quality evidence based on large-scale survey data that can be linked to relevant administrative data; (d) a community-based participatory research approach to co-produce locally relevant knowledge and solutions with stakeholders; (e) the creation of data visualization and management tools to facilitate the uptake of evidence by stakeholders; (f) advocacy achieved through diverse media channels to reach different stakeholder groups; and (g) strategic financing to obtain the resources necessary to sustain this initiative. These key factors are also likely to be important in other countries because of their direct relevance to the framework for KT on ageing and health.

Some of the methods and approaches used by the JAGES to conduct research or to translate the findings into practical solutions are conditional on the context in Japan. At the same time, there are generalizable aspects as

well as ways to adapt them to other settings. Some general recommendations about promoting KT on ageing and health in other countries are the following:

Create a climate and context that is favourable towards KT 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 policymaking is a key enabler of KT. A global momentum towards improving the lives of older people has been created by recent global commitments to achieve healthy ageing and UHC in light of global population ageing *(6)*. This momentum provides an opportunity to raise the issue of population ageing in relation to UHC 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 KT. Identifying stakeholder needs before the research starts can help build win–win relationships. Where resources are limited, this relationship-building can start on a small scale and be gradually extended over time through the demonstration of successful research applications. Funders can also facilitate collaborations between knowledge producers and users by making them a condition of their funding *(7)*.

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 for the data to have value for science as well as policymaking. Survey methods should be adapted to the constraints and opportunities in the local context, but should also be kept the same across time and place (especially within a country) in order to ensure consistency and comparability of the data. As much as possible, longitudinal data should be developed over time to enable the analysis of trends and causal relationships. Allowing open access to the data can help improve the quality through the scrutiny of others and maximize the data's potential for producing useful evidence.

Produce actionable knowledge: Aim the research towards identifying modifiable problems and potential intervention points. In order to have added value for knowledge users, the 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 the full and equal participation of community members, is an effective method to facilitate local innovations for problem-solving through the application of research *(8)*.

Get the knowledge into the hands of users: Use data visualization tools and disseminate research strategically. Some creativity is required in communicating research outputs to lay audiences in order for the information to be well understood and used. Data visualization and programme management tools that display quantitative information in a meaningful way can be very effective *(9)*. Using a strategic approach to proactively disseminate research outcomes to different audiences in the appropriate format can also enhance the process and impact of KT.

Have a long-term vision and commitment to strengthen research and KT on ageing and health. Investing early in these areas will have the pay-off of having a well-developed system for research and KT that can inform policies on health and UHC well in advance of, or at least in time to address, the challenges of population ageing.

Implementing KT cannot be done with a short-term focus. Continuous and ongoing financial investment has sustained KT as part of the JAGES initiative. Long-term investment in creating quality health information systems, building local research capacity, sensitizing policymakers to the use of research evidence, advocating the adaptation of health systems to population ageing, and nurturing relationships between researchers, policymakers and community members, will be critical to addressing healthy ageing and achieving UHC worldwide.

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