

## **Universal Health Coverage: Service Delivery, Sustainable Financing, and Innovations**

### **Background**

With population ageing, health care needs change and increase. The WKC conducts research on health systems innovations to accelerate progress towards Universal Health Coverage (UHC), particularly considering population ageing. We also seek to 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-centred approach and instead rely on hospital-based models of care, which are ill-equipped to manage patients with chronic diseases and complex multi-morbidities – which can include physical and mental health, and cognitive functioning.

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 policymakers that population ageing will lead to unconstrained growth in health care expenditures that will become unsustainable. At the same time, population ageing can impact the way in which revenues are generated for health care, and particularly systems that rely on payroll contributions. This may lead to concerns about generating sufficient, stable revenues to pay for health and social services. WKC seeks to investigate these topics, and the policy options that affect growth in health expenditures and the ability to generate revenues. Innovations are defined broadly as new methods and approaches – whether policy, systems, or technologies – and imply the translation of ideas to action towards UHC. WKC's focus on innovations is cross-cutting for all areas and emphasizes innovations in service delivery and financing.

### **Key research areas**

1. To evaluate service delivery models that are resilient, adapt continuously and innovatively to population ageing and address multi-morbidities.
2. 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.
3. To identify innovations that empower older adults to determine their own treatment and care options, and the implications for adoption and scaling-up.
4. 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.

### **Progress report 2019-20**

#### ***Results from research completed in 2019-20 (5 projects)***

Several research projects were developed in 2017 and completed in 2019. The **ICF-based assessment tool development for care skill training in Japanese long-term care system (University of Hyogo and the National Institute of Public Health, 2017–2019)** utilized the International Classification of Functioning, Disability and Health (ICF) to evaluate Japan's training program. The ICF was also used as a guide to consolidate existing tools into a new instrument that may be applied to other countries. Two projects focused on assistive technology. In the first project, **Understanding the experiences of assistive technology use among older people in Japan and implications for other countries (Wakayama Medical University, 2017–2019)**, researchers developed algorithms to provide information about physical activity that can reduce falls and promote higher activities in daily living (ADLs). In a second study, **Experiences of Assistive Products Use among Older People in Japan (Tokyo University and Osaka University, 2017–2019)**, researchers measured the use of assisted technology among the oldest old (90 years and above) to understand how assisted technologies are being used. This project identified essential technologies that should be included as part of UHC that enable better sight and mobility. Inception and final project briefs were developed for all completed research projects.

In 2017, researchers initiated a review of Japanese literature for successful non-communicable disease prevention and control programs that can be successfully replicated elsewhere. The project called **Understanding best practices in promoting non-communicable disease (NCD) prevention and control towards UHC (Japan National Centre for Geriatrics and Gerontology, 2017-20)**, aims to inform about the impact of community interventions and health promotion for non-communicable disease conditions. The investigators are preparing an academic manuscript.

WKC staff research was completed in 2020 about how **Community resources are linked to formal health services to address the health and non-health needs of older people** globally. This research suggested that the community itself has many resources for health and self-care, and should therefore, be an integral part of primary health services. This is particularly important, if primary health systems are to become sustainable and provide appropriate person-centred care for older people at home and within their community. A paper has been submitted to a scientific journal.

### ***Research ongoing (2018-21) and expected results (11 projects)***

In 2018-19, the WKC launched a series of research projects in ASEAN countries to study service delivery models and how health systems are adapting to population ageing. It is anticipated that these six research projects will result in final project briefs, journal publications, and working papers with implications for other countries.

Researchers in the Philippines, Vietnam and Japan are studying the **Development of inter-professional education to improve health and social care for older people (University of the Philippines, Tokyo Medical and Dental University, and University of Hyogo, 2018–2020)**. This research aims to develop a competency-based inter-professional training programme for health workers in the Philippines and Viet Nam which can be adapted for use in other low- and middle-income countries.

Rigorous evaluation of community-based care services for high risk and poor older adults are evaluated in the research project, **Evaluating a Novel Enhanced Community of Care Model for High-Risk Older Persons in Public Rental Housing in Singapore (National University of Singapore Medical School and Singapore General Hospital, 2019-22)**. A partnership between Singapore and Cambodia is underway to research health systems strengthening to enable the system to shift from acute to chronic care under existing resources. It is anticipated that the findings can be translated into concrete programs at the district level (**Mapping the dynamics of prevention and management of non-communicable diseases in Cambodia (Duke-National University of Singapore Medical School and KHANA, Cambodia, 2019-21)**).

A community based cross-sectional study with key informant interviews is being conducted in six provinces of Lao PDR in the **Assessment of adults over 60 years with low cognitive function in different areas of Lao PDR- implication for sustainable community and health systems in the future (Lao Tropical and Public Health Institute, 2019-21)**. This study aims to estimate the prevalence of low cognitive functioning among older people and how the health system is responding. In Thailand, researchers are conducting a **Cluster randomized trial of a model of community integrated intermediary care (CIIC) services for older adults (Juntendo University, Tokyo, and Chiang Mai Rajabhat University, Thailand, 2019-21)**. This study seeks to evaluate the impact of community integrated intermediary care facilities and its services on caregiver stress, cost-effectiveness, and capacity of families in providing care for older adults. In the **Policy, process and data review of health and social services for older people in Myanmar (Yangon University of Economics, Myanmar, and Mahidol University, Bangkok, Thailand, 2019-20)**, researchers are exploring available data and coordination mechanisms in Myanmar to determine whether older adults are included in health and social services planning. It is anticipated that this study will inform the government's efforts towards extending essential services to the whole population by 2030 under the National Health Plan. A research manuscript is currently being prepared.

Research reviews are being conducted about service delivery models globally that are responding to the needs of ageing populations. In the project, Service delivery models for older people with advanced progressive chronic diseases, Phase 1 has been completed and Phase 2 is underway. In Phase 1, a systematic review was conducted to

Review service delivery models that maximise quality of life for older people (King's College, London, 2018–19). A manuscript was published in Milbank Quarterly in 2019. In Phase 2, researchers are using the information collected in the systematic review to **Map service delivery models that optimise quality of life and health services use for older people with advanced progressive chronic diseases (King's College, London, University of Southern California, Kobe and Kyoto Universities, 2019-21)**. The research teams are jointly preparing policy briefs, summarizing the findings, as well as drafting manuscripts for publication.

The multi-year research project about **Managing dementia patients in Kobe City (Kobe University and Kobe Municipality, 2017–2021)** aims to study the health systems response to the management of dementia patients. This is a continuation of a research study started in 2017 in Kobe Municipality to strengthen health systems and inform policy to better manage people with cognitive decline. This project is now in its fourth year of implementation, and the project will end 2021. Four journal papers related to this project is under preparation and will be drafted in 2020. Additional two papers will be drafted in 2021. The design of this project has been presented at conferences in Japan, Austria, and Switzerland, as well as shared with Japanese local municipalities as a unique model of public health study through collaboration between a local municipality and a local university (Yokohama workshop 2019). It has contributed to the Kobe Ordinance for Dementia-Friendly City. Kobe is recognized nationally for its work on managing dementia patients. The dialogue with Kobe City on translation of the study result for their future policy will be initiated in September.

In terms of sustainable financing, several collaborative projects were initiated. A partnership with WHO EURO Observatory on Health Systems and Policy and WHO Regional Office for the Western Pacific (WPRO) was initiated to **study the impact of population ageing on revenue generation for health and health expenditures (WHO EURO Observatory on Health Systems and Policy and WPRO, 2018–2021)**. This research analysed data to inform about the impact of population ageing on revenue generation for health and growth in health expenditures. Two policy briefs were produced jointly by WKC and the EURO Observatory, under the EURO Observatory paper series about the Economics of Ageing in 2019. The first paper highlights that importance of de-linking entitlements to health care from the payments of contribution. The second paper focuses on the growth in health care expenditures as populations age and how countries can control spending growth. Both were presented at a side event at the G20 Health Ministers' meeting in October 2019. **For 2020-21**, WKC worked with WPRO and the EURO Observatory on Health Systems and Policies to conduct six country case studies (Japan, Mongolia, Republic of Korea, Viet Nam, Australia, New Zealand) to better understand how healthy ageing impacts trends in health expenditures and economic growth, respectively. Further studies focus on the revenue aspects, in studying how individual countries can pay for health services as populations age. This project will result in a regional report that contributes to both global and regional strategies for healthy ageing.

A collaboration with the Organisation for Economic Development and Co-operation (OECD) was initiated in 2018 and has developed in two Phases. Under Phase 1, a WHO book was published about **Price setting and price regulation in health care – lessons for advancing UHC (OECD, WPRO, and universities in the EURO and WPRO regions, 2018–2021)**. Under Phase 1, WKC partnered with OECD to publish a book with the summary findings and nine case studies (including Japan) about how countries set prices for health services and the investments they have made to institutionalize pricing as a policy instrument to promote coverage and financial protection. Using the research in this book, WKC also published a brief for countries on price setting and regulation, published under the WHO Health Financing Policy Brief series in collaboration with the Health Financing and Governance Department. Under Phase 2, the study focuses on price setting and price regulation in nine countries for the care for older adults. This will result in a second joint WHO WKC/OECD publication, and nine case studies in 2020-21.

New research focuses on **making the investment case for long-term care** globally in collaboration with the **EURO Observatory for Health Systems and Policy and the WHO EURO office**. This research will commission studies to describe how, as populations age, countries of all income levels are adapting their service delivery configurations to the needs and demands of older persons, especially through building sustainable systems of long-term care.

## Publications

### Books

Barber S.L., Ong P., Han Z.A. (2020) Long-Term Care in Ageing Populations. In: Haring R., Kickbusch I., Ganten D., Moeti M. (eds) Handbook of Global Health. Springer, Cham. [https://doi.org/10.1007/978-3-030-05325-3\\_65-1](https://doi.org/10.1007/978-3-030-05325-3_65-1)

Barber SL, Lorenzoni L, Roubal T. Price setting and price regulation in health services. Geneva: The World Health Organization 2020 (Health Financing Policy Brief no. 7), <https://apps.who.int/iris/bitstream/handle/10665/331964>

Barber SL, Lorenzoni L, Ong P. (2019) Price setting and price regulation in health care: lessons for advancing universal health coverage. WHO Centre for Health Development (Kobe, Japan), Organisation for Economic Co-operation and Development (OECD). <https://apps.who.int/iris/handle/10665/325547>. License: CC BY-NC-SA 3.0 IGO

Ghiga I, Cochrane G, Lepetit L, Meads C, Pitchforth E. (2019) Understanding Community-Based Social Innovations for Healthy Ageing. Japan: WHO Centre for Health Development. [https://extranet.who.int/kobe\\_centre/en/project-details/community-based-social-innovations](https://extranet.who.int/kobe_centre/en/project-details/community-based-social-innovations)

Kowal P, Garcon L, Ross A, Ong P. (2019) Chapter 13. Technology and Social Innovations. In Ageing in Asia: Contemporary Trends and Policy Issues, Eds, Kai Hong P, Lee Gan H, Mui Teng Y, World Scientific Series on Ageing in Asia. <https://www.worldscientific.com/worldscibooks/10.1142/10585>

### Journal articles

Pitchforth et al. (2020) The effectiveness of community-based social innovations (CBSIs) for healthy ageing in middle- and high-income countries: a systematic review. *Journal of Health Services Research and Policy* 25(3):202-21. <https://doi.org/10.1177/1355819619888244>

Barber SL, O'Dougherty S, Vinals Torres L, Tsililaajav T, Ong P. Other considerations than "How much will Universal Health Coverage cost." *Bulletin of the WHO, Special Issue on UHC*, 2019. (Online First Version: [https://www.who.int/bulletin/online\\_first/BLT.19.238915.pdf?ua=1](https://www.who.int/bulletin/online_first/BLT.19.238915.pdf?ua=1) )

Barber SL, Lorenzoni L, Ong P. Institutions for health care price setting and regulation: A comparative review of eight settings. *International Journal of Health Planning and Management* 2019;1–10. DOI: 10.1002/hpm.2954

Evans et al. (2019) Service Delivery Models to Maximize Quality of Life for Older People: A Rapid Review. *Milbank Quarterly* 97 (1): 113-175. <https://onlinelibrary.wiley.com/doi/full/10.1111/1468-0009.12373>

Sato H, Kondo S, Masahisa S, Ryuichi S (2019). Effects of strengthening the hip flexor muscles on walking ability and the locomotive syndrome rank test: An intervention study. *Journal of Orthopaedic Science* DOI: <https://doi.org/10.1016/j.jos.2019.09.014>

Barber SL, Ong P, Nozaki S (2018). Universal Health Coverage and the Renewal of Primary Health Care. *Journal of International Health* 33 (2) [https://www.jstage.jst.go.jp/article/jaih/33/2/33\\_93/article-char/en](https://www.jstage.jst.go.jp/article/jaih/33/2/33_93/article-char/en)

Barber SL, Kumar A, Roubal T, Colombo F, Lorenzoni L (2018). Harnessing the private health sector by using prices as a policy instrument: Lessons learned from South Africa. *Health Policy* <https://www.ncbi.nlm.nih.gov/pubmed/29622381>

## Policy briefs

Cylus J, Roubal T, Ong P, Barber SL. The Economics of Healthy and Active Ageing. Sustainable health financing with an ageing population: implications of different revenue raising mechanisms and policy options. European Observatory on Health Systems and Policies and the WHO Centre for Health Development, 2019.

[https://extranet.who.int/kobe\\_centre/sites/default/files/pdf/Sustainable\\_health\\_financing\\_with\\_an\\_ageing\\_population\\_0.pdf](https://extranet.who.int/kobe_centre/sites/default/files/pdf/Sustainable_health_financing_with_an_ageing_population_0.pdf)

Williams G, Cylus J, Roubal T, Ong P, Barber SL. The Economics of Healthy and Active Ageing. Sustainable health financing with an ageing population: will population ageing lead to uncontrolled health expenditure growth? European Observatory on Health Systems and Policies and the WHO Centre for Health Development, 2019.

[https://extranet.who.int/kobe\\_centre/sites/default/files/pdf/ImpactofAgeingonHealthExpenditures.pdf](https://extranet.who.int/kobe_centre/sites/default/files/pdf/ImpactofAgeingonHealthExpenditures.pdf)

## WKC Final project briefs

- AP Centenarians: learning from the experience of Assistive Product Use among Older People ([https://extranet.who.int/kobe\\_centre/en/project-details/experiences-assistive-products-use-among-older-people-japan-2](https://extranet.who.int/kobe_centre/en/project-details/experiences-assistive-products-use-among-older-people-japan-2) )
- Development of methods to promote assistive technologies to enhance quality of life of older people ([https://extranet.who.int/kobe\\_centre/en/project-details/assistive-technologies-enhance-quality-life-older-people](https://extranet.who.int/kobe_centre/en/project-details/assistive-technologies-enhance-quality-life-older-people) )
- ICF-based assessment tool development for care skill training in Japanese long-term care system ([https://extranet.who.int/kobe\\_centre/en/project-details/icf-based-assessment-tool-development-care-skill-training-japanese-long-term-care-system](https://extranet.who.int/kobe_centre/en/project-details/icf-based-assessment-tool-development-care-skill-training-japanese-long-term-care-system) )
- Community based social innovations for healthy communities in Japan ([https://extranet.who.int/kobe\\_centre/en/project-details/CBSIJ](https://extranet.who.int/kobe_centre/en/project-details/CBSIJ) )
- Analysing data availability and policies in Myanmar for the progressive realisation of UHC in light of population ageing ([https://extranet.who.int/kobe\\_centre/en/project-details/asean\\_myanmar](https://extranet.who.int/kobe_centre/en/project-details/asean_myanmar) )
- Systematic review of effective health system responses for the prevention and control of non-communicable diseases in Asia ([https://extranet.who.int/kobe\\_centre/en/project-details/MHQ](https://extranet.who.int/kobe_centre/en/project-details/MHQ) )

## Calls for proposals issued

- Price setting and price regulation in health care – lessons for advancing UHC/country case studies in Japan, Rep. of Korea, Thailand and Malaysia (OECD phase 1). Call opened: 20 Jul – 1 Aug 2018, selection was conducted in Aug 2018. Four proposals selected.
- Price Setting for the Care of Older People/country case studies in Japan and Rep. of Korea (OECD phase 2) Call opened: 1 Aug – 23 Aug 2019, selection was conducted in Aug 2019. Two proposals selected.
- Mapping service delivery models that optimise quality of life and health services use for older people with advanced progressive chronic diseases. Call opened: 26 Feb – 29 Mar 2019, selection was conducted in Apr 2019. Two proposals selected.

June 2018: International symposium at the University of Tokyo to raise awareness about the importance of assistive products and services for older people and to disseminate the research plan to a public audience to receive inputs and feedback.