

Service Delivery, Sustainable Financing, 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 in light of 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 policy-makers 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 implies 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 2018-19

Results from research completed in 2018-19

Research was conducted about **Community-based social innovations for health ageing in 10 countries and Japan (RAND Europe and universities in Europe, South America, Asia and the Middle East, and Osaka University, 2014–2019)**. This research resulted in a WHO publication describing a global review of community-based social innovations for healthy ageing and ten country studies. A policy brief was developed detailing the case study in Japan, and an interview with the principle investigator was also done.

Several projects were developed in 2017, which focus on research in Japan that may inform other countries. Research aimed to prepare a tool to evaluate Japan's Technical Intern Training Programme under 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)**. The study utilized the International Classification of Functioning, Disability and Health (ICF) to apply existing tools to other countries. This project aimed to develop methodologies to identify physical activity for inpatient rehabilitation and high-risk posture and activities that may result in falls, and thus affected quality of life among older populations. 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.

Research ongoing (2018-21) and expected results

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, 2019-20)**. 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, 2019-20)**).

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, 2019-20)**. 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, 2019-20)**. 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.

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, Kobe and Kyoto Universities, 2019-20)**. During Phase 2, the research teams will jointly produce policy briefs summarizing the findings and manuscripts for publication.

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, **Understanding best practices in promoting non-communicable disease (NCD) prevention and control towards UHC (Japan National Centre for Geriatrics and Gerontology, 2017-19)**, aims to inform about the impact of community interventions and health promotion for diabetes, obesity, dyslipidaemia and hypertension. The investigators are preparing an academic manuscript. 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 third year of implementation, and the project end has been extended to 2021. The design of this project has been presented at conferences in Japan, Germany, and Switzerland. It has contributed to the Kobe Ordinance for Dementia-Friendly City. Kobe is recognized nationally for its work on managing dementia patients. A meeting in Yokohama aimed to follow up on the implementation and determine its applicability elsewhere in Japan. A workshop report was produced from this meeting.

In terms of sustainable financing, several collaborative projects were initiated. A partnership with WHO EURO Observatory on Health Systems and Policy 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, 2018–2019)**. 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. 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.

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. Under Phase 2, the study focuses on price setting and price regulation in 10 countries for the care for older adults. This will result in a second joint WHO WKC/OECD publication, and 10 case studies in 2020-21.

Proposed research program: 2020-21

The majority of ongoing research projects mentioned above will continue through 2020-21, including research conducted in the **Philippines, Laos, Thailand, Cambodia, Myanmar, and Singapore**. The **Kobe Dementia** project is projected to be completed in 2021. Studies about **service delivery models for older persons** will continue throughout the biennium, as will the collaborations to study **pricing with OECD**. Research about **sustainable financing** is anticipated to continue, following requests from countries to learn from other settings, with the continuation of collaboration with the **EURO Observatory for Health Systems and Policy** under their **Economics of Ageing** research project. It is anticipated that this research will be in different stages of implementation during the biennium, require close monitoring, and provide the basis for future research studies.

Under service delivery, research will continue about **community-based service delivery models**, including the integration of health and social care services and their impact on quality of life for older persons. This research would incorporate studies from Kansai-based researchers and selected countries who are carrying out community-based service delivery models. Innovations and particularly, the **evaluation of innovative models** of service delivery and evaluation frameworks for technologies is being explored with WHO Regional Offices.

Publications

Books

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.

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

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.

Financing for Universal Health Coverage: Dos and Don'ts: Health Financing Guidance note no. 9. (Draft September 2019). WHO/UHC/HGF/HFGuidance/19.9. WHO 2019. (Contributing to section about "How can the price level be determined?")

Journal articles

Barber SL, Lorenzoni L, Ong P. Institutions for health care price setting and regulation: A comparative review of eight settings. Forthcoming in the International Journal of Health Planning and Management, 2019.

Evans et al. (2019) Service Delivery Models to Maximize Quality of Life for Older People at the End of Life: A Rapid Review. Milbank Quarterly 97 (1): 113-175. <https://doi.org/abs/10.1111/1468-0009.12373>

Barber SL, Ong P, Nozaki S. Universal Health Coverage and the Renewal of Primary Health Care, Journal of International Health 33 (2) 2018 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. Harnessing the private health sector by using prices as a policy instrument: Lessons learned from South Africa. Health Policy 2018. <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.

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

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)
- 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

- Community based social innovations for healthy communities in Japan (https://extranet.who.int/kobe_centre/en/project-details/CBSIJ)

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.