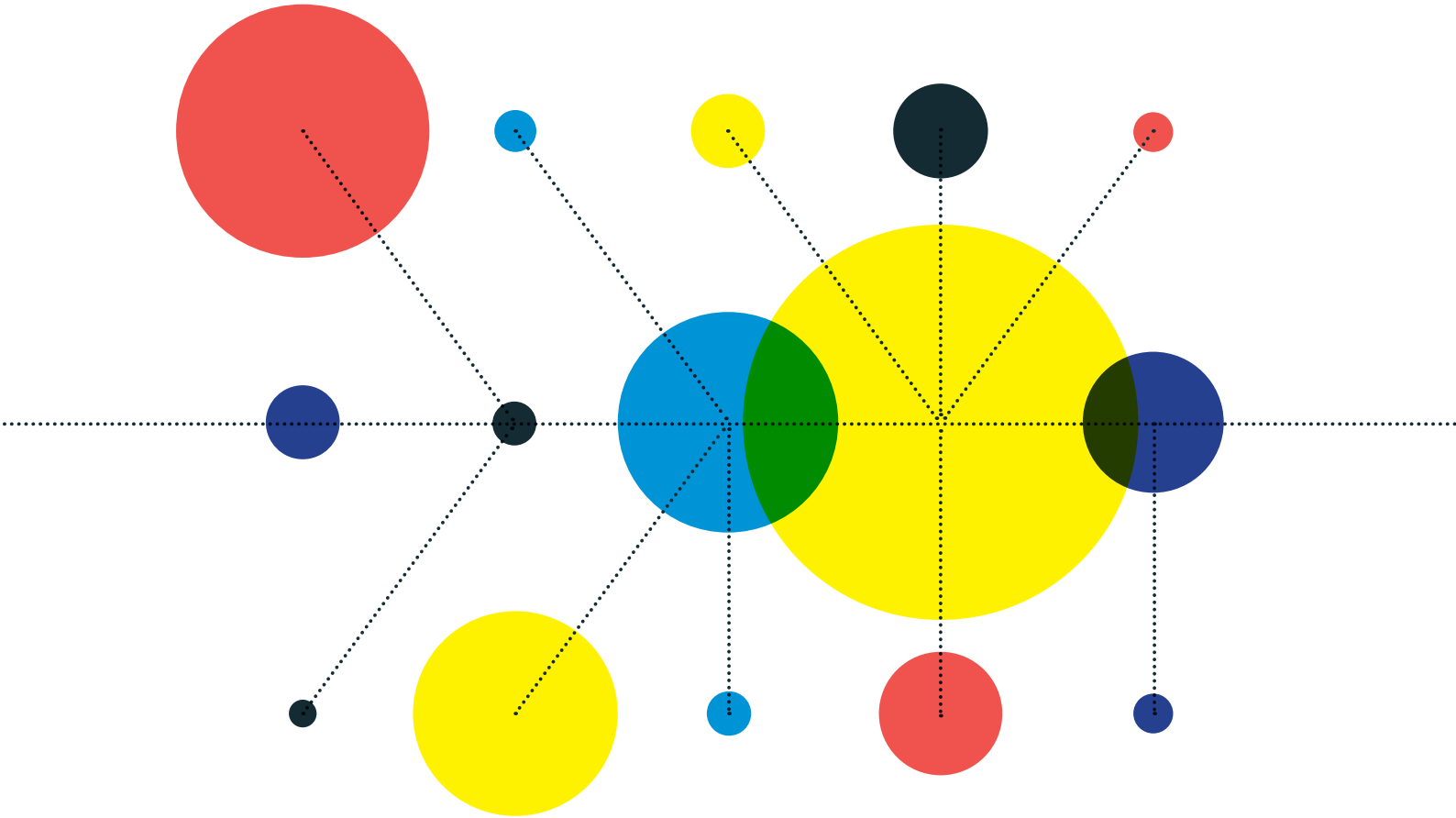
Research plan 2018-2026



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

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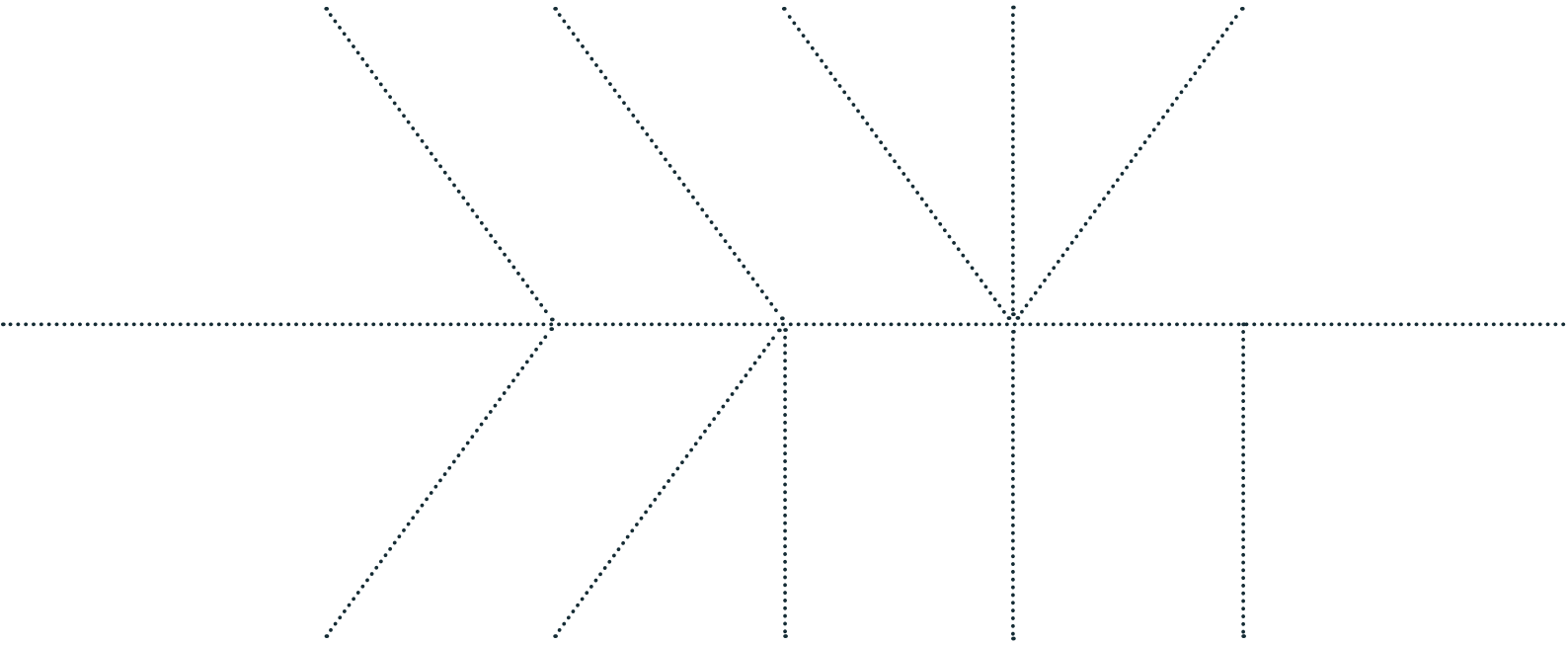
Centre for Health Development

Research plan 2018-2026



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Acknowledgments

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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 of 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.

This research plan is guided by WHO's General Programme of Work (GPW) and the broad goals set forth within WKC strategy for 2016-26. The current research plan uses UHC principles as the overarching guidance within WKC's current ten-year strategy.[2] 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 this 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 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 in 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]

1 The Kobe Group is composed of Hyogo Prefecture, Kobe City, Kobe Steel, Ltd., and the Kobe Chamber of Commerce and Industry.
2 World Health Organization Centre for Health Development. (2015) Imagining the Future, Innovations for sustainable universal health coverage. WKC Strategy, 2016-2026. Geneva: World Health Organization.
3 World Health Organization Centre for Health Development. (2017) Quality Assurance Plan for Research. Geneva: World Health Organization

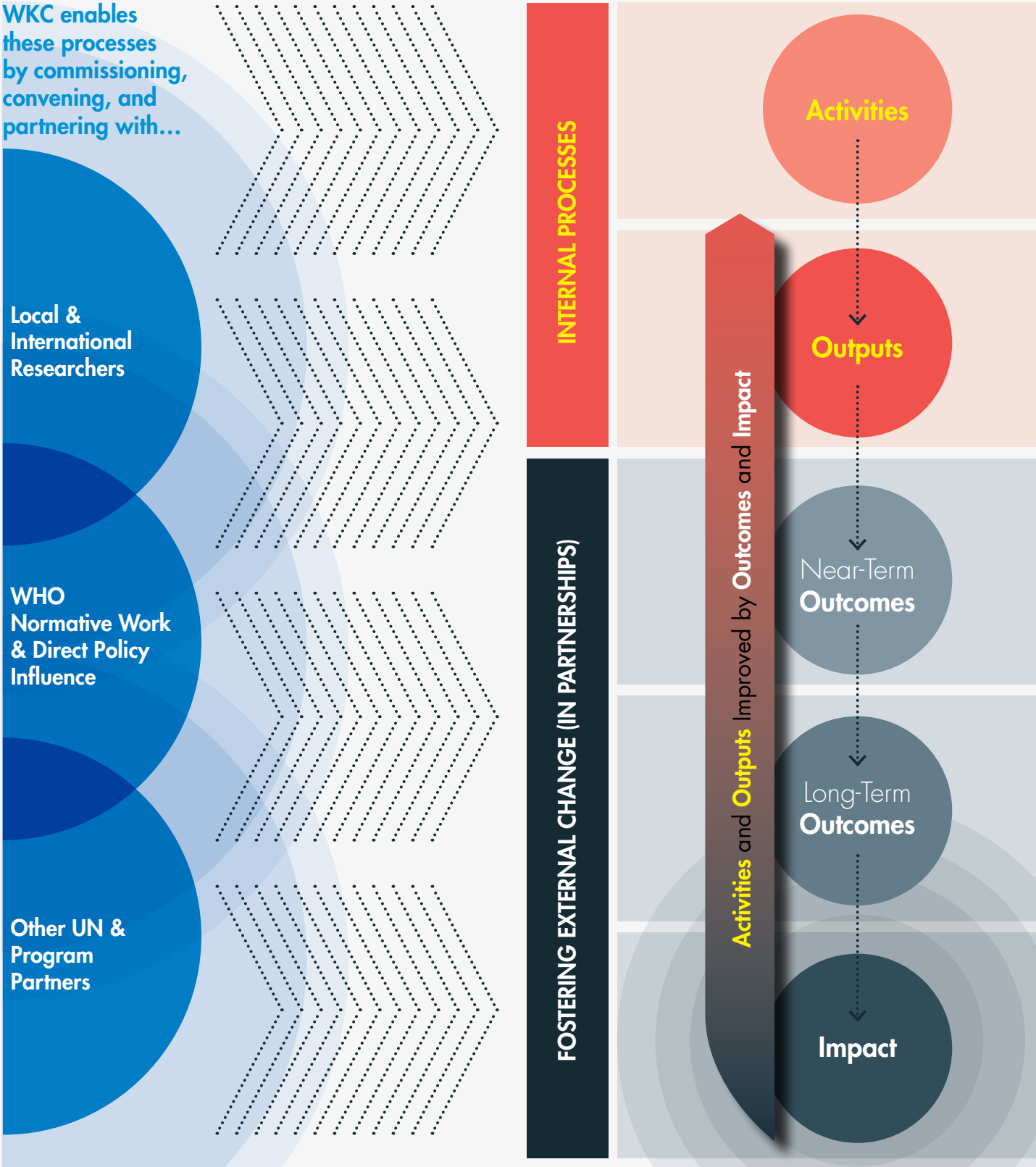
2 Theory of change

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 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" goals towards increasing by one billion more people with access to UHC, one billion more people with health security, and one 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 implement policies to attain the three one-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

Context: The WKC's strategy for 2016-26 is to conduct research and synthesize evidence about health systems and innovations to drive health systems of the future and accelerate progress towards Universal Health Coverage (UHC).



WKC Commissions & Conducts:

- Original research/research capacity building in LMICs
- Monitoring and evaluation of WKC's Outcomes & Impact
- Strategic analyses: Stakeholders, research & institutional climates, UHC/SDG evolution & concepts

Creates:

- Evidence-based policy options
- Knowledge hubs and communities of practice relevant to health systems reform and UHC research

Communicates:

- Research findings to strategic audiences
- Convenes and collaborates: with internal & external partners

- Technical reports/policy briefs
- Press and media reports, website, social media
- Presentations, side events national/international conferences
- Peer reviewed papers
- Attainment of WKC 10-year strategy 2016 - 2026

- New networks of research partnerships/communities of practice
- Seeding other research/research calls from projects funded
- Identification, evaluation, and scaling of innovations
- Research capacity built in LMICs
- Facilitating research in disaster response

- Global/national health policy changes
- Service delivery models improved in countries and globally
- Sustainable financing in health systems
- Better metrics for monitoring progress
- Preparedness and response to natural disasters

Accelerating the progressive realisation of UHC to promote healthy life expectancy in all countries: Meeting the three ''One billion goals' for UHC, emergencies and improvements in health and well-being

3 WHO's 13th General Program of Work

WKC works in close partnership with the global WHO Secretariat at all levels. 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.

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 one billion more people; addressing the needs of one billion vulnerable people in emergencies; and improving the health and well-being of one billion people.

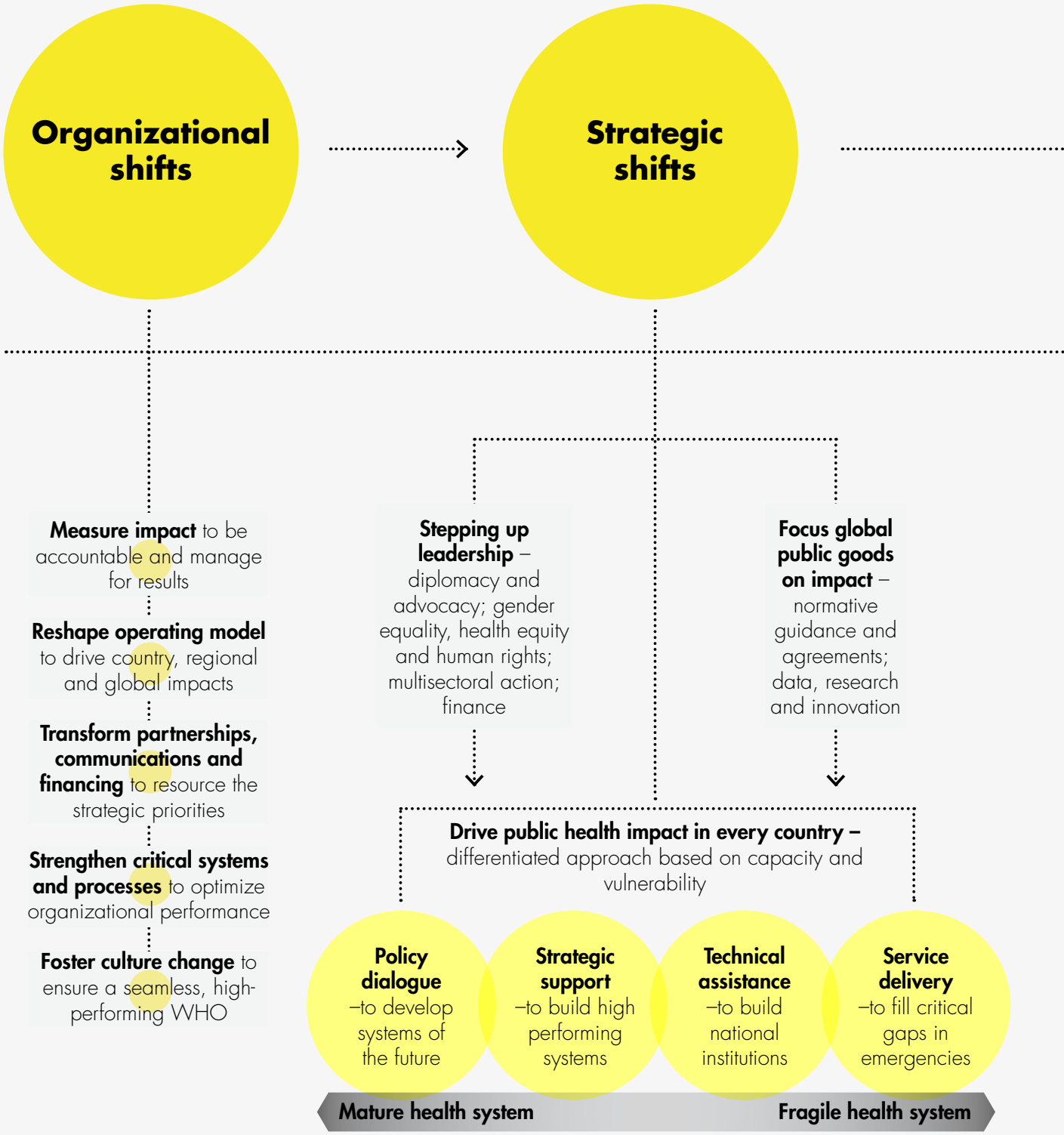
These aims are to be achieved through three strategic shifts in how the WHO Secretariat works. These shifts include stronger leadership and evidence-based policy dialogue, a country-tailored approach to respond to the different needs across diverse country settings and measuring success by how well we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

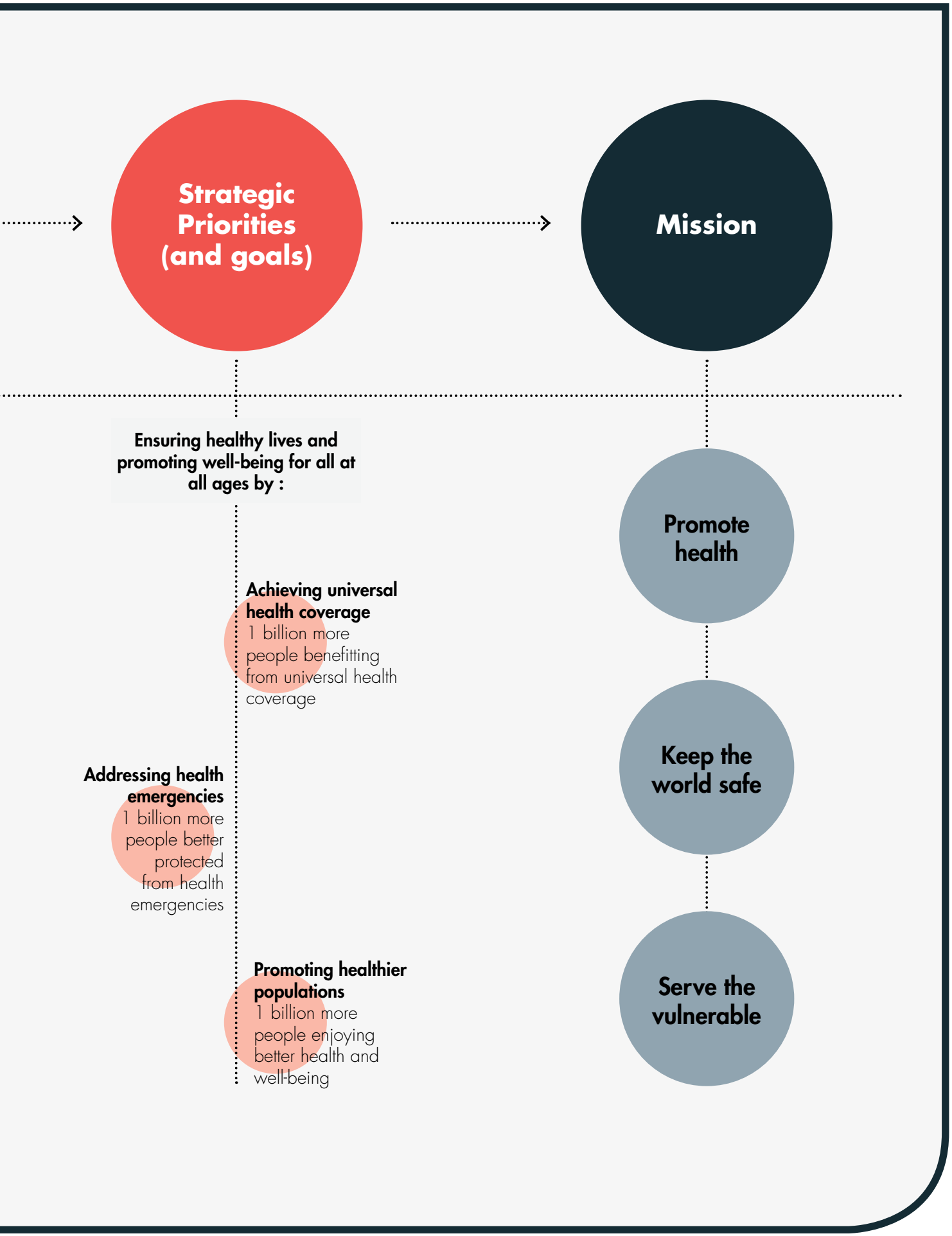
In addition, WKC was established immediately following the 1995 Great Hanshin-Awaji Earthquake. Thus, from its beginning, WKC has maintained a special mandate to promote effective prevention, preparedness and response to disasters, and understand lessons learned from the remarkable recovery and reconstruction 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 Secretariat at HQ, regional and country offices. WKC is also guided in its strategic direction by its 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.

Figure 2: WHO's GPW 13: 2019-2023[4]



4 Thirteenth General Program of Work, 2019-2023. WHA71/2018. Geneva: The World Health Organization.


Strategic Priorities (and goals)
Mission
Ensuring healthy lives and promoting well-being for all at all ages by :
Achieving universal health coverage
1 billion more people benefitting from universal health coverage
Addressing health emergencies
1 billion more people better protected from health emergencies
Promoting healthier populations
1 billion more people enjoying better health and well-being
Promote health
Keep the world safe
Serve the vulnerable

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 is disease specific, with an estimated 2% (US$ 3.8 million) dedicated to any aspect of strengthening health systems or UHC. Of this amount, a large share 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 resources 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 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.

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 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 Unpublished (2018). WHO and Research. The WHO Deputy Director General for Programs.
6 The World Health Report 2013: Research for Universal Health Coverage. Geneva: World Health Organization.

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**

7 The World Health Report 2013: Research for Universal Health Coverage. Geneva: World Health Organization.

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

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.

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.

8 World Health Organization Centre for Health Development. (2015) Imagining the Future, Innovations for sustainable universal health coverage. WKC Strategy, 2016-2026. Geneva: World Health Organization.
9 ibid.

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

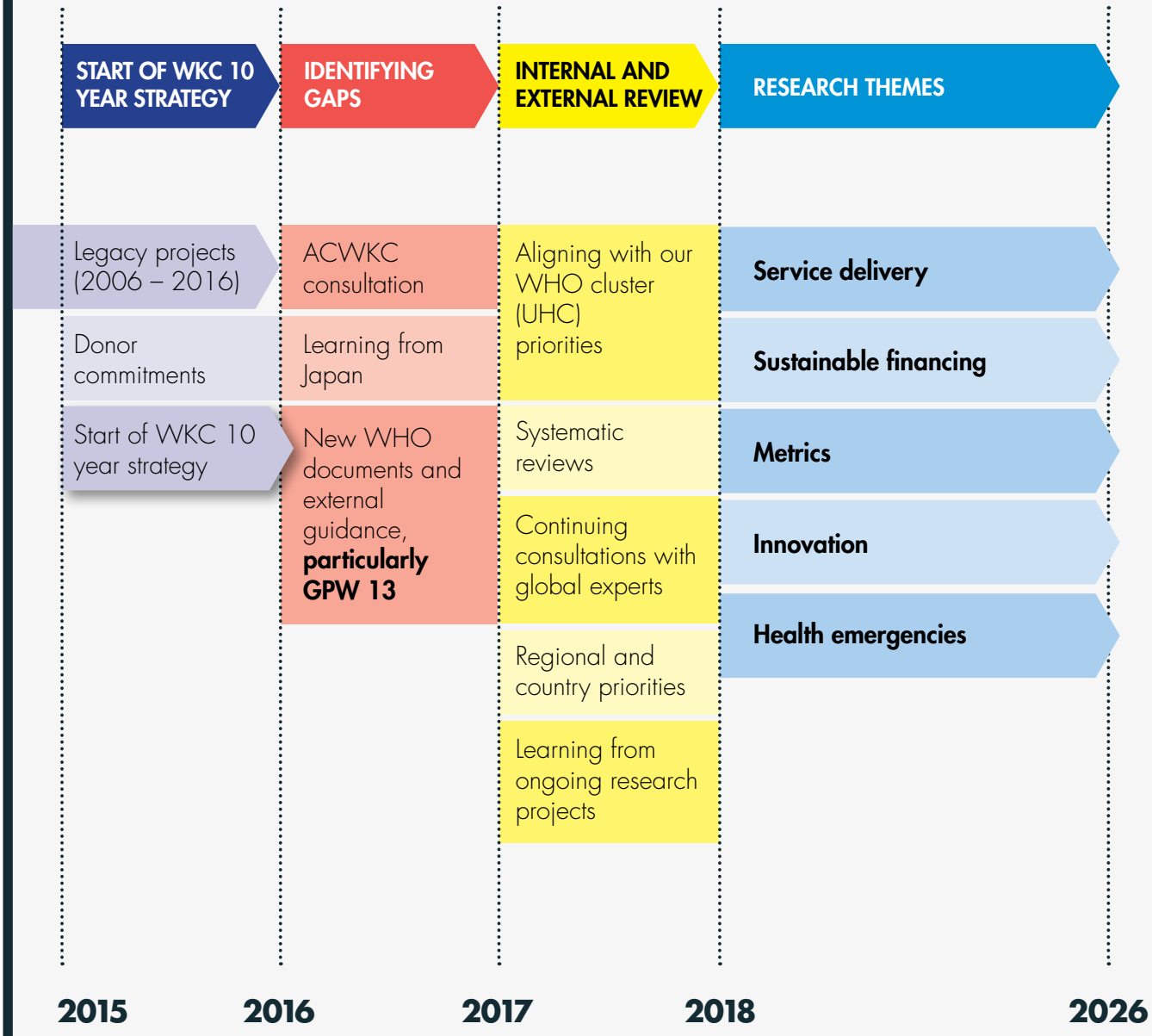
Strategic Objective 2

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

Figure 5: The process of identifying research themes



Pragmatic and systematic synthesis of existing commitments, legacy, WHO reform and new learning from WKC programs ⟶ into **concrete realisation of WKC 10 year research plan**

WKC then identified research gaps for universal health coverage, based on 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, and 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.

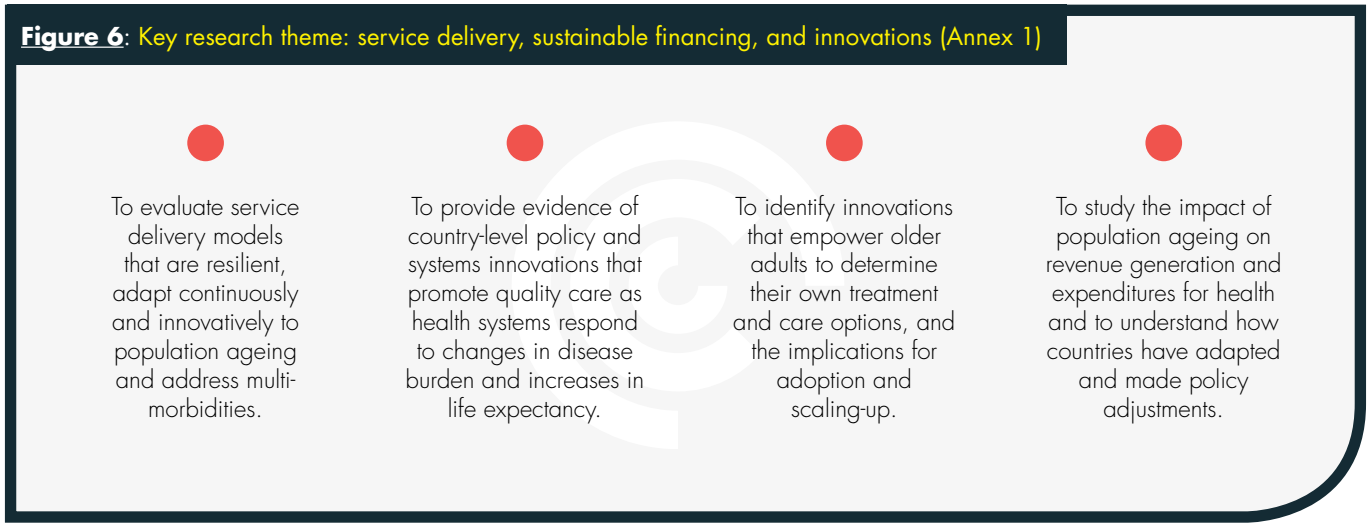
Sustainable financing is closely linked with service delivery. As populations age, policy-makers are concerned about the growth in health care expenditures that may become unsustainable. At the same time, population ageing and depopulation can impact health care financing systems that rely on payroll 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 translation of ideas to action towards UHC. Innovations are designed to solve specific problems and vary by country context.

10 WHO defines integrated people-centered 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.

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



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 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.

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

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, quality and equity for older populations.
- To document current country practices in measuring and monitoring UHC from the perspective of ensuring older persons' right to health.
- 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.

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, coverage, and financial protection. Moreover, some of the existing indicators, such as hospital capacity, may not fully reflect the responsiveness of the health system 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.

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.

6.3

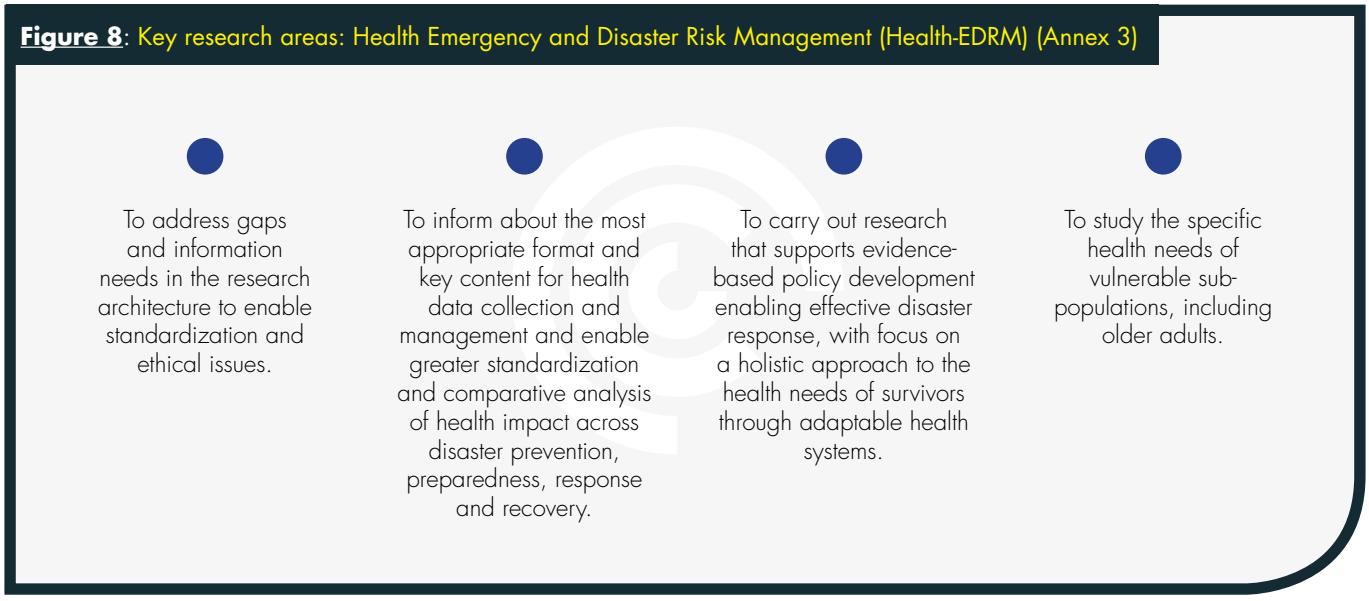
Health Emergency and Disaster Risk Management (Health-EDRM)

Over the past few decades, the frequency and severity of hazardous events including emergencies and disasters have increased. Climate and demographic changes including unplanned urbanization have exacerbated the impacts of disasters. There is a continuing need to strengthen 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 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 under 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**).

12 UNISDR. (2015) Sendai Framework for Disaster Risk Reduction 2015-2030.
13 UNISDR. (2005) Hyogo Framework for Action 2005-2015

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



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 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. Most Health-EDRM studies focus on the acute phase of a disaster. In contrast, few research projects focus on the effectiveness of prevention and preparedness measures and the long-term impact 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.

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, 8(2), pp 145-9..

Advancing Health-EDRM practice requires more scientific evidence about activities during 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 into 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.

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 at 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.

15 UNISDR. (2015). Sendai Framework for Disaster Risk Reduction 2015-2030.
16 Global Health Observatory Data Repository, World Health Organization. (http://apps.who.int/gho/data/node.main.688, Accessed 7 May, 2018)
17 Ikeda N et al. (2011). What has made the population of Japan healthy? Lancet, 378 (9796), pp. 1094–1105.
18 Barber S, Rosenberg M. (2017(Aging and Universal Health Coverage: Implications for the Asia Pacific Region. Health Systems & Reform, 3 (3), pp. 154-8.
19 Official Japanese government figures reported to the WHO. National health accounts database, World Health Organization (http://apps.who.int/nha/database/Country_Profile/Index/en, Accessed 7 May, 2018).
20 Ikegami, N. (2016). Universal health coverage for inclusive and sustainable development: lessons from Japan. Washington, DC: The World Bank.

8 Maximizing generalizability to low- and middle-income settings

A critical issue for WKC is ensuring 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 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.

21 Ferguson L. (2004). External Validity, Generalizability, and Knowledge Utilization. Journal of Nursing Scholarship 36 (1), pp. 16-22.

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 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 helps 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 such that the findings are not generalized to other settings, and 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]

22 Steckler A, McLeroy KR (2008). The importance of external validity. American Journal of Public Health 98 (1), pp. 9-10.
23 Shadish WR, Cook TD, Campbell DT. (2002). Experimental and Quasi-Experimental Designs for Generalized Causal Inference. Houghton Mifflin Company.
24 Tunis SR, Stryer DB, Clancy CM. (2003) Practical clinical trials: increasing the value of clinical research for decision making in clinical and health policy. JAMA 290(12), pp. 1624–1632.
25 Bates MA, Glennester R. (2017). The Generalizability Puzzle. Stanford Social Innovation Review, Summer.

9 Measures of success

The measures of success for the research plan will include the research products generated by the staff and the research partners, assessment 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 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 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 (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 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 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.

Annexes

Annex 1

Summary of research theme:

Service delivery, financing and innovations to accelerate UHC

Key research areas

- To evaluate 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 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.
- To study the impact of population ageing on revenue generation and expenditures for health and to understand how countries have adapted 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 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 ASEAN countries to study how health systems respond to population ageing
- Partnership with WHO EURO Health Policy and Systems Observatory to analyze 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, SEARO 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 eight 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 USA)
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, quality and equity for older populations.
- To document current country practices in measuring and monitoring UHC from the perspective of ensuring older persons' right to health.
- 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 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

Summary of research theme:

Health emergencies and disaster risk management (Health EDRM)

Annex 3

Key research areas

- To address the gaps and information needs in the research architecture to enable standardization and address ethical issues
- To carry out research to inform about the most appropriate format and key content for health data collection and management, and enable greater standardization and comparative analysis of health impact 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 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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