

DRAFT

**Regional Action Plan on
Healthy Ageing in the Western Pacific**

Contents

Abbreviations	8
Executive summary	9
1. Background	11
1.1 Ageing is a global trend. In the Western Pacific Region especially, countries and areas are experiencing population ageing at an accelerated pace.	11
1.2 Population ageing has significant societal implications, but it also offers many opportunities for individuals and society as a whole.	13
1.3 Seizing these opportunities takes time, but early action allows for countries to turn potential challenges into opportunities.	15
1.3.1 Improvement in health status	15
1.3.2 Health-care cost	17
1.3.3 Economic benefit	17
2. Regional Action Plan	18
2.1 Vision: Healthier older adults in the Western Pacific Region are thriving and contributing in society (“Turning silver into gold”)	19
2.2 Guiding principles	20
2.2.1 Future-oriented (backcasting)	20
2.2.2 Lifelong approach	20
2.2.3 Equity and gender	20
2.2.4 Multisectoral approach	20
2.2.5 Leveraging existing assets	21
2.3 Objectives	22
Objective 1. Transforming societies as a whole to promote healthy ageing, based on understanding the implications of population ageing	22
Objective 2. Transforming health systems to address each individual’s lifelong health needs by providing necessary health and non-health services in a coordinated way	24
Objective 3. Providing community-based integrated care for older adults tailored to individual needs	33
Objective 4. Fostering technological and social innovation to promote healthy ageing	44
Objective 5. Strengthening monitoring and surveillance systems and research on older adults to inform programmes, services and policies	50
3. Key conditions for successful implementation of the Regional Action Plan	52
3.1 Political commitment, capacity-building and leadership	53
3.2 Multisectoral and multi-stakeholder coordinating mechanisms and planning	53
3.2.1 National-level mechanisms	53
3.2.2 Meaningful participation of older adults in multisectoral collaboration	54
3.3 Well-designed systems and policies to promote healthy ageing	54
3.4 Positive public perception and support for healthy ageing	54
3.5 Sufficient funding and human resources for implementation	55
Glossary	56
Appendix. Summary of relevant WHO guidance and recommendations for older adults	62
References	65

Annex

Abbreviations

COVID-19	coronavirus disease 2019
NCD	noncommunicable disease
TB	tuberculosis
WHO	World Health Organization

Executive summary

More than 700 million people in the world are over age 65. More than 240 million of them live in the Western Pacific Region, and that number is expected to double by 2050. The pace of ageing is accelerating in the Region due to improvements in life expectancy and declining fertility rates – meaning people are living longer and having fewer babies.

Population ageing has significant health, social and economic implications. Adapting to these changes requires a whole-of-society transformation beyond the health sector and mitigating negative attitudes towards ageing and older adults at the individual and societal levels, which takes time.

Population ageing also represents a significant opportunity for society as people are living longer, enabling individuals to accumulate experience, knowledge and wisdom throughout many more years of life. Research and the experiences in some countries in the Western Pacific Region indicate that early actions and investments in population ageing can achieve healthy ageing.

The Action Plan aims to support Member States to improve the health and well-being of older populations in the Western Pacific Region so that they thrive and contribute to their societies. The Plan is guided by a multisectoral, future-oriented and lifelong approach that adopts an equity approach and utilizes existing assets to the extent possible.

Recommended actions are categorized under five objectives:

- *Objective 1: Transforming societies as a whole to promote healthy ageing, based on understanding the implications of population ageing*

Using a “backcasting” approach, countries are encouraged to identify broad implications of population ageing beyond the health sector and take coordinated actions across sectors to promote healthy ageing. It is particularly important to mitigate existing negative stereotypes of ageing and older adults held by individuals and society as well as change policies and legislation, which discriminate people on the basis of their age or discourage them from social participation so that society can fully capture the opportunity that population ageing can offer.

- *Objective 2: Transforming health systems to address each individual’s lifelong health needs by providing necessary health and non-health services in a coordinated way*

Population ageing will shift the disease burden from infectious diseases to NCDs, making the boundary between “healthy” and “sick” less obvious. The health status and functional ability of older adults is largely determined by an accumulation of medical conditions, individual behaviours and social environments experienced throughout their life. Therefore, healthy ageing requires that health systems address the social determinants of health and NCD risk factors for individuals of all ages, broadening the scope of care beyond the identification and treatment of disease.

- *Objective 3: Providing community-based integrated care for older adults tailored to individual needs*

Older adults vary significantly in health and functional ability. Therefore, countries should adopt or strengthen a community-based integrated care model for the coordinated delivery of health care services, long-term care services as well as social activities and services to older adults based on their individual needs and preferences.

Annex

- *Objective 4: Fostering technological and social innovation to promote healthy ageing*
Technological and social innovations can help societies adapt to changing demographic trends. Technological innovations to support healthy ageing may include new medical diagnostics and treatments, affordable assistive devices, electronic health records, as well as information and communications technology. Social innovations to promote healthy ageing should consider the social determinants of health and work to reduce health inequities so that all people can age in good health and continue to do the things that they value, leaving no one behind.
- *Objective 5: Strengthening monitoring and surveillance systems and research on older adults to inform programmes, services and policies*
Many countries have weak or passive data monitoring systems for older adults. National surveys such as demographic health survey and health information systems in many countries do not collect data on older adults or report age- and sex-disaggregated information for people aged 60 or over. This makes older adults less visible, hindering greater understanding of their needs. It is important to collect detailed data regarding health, social and economic status, as well as the contributions that older adults make to society in order to inform the development of programmes, services and policies.

Countries with substantial experience in addressing the needs of older populations point to some critical factors for successful programmes:

- Political commitment, capacity-building and leadership
- Multisectoral and multi-stakeholder coordinating mechanism and plan at national level
- Well-designed system and policy to promote healthy ageing
- Positive public perception and support for healthy ageing
- Sufficient funding and human resources for implementation

Countries are encouraged to consider these factors upon developing and implementing national plans for healthy ageing.

The WHO Regional Office for the Western Pacific will continue supporting countries to operationalize this Regional Action Plan, provide tools, knowledge and information-sharing platforms, and advocate to prevent and counteract negative stereotypes about ageing.

1. Background

In 2013, the WHO Regional Committee for the Western Pacific endorsed the *Regional Framework for Action on Ageing and Health in the Western Pacific (2014–2019)*. With the plan coming to an end, the Regional Committee in October 2019 hosted a high-level panel discussion on ageing. Member States requested that WHO develop a regional action plan, in line with global mandates – notably the 2030 Agenda for Sustainable Development and the WHO *Global Strategy and Action Plan on Ageing and Health (2016–2020)*.

Following the Regional Committee decision, WHO has developed this draft Regional Action Plan for the Western Pacific based on inputs from Member States. The inputs were obtained through field visits across the Region and several expert and partner consultations. The Plan aligns with the Decade of Healthy Ageing 2020–2030, which was endorsed by the World Health Assembly in August 2020. The Plan also builds on the vision for WHO work in the Western Pacific in the coming years, *For the Future: Towards the Healthiest and Safest Region*, which also emphasizes health system transformation to accommodate the shift in disease burden and multisectoral and lifelong approaches.

Countries and areas in the Western Pacific Region should take early action to prepare for the needs of an ageing population.

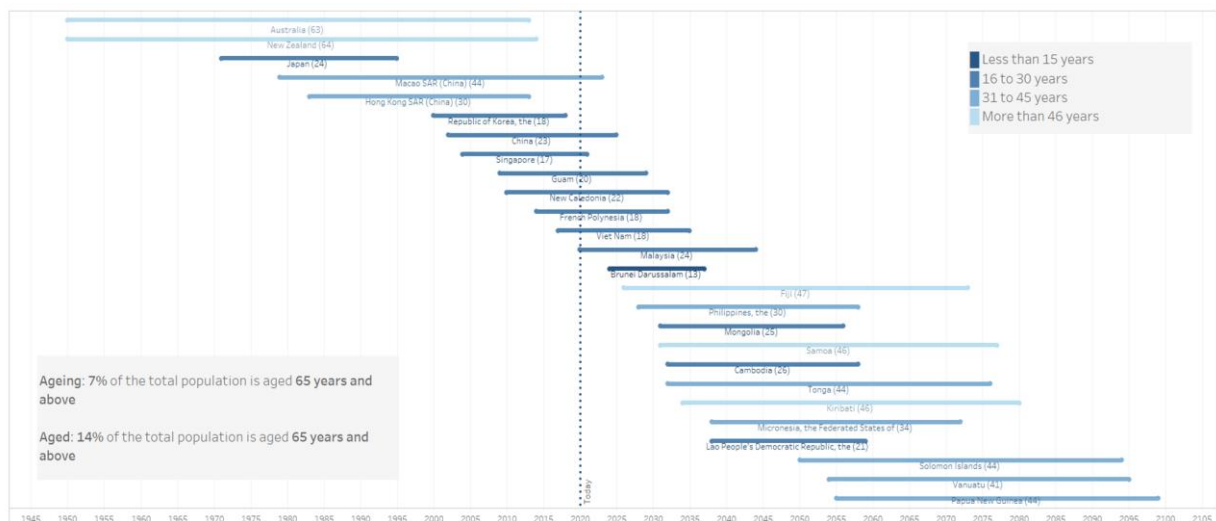
1.1 Ageing is a global trend. In the Western Pacific Region especially, countries and areas are experiencing population ageing at an accelerated pace.

The Western Pacific Region has one of the largest and fastest-growing older population in the world. Globally, there are more than 700 million people aged 65 and over, with more than 240 million of them living in the Western Pacific Region (1,2). This number is expected to double by 2050 (2). Countries and areas in the Western Pacific Region are also experiencing unprecedented “depth” of the ageing population, with the older age group – those 75 years and above – also growing significantly. Currently, there are more than 84 million people 75 years and older in the Region, and that number is expected to triple by 2050.

The pace of demographic change is also accelerating. A population is considered to be *ageing* when more than 7% of people are 65 years or older and *aged* when more than 14% of people are 65 years or older (3). The transition from ageing to aged society took about 60 years for Australia and New Zealand and 24 years for Japan (Fig. 1) (2). However, younger countries and areas such as Viet Nam and French Polynesia are expected to make this shift in less than 20 years (Fig. 1) (2).

Annex

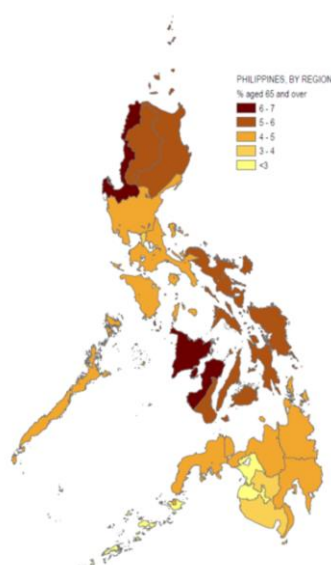
Fig. 1. Speed of ageing for select countries and areas in the Western Pacific Region: time taken to transition from an ageing to aged society



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2019 Revision.

Many countries that are still considered to be young have subpopulations that are ageing rapidly. In Malaysia, the subpopulation of Chinese-Malaysians is ageing more rapidly than Malay-Malaysians and Indian-Malaysians. More than 16% of Chinese-Malaysians are estimated to be over the age of 60; whereas, 12.15% of Indian-Malaysians and 9.2% of Malay-Malaysians are estimated to be over age 60 (4). In the Philippines, some regions are approaching “ageing” societies (that is, 7% of the people are 65 years and older) such as the Ilocos (6.7%), Western Visayas (6.3%) and Eastern Visayas (5.8) (Fig. 2) (5).

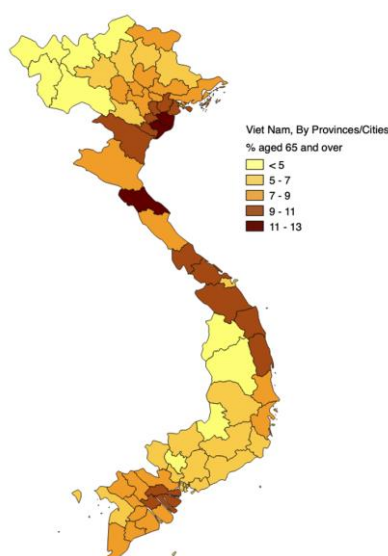
Fig. 2. Proportion of people aged 65 and above by region - Philippines



Source: Philippines Statistics Authority, Updated Population Projections Based on the Results of 2015 POPCEN.

In Viet Nam, some provinces such as Thái Bình and Nam Định have 12.7% and 12.0% of the population above 65 years old, respectively, almost reaching “aged” society (that is, more than 14% of the people are 65 years and older) in April 2019 (Fig. 3) (6). Higher proportions of older adults in these provinces may be partly due to the rural–urban migration of the younger population (7).

Fig. 3. Proportion of people aged 65 and above by region – Viet Nam



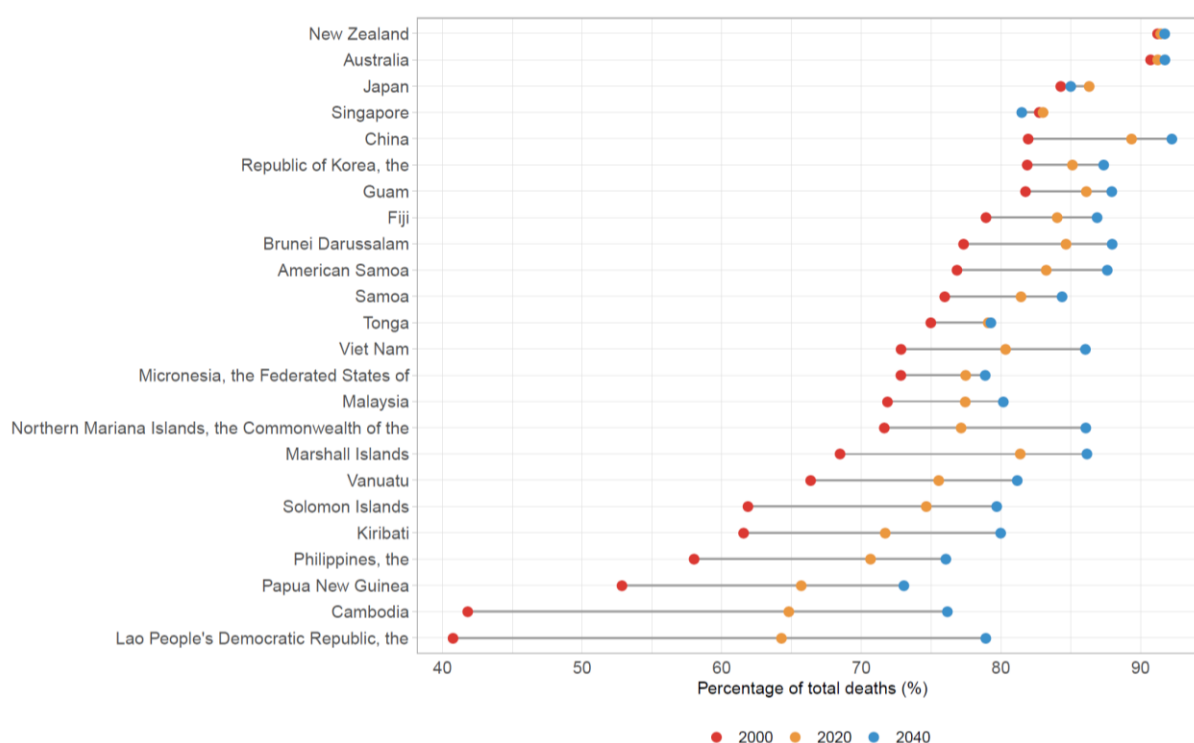
Source: General Statistic Office, 2019.

1.2 Population ageing has significant societal implications, but it also offers many opportunities for individuals and society as a whole.

Preparing for population ageing requires a long-term, whole-of-society change. This will necessitate a shift in mindset at the individual and societal levels as well as investment, commitment and coordination across all sectors of society (8). The WHO Regional Committee Meeting for the Western Pacific in October 2019 identified the following major changes in ageing societies (9): (a) increased burden of NCDs and chronic conditions, requiring health system transformation and increased health funding (Fig. 4) (10), (b) diverse social needs and health conditions among older adults, requiring flexible social and health systems to provide support/care based on individual needs (e.g. from social protection and care for the most vulnerable to opportunity to participate in the society), (c) more active and healthier older adults, due to longer life expectancy and reduced birth rates, requiring a change in narrative on ageing and removing barriers for older adults to contribute in society and (d) more older adults living in their communities, underscoring the importance of community’s role in encouraging social participation, including through fostering age-friendly environments to encourage social participation.

Annex

Fig. 4. Percentage of NCD burden by country and area in the Western Pacific Region

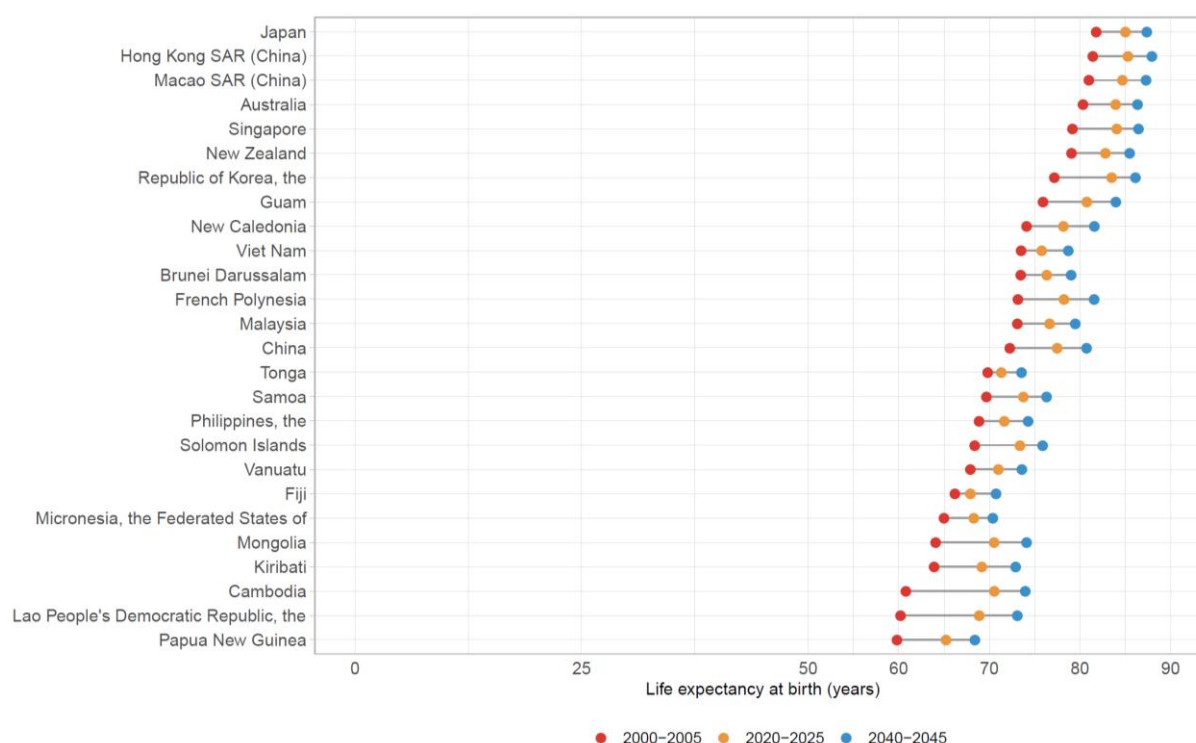


Source: Institute of Health Metrics and Evaluation, Global Burden of Disease Study, 2018.

While population ageing requires society to adapt, it also offers many individual and societal opportunities as people are living longer. Countries and areas in the Western Pacific Region are experiencing longer life expectancies at birth as shown in Fig. 5 (2). The most significant increases in life expectancy are observed in many of the younger countries such as Cambodia, the Lao People's Democratic Republic and Mongolia, while some aged countries and areas such as Japan and Hong Kong SAR (China) are expected to reach life expectancies of close to 90 years by 2040.

A longer life allows people to engage in a wider range of activities and interests that are meaningful to us across our lifetime. The growing older population with better education and health can provide more knowledge, problem-solving capacity and experience to society. Older adults contribute to society in a variety of ways including through paid and unpaid work, as caregivers for family members, and passing down knowledge and traditions to younger generations. They also contribute to the economy as employees, consumers, investors and social service providers.

Fig. 5. Life expectancy at birth for countries and areas in the Western Pacific Region (sexes combined)



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2019 Revision.

1.3 Seizing these opportunities takes time, but early action allows for countries to turn potential challenges into opportunities.

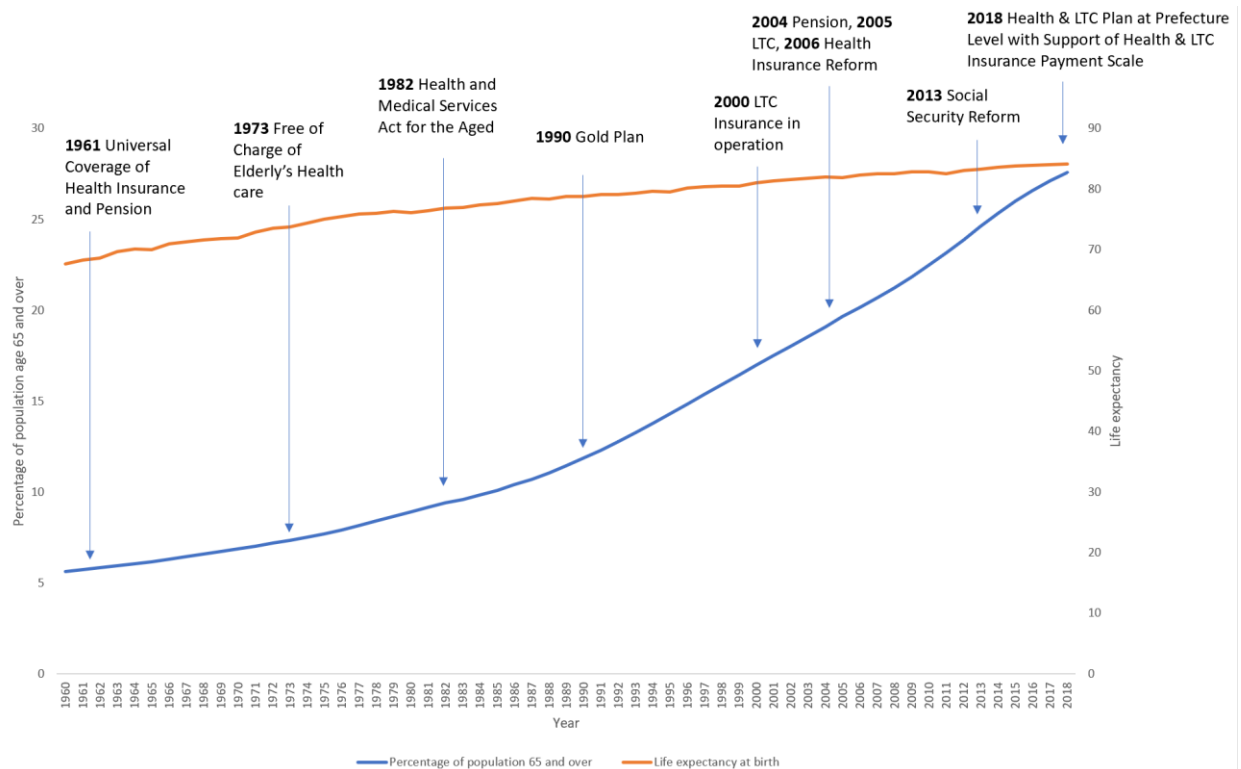
The whole-of-society changes and investment for population ageing take time. However, the experiences of ageing and aged countries suggest that these investments will yield significant returns in health and the economy.

1.3.1 Improvement in health status

Some countries in the Western Pacific Region took a future-oriented approach to anticipate emerging and long-term needs. For example, Japan has made significant investments to transform its health and social systems since the Second World War, in anticipation of demographic changes (Fig. 6) (11).

Annex

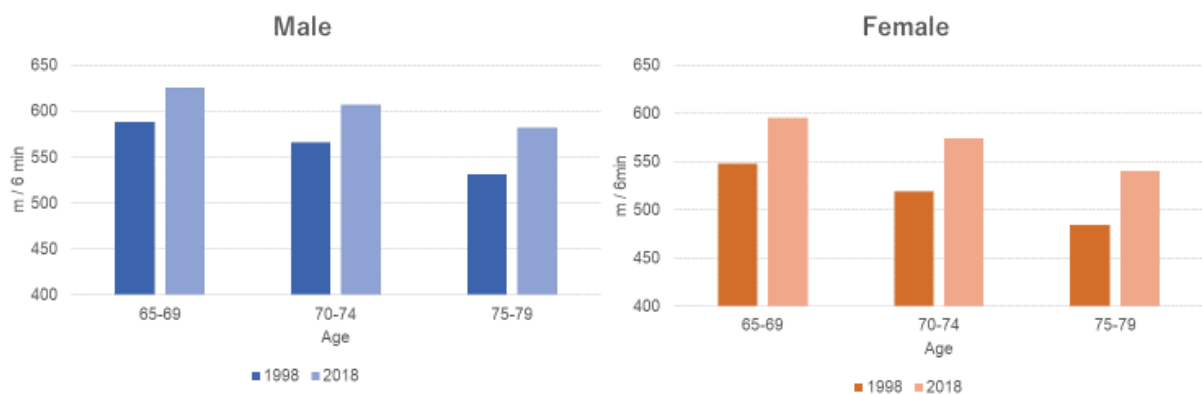
Fig. 6. Japan's preparation for population ageing



Source: Adapted from Nakatani (2019) (11).

This includes the establishment of universal health insurance coverage in 1961 and long-term care insurance in 2000, and investments in key population-based health promotions such as salt reduction campaigns (12). Strong government leadership in health and public health sectors has contributed to significant improvements in life expectancy among the Japanese people. A study found that the walking speed of Japanese men and women between 65 and 79 years old increased markedly between 1998 and 2018. In fact, the walking speed of people aged 75–79 years in 2018 is similar to that of people aged 65–69 years in 1998 (Fig. 7) (13).

Fig. 7. Walking speed of older adults – Japan (meters/minute)



Source: Ministry of Education, Culture, Sports, Science and Technology, Japan, 2018.

Studies in Western Europe and the United States of America suggest that dementia incidence has either remained the stable or decreased between the late 1980s and early 2010s, likely due to improved lifelong health status with better access to education, nutrition and health-care services (14).

1.3.2 Health-care cost

Evidence also suggests that investing in the health of older adults can mitigate increased health spending. An analysis by the European Observatory on Health Systems and Policies, an intergovernmental partnership hosted by WHO and specializing in health system development, demonstrated that in European Union countries and Japan, health spending growth per capita attributable to population ageing will be marginal through 2060, adding less than 1% per year, which is much less significant than other factors such as price increase and innovation. This relatively small cost is due to the improvement of health among older adults in these countries and may be further reduced by promoting healthy ageing earlier in life (15).

1.3.3 Economic benefit

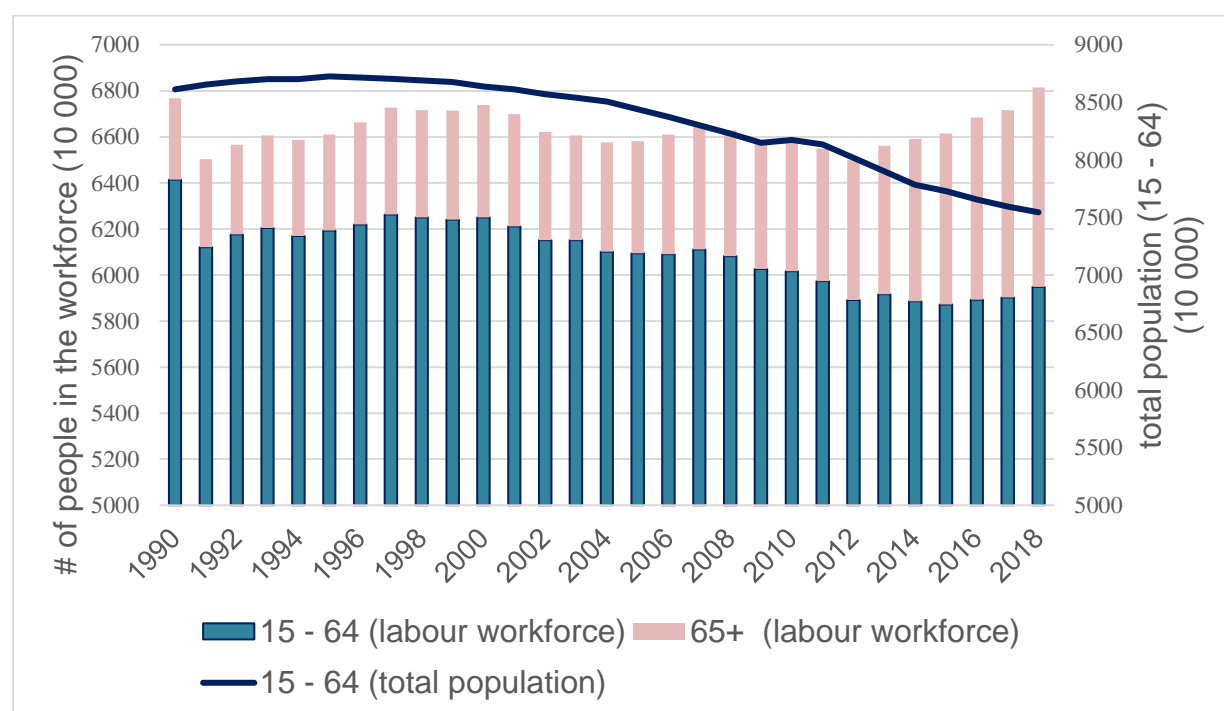
Different analyses have demonstrated positive economic impacts from health and public health investments by improving people's ability to contribute to society. It has been suggested that Japan's investment in the control of tuberculosis and parasitic disease in 1950s and 1960s contributed to the country's post-war economic growth (11). Evidence suggests that better health contributes to higher rates of labour market participation and higher earnings (16). Further, improved population-level health would reduce care dependency, thereby enabling those who currently take on informal caregiving duties to seek out more formal employment opportunities (17). People who are in better health are also more willing to invest in developing skills and capacities to lead longer, productive lives (18).

Similarly, investing in healthy ageing and creating opportunities for older adults to actively participate in society can yield benefits for society as a whole. The Observatory carried out a simulation on the effect of population ageing on economic growth and found that, generally, an increase in the older working age population is strongly associated with slower economic growth (19). However, a follow-up analysis found that a 5% improvement in health, based on improvements in years lived with disability (YLD), among people between the ages of 55 and 69 could lead to greater gross domestic product growth by improving productivity among people in this age group.

Many countries are also experiencing a shrinking workforce due to population ageing and lower birth rates. However, healthier and more active older adults can help maintain the workforce. For example, Japan experienced a significant decrease in the population between 15 and 64 years of age. But the number of people in the workforce was higher in 2018 than in 1990, largely due to the increase in workforce participation among those over 65 years of age (Fig. 8) (20,21). This has significant implications for many "younger countries" in the Region that are expecting declines in populations between 15 and 64 in the coming decades.

Annex

Fig. 8. Number of people in labour force between 1990 and 2018 (15–64 years old, and 65+)



Source: Statistics Bureau of Japan, Current Population Estimates and Labour Force Survey, 2019.

The imperative of taking action to prepare for population ageing is even more evident with the coronavirus disease 2019 (COVID-19) pandemic and the societal transformations it has triggered. Older adults have been disproportionately affected both directly with the disease threat and indirectly in social and economic consequences (22). Although all age groups are at risk of contracting COVID-19, older adults are at higher risk for more serious complications and death. Residents in long-term care facilities have been particularly impacted with 30–60% of all COVID-19 cases occurring in long-term care facilities in many European countries (23). Further, public health measures including physical distancing implemented to curb the spread of COVID-19 may exacerbate existing social vulnerabilities that some older adults experience, such as income insecurity, susceptibility to violence and social isolation. These, in turn, have significant physical and mental health implications for older adults. COVID-19 has exposed gaps in care for older adults and raised public awareness about the need to better support ageing populations. As such, COVID-19 has not only reinforced the importance of taking early action, but has also presented an opportunity for countries to prioritize actions to improve the health and well-being of older adults, generating momentum for cross-sectoral collaboration to promote healthy ageing.

2. Regional Action Plan

The Regional Action Plan aims to support Member States to achieve the vision of healthy ageing – healthier older adults in the Western Pacific thriving and contributing in society, by improving the health and well-being of older populations in the Region. The Plan is guided by a multisectoral, future-oriented and lifelong approach that adopts an equity lens and utilizes existing assets to the extent

possible. It recommends social and health transformation, adoption of community-based integrated care, and technologies and innovations, and for research, monitoring and evaluation.

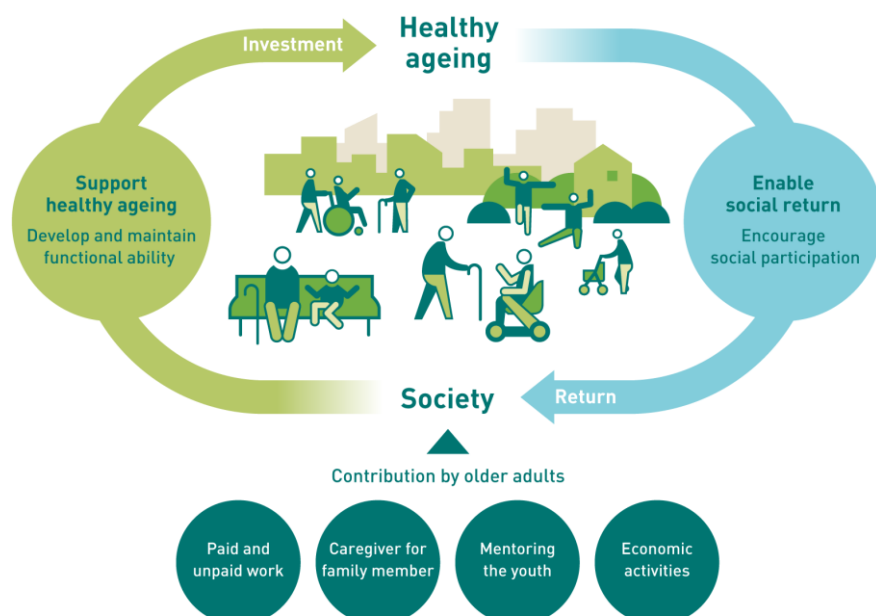
Fig. 9. Overview of the Regional Action Plan on Healthy Ageing



Source: World Health Organization.

2.1 Vision: Healthier older adults in the Western Pacific Region are thriving and contributing in society (“Turning silver into gold”)

Fig. 10. When society invests in healthy ageing, older adults can contribute back to their society



Source: World Health Organization.

Annex

WHO defines healthy ageing as “the process of developing and maintaining the functional ability that enables well-being in older age” (24). Functional ability reflects the interaction between an individual’s intrinsic capacity and their environment, including their home, community and broader society. Therefore, promoting healthy ageing not only involves promoting the health of older adults, but also fostering their continued social participation. This Action Plan provides guidance to Member States to prepare for an active ageing society in which older adults can stay healthy and continue participating.

2.2 Guiding principles

2.2.1 Future-oriented (backcasting)

Preparing for population ageing requires a long-term commitment and the transformation of health and social systems. Backcasting refers to having a long-term goal or vision and identifying actions for advancing towards that goal (25). It is a useful approach to address complex problems and implement sustainable, cross-sectoral action to effect change.

2.2.2 Lifelong approach

Health status of older adults is a result of a lifelong accumulation of health statuses and environmental exposures. For instance, childhood health and socioeconomic status have been associated with health and health behaviours later in life (26–29). Engaging in health promoting behaviours at a younger age, such as physical activity or smoking cessation, can impact health and health behaviours later in life (30,31). As such, promoting health earlier in life and removing barriers that prevent engaging in healthy behaviours is important to ensuring that individuals are ageing in good health.

2.2.3 Equity and gender

Equity is the absence of avoidable or remediable differences among groups of people, whether those groups are defined socially, economically, demographically or geographically. Health inequities arise largely from disparities in the conditions within which people live, learn, grow and age (32). These conditions are often referred to as the social determinants of health and can impact the health and functional abilities of older adults. They include (1) the overall context reflecting the structural, cultural, natural and functional aspects of a social system, which contribute to the unequal distribution of resources of society and (2) socioeconomic position (for example, education, ethnicity, gender, occupation, wealth, place of residence (33). Gender is another important determinant of health that impacts healthy ageing. Life expectancy differences according to gender are well-documented: women outlive men worldwide. In 2017, the global life expectancy at birth for men was 70.2 years, while that for women was 74.7 (34). However, women tend to experience poorer health throughout their lives and experience higher rates of poverty (8). Moreover, women are often expected to take on the caregiver role for older adults, which can impact their well-being and other responsibilities, such as paid work (8).

2.2.4 Multisectoral approach

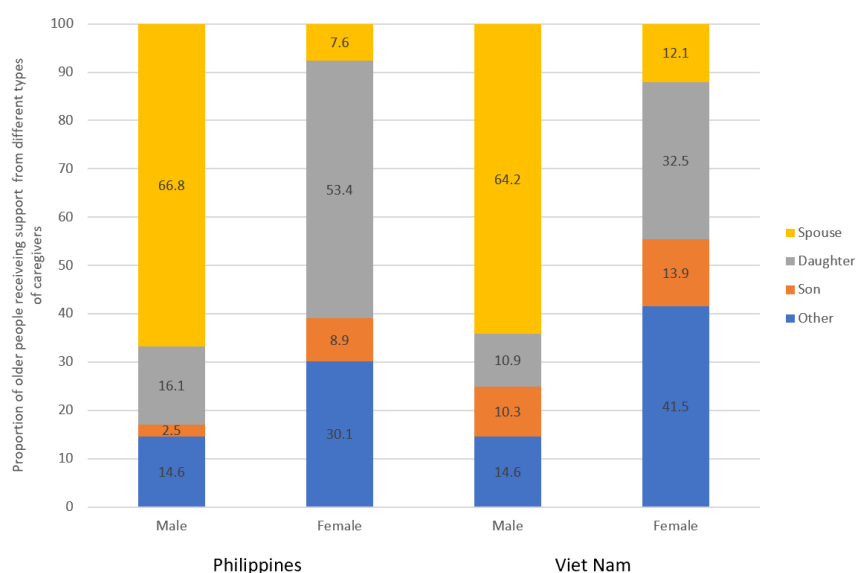
The health and well-being of older adults are determined by a complex interplay of factors that accumulate across a person’s lifetime including political, social, economic and environmental conditions that are largely outside the health sector (8,35). WHO advocates that the health sector

champions whole-of-government and whole-of-society approaches to health (25). To accomplish this, the health sector must identify “win-win” opportunities by aligning health goals with those of other sectors, helping other sectors build a case for change/investment by providing data on health benefits. Many WHO-designated age-friendly communities have adopted a multisectoral approach to designing communities that value the contributions of older adults and facilitate their access to all aspects of community life. For instance, the East Gippsland Shire Council, located in Victoria, Australia, developed an Age-Friendly Communities Strategy (2017–2030) in collaboration with community organizations and services that support older adults, community members, businesses, health services, the Department of Health and Human Services as well as educators through regular meetings and discussions (36).

2.2.5 Leveraging existing assets

An asset-based community development approach leverages community strengths and resources to address community challenges (37). A component of the WHO model for developing age-friendly communities, this approach takes advantage of local culture, skill, knowledge, resources and structures to develop social innovations to enhance the quality of life of the people in the community (37,38). These social innovations are both informed and driven by people in the community, which makes them more tailored to the community and, consequently, more sustainable (39). For instance, Thailand leverages community volunteers in the development of new care management programmes for older adults (40). In many countries and areas in the Western Pacific Region, including the Philippines and Viet Nam, family members continue to serve as an important asset in providing long-term care to older adults (Fig. 11) (41,42).

Fig. 11. Relationship of primary caregiver to older adults by gender



Source: Cruz et al. (2019) (41); Giang (2011) (42).

Annex

2.3 Objectives

Objective 1. Transforming societies as a whole to promote healthy ageing, based on understanding the implications of population ageing

Rationale

Population ageing represents a significant opportunity for older adults to contribute to society. Healthy ageing is not simply about the provision of better health care to older adults or about simply improving welfare to provide financial and social support to older adults. It is about enabling older adults to optimize their functional abilities, including meeting basic needs, learning and making decisions, building and maintaining relationships, mobility (getting around) and contributing to families, communities and society (8). To fully realize the potential of older adults, policy-makers should understand the complex societal implications of population ageing and formulate a cross-sectoral plan to transform society (43).

It will also require mitigating negative stereotypes, prejudices and discrimination towards older adults and ageing (“ageism”) (44). Ageism can take on the form of overt discrimination through legislation and policies or actions when interacting with older adults. It can also manifest itself through erroneous assumptions about older adults, all of which can contribute to poorer health among older adults (44). Ageism is also present within the health sector both implicitly and explicitly, such as through denial of access to health services or exclusion from research activities including clinical trials for age-related diseases (45–47). As a result, early markers of decline in intrinsic capacity, such as decreased walking speed or reduced muscle strength, are regarded as “normal ageing” and often not addressed adequately (44).

Strategic direction

1) Understanding the broader implications of population ageing

Given that population ageing has implications to society beyond the health sector, each country will need to make projections about population trends, deliberate over alternative scenarios and assess the potential implications for their social systems, then adapt accordingly. Policy-makers in various sectors should agree on the long-term vision for society in response to projections and work backwards to identify actions needed today to deliver the desired future (backcasting). It is especially important for all sectors—such as health, welfare, housing, transportation and labour—to come to a consensus about the long-term vision for supporting healthy ageing, which extends beyond simply providing health-care services and welfare support to older adults.

2) Transformation of policies across sectors to ensure that policies are age-friendly

Policies in many countries tend to be based on traditional ideas about the life-course, whereby education, employment and retirement are expected to occur during set periods of life (48). These policies often limit opportunities for older adults. Countries are encouraged to review policies that may create barriers for older adults and to reform policies to enable their continual social participation.

- a. Legislation and policies against ageism:** Countries are encouraged to introduce or strengthen the enforcement of laws to prevent age-based discrimination as well as review policies to ensure that they do not discriminate against individuals on the basis of age. For instance, all countries in the European Union are required to implement the Employment

Equality Framework Directive, which prohibits discrimination in the workplace, including the discrimination on the basis of age (48). Similarly, the United States of America implemented the Age Discrimination in Employment Act of 1967 prohibiting the discrimination of people over the age of 40 in the workplace, which may contribute to high rates of participation among people over 65 in the United States labour force (48).

b. Employment and retirement policies

- i. Consider flexible employment policies:** In many countries, barriers exist for older adults to participate in the labour force. In Japan, for example, mandatory retirement policies discourage employers from keeping employees beyond retirement age (49). Such policies reduce the probability of men between 60 and 69 from working by an estimated 20% (48). Given that employment is an important determinant of health (50–52), the health sector may advocate for more flexible employment policies, including partial retirement, part-time work or self-employment to support older adults who wish to remain in the workforce (48).
- ii. Incentivize employers to retain older workers:** This can include incentives to train older workers as well as tax exemptions to hire and protect older workers (48).
- c. Social security:** As people grow older and retire from jobs, they are less able to rely on income from employment and, therefore, require additional financial support (53). Social protection for older adults encompasses in-kind as well as cash benefits. In-kind benefits may include housing and energy subsidies as well as affordable access to essential services such as health and long-term care services (48,53). It is important, however, that public pension systems do not discourage older adults from working. For example, the Japanese public pension system reduces benefits for working individuals who are eligible for pension, which may discourage people from working beyond retirement age (49).
- d. Planning for retirement:** Retirement planning requires making good savings and investment decisions throughout life, which can contribute to financial security in older adults (54). Policy-makers have an important role to play to strengthen financial literacy by providing young people with financial education to improve their awareness of financial risk and opportunities and enabling them to make more informed choices to improve their long-term financial well-being.

3) Advocacy to prevent ageism and create a positive culture around ageing

Negative attitudes about older adults persist, despite their diversity and the many contributions they make to society. The WHO Decade of Healthy Ageing advocates for the prevention of stereotyping (in thinking), prejudice (in feelings), and discrimination (in actions) towards people on the basis of age, which can have negative effects on the health and well-being of older adults (55). This requires capacity-building, advocacy and campaigning to change negative individual and societal perceptions about ageing and older adults.

Annex

Recommended actions

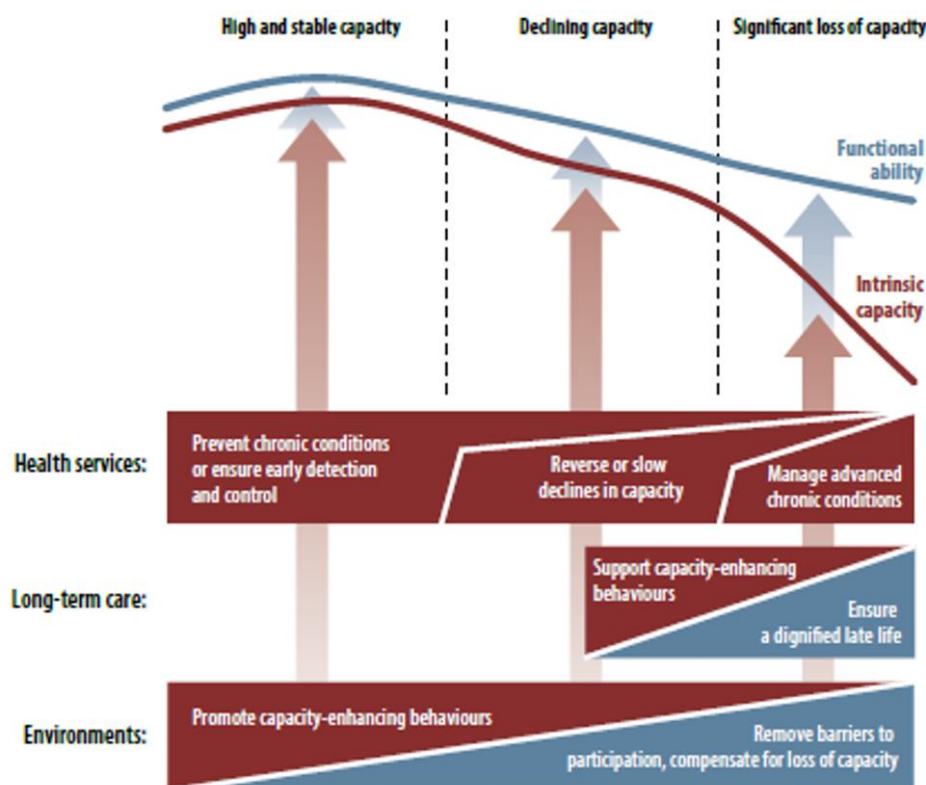
For Member States	For WHO
<ul style="list-style-type: none"> • Set up a multisectoral mechanism to review the demographic trend in the country and identify the implications to different sectors. • Identify and review policies, including legislation and enforcement mechanisms, that create barriers for older adults, including access to health, employment, learning and social participation opportunities. • Foster more positive representations of ageing through media and campaigns to raise awareness about ageism and the prevention of age-based discrimination. • Facilitate the participation of older adults in decision-making at all levels using community-based participatory tools and approaches (55,56). This may include organizing focus groups with older adults. • Support the development and implementation of training programmes to combat ageism in health, education, employment and other sectors, including providing information about myths versus the realities of ageing. <ul style="list-style-type: none"> ○ Create opportunities that support and enhance the abilities of older adults and reduce self-directed ageism • Increase opportunities for intergenerational engagement to improve attitudes on ageing among younger people and to combat negative stereotypes. 	<ul style="list-style-type: none"> • Support Member States to review relevant policies and provide evidence to build a case for revising policies when necessary. • Provide materials that offer positive representations of ageing to be used for public campaigns.

Objective 2. Transforming health systems to address each individual's lifelong health needs by providing necessary health and non-health services in a coordinated way

Rationale

The health status and functional ability of older adults is largely determined by an accumulation of medical conditions, individual behaviours and social environments experienced throughout their lives. Therefore, supporting healthy ageing extends beyond simply treating illness in older adults; it requires creating enabling environments and fostering lifelong healthy behaviours to improve health throughout life. WHO advocates a lifelong approach for healthy ageing in which early action is taken during periods of high and stable capacity to promote functional capacity and prevent decline or loss of capacity later in life (Fig. 12) (48).

Fig. 12. A public health framework for Healthy Ageing: opportunities for public-health action across the life



Source: World Health Organization, World report on ageing and health, 2015.

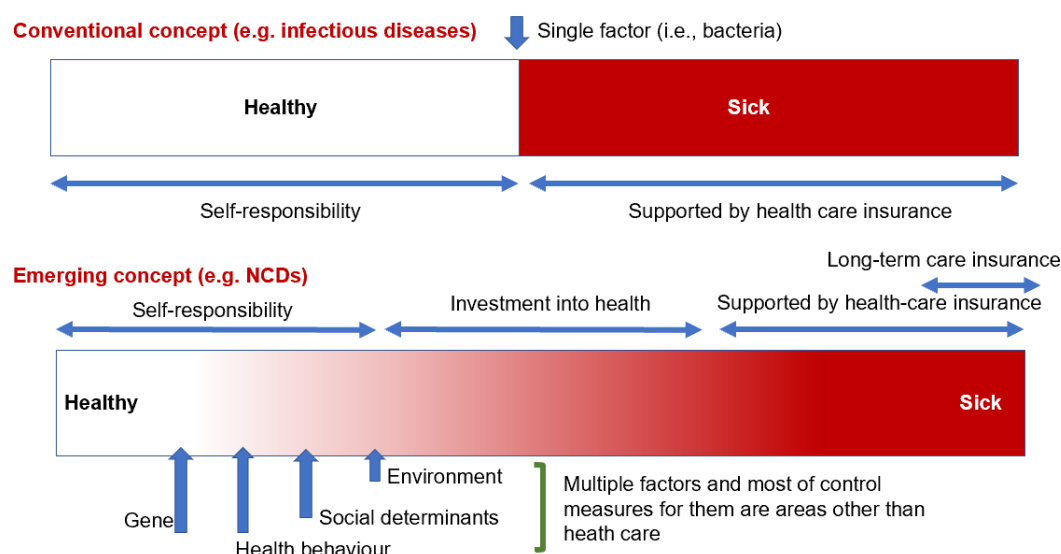
In addition, demographic changes will shift the disease burden heavily from communicable diseases towards NCDs and other chronic conditions, which will require a greater focus on addressing the declining intrinsic capacity of a large proportion of the population. This is in addition to the ongoing communicable disease burden in some parts of the Region (25). Existing health-care systems tend to have a single-disease, episode centred approach that cannot fully address current and future needs of populations.

With ongoing changes in illness patterns, there is often no clear distinction between the healthy and the sick (Fig. 13) (57). Preventing NCDs as well as managing chronic conditions and multiple morbidities in the population requires changes to individual behaviours and social and environmental factors with individuals and communities having to play a greater role in promoting health. Therefore, it is important to maximize the uptake of self-care and preventive behaviours. Care and treatment services should be personalized because individuals have different health statuses and preferences, and experience different social and environmental conditions.

The ongoing COVID-19 pandemic, with its impact on economies across the Region and disruption to health systems, adds impetus to rethink health-care service delivery in communities.

Annex

Fig. 13. Changes in the concept of health with population ageing



Source: Adapted from Nakatani (2020) (57).

Strategic direction

To better support prevention and management of chronic conditions, health systems must be reoriented to “accompany” individuals throughout their lives and expand their role beyond just treating disease and illness (25). The proposed vision for the future of primary health care puts individuals and families at the centre with their health supported by coordinated services that cut across different sectors and are delivered in their communities (Fig. 14). These services also address the environment influencing health (social determinants). These include (A) curative services; (B) preventive services; and (C) social and welfare services. Technological innovations, such as information and communication technology, enables information-sharing and coordination across sectors and personalized services.

Fig. 14. Vision for the future of primary health care in the Western Pacific Region



Source: World Health Organization.

1) Curative services

With a shift in disease burden from acute diseases to NCDs, health services traditionally designed to treat acute conditions have become inadequate in supporting people to remain healthy and productive throughout their lives (25). Therefore, Member States should strengthen primary health care services to be equipped to address multiple comorbidities and risk factors and ensure continuity of care throughout people's lives. Curative services need to evolve to accompany people throughout their lives and move away from treating each ailment in isolation. There is a need for a "one-stop service" that can address the majority of a person's health issues, including diagnosis, treatment, management, rehabilitation and palliative care services. A holistic approach is needed in which professionals in different services understand and take into account an individual's social/psychological state in addition to specific medical conditions. Information also needs to be shared among professionals in the care pathway to promote continuity of care.

Primary health care should be linked well to secondary and tertiary health facilities and services through: 1) information-sharing across services and facilities about patients to ensure continuous care; 2) the provision of specialized care through specialists' visits or virtual consultations for complicated cases; and 3) the referral network of patients with which primary care can respond to any health-care need an individual may have, either through direct provision of care (for the vast majority of conditions) or through referral to other levels of care or services.

Palliative care

Palliative care is defined as an approach that improves the quality of life of patients and their families facing the problems associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual (58). Basic palliative care requires inexpensive medicines and equipment as well as simple training that can be taught to general clinicians (59). Further, palliative care can be delivered within communities as part of primary care, which can enable patients to receive these services within the comfort of their homes. The WHO document, *Integrating palliative care and symptom relief into primary health care: a WHO guide for planners, implementers and managers*, provides guidelines for integrating palliative care and symptom control into primary health care (59).

Primary health care in health emergencies

The COVID-19 pandemic has served as a reminder of the importance of also preparing health systems for potential health emergencies, particularly at the primary health care level. In responding to health emergencies, primary health care plays a key role in managing emergency cases, preventing further spread of disease and supporting disease surveillance (60). The key challenge is for primary health care to retain its capacity to respond effectively to an infectious disease outbreak, while strengthening its ability to address the growing burden of NCDs (60).

The WHO *Primary health care and health emergencies* (2018) provides further guidance on preparing primary health care systems for health emergencies (60).

Annex

2) Preventive services

The health conditions of older adults, including NCDs, are often the cumulative results of behaviours throughout their lives (61). As such, it is important to encourage individuals to adopt healthy behaviours at a young age and continue them throughout their lives.

The WHO defines health promotion as the process of enabling people to increase control over, and to improve their health (62). It covers a wide range of social and environmental interventions that contribute to improving the health literacy of populations as well as creating environments that enable all individuals to make healthy choices and engage in health promoting behaviours. Health promotion focuses on addressing and preventing the root causes of ill health, not just treatments and cures, in collaboration with non-health sectors.

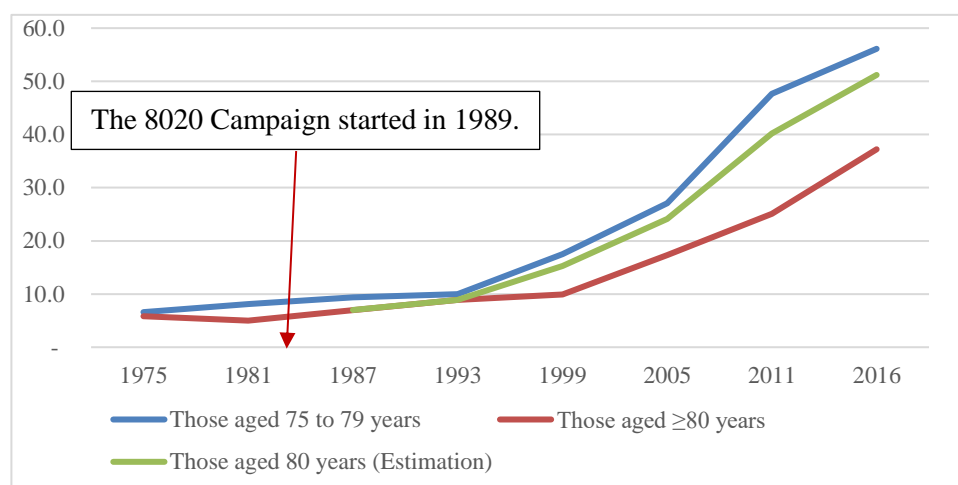
For example, experience in Japan suggests that lifelong multisectoral health promotion can significantly improve the oral health of older adults (see case study).

Case study: Japan 8020 Campaign

In 1989, Japan's Ministry of Health and Welfare launched the "8020 Campaign" to ensure that more than 50% of people over the age of 80 retain 20 or more teeth by the year 2022 (63). At the time, only 7% of people aged 80 and above had 20 or more teeth (63).

To achieve this goal, the campaign adopted a multisectoral, lifelong approach to preventing tooth loss by engaging different sectors and carrying out initiatives that targeted all generations (64). The Ministry of Health, Labour and Welfare provided subsidies to local governments and dental associations to carry out various oral health initiatives, which included providing check-ups for expecting mothers and children 1.5 and 3 years old, as well as targeted age groups such as individuals over the age of 40 (63). The Ministry of Education, Culture, Sports, Science and Technology also provided school-based initiatives including providing annual check-ups for those between 6 and 18 years old by a school dentist and by recommending school-based fluoride rinsing programmes for children and adolescents from 4 to 14 years old.

In 2000, the 8020 Promotion Foundation was established, primarily to conduct research related to the campaign (65). The Ministry of Health, Labour and Welfare carried out a national survey of dental diseases in 2016 and found that 51% of 80-year olds in Japan had more than 20 teeth (Fig. 15) (66). Further, the prevalence of tooth decay among children also decreased as a result of the campaign activities that targeted younger age groups (66). Finally, research that came out of the 8020 Promotion Foundation provided the impetus for the Act on the Promotion of Dental and Oral Health in 2011, which further reinforces the importance of oral health promotion (67).

Fig. 15. Trend of percentages of older adults with at least 20 teeth from 1975 to 2016

Source: Ministry of Health, Labour and Welfare Japan, Survey of Dental Diseases, 2016.

Addressing the risk factors for NCDs

WHO recently estimated the benefits of the most cost-effective and feasible interventions to prevent and control NCDs (best buys) in low-income and lower-middle-income countries (68). These best buys include (1) reduce tobacco use, (2) reduce harmful use of alcohol, (3) reduce unhealthy diet, (4) increase physical activity, (5) manage cardiovascular diseases and diabetes, and (6) manage cancer. It was estimated that countries need only an additional US\$ 1.27 per person to implement these interventions and reduce premature mortality by 15% by 2030. Every single dollar – or yen, yuan, won, peso, kip, rufiyaa, tugrik, riel, ringgit, franc, vatu, tala or pa'anga – invested now in these WHO best buys will yield at least a sevenfold return by 2030.

Self-care

Self-care is defined as the ability of individuals to promote and maintain their health as well as manage illness and disability with or without the support of a health-care provider (69). Self-care practices are particularly important for the prevention and self-management of illnesses among older adults (70). Promoting self-care is an important aspect of “ageing in place”, particularly in resource-limited settings (70).

Health education or self-management programmes can be effective to promote self-care. Health education contributes to improved health literacy and self-efficacy among older adults to take actions that promote their health; whereas, self-management programmes have been shown to improve physical activity, self-care, chronic pain and self-efficacy among older adults (70,71).

Self-care initiatives may include physical activity and proper nutrition, among others:

Physical activity

Physical activity offers numerous health benefits for all age groups, including a potentially protective effect against health conditions associated with older age. For instance, an estimated

Annex

10 million new cases of dementia globally could have been mitigated if older adults had engaged in recommended physical activity (72). In addition, moderate physical activity may reduce the risk of stroke by up to 15%, while vigorous physical activity may reduce the risk by up to 22% (73).

In designing physical activity programmes, considerations include (48):

- Account for cultural and environmental factors specific to community context
- Offer programmes in all domains of fitness – aerobic, strength and neuromotor (balance)
- For older adults with mobility limitations, start with exercises to increase strength and balance, before engaging in aerobic activities

Nutrition

Older adults tend to be more prone to nutritional deficiencies because of physiological changes that accompany ageing, such as sensory impairments affecting taste and smell or dental issues affecting masticatory function (48). Malnutrition refers to the imbalance between nutritional needs and intake and encompasses two groups of conditions: (1) undernutrition, which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and micronutrient deficiencies or insufficiencies (a lack of important vitamins and minerals); and (2) overweight, obesity and diet-related noncommunicable diseases (such as heart disease, stroke, diabetes and cancer) (74). Malnutrition is related to a decline in general functional capacity, decreased bone mass, increased risk of frailty and greater likelihood of being care dependent (48). However, nutritional problems among older adults are often underdiagnosed and, subsequently, unaddressed.

Initiatives to promote improved nutrition among older adults should consider (48):

- Improving the nutrient density of food, particularly vitamins and minerals as well as energy and protein intake
- Providing individualized nutritional counselling to address varying needs and circumstances

Nudging to promote behaviour change

To encourage individual efforts for health promotion, science-based behavioural “nudging” can be implemented, in addition to conventional health communications. These “nudges” provide positive reinforcement and indirect influence on behaviours and decisions of individuals (see case study)

Case study: Nudging to promote behaviour change
Strategies to promote healthy lifestyles have often focused on providing people with health information, assuming that people make rational decisions based on their understanding of health issues as well as the risks and benefits of different behaviours (75). However, from a socio-ecological perspective, behaviour change is influenced by the interaction of factors across multiple levels of influence including individual, interpersonal, organizational, community and public policy (76).

There has been growing interest in the “nudge” as a tool to direct people to particular choices by modifying environments to make healthy behaviours easy and intuitive to perform. Simple examples of nudging including reducing plate sizes to reduce caloric intake and prevent overeating, as well as the strategic placement of certain foods in school settings to encourage students to eat healthier (77–79). Nudging has been used worldwide to address public health issues, including smoking cessation, harmful consumption of alcohol and promoting the uptake of vaccinations (80). As such, “nudging” can be a helpful approach to take in promoting the health of individuals throughout their lives, subsequently mitigating exposure to NCD risk factors.

3) Social and welfare services

While promoting self-care can provide individuals with the knowledge and skill to better manage their health, it is equally important to recognize that adopting healthy behaviours, including physical activity and healthy eating, depends on access to appropriate social and environmental contexts that enable these behaviours (81). However, these conditions have not yet been adequately addressed. For instance, countries such as Japan and the Republic of Korea, which have highly developed health systems with universal health coverage, continue to experience widespread and persistent health inequities across population groups (82,83).

Evidence suggests that socioeconomic status can impact ageing trajectories resulting in diverse health and functional abilities among older adults. For instance, one study looking at frailty trajectories in 10 European countries found that gaps in frailty observed at the age of 50 due to educational attainment, occupational class and wealth persisted throughout old age (84). Further, an individual with the lowest level of education, occupation, income and wealth at age 67 was found to have a similar frailty index as an individual with the highest level of education, occupation, income and wealth at age 74.

Communities play a significant role in empowering individuals and families to make informed decisions and exert greater control over their health by shaping the social environment in which health behaviours take place through its social and welfare services. To better address social determinants of health, health services (preventive, curative, rehabilitative and palliative) must coordinate with other community services (social and welfare services) to meet the needs and demands of community members and optimize the use of scarce resources. This also includes integrating health services with long-term care and assistive care services, a process described in detail under Objective 3.

To support Member States to address the social determinants of health that impact healthy ageing, the WHO Global Age-friendly Cities: A Guide (2008) outlines recommendations to promote age-friendly environments based on consultations with older adults and those who have significant interaction with older adults (38). The World report on ageing and health (2015) provides additional recommendations on how to frame age-friendly actions towards meeting the goal of enhancing functional ability by leveraging all sectors and encouraging them to work together (38). For instance, availability of accessible and affordable housing and transportation were identified as key components of an age-friendly city. Designing environments that account for the diverse abilities and needs of the ageing population can enable older adults to participate and engage meaningfully in their communities (38).

Annex

4) Innovation

Increased availability of technological advances—including big data, artificial intelligence, robotics and cloud computing—is allowing innovative care models to be implemented, empowering individuals to exert greater control over their health. The ongoing COVID-19 pandemic has also fast tracked the adoption of digital solutions as well as social innovations in health. Further details regarding technological and social innovations to promote healthy ageing can be found in Objective 4.

Recommended actions

For Member States	For WHO
<ul style="list-style-type: none"> • Develop and communicate a clear national vision of the health system transformation, setting sound strategies and a national plan in collaboration with all stakeholders, including government and private sector, providers and the population. • Raise public awareness about the effects of the social determinants of health on individual and population level health and foster environments that enable the adoption of healthy behaviours. • Promote and develop national and/or subnational programmes on age-friendly cities and communities that are informed by and responsive to communities and leverage existing resources. • Advocate for universal access to health care that offers financial protection for low-income households, including older adults, and provide coverage for essential medicines and assistive devices. • Strengthen integration between healthy ageing and NCD programmes with an emphasis on health promotion and addressing NCD risk factors across the life. • Strengthen the primary health care capacity to provide quality care for older adults and respond effectively to potential infectious disease outbreaks, including building the capacity of the health workforce and community leaders. • Promote the participation of older adults in decision-making processes, including soliciting feedback on the quality of health services. 	<ul style="list-style-type: none"> • Support country-tailored, national-level initiatives and partnerships to implement the vision for the future of primary health care with United Nations agencies, international donors, the private sector, civil societies and other sectors. • Consolidate evidence and identify promising policy options and interventions, including ways to foster self-care and address social determinants of health to promote healthy ageing. • Provide technical support for design and operationalization of system reforms tailored to country contexts, involving both national and subnational levels. • Develop tools to raise awareness among older adults about the importance of disease prevention and health promotion. • Provide evidence-based technical assistance for health sectors in building a case to engage other sectors in addressing the social and environmental determinants of health.

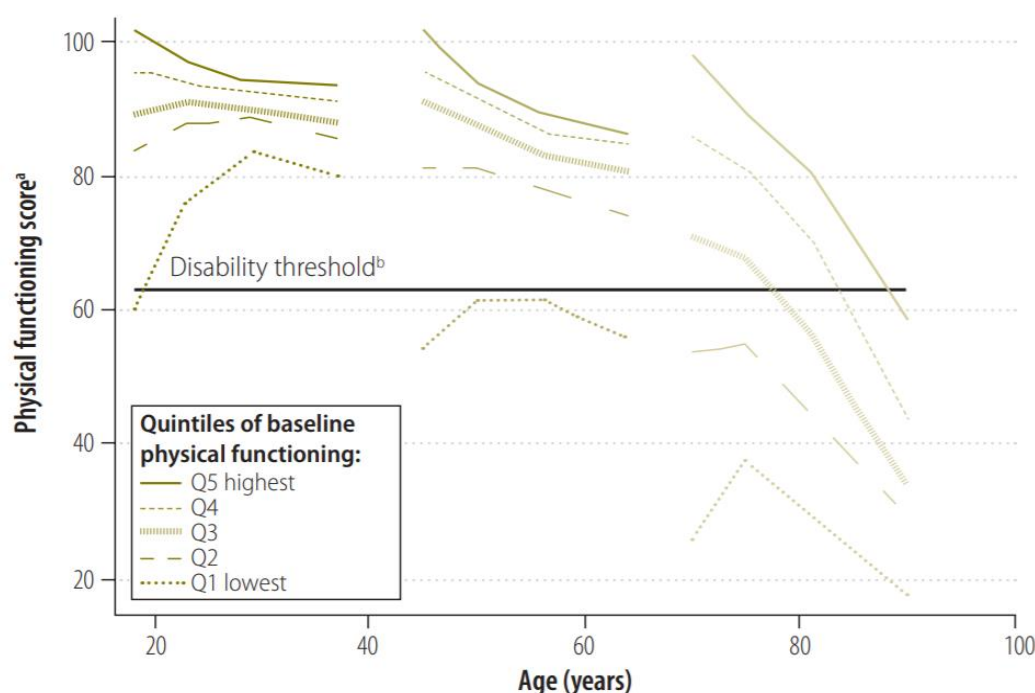
Objective 3. Providing community-based integrated care for older adults tailored to individual needs

Rationale

Older adults undergo different ageing trajectories, depending on their health status and social and environmental exposures throughout life. This can lead to significant diversity in health and functional ability in older adulthood. For instance, a study that followed three cohorts of women in Australia (younger cohort; middle-aged cohort and older cohort) between 1996 and 2011 found that the older cohort showed the greatest diversity in physical functioning trends throughout the study period (Fig. 16) (85). Additionally, the diversity observed in the younger cohort suggests that interventions aimed at improving physical functioning should be implemented at younger ages to mitigate further decline.

Given that functional abilities of older adults vary considerably, different people will require support and services that are tailored to meet their unique needs.

Fig. 16. Decline in physical functioning with age, by baseline quintile of physical functioning



* From left to right: younger cohort (birth in 1973–1978); mid-age cohort (birth in 1946–1951); older cohort (birth in 1921–1926)

Source: Brown et al. (2013) (85).

A community-based integrated care model has been adopted in many Western Pacific countries to support the needs of older adults so they can continue to work, study and participate in their communities (Fig. 17). According to this model, person-centred care is provided by leveraging community resources and coordinating between (A) health care, (B) long-term care and (C) social activities and services (86).

Annex

Fig. 17. Model for community-based integrated care



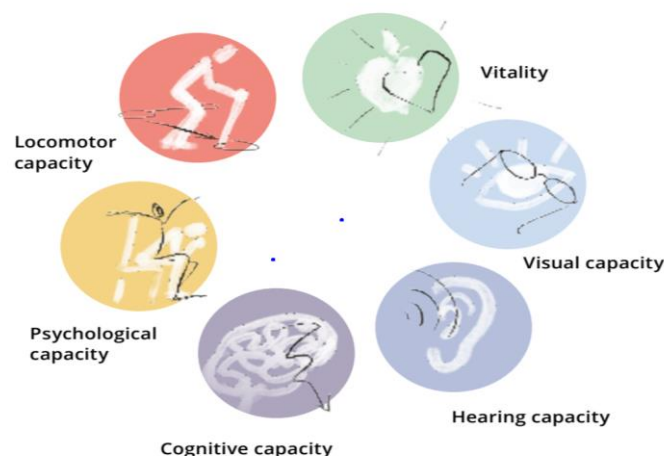
Source: World Health Organization.

Strategic direction

1) Health care

Ensure that the health sector has the skill and knowledge of health conditions more prevalent among older adults and have the capacity to provide adequate care. WHO Integrated Care for Older People guidelines assist health care professionals and others in the community and primary care setting in assessing the intrinsic capacity of older adults, developing personalized care plans as well as supporting caregivers (87). Guidelines cover the following areas of intrinsic capacity: mobility; nutrition or vitality; vision; hearing; cognition and mood; geriatric syndromes of urinary incontinence; and risk of falls (Fig. 18) (87).

Fig. 18. Key domains of intrinsic capacity



Source: World Health Organization, Integrated Care for Older People: guidance for person-centred assessment and pathways in primary care, 2019.

Frailty is highly prevalent among older adults. One study suggests that frailty occurs in one in six community-dwelling older adults, with higher incidence among women compared to men (88). Frailty reflects a progressive age-related decline in physiological systems that results in decreased intrinsic capacity, which increases vulnerability to stressors and increases the risk of a range of adverse health outcomes, including falls, disability, the need for long-term care and mortality (89,90). Exercise, nutrition, cognitive training, geriatric assessment and hormone therapy have been suggested as potential interventions to delay or reverse frailty (88). Among them, it appears that strength training and protein supplementation may be most effective and feasible to implement (88). For individuals who experience significant decline in functional ability, where they may no longer be able to carry out basic tasks of daily living, their autonomy should be encouraged to the extent possible (48). This includes enabling the individual to retain the ability to make life choices and supporting them in carry out these decisions.

As people grow older, they are also more likely to experience multimorbidity, which refers to having multiple chronic conditions at the same time (48). With multimorbidity, there are concerns around interactions between health conditions; between one condition and the treatment for another condition; and among the different medications prescribed (48). One systematic review of seven high-income countries found that more than half of older adults experience multimorbidity with increased prevalence at older age (91). Many health systems are not equipped to provide the comprehensive care needed to support people with complex health needs (48). As such, innovative approaches are needed improve treatment and support for older adults with multimorbidity.

Older adults may also be more susceptible to certain diseases and conditions such as vaccine preventable diseases (such as seasonal influenza, pneumococcal disease, hepatitis), tuberculosis, dementia and oral health disease. In promoting healthy ageing, Member States are encouraged to refer to relevant guidance and recommendations (see appendix).

2) Long-term care

Long-term care describes services that aim to support people with or at risk of significant loss of intrinsic capacity to maintain a certain level of functional ability (48). Countries should build upon and strengthen community capacity for “ageing in place”, supplemented by institutionalized care if available and needed (48,92). There are multiple options for providing long-term care.

Home care: Home care refers to care and assistance delivered within one’s home. Home care includes services that assist people with tasks of daily life provided by paid or unpaid caregivers.

- *Unpaid caregivers (such as family members and/or community volunteers):*
 - Unpaid caregivers often have to sacrifice income-earning activities to take on this role, which can potentially put them in a financially precarious situation (48). Providing financial incentives in the form of tax credits or direct payments can help support informal caregivers.
 - Consider providing unpaid caregivers with access to basic training and education in caring for older adults, either in person or online (48). Training programmes should provide information on different health conditions and their expected progression as well as ways to support individuals in managing their health. Long-term care

Annex

programmes should be formulated so that caregivers are able to work in multidisciplinary teams with health and other service providers. Providing training to caregivers on practical skills and knowledge – such as how to transfer a person from a chair to a bed or how to help with bathing – can contribute to improved care for older adults.

- WHO has also developed an online knowledge and skills training programme for caregivers of people with dementia called iSupport (93). The iSupport manual includes the following five modules and accompanying exercises: (i) introduction to dementia, (ii) being a caregiver, (iii) caring for me, (iv) providing everyday care and (v) dealing with behaviour changes.
- *Paid caregivers (caregivers with formal qualifications)*
 - Establish or strengthen an accreditation process for professional caregivers to ensure the quality and availability of the long-term care workforce. For instance, in Japan, the Government established the Certified Care Worker classification, a national qualification in the area of nursing care (94).
 - As part of the accreditation process, include topics about specific health conditions and preventing ageism, as well as competencies in assisting with activities of daily living, supporting older adults to maintain intrinsic capacity, empowering them to make decisions and live autonomously (48).
 - Develop or adopt care guidelines—covering topics such as nutrition, managing challenging behaviours and preventing elder abuse—and make them widely available (48).

Day care and short stay: Consider providing, day care and short stay services in communities. These services provide a short-term stay option for older adults and are typically used in addition to other home care services. They often serve as a form of respite to help alleviate the burden for family caregivers. Day care services can include support with tasks of daily life and different social activities (48).

Long-term care facilities: Long-term care facilities may vary by country and include nursing homes, skilled nursing facilities, assisted living facilities, residential facilities and residential long-term care facilities. They provide a variety of services, including medical and assistive care, to people who are unable to live independently in the community (95). In some societies, long-term care facilities are often the principal alternative to unpaid care (96). Some families are reluctant to place their older relatives there, so family members continue to serve as the primary caregiver, even when it is beyond their capacity. As such, alternative forms of care should be offered such as day care or short-term stays that provide quality care for individuals with complex needs and can serve as a respite for families and caregivers while reducing the demand for institutionalized care. In countries with limited resources, long-term care facilities should be considered mainly for individuals with more complex needs (such as those requiring 24-hour or advanced medical care).

Protecting and responding to violence against older adults in long-term care settings

Violence against older adults is a significant public health problem that is often overlooked. Incidences of violence and abuse can occur in community settings as well as within long-term care facilities. Evidence suggests that rates of abuse are higher within long-term care facilities. In fact,

a systematic review looking at self-reported data from six countries found that approximately 64.2% of staff in long-term care facilities committed some form of abuse within the past year (97). Abuse in facilities can include physically restraining older adults, neglect such as leaving them in soiled clothes or allowing them to develop pressure sores, preventing older adults from making choices over daily affairs as well as withholding medication (98). Violence against older adults can lead to physical injuries, long-lasting psychological consequences, including depression and anxiety, and may contribute to premature death (Lach et al., 1998) (98). Research suggests that abuse is more likely to occur in facilities with poor standards of care for older adult, where staff lack training and are overworked, with deficient physical environment as well as policies that protect the interests of the facility over those of the residents (98).

Strategies to prevent violence against older people include (98):

- Mitigating negative perceptions of ageing and older people through intergenerational programmes as well as public and professional awareness campaigns
- Improving support and training for staff and caregivers including education on ageism, appropriate remuneration and ensure sufficient staffing of facilities
- Developing and enforcing policies that protect older adults from violence and abuse

Strategies to respond to violence against older people include (98):

- Mechanisms that facilitate reporting of abuse to authorities
- Support groups, mental health services and emergency housing for victims of violence

Responding to an outbreak in long-term care settings

Older adults have been significantly affected by the COVID-19 pandemic, which underscores the importance of enhanced precaution and early preparation to protect older adults living at home, as well as those living in long-term care facilities during infectious disease outbreaks (99).

Long-term care facilities or other non-acute care facilities should implement general principles for the prevention of infectious disease transmission with a focus on preparation and response as outlined in the *WHO Guidance on COVID-19 for the care of older adults and people living in long-term care facilities, other non-acute care facilities and home care* (2020) (99) and in *Infection prevention and control guidance for long-term care facilities in the context of COVID-19* (2020) (100). Preventing staff/caregivers/family members from carrying the infectious disease into or out of the facility and minimizing the risk of spread within the facility are important for controlling the spread of infectious diseases.

Older adults living at home should be cautious about visitors entering their home and should refrain from allowing unwell people to visit (99). In the event that a caregiver is unwell, the individual should arrange for another carer if possible. If the older person is unwell, the individual should seek medical attention and limit their contact with others.

No matter where they live, all older adults are recommended to follow basic protective measures including washing hands frequently with soap and water, maintaining social distance, avoiding touching eyes, nose and mouth and practicing respiratory hygiene (99): In the event of a fever,

Annex

cough or difficulty breathing, older adults should seek medical care early and follow the directions of the local health authority.

3) Social activities and services

Promoting social participation in older adulthood by strengthening communities through lifelong community engagement and participation.

Community involvement, strong social networks and social participation have been shown to improve physical and mental health of older adults. A study looking at older adults participation in physical and social activities found that, compared to those who participated in both types of activities, those who solely participated in social activities were 2.2 times more likely to become frail, while those who solely participated in physical activities were 6.4 times more likely to become frail (101). These findings suggest that participating in social activities may be critical to prevent frailty amongst older adults. Research also suggests that social participation may have a protective effect in preventing or delaying the onset of dementia (102,103) and may improve cognitive functioning (104-106). Specifically, satisfaction and reciprocity of relationship appear to contribute to reduced risk of dementia and Alzheimer's disease (107).

Social activities

Volunteering opportunities

Volunteering is a way that people can provide important contributions to society. Volunteering has been shown to yield health benefits for older adults (108,109). Evidence suggests that older volunteers are also more likely to dedicate more hours to volunteering and give their time more regularly than younger volunteers (108).

To promote volunteerism among older adults, several factors should be considered:

- Promoting self-confidence in older adults to volunteer through training opportunities as well as ongoing physical and emotional support for older volunteers (48,108)
- Ensuring availability of a range of volunteer opportunities and platforms for connecting older adults with volunteer opportunities that align with their interests (48)
- Providing incentives to volunteering, which may include financial incentives (48)
- Ensuring sufficient flexibility in volunteer selection criteria and time commitment to prevent the exclusion of older adults from opportunities (110).

Opportunities for lifelong learning

Education has traditionally been seen as an activity to prepare younger people for the workforce, a perception that excludes older adults (48). These traditional ways of thinking limit opportunities not only for older adults, but also for society as a whole. Older adults are motivated to learn for a variety of reasons including improving future employment prospects, to engage socially in their communities, to improve cognitive functioning as well as to seek new purpose and interests in life (111). Offering learning opportunities that are financially and physically accessible for older

adults as well as involving older adults in the teaching and co-designing of courses are some ways to encourage older adults to engage in lifelong learning (111).

Salon

Social isolation is a significant concern among older adults with up to 50% of people over the age of 60 being at risk of social isolation and approximately one third of them experiencing loneliness (112). In Japan, salon-type community interventions have been implemented in a collaborative effort between the municipality, citizen volunteers and researchers to foster social gathering opportunities for older adults (113). Salons aim to promote health, foster community engagement and enrich the lives of older people through the provision of a range of enjoyable, relaxing and sometimes educational activities such as arts and crafts, health education and physical activities. Once established, community salons are managed by local volunteers with financial and administrative support from the municipality. Efforts are made to ensure accessibility and equal opportunity for individuals to attend salons. This includes holding sessions within walking distance of most of the participants and keeping the cost of participation low. Studies on salons suggest that participation can contribute to preventing physical and cognitive decline (114,115).

Social services

Mental health services and support for victims of violence

Mental health is an integral part of health and well-being (116). Experiences of mental illness can predispose individuals to other illnesses such as cancer and cardiovascular disease and increase an individual's likelihood of experiencing disability and premature mortality (116). Without adequate support, mental illnesses can also lead individuals and families into precarious socioeconomic conditions including poverty (116).

Older adults experience life stressors common to individuals of all ages, but some stressors may be more common later in life such as progressive loss in capacities, a growing need for long-term care, experiences of bereavement and a potential drop in socioeconomic status following retirement (117). These stressors can, in turn, contribute to experiences of isolation, loneliness and mental illness among older adults (117). It is estimated that over 20% of adults aged 60 and over experience a mental or neurological disorder, which include depression, anxiety disorders and substance abuse (117). As such, older people require access to mental health services and psychological support in their communities.

The Integrated Care for Older People (ICOPE): Guidelines on community-level interventions to manage declines in intrinsic capacity includes a recommendation on preventing severe cognitive impairment and promoting psychological well-being in older adults (87). It recognizes that cognitive impairment and psychological difficulties often co-exist and can impact people's ability to carry out daily activities. Cognitive simulation therapy, which is a programme of differently themed activities and brief psychological interventions, can be a helpful intervention to prevent significant losses of mental capacity and, subsequently, prevent care-dependency in older age.

Annex

The WHO Mental Health Gap Action Programme (mhGAP) – Version 2.0 provides guidance on interventions for the prevention and management of priority mental, neurological and substance abuse disorders in individuals of all ages including recommendations for supporting older adults (118).

Case study: The Republic of Korea National Responsibility for Dementia System (2017)

Approximately 725 000 people in the Republic of Korea aged 65 or older have dementia. Some experts suggest that the number will reach 2.7 million by 2050 (119).

Dementia Support Centres (DSCs) were established in Seoul in 2007. They work to prevent and screen for dementia and provide integrated medical and social services based on individual needs (120). In 2017, the Korean Government implemented the National Responsibility for Dementia System to strengthen the national government's role in supporting people with dementia (119). The programme aims to increase the number of support centres for people with dementia, build specialized hospitals to treat dementia and establish relevant links across the medical, welfare and nursing sectors to better support people with dementia (119).

By 2019, 256 public health centres were established across the nation providing services including counselling, medical check-ups, dementia prevention and therapeutic programmes as well as case management for 2.62 million residents, dementia patients and their family members (121). Dedicated wards for dementia were also installed in 55 public long-term care hospitals to provide specialized services for people with dementia who experience hallucinations and violence (121). Three of these were designated as dementia care hospitals and construction is underway for another 39 hospitals (121). The goal is to establish 130 hospitals by 2022 (121).

The Korean Government has also provided financial aid to support people with dementia. Dementia examination has been included in the National Health Insurance, which has reduced the examination cost by half (121). The Government has also provided financial support to cover the cost of medication for 150 000 low-income patients with dementia (121). Eligibility and coverage of reduced long-term care expenses was also expanded, which has benefited 250 000 patients with dementia (121).

Finally, the Government is also working to advance research on dementia through its Plan on National Dementia Research and Development launched in 2018 (121).

Support for victims of violence

Violence against older people is also a significant concern. It is estimated that the global prevalence of elder abuse is 15.7% (1 in 6 older adults), with psychological, financial, neglect, physical and sexual abuse being the most prevalent forms (122). Helplines and support groups should also be made available and accessible to victims of violence and abuse, along with legal, financial and emergency housing support (98).

4) Coordination

Coordination at the individual level

Communities should tailor the services available to the needs and preferences of older adults. In some countries, service is coordinated by social workers or health professionals (such as community nurses). The United Kingdom of Great Britain and Northern Ireland introduced the concept of social prescription which relies on “link workers” to connect individuals to services in their communities based their needs (see case study).

Case study: Social prescription and link workers in the United Kingdom of Great Britain and Northern Ireland

Social prescription is a concept that emerged from the United Kingdom whereby health-care professionals provide non-clinical social prescription aimed at improving the patient’s health and well-being (123). This practice recognizes that people’s health and their ability to manage their health are influenced by many social and environmental factors that largely fall outside of the traditional health professional scope of practice. Often communities offer programmes and services that can address some social and environmental factors that contribute to the health and well-being of patients. However, people who need these services often do not know about them or where to find them. That is where the health system has a role to play in connecting individuals with services in their communities. Social prescribing is a good way to integrate the health sector with community assets and resources and improve the accessibility of these resources for individuals who need them the most. For older adults, social prescribing can also be a mechanism through which the health sectors connect individuals with long-term care services in their communities.

Link workers are individuals who support their clients to identify and connect with social services and groups in their communities. Clients are referred to link workers by health-care professionals who provide social prescriptions (124,125). Link workers meet with clients to identify personal needs and interests and set realistic goals, given that older adults are diverse and have unique needs. Based on this assessment, the link worker then connects the individual with appropriate services in their communities. These services can range from health promotion activities such as walking groups or cooking club, to services that address wider economic and social issues such as welfare, housing or employment (125).

Link workers play an important coordinating role to bridge the gap between health-care settings and the wider community to ensure that health and social services are delivered to older adults in an integrated manner (124).

Coordination at the community level

As noted, leveraging local knowledge and resources is important in developing community programmes and services that reflect the needs of older adults (37). As such, mechanisms are needed to engage community members in decision-making processes that determine what services are available to them and how they are delivered. One method of encouraging community organization and participation is the World Café.

Annex

The World Café engages community members in constructive dialogue around important needs and gaps in services for older adults at the community level (126). The workshop is typically set up with multiple round tables to enable multiple small group discussions. The workshop leader identifies discussion questions and presents them to participants, one at a time, in each round of the World Café. Throughout the session, participants move from round table to round table to engage in discussions on different topics with different community members.

The World Café leverages the power of conversations to foster learning and cultivate creativity, generating solutions to problems and stimulating novel ideas (126). As such, this can serve as an important tool for involving older adults in decision-making processes that determine how a community can be transformed to better support their needs (48).

Recommended actions

For Member States	For WHO
Health care	
<ul style="list-style-type: none"> • Develop the capacity of the health community to assess and monitor the intrinsic capacity of older adults and develop care plans with evidence-based interventions using WHO Integrated Care for Older People (ICOPE) in primary care. • Adopt relevant recommendations from WHO guidelines for immunization, hepatitis B and C, tuberculosis and palliative care in the national plan for ageing. • Develop national strategies to promote lifelong oral healthcare or incorporate it in existing ageing or NCD strategy, including accessibility to oral health services. • Adopt relevant WHO guidelines on dementia into either dedicated national strategies for dementia or national strategies for ageing. • Ensure the availability of diverse services, referral mechanisms and supports that address the needs of older adults with different intrinsic capacities (health promotion and prevention, treatment, palliative and end-of-life care, as well as specialized and long-term care services). 	<ul style="list-style-type: none"> • Provide evidence-based technical guidance on clinical management, delivering integrated care for older adults, inclusive of important long-term care services. • Support Member States to integrate WHO guidance into their national health strategies and implement them with a WHO collaborating centre on ageing. • Support Member States to provide training for capacity-building on delivering integrated care for older adults and long-term care.

Long-term care	
<ul style="list-style-type: none"> • Promote self-care training for older adults to encourage greater self-efficacy and improve management of their health. • Provide training to paid and unpaid caregivers and promote the accreditation of professional programmes and services. • Strengthen community capacity for “ageing in place”, including options for day care and short-term stays that is supplemented by long-term care facilities for individuals requiring more complex care. • Identify mechanisms to ensure quality services in the long-term care facilities (including unregulated, private facilities) • Take action to prevent and respond to violence against older adults both in communities and in long-term care facilities, which may include public and professional awareness campaigns, improved training and support for caregivers, enhanced standards of care in long-term care facilities, policies that protect older adults from violence, mechanisms to report incidence of violence and legal support for victims of abuse (98). • Ensure that long-term care facilities or other non-acute care facilities implement general principles in infection prevention and control with a focus on preparation and response, as outlined in WHO guidance 	<ul style="list-style-type: none"> • Provide technical support and material for training of self-care and home-based care. • Provide guidance and technical support for implementing general principles for infection prevention and control across long-term care settings.
Social services and supports	
<ul style="list-style-type: none"> • Provide community-based opportunities for continual social participation, including social activities, health promotion programmes as well as opportunities for lifelong learning and volunteering. • Identify local community champions to develop and promote social services and supports that are tailored to individual needs (such as functional capacity, income bracket). 	<ul style="list-style-type: none"> • Support Member States to collect evidence on effective services and supports to build a case for expanding services for older adults. • Promote the social participation of older adults through social activities, health promotion programmes as well as volunteering and learning opportunities.

Annex

Coordination	
<ul style="list-style-type: none"> • Develop a community-level integrated service plan by collaborating with different stakeholders, including older adults, their caregivers, nongovernmental organizations, volunteers and the private sector. • Ensure that health professionals in communities are appropriately trained on the social determinants of health • Consider training nurses, social workers and community volunteers to become “link workers” who can help connect older adults with services and supports to meet their unique needs. • Support communities to host community dialogues (World Cafés) to engage community members in decision-making processes that determine what services are needed in the community. 	<ul style="list-style-type: none"> • Contribute to research, documentation and dissemination of good practices on coordinated service provision for older adults, including coordination between health, long-term care and social service systems.

Objective 4. Fostering technological and social innovation to promote healthy ageing**Background**

Adapting to massive demographic shifts in the Western Pacific Region requires new and innovative ways of thinking and working (25). Technological innovations to support healthy ageing include new medical diagnostics and treatments, affordable assistive devices, electronic health records, information and communications technology (55). However, innovation is not limited to advances in technology. Social innovations for promoting healthy ageing should consider the social determinants of health and work to reduce health inequities across the life-course. In this way, all members of society can age in good health, leaving no one behind (25).

Strategic direction**1) Technological innovation**

Technological innovation to support healthy ageing can be largely grouped into three categories: (1) technology to support skill development and maintaining the workforce; (2) technology to support health and health systems; and (3) technology to promote social connectedness and ageing in place. The COVID-19 pandemic has further highlighted the need for digital technology to share health information, for communication and to maintain social connections.

Given that countries in the Region are at different stages of population ageing, with varying levels of educational attainment across different age groups, the technological and skill development needs of countries will differ. Nevertheless, all countries, including younger countries, are encouraged to adopt and develop technologies benefiting their demographic transition and responding to the educational and skill needs of their population. The ADB *Asian Economic Integration Report 2019/2020* outlines how countries at different stages of demographic transition and with different educational attainment trajectories can adopt technologies to meet their own unique needs (13).

Technology to support skill development and maintain the workforce

Technology can play an important role in supporting older adults to remain in the workforce for longer (13). The ADB report emphasizes the importance of a wide range of technologies that substitute and complement labour and skills, even among the countries in the early stages of population ageing, because the future labour supply may not meet the demand with lowering birth rates and the cost of labour will increase with improving education levels.

Areas of technological innovation to support skill development and employment (13):

- Tech substituting labour and skills: These types of technologies are particularly beneficial in settings that are experiencing a labour shortage. This includes automation technologies such as industrial and service robots.
- Tech complementing labour and skills: These types of technologies enhance the performance of workers and support them in maintaining a work-life balance. This may include physical augmentation technologies that aid with strength, mobility and endurance (such as powered suits) as well as remote work platforms and collaboration tools.
- Tech aiding education, skill development and lifelong learning: These types of technologies focus on supporting lifelong learning and skill development through the use of various devices and online platforms. This may include online professional development, virtual reality technologies to train workforces and information and communications technology to promote accessibility of education.
- Tech improving matching worker with job and task: This may include online job portals and cloud-sourcing platforms, or the use of big data and machine learning to allow for greater alignment of workers and jobs.

Technology to support health and the health system

Digitalization in the health sector can improve access to health services, reduce costs, improve quality of care and enhance efficiency of health systems, opportunities for self-care and support self-management of health (127). Further, digital health systems can remove the administrative burden from health professionals and carry out repetitive jobs so that health professionals can spend more time using their specialized skills. Finally, adopting new health technologies can allow older adults to be more involved and take greater ownership over their health and decisions around their health care. Technology also has the capacity to reduce health inequities by improving access to health care and health information.

Areas of digital health innovation:

- Electronic health: health-related information, resources and services provided electronically allow for a centralized system for storing health information and also enable remote access to health resources and services. This can be helpful for older adults who live in remote areas or who experience mobility challenges in accessing health services (127).
- Advanced computing science: big data (large volumes of data collected from multiple sources) can offer important insights regarding the health of older adults (127).
- Monitoring devices and wearables: monitoring devices and wearables (to track health behaviours, monitor health rate and blood sugar, alert individuals when they require medical

Annex

attention, gamify health prevention, management and rehabilitation) allow for tailored health promotion for older adults and can facilitate self-care (127).

- Artificial intelligence: computer systems that can perform tasks traditionally carried out by humans can help improve the efficiency of health-care service delivery. This may include virtual health assistants to help direct patient care (for example, triage, provide diagnostics and treatment plans) or physician clinical decision support to provide physicians with specialized expertise (for example, enabling a general practitioner to read diagnostic images) (128).
- Tech extending life and healthy life expectancy: this may include biotechnology, new drugs and medical treatments (13).

Technology to promote social connectedness and ageing in place

Smart technologies can foster environments that promote safety, independent living and social participation for older adults (129). This may be particularly helpful for older adults with complex needs, who may experience challenges in carrying out daily activities (129). Smart technologies can also foster social connectedness, particularly when maintaining physical contact with friends and family is a challenge (130). Technology has the capacity to improve various dimensions of social connectedness including social support, empowerment and self-efficacy, loneliness and social networks (130). As such, smart technologies have the potential to improve the quality of life of older adults and reduce reliance on health and long-term care services (131).

Areas of smart technology innovations:

- Improve safety: passive and active sensors, monitoring systems, virtual assistants that make use of machine learning and artificial intelligence (131,132).
- Improve independence: automated home environment, electronic aids to daily living (130)
- Improve social connection: information and communication technology such as touch screens (tablets), social network sites and virtual reality applications (132).

2) Social innovation

Social innovations offer novel solutions to address complex social issues and represent key drivers for social change (133). This includes identifying novel ways of addressing the impact of social determinants of health, developing cost-effective interventions to enhance the functional ability of older adults, redesigning spaces to promote age-friendly environments as well as fostering social entrepreneurship opportunities. In developing social innovations, it is important to identify and work with local champions who understand the needs of their communities and can help implement activities or programmes in a sustainable way.

Examples of social innovations:

- Encouraging older adults to identify and pursue new interests: Please see Seoul50Plus case study:

Case study: Seoul Metropolitan Government's 50 Plus Policy
The Republic of Korea is considered an aged society with more than 14% of its population over 65 years of age. The country's legal retirement age is 60, but most Koreans retire from their main job in their early fifties. With ever-increasing life expectancies, the Seoul Metropolitan Government

spearheaded the country's 50 plus policy in 2016 to ensure that individuals over 50 remain active and engaged in society by supporting them to pursue new interests and social opportunities following retirement.

The initiative has three key aims: (1) to improve the quality of life for the Seoul50Plus generation, (2) to encourage active citizenship among the 50Plus generation and (3) to enhance social participation. These goals are achieved through comprehensive 50Plus policy infrastructures. This includes the Seoul50Plus Foundation, which acts as the coordinating body, as well as 50Plus campuses and centres. The campuses offer educational programmes and employment as well as social engagement opportunities, while the centre provides further programmes at a grassroots level. These facilities support the 50Plus generation to explore and discover new interests, learn new skills and find new opportunities for employment or participation in social activities based on their interests and skills.

The Seoul Metropolitan Government aims to have at least one campus or centre across Seoul's 25 districts by 2022 to ensure all citizens over 50 have easy access to the services. Seoul's 50Plus policy adopts new and innovative approaches by allowing 50Plus generations to continue their work and be involved in many projects, as opposed to "belonging" to a single employer. Ultimately, it allows people to enjoy post-retirement by earning an income, gaining a new sense of meaning in their lives and making a social impact.

Further information is available online at <http://www.50plus.or.kr> (134).

- Encourage older adults to volunteer. The *Volunteers After 50: the American Association of Retired Persons Foundation's Experience Corps* trains volunteers over the age of 50 to tutor and mentor students in kindergarten through third grade to improve their reading skills. The programme operates in 20 cities in the United States of America. A study found that participation in the programme contributed to improvements in strength and energy of the volunteers (135). An evaluation of the programme also found that participating children experienced significant improvements, particularly in personal responsibility, relationships skills and decision-making (136).
- Support people in the community to start a social enterprise, especially older adults. It can facilitate the volunteer in the community and provide community-based service (including café, education, selling local produce). Please see Nabari Otagaisan case study.

Case study: Nabari Otagaisan to match the local volunteers

Nabari city in Japan has a population of about 80 000, and 30.6% of them were over the age of 65 in 2018, which is 2.5% higher than the national average. In 2011, a total of 15 community improvement committees launched their community vision with five focus areas: (1) to fully utilize cultural and historical resources, (2) to protect the environment and encourage community residents to take walks outside, (3) to be a lively and energetic city, (4) for people to mutually support each other and enjoy life and (5) for the younger generation to have dreams and hopes for their future.

Annex

The Nabari Otagaisan project is a volunteer-matching service initiated in 2012. It works to connect people interested in volunteering with individuals, particularly older adults, who need assistance for daily living. The goal is to create communities in which everyone can feel safe, even in the later stages of their lives, through mutual support. The initiative is supported by the Nabari city government, which provides financial subsidies and assistance in securing public spaces for the administration office.

Volunteers in the community bring different skills to more than 20 service areas, including preparing meals, shopping for daily needs, cleaning rooms, and assisting with transportation to places such as the hospital. The user pays 500 Japanese yen per hour (about US\$ 4.60) with the volunteer receiving 400 yen (about US\$ 3.70) as an honorarium. The remaining 100 yen (about US\$ 0.9) is used to cover administrative costs.

As part of the community network to support older adults, Nabari Otagaisan works closely with other community organizations to exchange skills and information related to the care of older adults. Nabari Otagaisan not only benefits those requiring assistance, but it also provides volunteer opportunities and experiences for older adults. Volunteers can benefit mentally and physically by contributing to society, which can, in turn, mitigate their need for long-term care services.

- Support older adults, particularly those who are most disadvantaged and living in poverty, through volunteer-based intergenerational self-help clubs.

Case study: Viet Nam Intergenerational self-help clubs

Intergenerational self-help clubs (ISHCs) are volunteer-based organizations, aiming to promote the well-being of individuals who are poor and most disadvantaged in society, with the majority of them being older adults. These organizations are established by local governments called Commune People's Committees and are supported by organizations such as the Association of the Elderly or the Women's Union.

The ISHCs take a multisectoral approach to community development and provide a wide range of activities or support services:

- **Social and cultural:** These activities promote social and intergenerational bonding and preservation of local culture and tradition.
- **Income generation:** These activities provide revolving fund loans and livelihood scheme information and strategies that are age-friendly and support those living in poverty.
- **Lifelong learning:** These activities including monthly learning sessions of new skills and knowledge for members.
- **Health promotion:** These activities promote healthy and active ageing by encouraging regular physical exercises, sports and healthy lifestyle choices.
- **Health care:** These activities include regular screening and check-ups, information to promote self-care as well as access to health insurance and medical referrals.
- **Community-based care:** These services provide regular, one-on-one care to people with more complex needs in their homes and help with chores, personal hygiene and rehabilitation, as well as provide companionship. Community-based care also includes living support, health/medical care and access to rights and entitlements.

- **Resource mobilization:** These activities aim to mobilize and provide cash and in-kind support such as food, personal and household supplies and other items for those most in need.
- **Self-help:** These activities seeks to recruit volunteers, younger and older adults, to garner donations for the development of the local community, especially those most in need.
- **Rights and entitlements:** These activities provide information regarding legal rights and entitlements, including monitoring access to them as well as provide legal services.

Establishing the clubs is affordable, and the model can be easily replicated. Typically, the club becomes self-sustainable after two years. This intergenerational approach can work well in different settings, including with ethnic minority populations as well as in rural and urban settings, regardless of cultural backgrounds or beliefs.

Given the success of the clubs, the Government approved a national project in August 2016 to replicate the model across the country. By the end of 2019, a total of 58 out of 63 provinces/cities in Viet Nam had approved their ISHC replication plan, and 2900 ISHCs have been established in 60 out of 63 provinces/cities in the country. The ISHCs together have more than 160 000 members and 15 000 home care volunteers providing regular (at least twice a week) care service to upwards of 10 000 clients in need. In fact, ISHCs constitute the largest community-based care provider in the country. Viet Nam is currently developing a new ISHC replication project for 2021 to 2025 to ensure a much wider uptake of the ISHC development model in the future.

Recommended actions

For Member States	For WHO
<ul style="list-style-type: none"> • Encourage technological innovation to (1) promote skill development and maintaining the workforce, (2) improve health and health systems and (3) promote independent living and social connection. • Foster social innovations to promote age-friendly environments and inclusive societies and identify and train local community champions who can help implement innovations in a sustainable way. • Older adults are consulted in the development of technological and social innovations to ensure that their needs are addressed in prospective innovations. • Consider issues of equity, particularly in the accessibility of technology for older adults, including financial barriers and digital literacy. Friends, family members, caregivers or social workers can assist older adults in using technology (99). For older adults who may experience financial challenges in accessing technology, 	<ul style="list-style-type: none"> • Contribute to research, documentation and dissemination of good practices on innovations in skill development, improving health as well as supporting independence and social participation among older adults. • Document and evaluate innovations in access to information and service provision for older adults, including eHealth.

Annex

alternative social funding or benefit options should be made available (99). <ul style="list-style-type: none">• Encourage the use of safe, affordable, effective digital technology in integrated care in collaboration with relevant sectors.	
---	--

Objective 5. Strengthening monitoring and surveillance systems and research on older adults to inform programmes, services and policies

Rationale

As present, monitoring and surveillance systems in many countries are not adequately prepared to collect, analyse and interpret ageing and health-related data for planning, implementation and evaluation of public health actions for older adults (137–139). Current surveillance activities can be modified to ensure adequate coverage for special target groups—such as the very old, ethnic minorities, groups for whom particular preventive services might be especially important (for example, women aged 60 who have not had a recent mammogram), and older adults with declines in intrinsic capacity who live in the community (140,141). These surveillance activities should provide guidance and feedback for programmes at the national, subnational and district levels. In addition, health surveillance should be expanded so that all available data on ageing and health can be used in an integrated, coordinated manner to more effectively guide disease prevention and health promotion for older adults (142).

National surveys such as demographic health surveys and health information systems in many countries do not collect data on older adults or report information with the age- and sex-disaggregated for older adults. This data gap contributes to the invisibility and exclusion of older adults in planning and policy-making. Since older adults are not a homogeneous group, detailed data and research on subpopulations is critical to understand their health status and social and economic contributions to better inform the development of programmes, services and policies that will meet their diverse needs.

Recognizing the importance of collecting empirical evidence on older adults, WHO developed the Study on global AGEing and adult health (known as SAGE) in 2002 as part of a drive to gather comprehensive longitudinal information on the health and well-being of older adults (143). The study has captured data on nationally representative samples from six countries: China, Ghana, India, Mexico, the Russian Federation and South Africa (143).

Strategic direction

1) National survey

National statistical and surveillance systems covering health, labour, social and other services should ensure disaggregation of data collection, collation, analysis and reporting. Age and sex disaggregation should be consistent throughout adulthood with five-year age brackets if possible. Member States are also encouraged to include the following topics in surveys:

- Employment: reasons for working/not working, types of employment
- Living conditions: type of housing, living alone or with others, access to services in the community, transportation, use and access to technology
- Income: sufficiency of income, source of income and distribution of income

- Health: physical health, mental health, physical and mental capacity (intrinsic capacity), functional ability, overall well-being, diagnosed health conditions, nutrition and physical activity, NCD risk factors
- Long-term care: care dependence that reflects significant intrinsic capacity, assistive care needs in activities of daily living (both basic and instrumental) and functional ability, source of support/caregiver, number of friends and frequency of engagement, number of long-term care facilities, number of long-term care facilities with mandatory infection prevention and control guideline implementation
- Education: courses taken, source of education, educational needs (for example: digital literacy).

2) Research

Qualitative and quantitative research should be carried out on healthy ageing. Research must address the current needs of older adults and anticipate future challenges. Member States should consider including the following areas in their research agenda:

- a. Clinical research: Etiology and treatments for health conditions associated with ageing (such as musculoskeletal and sensory impairments, dementia and cognitive declines, cancer, frailty, polypharmacy, multimorbidity, vulnerability to infections, vaccination, etc.)
- b. Health status: Determine the health status, functional ability and assistive care needs of older adults as well as the health status of subpopulations of older adults.
- c. Health inequities (33)
 - i. Underlying conditions and circumstances: structures, norms and processes that differentially shape a person's likelihood to age well
 - ii. Integration across health and social systems: the organization, coverage and performance of essential services that affect the health of older adults
 - iii. Broader environmental context and mechanisms: that together can optimize a person's functional ability within various contexts as they age
 - iv. Measure and understand challenges and assess impact of action: incorporating older adult's preferences, understanding diverse ageing trajectories, identifying inequities and evaluating solutions that work in different contexts
- d. Needs assessment: Understand the health and social needs of older adults to shape programme and policy development as well as technological and social innovations.
- e. Quality of care and services: Assessing the quality of care and services, particularly from the perspective of older adults to determine where improvements are required.

3) Monitoring and evaluation of healthy ageing

Build in monitoring and evaluation mechanisms into programme, policy and health system design to allow for a better understanding of their impact on the health of older adults, as well as the cost-effectiveness and sustainability of different interventions.

Annex

Recommended actions

For Member States	For WHO
<ul style="list-style-type: none"> • Build a strong monitoring and surveillance system that collects, analyses and interprets data systematically for planning, implementation and evaluation. • Collect national level age-disaggregated data using five-year age brackets throughout adulthood in the national surveys if possible. • Consider investing in longitudinal data surveys to monitor trends in the health and functional status of ageing populations. • Ensure that mixed methods research on older adults is prioritized in the national research agenda, including research on subpopulations of older adults to understand differences between groups of older adults. • Promote research collaboration between academic institutions, nongovernmental organizations and communities. • Build in monitoring and evaluation mechanisms into programme, policy and health system design to better understand their impact. • Disseminate research findings to relevant decision-makers to inform development of policies, programmes and services for older adults. 	<ul style="list-style-type: none"> • Advocate for closing the gaps in statistical data on older adults as well as encourage both qualitative and quantitative research on older adults. • Provide technical support for Member States to identify health and ageing indicators and to collect data on older adults using existing tools and surveys.

3. Key conditions for successful implementation of the Regional Action Plan

The objectives and actions in this Regional Action Plan are consistent with and contribute to the achievement of the *WHO Global Strategy on Ageing and Health*, the Decade of Healthy Ageing (2020–2030), the 2030 Agenda for Sustainable Development as well as the United Nations *Madrid International Plan of Action on Ageing*.

Based on Member State experiences, this Action Plan for the Western Pacific Region emphasizes key conditions to drive successful implementation:

- Political commitment, capacity-building and leadership
- Multisectoral and multi-stakeholder coordinating mechanisms and planning at the national level
- Well-designed systems and policies to promote healthy ageing

- Positive public perception and support for active ageing
- Sufficient funding and human resources for implementation.

3.1 Political commitment, capacity-building and leadership

The actions for healthy ageing require significant revision of different policies and coordination across stakeholders. Also, the transformation within health and across sectors to accommodate the shift in the disease burden requires significant changes. High-level political commitment is needed for these changes to occur. For example, in Palau the President approved in February 2020 the creation of a commission made up of high-level representatives from many ministries to develop a comprehensive national policy on care for the ageing population. Representatives come from the Ministry of Health, Ministry of Justice, Social Security Administration, National Health-care Financing, Civil Service Pension Plan and Trust, Senior Citizen's Council, Ministry of Community and Cultural Affairs, Ministry of Finance, and the Director of the Bureau of Ageing, Disability, and Gender. Additionally, high-level leadership is needed to build the capacity of different sectors including strengthening skills, knowledge and competence to push the agenda forward on healthy ageing.

3.2 Multisectoral and multi-stakeholder coordinating mechanisms and planning

This *Regional Action Plan on Healthy Ageing in the Western Pacific* advocates a lifelong, multisectoral approach that focuses on communities. For this reason, putting the Plan into effect requires close coordination and planning at both national and community levels. Multisectoral collaboration should include private sector involvement and especially older adults themselves.

Key considerations for governance of multisectoral action (144):

- 1) To get buy-in from different sectors, it is important to frame issues appropriately so that they speak to the political agendas of different sectors.
- 2) When designing an approach to multisectoral work, it is helpful to map out the profile, interests, incentives and relationships of key individuals and sectors. The health sector may or may not play a leading role.
- 3) Building trust across sectors requires transparency as well as mechanisms for accountability (political, financial and administrative), and these should be established early on to set the tone for effective multisectoral action.
- 4) For effective multisectoral collaboration, leadership capacity needs to be built across sectors and levels of government, as opposed to one sector providing the leadership. It can be helpful to identify champions in different sectors as well as to institutionalize multisectoral collaboration as a key approach in all sectors.
- 5) To ensure that all stakeholders are on the same page, promote a culture in which different stakeholders are committed to learning from one another and willing to work together to develop a shared understanding of problems, solutions and desired outcomes.

3.2.1 National-level mechanisms

There needs to be effective mechanisms for national-level management and coordination for planning, implementation as well as monitoring and evaluation of the Action Plan. National actions may be implemented within a specific ageing plan or incorporated into existing public health plans (for

Annex

example, NCD or health systems), or within broader national health plans. Regardless of the option, the national action plan should champion a multisectoral, lifelong approach for healthy ageing.

Member States may consider either (1) single coordinating body (such as the ministry of health or the prime minister's office) to oversee both NCD and ageing or (2) separate coordinating bodies for NCD and ageing with close collaboration through information-sharing, joint activities and planning to avoid duplication and gaps, and to ensure continuity of service.

In addition, multi-stakeholder partnerships are mobilized to share knowledge, expertise, technology and resources. Member States may consider establishing a platform to connect and convene stakeholders that promote the five action areas at the country level and those seeking information, guidance and capacity-building. The platform would build on strong collaboration with stakeholders through partnerships and other mechanisms within and beyond WHO and the United Nations system.

3.2.2 Meaningful participation of older adults in multisectoral collaboration

Initiatives to support healthy ageing should include platforms to foster the meaningful participation of older adults in the co-creation of policies, programmes and services intended to benefit them (55). When the voices of older adults are not heard, their needs, knowledge and contributions often get overlooked, leading to well-intended initiatives that fail to address pressing needs. This is especially relevant for disenfranchised and marginalized groups. Particular attention should be made to ensure their participation in decision-making processes. Meaningful engagement and empowerment of older adults should be emphasized at all stages of policy or programme development, from agenda-setting to evaluation of the work. Organizations and individuals skilled in participatory facilitation, collective dialogue and community outreach are critical for advancing healthy ageing work, particularly with the most marginalized groups.

3.3 Well-designed systems and policies to promote healthy ageing

National plans, strategies or policies play an essential role in defining a country's vision, priorities, budgetary decisions and course of action for maintaining and improving people's health. Effective governance of healthy ageing requires the development and implementation of evidence-based policies and plans that involve all stakeholders and various sectors and pay explicit attention to equity and the inherent dignity and human rights of older adults. National plans on healthy ageing (stand-alone or integrated within national plans) set forth priorities and time frames for milestones, including how they will be achieved, resources allocated and how progress will be monitored, thus enabling accountability in its implementation.

3.4 Positive public perception and support for healthy ageing

Government leadership is imperative to changing the narrative on ageing to one that highlights the positive aspects of ageing and the opportunities that it presents. The role of government is important to introduce a campaign to challenge stereotypes and myths about ageing. A number of studies have focused on exposing young people to older adults in order to combat negative stereotypes. Extended contact has been found to decrease negative attitudes and to moderate perceptions (145). Exposure to positive examples of older workers can improve implicit beliefs about older adults (146). An intervention that provided information about the myths and realities of ageing, which was followed by

a discussion about ageism aimed at changing attitudes, was found to change younger people's perceptions about ageing (147). Additionally, the government should seek input from the public including older adults themselves. For instance, in developing Singapore's healthy ageing strategy, *I feel young in my Singapore*, more than 4000 Singaporeans were consulted through nearly 50 focus group discussions over a year (148). This enabled community members to voice opinions about their aspirations and ideas on ageing so well that they could be reflected in the national strategic plan.

3.5 Sufficient funding and human resources for implementation

In order for societies to reap the benefits of healthy ageing, investments must be made in the health of people of all ages, including older adults. Health expenditure and health financing mechanisms vary widely among countries in the Western Pacific Region. A whole-of-society response to demographic changes, proposed in this Regional Action Plan, requires an investment towards health promotion, including foster environments that enable individuals to adopt healthier lifestyles throughout life as well as funding to ensure that communities are equipped to support an increasingly older population to age in place.

Such investments would include:

- Lifelong health promotion and health system transformation and development of age-friendly environments to accommodate the shift in disease burden towards NCDs
- Health-care for managing chronic diseases, maintaining intrinsic capacity, palliative care, rehabilitation and assistive devices to maintain independence such as eyeglasses and hearing aids, especially among lower income groups
- Long-term care and the use of more cost-effective option to services that support ageing in place and family caregivers
- Investment to improve the social environment for older adults (for example, health-related needs of older adults, such as housing, transport and rehabilitation)

Member States are encouraged to initiate a discussion on required funding, including:

- Forecast of cost required to implement this Regional Action Plan for longer-term (5–10 years)
- The case for investment in healthy ageing including investment in health for all generations
- Assessment of different funding models (including private sector, nongovernmental organizations and development partners)

Annex

Glossary

Accessibility

The degree to which an environment, service or product allows access by as many people as possible.

Active ageing

The process of optimizing opportunities for health, participation and security in order to enhance quality of life as people age.

Activities of daily living (ADLs)

The basic activities necessary for daily life, such as bathing or showering, dressing, eating, getting in or out of bed or chairs, using the toilet, and getting around inside the home.

Activity

The execution of a task or action by an individual.

Age (chronological)

The time lived since birth.

Aged population

When over 14% of the population is aged 65 years or older.

Age-friendly environments

Environments (such as in the home or community) that foster healthy and active ageing by building and maintaining intrinsic capacity across the life-course and enabling greater functional ability in someone with a given level of capacity.

Ageing

At a biological level, ageing results from the impact of the accumulation of a wide variety of molecular and cellular damage that occurs over time.

Ageing in place

The ability to live in one's own home and community safely, independently and comfortably, regardless of age, income or level of capacity.

Ageing population

When over 7% of the population is aged 65 years or older.

Ageism

Stereotyping, prejudice and discrimination against individuals or groups on the basis of their age, including prejudicial attitudes, discriminatory practices or institutional policies and practices that perpetuate stereotypical beliefs.

Assistive technologies (or assistive health technology)

Any device designed, made or adapted to help a person perform a particular task, including products for people with specific losses of capacity; assistive health technology is a subset with the primary purpose to maintain or improve an individual's functioning and well-being.

Barriers

Factors in a person's environment that limit functional ability through their absence or presence.

Built environment

The buildings, roads, utilities, homes, fixtures, parks and all other human-made entities that form the physical characteristics of a community.

Caregiver

A person who provides care and support to someone else, caregivers often include family members, friends, neighbours, volunteers, care workers and health professionals.

Support may include:

- Helping with self-care, household tasks, mobility, social participation and meaningful activities
- Offering information, advice and emotional support, as well as engaging in advocacy, providing support for decision-making and peer support, and helping with advance care planning
- Offering respite services
- Engaging in activities to foster intrinsic capacity

Chronic condition

A disease, disorder, injury or trauma that is persistent or has long-lasting effects.

Community engagement

A process of developing relationships that enable people of a community and organizations to work together to address health-related issues and promote well-being to achieve positive health impact and outcomes.

Disability

An umbrella term for impairments, activity limitations and participation restrictions, denoting the negative aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).

Elder abuse

A single or repeated act, or lack of appropriate action, occurring within any relationship in which there is an expectation of trust that causes harm or distress to an older person.

Environments

All the factors in the extrinsic world that form the context of an individual's life, including home, communities and the broader society; within these environments are a range of factors, including the built environment, people and their relationships, attitudes and values, health and social policies, systems and services.

Annex

Facilitators

Factors in a person's environment that through their absence or presence improve functional ability; these include factors such as a physical environment that is accessible, the availability of relevant assistive technology, and positive attitudes towards older people, as well as services, systems and policies that aim to increase the involvement of all people with a health condition in all areas of life; the absence of a factor can also be a facilitator – for example, the absence of stigma or negative attitudes; facilitators can prevent an impairment or activity limitation from restricting participation because the actual performance of an action is enhanced despite a person's problem with capacity.

Frailty (or frail older person)

Extreme vulnerability to endogenous and exogenous stressors that exposes an individual to a higher risk of negative health-related outcomes.

Functional ability

The health-related attributes that enable people to be and to do what they have reason to value; it is made up of the intrinsic capacity of the individual, relevant environmental characteristics and the interactions between the individual and these characteristics.

Functioning

An umbrella term for body functions, body structures, activities and participation; it denotes the positive aspects of the interaction between an individual (with a health condition) and that individual's contextual factors (environmental and personal factors).

Geriatric syndromes

Complex health states that tend to occur only later in life and that do not fall into discrete disease categories; they are often a consequence of multiple underlying factors and dysfunction in multiple organ systems.

Geriatrics

The branch of medicine specializing in the health and illnesses of older age and their appropriate care and services.

Gerontology

The study of the social, psychological and biological aspects of ageing.

Health

A state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity.

Health condition

An umbrella term for acute or chronic disease, disorder, injury or trauma.

Health inequality

Differences in health status occurring among individuals or groups or, more formally, the total inter-individual variation in health for a population, which often considers differences in socioeconomic status or other demographic characteristics.

Health promotion

The process of enabling people to increase control over and to improve their health.

Healthy ageing

The process of developing and maintaining the functional ability that enables well-being in older age.

Impairment

A loss or abnormality in body structure or physiological function (including mental functions); in this report, abnormality is used strictly to refer to a significant variation from established statistical norms (that is, deviation from a population mean within measured standard norms).

Informal care

Unpaid care provided by a family member, friend, neighbour or volunteer.

Institutional care setting

Refers to institutions in which long-term care is provided; these may include community centres, assisted living facilities, nursing homes, hospitals and other health facilities; institutional care settings are not defined only by their size.

Integrated health services

Integrated health services are managed and delivered in a way that ensures people receive a continuum of services including health promotion, disease prevention, diagnosis, treatment, disease-management, rehabilitation and palliative care at different levels and sites within the health system, and that care is provided according to their needs throughout their life-course.

Intrinsic capacity

The composite of all the physical and mental capacities that an individual can draw on.

Lifelong approach

This considers the underlying biological, behavioural and psychosocial processes that operate across the life-course, which are shaped by individual characteristics and by the environments in which we live.

Life expectancy (at birth)

The average number of years that a newborn baby would be expected to live if he or she is subject to the age-specific mortality rate during a given period.

Longevity

How long people live.

Long-term care

The activities undertaken by others to ensure that people with a significant ongoing loss of intrinsic capacity can maintain a level of functional ability consistent with their basic rights, fundamental freedoms and human dignity.

Annex

Mobility

Moving by changing body position or location, or by transferring from one place to another; by carrying, moving or manipulating objects; by walking, running or climbing; and by using various forms of transportation.

Multimorbidity

The co-occurrence of two or more chronic medical conditions in one person.

Noncommunicable diseases

Diseases that are not passed from person to person; the four main types of noncommunicable diseases are cardiovascular diseases (such as heart attacks and stroke), cancers, chronic respiratory diseases (such as chronic obstructive pulmonary disease and asthma) and diabetes.

Old

A social construct that defines the norms, roles and responsibilities that are expected of an older person; it is frequently used in a pejorative sense.

Older person

A person whose age has passed the median life expectancy at birth.

Out-of-pocket expenditure

Payments for goods or services including (i) direct payments, such as payments for goods or services that are not covered by any form of insurance; (ii) cost sharing – that is a provision of health insurance or third party payment that requires the individual who is covered to pay part of the cost of the health care received; and (iii) informal payments, such as unofficial payments for goods and services, that should be fully funded from pooled revenue.

People-centred services

An approach to care that consciously adopts the perspectives of individuals, families and communities, and sees them as participants as well as beneficiaries of health care and long-term-care systems that respond to their needs and preferences in humane and holistic ways; ensuring that people-centred care is delivered requires that people have the education and support they need to make decisions and participate in their own care; it is organized around the health needs and expectations of people rather than diseases.

Population ageing

A shift in the population structure whereby the proportion of people in older age groups increases.

Reasonable accommodation

The necessary and appropriate modifications and adjustments that can be made without imposing a disproportionate or undue burden to ensure that older people with reduced functional ability can enjoy and exercise all human rights and fundamental freedoms on an equal basis with others.

Rehabilitation

A set of measures aimed at individuals who have experienced or are likely to experience disability to assist them in achieving and maintaining optimal functioning when interacting with their environments.

Risk factor

An attribute or exposure that is causally associated with an increased probability of a disease or injury.

Self-care (or self-management)

Activities carried out by individuals to promote, maintain, treat and care for themselves, as well as to engage in making decisions about their health.

Social care (services)

Assistance with the activities of daily living (such as personal care, maintaining the home).

Social innovation

A community-engaged process that links social change and health improvement, drawing on the diverse strengths of local individuals and institutions.

Social network

An individual's web of kinship, friendship and community ties.

Social participation

May take different forms, including informing people with balanced, objective information, consulting the community to gain feedback from the affected populations, involving or working directly with communities, collaborating by partnering with affected communities in each aspect of decision-making, including the development of alternatives and identification of solutions, and empowering communities to retain ultimate control over key decisions that affect their well-being.

Social protection

Programmes to reduce deprivation that arises from conditions such as poverty, unemployment, old age and disability.

Social security

Includes all measures providing benefits, whether in cash or in kind, to secure social protection.

Well-being

A general term encompassing the total universe of human life domains, including physical, mental and social aspects, that make up what can be called a "good life".

Annex

Appendix. Summary of relevant WHO guidance and recommendations for older adults

Immunization

WHO recommended vaccines for older adults include:

- Seasonal influenza: Older adults (65 years and older) are considered at one of the at risk groups that should receive immunization for seasonal influenza (149)
- Tick-borne encephalitis: People over the age of 50 years are more susceptible to severe tick-borne encephalitis and should be immunized in highly endemic settings (150)
- Pneumococcal: Some Western Pacific countries have adopted pneumococcal vaccine in the routine immunization for older adults. WHO is developing guidance on the use of pneumococcal vaccine for older adults (151).

Hepatitis

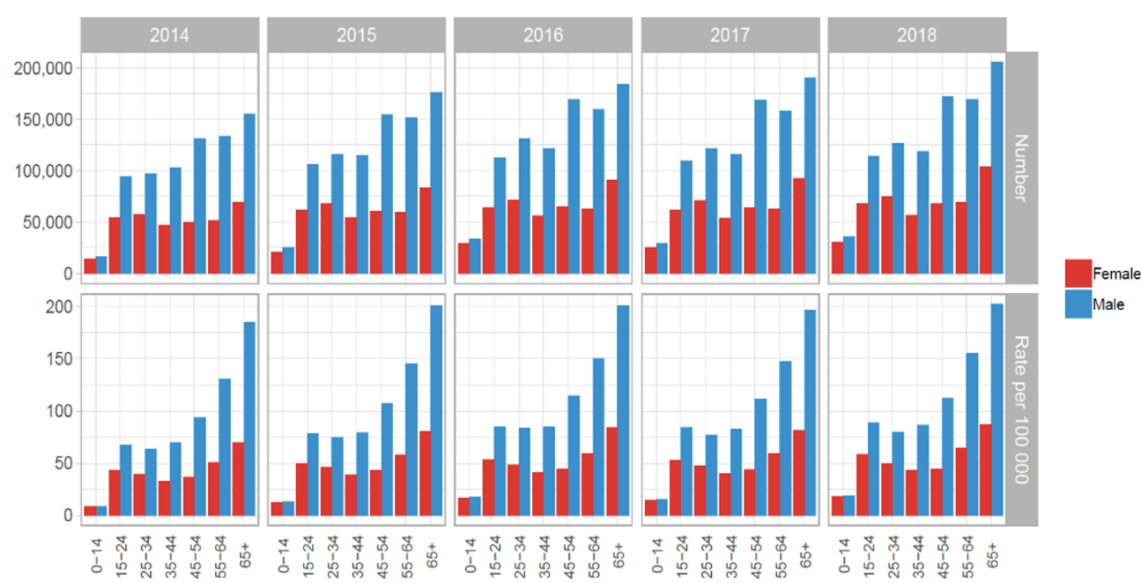
The Western Pacific Region bears one third of the global death toll from viral hepatitis, mainly from cirrhosis and liver cancer attributable to hepatitis (152). Available data from high-income settings suggest that the prevalence of hepatitis C antibodies is higher among older adults (153–156). Likewise, data from China, the Philippines and Viet Nam indicate that hepatitis B prevalence increases by age, mainly among those born after the 1990s when universal childhood hepatitis B vaccination started in most countries (157–159). In Asia, hepatitis B and C transmission is primarily driven by injection drug use, unscreened blood and blood products and a cumulative lifetime risk of unsafe injections in health and non-health settings (160,161).

In geographic areas with intermediate and high prevalence of hepatitis B and C, routine testing of hepatitis B and C may be considered upon routine check-up in accordance with WHO guidelines (162). Finally, WHO recommends hepatitis B vaccination of people at high risk of hepatitis B in older age groups, resources permitting (163).

Tuberculosis

Tuberculosis (TB) is one of the top 10 causes of death worldwide and the leading cause of death from a single infectious agent (164). TB remains a major public health challenge in the Western Pacific Region. In 2018, an estimated 1.8 million people developed TB in the Region and 97 000 died (164).

In 2018, one in five of notified cases of TB in the Western Pacific Region were people 65 years of age and older, which is well above the global average of one in nine (11%) (Fig. A1) (164). TB rates among older men are particularly high in countries such as Cambodia, China, the Lao People's Democratic Republic, Malaysia, the Philippines and Viet Nam (164). Moreover, people with compromised immune systems, including older adults, are at higher risk of poor outcomes from TB treatment, such as relapse and death, especially when treatment is delayed (165).

Fig. A1. Number of TB case notifications and TB case notification rate in the Western Pacific Region, 2014 – 2018, by age group and sex

Source: World Health Organization, Global Tuberculosis Report 2019.

As such, the systematic screening for active TB among people in selected risk groups including older adults in settings where the TB prevalence of the general population is 100/100 000 population or higher has been suggested as a conditional recommendation in the WHO (2013) guidelines (165). Recognizing differences in screening capacity, countries are encouraged to conduct systematic screening for active TB following the WHO recommendations for the systematic screening for active tuberculosis (165).

Oral care

Oral diseases are the most common NCDs and affect people throughout their lives, causing pain, discomfort, disfigurement and even death (166). Most older adults worldwide experience significant tooth loss. This is a significant concern in the Western Pacific Region (Table A1):

Table A1: Percentage of people with no teeth (edentulousness) in various countries

Country	Age (year)	Percentage of people with no teeth
China (167)	≥ 75	33
Japan (66)	≥ 75	14
New Zealand (168)	≥ 75	29
Malaysia (169)	75	53
Singapore (170)	≥ 60	31

Tooth loss has significant physical and mental health implications. Reduced chewing ability can contribute to poor nutrition (171). Tooth loss has also been associated with loss of self-esteem, social difficulties and, ultimately, a diminished quality of life (172). There is also evidence that tooth loss is associated with greater risk of cognitive impairment and developing dementia (173–176). Ultimately, tooth loss contributes to increased risk of mortality (172,177,178).

Annex

Maintaining good oral health is critical. Oral health professionals in the community may consider (1) screening for losses in intrinsic capacity such as chewing difficulty and pain or discomfort in the oral cavity (2) assessment of domains of primary health-care, (3) assessment and management of associated conditions and disease; and (4) assessment and management of social care needs. Experience in Japan suggests that lifelong multisectoral health promotion can significantly improve the oral health of older adults (see case study).

Dementia

Dementia is a significant cause of disability and dependency among older adults. In the Western Pacific Region, 16 million people were living with dementia in 2015, which represented a 45% increase since 2006 (179). In 2015, an estimated 622 285 deaths (nearly 5% of total deaths in the Region) were attributable to dementia (179).

The WHO *Global Action Plan on the Public Health Response to Dementia 2017–2025* emphasizes the need to integrate health and social care approaches and align actions with ongoing strategic developments in mental health, NCDs and ageing (180). The Plan provides a comprehensive blueprint for action – for policy-makers, international, regional and national partners, and WHO – in areas such as (1) increasing awareness of dementia and establishing dementia-friendly initiatives, (2) reducing the risk of dementia, (3) diagnosis, treatment and care, (4) research and innovation, as well as (5) support for dementia caregivers. It also highlights the importance of respecting the human rights of people living with dementia when developing plans and implementing them.

The risk of dementia can be reduced by addressing modifiable risk factors including physical activity, tobacco cessation, healthy and balanced diet as well as management of hypertension and diabetes (181).

WHO also provides technical guidance for the assessment, management and follow-up of people with dementia including: (a) the WHO Integrated Care for Older People guidelines (87), (b) the WHO Integrated care for older people handbook (182) and (c) the WHO Mental Health Gap Action Programme (118).

References

1. World Population Ageing 2019: Highlights New York City United Nations, Department of Economic and Social Affairs, Population Division; 2019 (<https://www.un.org/en/development/desa/population/publications/pdf/ageing/WorldPopulationAgeing2019-Highlights.pdf>, accessed 29 July 2020).
2. World population prospects: the 2019 revision. New York City: United Nations Department of Economic and Social Affairs, Population Division; 2019 (<https://population.un.org/wpp/>, accessed 14 April 2020).
3. Miksa B. What are the economic consequences of rapidly ageing populations? Cologne: World Economic Forum. Cologne: World Economic Forum 2015 (<https://www.weforum.org/agenda/2015/08/what-are-the-economic-consequences-of-rapidly-ageing-populations/>, accessed 17 April 2020).
4. Hamid TA, Aizan T. Population ageing in Malaysia: a mosaic of issues, challenges and prospects. In.
5. Updated Population Projections Based on the Results of 2015 POPCEN. Quezon City: Philippines Statistics Authority 2019 (<https://psa.gov.ph/sites/default/files/attachments/hsd/pressrelease/Updated%20Population%20Projections%20based%20on%202015%20POPCEN.pdf>, accessed 29 January 2020).
6. The Viet Nam Population and Housing Census. Ha Noi: General Statistics Office; 2019 (https://www.gso.gov.vn/default_en.aspx?tabid=515&idmid=5&ItemID=19281, accessed 17 February 2020).
7. Nguyen C. The Ageing Trend and Related Socio-Economic Issues in Vietnam. 2016.
8. Global strategy and action plan on ageing and health. . Geneva: World Health Organization; 2017 (<https://www.who.int/ageing/global-strategy/en/>, accessed 14 April 2020).
9. Promoting well-being into older age: situation analysis of the Western Pacific Region. . Manila: WHO Regional Office for the Western Pacific; (<https://iris.wpro.who.int/bitstream/handle/10665.1/14410/WPR-RC070-04-Ageing-Rev1-Ann-2019-en.pdf>, accessed 23 June 2020).
10. GBD Foresight Visualization. Seattle Institute for Health Metrics and Evaluation (IHME), University of Washington; 2018 (<https://vizhub.healthdata.org/gbd-foresight>, accessed 11 June 2020).
11. Nakatani H. Population aging in Japan: policy transformation, sustainable development goals, universal health coverage, and social determinates of health. *Global Health & Medicine*. 2019;1:3-10. doi: 10.35772/ghm.2019.01011.
12. Ikeda N, Saito E, Kondo N, Inoue M, Ikeda S, Satoh T et al. What has made the population of Japan healthy? *The Lancet*. 2011;378:1094-105. doi: [https://doi.org/10.1016/S0140-6736\(11\)61055-6](https://doi.org/10.1016/S0140-6736(11)61055-6).
13. Asian economic integration report 2019/2020. Manila: Asian Development Bank; 2019 (<https://www.adb.org/sites/default/files/publication/536691/aeir-2019-2020.pdf>, accessed 14 April 2020).
14. Roehr S, Pabst A, Luck T, Riedel-Heller SG. Is dementia incidence declining in high-income countries? A systematic review and meta-analysis. *Clinical epidemiology*. 2018;10:1233-47. doi: 10.2147/clep.s163649.
15. Cylus J, Figueras J, Normand C. Will population ageing spell the end of the welfare state? a review of evidence and policy options. . Copenhagen: European Observatory on Health Systems and Policies; 2019 (<http://www.euro.who.int/en/about-us/partners/observatory/publications/policy-briefs-and-summaries/will-population-ageing-spell-the-end-of-the-welfare-state-a-review-of-evidence-and-policy-options-2018>, accessed 14 April 2020).
16. McKee M, Suhrcke M. Investing in Health: A Contribution to the Achievement of the Lisbon Agenda. *European Review*. 2010;18:9-21. doi: [10.1017/s1062798709990093](https://doi.org/10.1017/s1062798709990093).

Annex

17. European social survey data and documentation. London/Bergen: University of London/Norwegian Centre for Research Data; 2014
(<http://www.europeansocialsurvey.org/data/>, accessed 24 June 2020).
18. Cylus J, Permanand G, Smith PC. Making the economic case for investing in health systems: What is the evidence that health systems advance economic and fiscal objectives? . Copenhagen: WHO Regional Office for Europe; 2018
(https://www.euro.who.int/__data/assets/pdf_file/0010/380728/pb-tallinn-01-eng.pdf?ua=1, accessed 24 June 2020).
19. Cylus J. How will population ageing affect economic growth in XXCountryXX and what are the implications if people age in good health?
20. Current Population Estimates. Tokyo: Statistics Bureau of Japan; 2019
(<https://www.stat.go.jp/english/data/jinsui/2.html>, accessed 2 March 2020).
21. Labour Force Survey Tokyo Statistics Bureau of Japan; 2019
(<https://www.stat.go.jp/english/data/roudou/>, accessed 2 March 2020).
22. Lithander FE, Neumann S, Tenison E, Lloyd K, Welsh TJ, Rodrigues JCL et al. COVID-19 in older people: a rapid clinical review. *Age and Ageing*. 2020. doi: 10.1093/ageing/afaa093.
23. Danis K, Fonteneau L, Georges S, Daniau C, Bernard-Stoecklin S, Domegan L et al. High impact of COVID-19 in long-term care facilities, suggestion for monitoring in the EU/EEA, May 2020. *Eurosurveillance*. 2020;25:2000956.
24. What is Healthy Ageing? Geneva: World Health Organization; (www.who.int/ageing/healthy-ageing/en/, accessed 14 July 2020).
25. For the future: towards the healthiest and safest Region: a vision for the WHO work with Member States and partners in the Western Pacific. Manila: WHO Regional Office for the Western Pacific 2020 (<https://iris.wpro.who.int/handle/10665.1/14476>, accessed 17 April 2020).
26. Arpino B, Gumà J, Julià A. Early-life conditions and health at older ages: the mediating role of educational attainment and life-course trajectories. doi: 10.1371/journal.pone.0195320.
27. Atkins JL, Ramsay SE, Whincup PH, Morris RW, Lennon LT, Wannamethee SG. Diet quality in older age: the influence of childhood and adult socio-economic circumstances. *The British journal of nutrition*. 2015;113:1441-52. doi: 10.1017/s0007114515000604.
28. Brandt M, Deindl C, Hank K. Tracing the origins of successful aging: The role of childhood conditions and social inequality in explaining later life health. *Social Science & Medicine*. 2012;74:1418-25. doi: <https://doi.org/10.1016/j.socscimed.2012.01.004>.
29. Haas S. Trajectories of functional health: The 'long arm' of childhood health and socioeconomic factors. *Social Science & Medicine*. 2008;66:849-61. doi: <https://doi.org/10.1016/j.socscimed.2007.11.004>.
30. Telama R, Yang X, Viikari J, Välimäki I, Wanne O, Raitakari O. Physical activity from childhood to adulthood: A 21-year tracking study. *American Journal of Preventive Medicine*. 2005;28:267-73. doi: <https://doi.org/10.1016/j.amepre.2004.12.003>.
31. Taylor DH, Jr., Hasselblad V, Henley SJ, Thun MJ, Sloan FA. Benefits of smoking cessation for longevity. *American journal of public health*. 2002;92:990-6. doi: 10.2105/ajph.92.6.990.
32. Closing the gap in a generation: Health equity through action on the social determinants of health. . Geneva: World Health Organization; 2007
(https://www.euro.who.int/__data/assets/pdf_file/0010/380728/pb-tallinn-01-eng.pdf?ua=1, accessed 14 April 2020).
33. Sadana R, Blas E, Budhwani S, Koller T, Paraje G. Healthy ageing: raising awareness of inequalities, determinants, and what could be done to improve health equity. *The Gerontologist*. 2016;56:S178-S93. doi: 10.1093/geront/gnw034.
34. Thornton J. WHO report shows that women outlive men worldwide. *BMJ*. 2019;l1631. doi: 10.1136/bmj.l1631.
35. Dalhlgren G, Whitehead M. European strategies for tackling social inequities in health: Levelling up Part 2. . Copenhagen: WHO Regional Office for Europe; 1991
(http://www.euro.who.int/__data/assets/pdf_file/0018/103824/E89384.pdf, accessed 17 April 2020).

36. Ageing Well in East Gippsland: Age-friendly Communities Strategy 2017 - 2030. Bairnsdale: East Gippsland Shire Council; 2017 (www.eastgippsland.vic.gov.au/About_Us/Publications_and_Policies/Age-friendly_Communities_Strategy, accessed 14 July 2020).
37. Kobayashi KM, Cloutier DS, Khan M, Fitzgerald K. Asset based community development to promote healthy aging in a rural context in Western Canada: notes from the field. *Journal of Community Practice*. 2020;28:66-76. doi: 10.1080/10705422.2020.1716911.
38. Global Age-friendly Cities: A Guide. Geneva: World Health Organization; 2007 (https://www.who.int/ageing/publications/Global_age_friendly_cities_Guide_English.pdf, accessed 14 April 2020).
39. Nel H. A Comparison between the Asset-oriented and Needs-based Community Development Approaches in Terms of Systems Changes. *Practice*. 2018;30:33-52. doi: 10.1080/09503153.2017.1360474.
40. Internal Ex-Post Evaluation for Technical Cooperation Project. Bangkok: Japan International Cooperation Agency; 2016 (https://www2.jica.go.jp/en/evaluation/pdf/2014_0613081_4.pdf, accessed 20 April 2020).
41. Cruz GT, Cruz CJP, Saito Y. Ageing and Health in the Philippines. Jakarta: Economic Research Institute for ASEAN and East Asia (ERIA); 2019 (<https://www.eria.org/publications/ageing-and-health-in-the-philippines/>, accessed 20 April 2020).
42. Giang LT. Viet Nam Aging Survey (VNAS), 2011: Key findings. 2012.
43. Fried L. Investing in Health to Create a Third Demographic Dividend. *The Gerontologist*. 2016;56:S167-S77. doi: 10.1093/geront/gnw035.
44. Chang ES, Kanno S, Levy S, Wang S-Y, Lee JE, Levy BR. Global reach of ageism on older persons' health: A systematic review. *PloS one*. 2020;15:e0220857-e. doi: 10.1371/journal.pone.0220857.
45. Kawai N, Kubo K, Kubo-Kawai N. "Granny dumping": Acceptability of sacrificing the elderly in a simulated moral dilemma. *Japanese Psychological Research*. 2014;n/a-n/a. doi: 10.1111/jpr.12049.
46. Hamel MB, Teno JM, Goldman L, Lynn J, Davis RB, Galanos AN et al. Patient age and decisions to withhold life-sustaining treatments from seriously ill, hospitalized adults. SUPPORT Investigators. Study to Understand Prognoses and Preferences for Outcomes and Risks of Treatment. *Annals of internal medicine*. 1999;130:116-25. doi: 10.7326/0003-4819-130-2-199901190-00005.
47. Levy BR, Pilver C, Chung PH, Slade MD. Subliminal strengthening: improving older individuals' physical function over time with an implicit-age-stereotype intervention. *Psychological science*. 2014;25:2127-35. doi: 10.1177/0956797614551970.
48. World report on ageing and health. Geneva: World Health Organization; 2015 (<https://www.who.int/ageing/publications/world-report-2015/en/>, accessed 14 April 2020).
49. Seike A. Towards a Lifelong Active Society: Coping with Japan's Changing Population. *Asia & the Pacific Policy Studies*. 2016;3:533-9. doi: 10.1002/app5.153.
50. McKee-Ryan F, Song Z, Wanberg CR, Kinicki AJ. Psychological and Physical Well-Being During Unemployment: A Meta-Analytic Study. *Journal of Applied Psychology*. 2005;90:53-76. doi: 10.1037/0021-9010.90.1.53.
51. Paul K, Moser K. Unemployment Impairs Mental Health: Meta-Analyses. *Journal of Vocational Behavior*. 2009;74:264-82. doi: 10.1016/j.jvb.2009.01.001.
52. van der Noordt M, Ijzelenberg W, Droomers M, Proper K. Health effects of employment: A systematic review of prospective studies. *Occupational and environmental medicine*. 2014;71. doi: 10.1136/oemed-2013-101891.
53. Social protection for older persons: key policy trends and statistics Geneva: Social Protection Department International Labour Office; 2014 (https://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_310211.pdf, accessed 14 April 2020).
54. Lusardi A, Mitchell OS. Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business economics*. 2007;42:35-44.

Annex

55. Decade of Healthy Ageing 2020 - 2030. Geneva: World Health Organization; 2019 (<https://www.who.int/ageing/decade-of-healthy-ageing>, accessed 14 April 2020).
56. Doyle M, Timonen V. Lessons from a community-based participatory research project: Older people's and researchers' reflections. *Research on Aging*. 2010;32:244-63. doi: 10.1177/0164027509351477.
57. Nakatani H. Globalization of public health: challenges and opportunities for globalization. *The Journal of Public Health Practice*. 2020;84:356 - 62.
58. WHO definition of palliative care/WHO definition of palliative care for children Geneva: World Health Organization; 2002 (<http://www.who.int/cancer/palliative/definition/en/>, accessed 24 June 2020).
59. Integrating palliative care and symptom relief into primary health care: a WHO guide for planners, implementers and managers. Geneva: World Health Organization; 2018 (<https://apps.who.int/iris/handle/10665/274559>, accessed 10 June 2020).
60. Primary health care and health emergencies Geneva: World Health Organization; 2018 accessed 16 June 2020).
61. Jacob CM, Baird J, Barker M, Cooper C, Hanson M. The importance of a life course approach to health: chronic disease risk from preconception through adolescence and adulthood. Geneva: World Health Organization; 2015 (<https://www.who.int/life-course/publications/importance-of-life-course-approach-to-health/en/>, accessed 16 June 2020).
62. Health promotion. Geneva: World Health Organization (www.who.int/health-topics/health-promotion#tab=tab_1, accessed 17 July 2020).
63. Health Japan 21 (the second term). Tokyo Ministry of Health, Labour and Welfare Japan; 2020 (https://www.mhlw.go.jp/stf/seisakunitsuite/bunya/kenkou_iryuu/kenkou/kenkounippon21.html, accessed 29 February 2020).
64. A Basic Direction for Comprehensive Implementation of National Health Promotion. Tokyo: Ministry of Health Labour and Welfare Japan; 2012 (<https://www.mhlw.go.jp/file/06-Seisakujouhou-10900000-Kenkoukyoku/0000047330.pdf>, accessed 29 February 2020).
65. The Current Evidence of Dental Care and Oral Health for Achieving Healthy Longevity in an Aging Society: 2015: Japan Dental Association; 2015 (<https://www.jda.or.jp/pdf/ebm2015En.pdf>).
66. Survey of Dental Diseases. Tokyo: Ministry of Health Labour and Welfare; 2016 (<http://www.mhlw.go.jp/toukei/list/62-17.html>, accessed 29 February 2020).
67. Zaitzu T, Saito T, Kawaguchi Y. The Oral Healthcare System in Japan. *Healthcare (Basel, Switzerland)*. 2018;6:79. doi: 10.3390/healthcare6030079.
68. Tackling NCDs: "Best buys" and other recommended interventions for the prevention and control of noncommunicable diseases. Geneva: World Health Organization; 2017 (<https://www.who.int/ncds/management/best-buys/en/>, accessed 14 April 2020).
69. Irwan AM, Kato M, Kitaoka K, Kido T, Taniguchi Y, Shogenji M. Self-care practices and health-seeking behavior among older persons in a developing country: Theories-based research. *International Journal of Nursing Sciences*. 2016;3:11-23. doi: <https://doi.org/10.1016/j.ijnss.2016.02.010>.
70. Nguyen L, Nguyen TH. Introducing Health Information Systems to Aged Care in Vietnam. In: *Proceedings. PACIS 2010: Proceedings of the 14th Pacific Asia Conference on Information Systems, Taipei, January 2010: National Taiwan University* 224 - 35 (<https://aisel.aisnet.org/pacis2010/64>, accessed 1 May 2020).
71. Araujo de Carvalho I, Epping-Jordan J, Pot AM, Kelley E, Toro N, Thiyagarajan JA et al. Organizing integrated health-care services to meet older people's needs. *Bulletin of the World Health Organization*. 2017;95:756-63. doi: 10.2471/blt.16.187617.
72. Norton S, Matthews F, Barnes D, Yaffe K, Brayne C. Potential for primary prevention of Alzheimer's disease: An analysis of population-based data. *The Lancet Neurology*. 2014;13:788–94. doi: 10.1016/s1474-4422(14)70136-x.

73. Diep L, Kwagyan J, Kurantsin-Mills J, Weir R, Jayam-Trouth A. Association of physical activity level and stroke outcomes in men and women: a meta-analysis. *Journal of women's health* (2002). 2010;19:1815-22. doi: 10.1089/jwh.2009.1708.
74. What is malnutrition? Geneva: World Health Organization; 2016 (<https://www.who.int/features/qa/malnutrition/en/>, accessed 04 August 2020).
75. Vlaev I, King D, Dolan P, Darzi A. The theory and practice of “nudging”: Changing health behaviors. *Public Administration Review*. 2016;76:550-61. doi: 10.1111/puar.12564.
76. Richard L, Potvin L, Kishchuk N, Prlic H, Green LW. Assessment of the integration of the ecological approach in health promotion programs. *American journal of health promotion : AJHP*. 1996;10:318-28. doi: 10.4278/0890-1171-10.4.318.
77. Hansen PG, Skov LR, Skov KL. Making Healthy Choices Easier: Regulation versus Nudging. *Annual Review of Public Health*. 2016;37:237-51. doi: 10.1146/annurev-publhealth-032315-021537.
78. Hanks A, Just D, Smith L, Wansink B. Healthy Convenience: Nudging Students toward Healthier Choices in the Lunchroom. *Journal of public health (Oxford, England)*. 2012;34:370-6. doi: 10.1093/pubmed/fds003.
79. Rozin P, Scott SE, Dingley M, Urbanek J, Jiang H, Kaltenbach M. Nudge to Nobesity I: Minor Changes in Accessibility Decrease Food Intake. *Judgment and Decision Making*. 2011;6:323-32.
80. Sunstein CR, Reisch LA, Kaiser M. Trusting nudges? Lessons from an international survey. *Journal of European Public Policy*. 2019;26:1417-43. doi: 10.1080/13501763.2018.1531912.
81. Donkin A, Goldblatt P, Allen J, Nathanson V, Marmot M. Global action on the social determinants of health. *BMJ Global Health*. 2018;3:e000603. doi: 10.1136/bmjgh-2017-000603.
82. Hong E, Ahn BC. Income-related health inequalities across regions in Korea. *International Journal for Equity in Health*. 2011;10:41. doi: 10.1186/1475-9276-10-41.
83. JAGES Heart Study 2017 Japan Gerontological Evaluation Study; 2017 (<https://www.jages.net/cdss/jages/2016/open/core/atlas.html>, accessed 27 February 2020).
84. Stolz E, Mayerl H, Waxenegger A, Rásky É, Freidl W. Impact of socioeconomic position on frailty trajectories in 10 European countries: Evidence from the Survey of Health, Ageing and Retirement in Europe (2004-2013). *Journal of epidemiology and community health*. 2016;71:jech-2016. doi: 10.1136/jech-2016-207712.
85. Brown WJ, Deeg DJH, Dobson AJ, Peeters G. A life-course perspective on physical functioning in women. *Bulletin of the World Health Organization*. 2013;91:661-70. doi: 10.2471/blt.13.123075.
86. Morikawa M. Towards community-based integrated care: Trends and issues in Japan's long-term care policy. *International journal of integrated care*. 2014;14:e005. doi: 10.5334/ijic.1066.
87. Integrated care for older people: guidelines on community-level interventions to manage declines in intrinsic capacity. . Geneva: World Health Organization; 2017 (<https://www.who.int/ageing/publications/guidelines-icope/en/>, accessed 14 April 2020).
88. Ofori-Asenso R, Chin KL, Mazidi M, Zomer E, Ilomaki J, Zullo AR et al. Global incidence of frailty and prefrailty among community-dwelling older adults: a systematic review and meta-analysis. *JAMA network open*. 2019;2:e198398-e.
89. Cesari M, Prince M, Thiyagarajan JA, De Carvalho IA, Bernabei R, Chan P et al. Frailty: an emerging public health priority. *Journal of the American Medical Directors Association*. 2016;17:188-92.
90. Fried LP, Ferrucci L, Darer J, Williamson JD, Anderson G. Untangling the concepts of disability, frailty, and comorbidity: implications for improved targeting and care. *The Journals of Gerontology Series A: Biological Sciences and Medical Sciences*. 2004;59:M255-M63.
91. Marengoni A, Angleman S, Melis R, Mangialasche F, Karp A, Garmen A et al. Aging with multimorbidity: a systematic review of the literature. *Ageing research reviews*. 2011;10:430-9.

Annex

92. Care in Old Age in Southeast Asia and China: Situational Analysis. Chiang Mai: HelpAge International Asia Pacific Regional Office 2013 (<https://www.helpage.org/silo/files/care-in-old-age-in-southeast-asia-and-china.pdf>, accessed 14 April 2020).
93. iSupport for dementia. Training and support manual for cares of people with dementia. Geneva: World Health Organization; 2019 (https://www.who.int/mental_health/neurology/dementia/isupport_manual/en/, accessed 14 April 2020).
94. Asian Care Industry Professionals in Japan: Become a Certified Care Worker in Japan. . Tokyo: The Japan Association of Training Institutions; (<http://kaigoryugaku.kaiyokyo.net/en/>, accessed 20 April 2020).
95. Preventing and managing COVID-19 across long-term care services. 2020.
96. Key policy issues in long-term care. Geneva: World Health Organization; 2003 (https://www.who.int/chp/knowledge/publications/policy_issues_ltc/en/, accessed 24 June 2020).
97. Yon Y, Ramiro-Gonzalez M, Mikton CR, Huber M, Sethi D. The prevalence of elder abuse in institutional settings: a systematic review and meta-analysis. *European journal of public health*. 2019;29:58-67. doi: 10.1093/eurpub/cky093.
98. Elder abuse. Geneva: World Health Organization; 2020 (www.who.int/news-room/fact-sheets/detail/elder-abuse, accessed 15 July 2020).
99. Guidance on COVID-19 for the care of older people and people living in long-term care facilities, other non-acute care facilities and home care. . Manila: WHO Regional Office for the Western Pacific 2020 (<https://iris.wpro.who.int/handle/10665.1/14500>, accessed 4 August 2020).
100. Infection prevention and control guidance for long-term care facilities in the context of COVID-19: interim guidance, 21 March 2020. Geneva: World Health Organization; 2020 (<https://apps.who.int/iris/handle/10665/331508>, accessed 23 June 2020).
101. Yoshizawa Y, Tanaka T, Takahashi K, Fujisaki M, Iijima K. The associations of frailty with regular participation in physical, cultural, and community social activities among independent elders in Japan. [*Nihon kōshū eisei zasshi*] *Japanese journal of public health*. 2019;66:306-16. doi: 10.11236/jph.66.6_306.
102. Fratiglioni L, Paillard-Borg S, Winblad B. An active and socially integrated lifestyle in late life might protect against dementia. *The Lancet Neurology*. 2004;3:343-53. doi: 10.1016/s1474-4422(04)00767-7.
103. Kuiper J, Zuidersma M, Oude Voshaar R, Zuidema S, Van den Heuvel E, Smidt N. Social relationships and risk of dementia: A systematic review and meta-analysis of longitudinal cohort studies. *Ageing research reviews*. 2015;22. doi: 10.1016/j.arr.2015.04.006.
104. Pitkala KH, Routasalo P, Kautiainen H, Sintonen H, Tilvis RS. Effects of Socially Stimulating Group Intervention on Lonely, Older People's Cognition: A Randomized, Controlled Trial. *The American Journal of Geriatric Psychiatry*. 2011;19:654-63. doi: <https://doi.org/10.1097/JGP.0b013e3181f7d8b0>.
105. Mortimer JA, Ding D, Borenstein AR, DeCarli C, Guo Q, Wu Y et al. Changes in brain volume and cognition in a randomized trial of exercise and social interaction in a community-based sample of non-demented Chinese elders. *Journal of Alzheimer's disease : JAD*. 2012;30:757-66. doi: 10.3233/jad-2012-120079.
106. Carlson M, Saczynski J, Rebok G, Seeman T, Glass T, McGill S et al. Exploring the Effects of an "Everyday" Activity Program on Executive Function and Memory in Older Adults: Experience Corps(R). *The Gerontologist*. 2008;48:793-801. doi: 10.1093/geront/48.6.793.
107. Amieva H, Stoykova R, Matharan F, Helmer C, Antonucci T, Dartigues J-F. What Aspects of Social Network Are Protective for Dementia? Not the Quantity But the Quality of Social Interactions Is Protective Up to 15 Years Later. *Psychosomatic medicine*. 2010;72:905-11. doi: 10.1097/PSY.0b013e3181f5e121.
108. Tang F, Choi E, Morrow-Howell N. Organizational Support and Volunteering Benefits for Older Adults. *The Gerontologist*. 2010;50:603-12. doi: 10.1093/geront/gnq020.

109. Warburton J, Gooch. Volunteering in later life: Is it good for your health? In.
110. Warburton J, Peel NM. Volunteering as a productive ageing activity: the association with fall-related hip fracture in later life. *European journal of ageing*. 2008;5:129-. doi: 10.1007/s10433-008-0081-9.
111. Chan A, Goh VSM, Maulod A, Malhotra R, Manap NB, Yuan TY et al. An evaluation of the National Silver Academy: Assessing the impact of senior learning in Singapore. 2019.
112. Landeiro F, Barrows P, Musson EN, Gray AM, Leal J. Reducing social isolation and loneliness in older people: a systematic review protocol. *BMJ Open*. 2017;7. doi: doi:10.1136/bmjopen-2016-013778.
113. Hirai H, Kondo K. Evaluating a care prevention program utilized community salon. *Q Soc Secur Res*. 2010;46:249-63.
114. Hikichi H, Kondo K, Takeda T, Kawachi I. Social interaction and cognitive decline: Results of a 7-year community intervention. *Alzheimer's & dementia (New York, N Y)*. 2016;3:23-32. doi: 10.1016/j.trci.2016.11.003.
115. Hikichi H, Kondo N, Kondo K, Aida J, Takeda T, Kawachi I. Effect of a community intervention programme promoting social interactions on functional disability prevention for older adults: propensity score matching and instrumental variable analyses, JAGES Taketoyo study. *Journal of epidemiology and community health*. 2015;69:905-10. doi: 10.1136/jech-2014-205345.
116. Mental Health Action Plan 2013 - 2020. Geneva: World Health Organization; 2013 (https://www.who.int/mental_health/action_plan_2013/en/).
117. Mental health of older adults. Geneva: World Health Organization; 2017 (www.who.int/news-room/fact-sheets/detail/mental-health-of-older-adults, accessed 18 July 2020).
118. mhGAP Intervention Guide for mental, neurological and substance use disorders in non-specialized health settings: mental health Gap Action Programme (mhGAP) – version 2.0. Geneva: World Health Organization; 2016 (<https://apps.who.int/iris/handle/10665/250239>, accessed 14 April 2020).
119. Korea to take more responsibility for dementia patients. Seoul: The Korea Herald; 2017 (<http://www.koreaherald.com/view.php?ud=20170607000559>, accessed 7 August 2020).
120. Lee SJ, Seo H-J, Lee DY, Moon S-H. Effects of a Dementia Screening Program on Healthcare Utilization in South Korea: A Difference-In-Difference Analysis. *International journal of environmental research and public health*. 2019;16:3837.
121. Dementia Support System in Place to Reduce Burden of Medical Expenses. Seoul: Ministry of Health and Welfare; 2019 (https://www.mohw.go.kr/eng/nw/nw0101vw.jsp?PAR_MENU_ID=1007&MENU_ID=100701&page=5&CONT_SEQ=350939, accessed 7 August 2020).
122. Yon Y, Mikton CR, Gassoumis ZD, Wilber KH. Elder abuse prevalence in community settings: a systematic review and meta-analysis. *The Lancet Global Health*. 2017;5:e147-e56. doi: 10.1016/s2214-109x(17)30006-2.
123. Social prescribing: Steps towards implementing self-care - a focus on social prescribing. London: Healthy London Partnership; 2017 (<https://www.healthylondon.org/wp-content/uploads/2017/10/Social-prescribing-Steps-towards-implementing-self-care-January-2017.pdf>, accessed 10 June 2020).
124. Moffatt S, Steer M, Lawson S, Penn L, O'Brien N. Link Worker social prescribing to improve health and well-being for people with long-term conditions: qualitative study of service user perceptions. *BMJ Open*. 2017;7. doi: 10.1136/bmjopen-2016-015203.
125. Wildman JM, Moffatt S, Steer M, Laing K, Penn L, O'Brien N. Service-users' perspectives of link worker social prescribing: a qualitative follow-up study. *BMC public health*. 2019;19. doi: 10.1186/s12889-018-6349-x.
126. Christa F, Glenda L. An Invitation to Dialogue : 'The World Café' In Social Work Research. *Qualitative Social Work*. 2011;10:28-48. doi: 10.1177/1473325010376016.
127. What you need to know about digital health systems. Copenhagen: WHO Regional Office for Europe; 2019 (<http://www.euro.who.int/en/health-topics/Health->

Annex

- systems/pages/news/news/2019/2/what-you-need-to-know-about-digital-health-systems, accessed 16 June 2020).
128. Artificial Intelligence on Global Health: Defining a Collective Path Forward. Washington DC: United States Agency for International Development 2019 (https://www.usaid.gov/sites/default/files/documents/1864/AI-in-Global-Health_webFinal_508.pdf, accessed 16 June 2020).
 129. Liu L, Stroulia E, Nikolaidis I, Miguel-Cruz A, Rios Rincon A. Smart homes and home health monitoring technologies for older adults: A systematic review. *International Journal of Medical Informatics*. 2016;91:44-59. doi: 10.1016/j.ijmedinf.2016.04.007.
 130. Morris ME, Adair B, Ozanne E, Kurowski W, Miller KJ, Pearce AJ et al. Smart technologies to enhance social connectedness in older people who live at home Smart technology and social connectedness. *Australasian Journal on Ageing*. 2014;33:142-52. doi: 10.1111/ajag.12154.
 131. Morris M, Adair B, Miller K, Ozanne E, Hampson R, Pearce A et al. Smart-Home Technologies to Assist Older People to Live Well at Home. *Journal of Aging Science*. 2013;1:101. doi: 10.4172/2329-8847.1000101.
 132. Baker S, Warburton J, Waycott J, Batchelor F, Hoang T, Dow B et al. Combatting social isolation and increasing social participation of older adults through the use of technology: A systematic review of existing evidence. *Australasian Journal on Ageing*. 2018;37:184-93. doi: 10.1111/ajag.12572.
 133. Phills J, Deiglmeier K, Miller D. Rediscovering Social Innovation. *Stanford Soc Innov Rev*. 2008;6.
 134. The Seoul50Plus Foundation joins you. Seoul: Seoul50Plus Foundation; 2017 (www.50plus.or.kr, accessed 20 April 2020).
 135. Barron JS, Tan EJ, Yu Q, Song M, McGill S, Fried LP. Potential for intensive volunteering to promote the health of older adults in fair health. *Journal of urban health : bulletin of the New York Academy of Medicine*. 2009;86:641-53. doi: 10.1007/s11524-009-9353-8.
 136. Experience Corps Socio-Emotional Learning Evaluation Washington DC: AARP Foundation; 2019 (https://www.aarp.org/content/dam/aarp/aarp_foundation/2020/pdf/AARP_Foundation_Experience_Corp_Abt_SEL.pdf, accessed 14 April 2020).
 137. Mikkelsen B, Williams J, Rakovac I, Wickramasinghe K, Hennis A, Shin H-R et al. Life course approach to prevention and control of non-communicable diseases. *BMJ*. 2019;364. doi: doi.org/10.1136/bmj.1257.
 138. Milton K, Varela AR, Strain T, Cavill N, Foster C, Mutrie N. A review of global surveillance on the muscle strengthening and balance elements of physical activity recommendations. *Journal of Frailty, Sarcopenia and Falls*. 2018;3:114. doi: 10.22540/JFSF-03-114.
 139. Sahal N, Reintjes R, Aro AR. Communicable diseases surveillance lessons learned from developed and developing countries: Literature review. *Scandinavian journal of public health*. 2009;37:187-200. doi: 10.1177/1403494808101179.
 140. Briggs AM, Valentijn PP, Thiyagarajan JA, de Carvalho IA. Elements of integrated care approaches for older people: a review of reviews. *BMJ Open*. 2018;8:e021194.
 141. Mardini MT, Iraqi Y, Agoulmine N. A survey of healthcare monitoring systems for chronically ill patients and elderly. *Journal of Medical Systems*. 2019;43:50. doi: 10.1007/s10916-019-1165-0.
 142. Lau F, Kuziemy C, Price M, Gardner J. A review on systematic reviews of health information system studies. *Journal of the American Medical Informatics Association*. 2010;17:637-45. doi: 10.1136/jamia.2010.004838.
 143. SAGE Waves 0, 1, 2 & 3. Geneva: World Health Organization; (<https://www.who.int/healthinfo/sage/cohorts/en/>, accessed 16 June 2020).
 144. Rasanathan K, Bennett S, Atkins V, Beschel R, Carrasquilla G, Charles J et al. Governing multisectoral action for health in low- and middle-income countries. *PLoS medicine*. 2017;14:e1002285-e. doi: 10.1371/journal.pmed.1002285.

145. Allan L, Johnson J. Undergraduate Attitudes Toward the Elderly: The Role of Knowledge, Contact and Aging Anxiety. *Educational Gerontology*. 2009;35:1-14. doi: 10.1080/03601270802299780.
146. Malinen S, Johnston L. Workplace ageism: discovering hidden bias. *Experimental aging research*. 2013;39:445-65. doi: 10.1080/0361073x.2013.808111.
147. Ragan A, Bowen A. Improving Attitudes Regarding the Elderly Population: The Effects of Information and Reinforcement for Change. *The Gerontologist*. 2001;41:511-5. doi: 10.1093/geront/41.4.511.
148. I feel young in my Singapore: action plan for successful ageing. Singapore: Ministry of Health 2016 (www.moh.gov.sg/docs/librariesprovider3/action-plan/action-plan.pdf, accessed 11 June 2020).
149. Vaccines against influenza WHO position paper—November 2012. *Weekly Epidemiological Record= Relevé épidémiologique hebdomadaire*. 2012;87:461-76.
150. Vaccines against tick-borne encephalitis: WHO position paper. *Weekly Epidemiological Record= Relevé épidémiologique hebdomadaire*. 2011;86:241-56.
151. Pneumococcal vaccine guidance.
152. Global hepatitis report, 2017. Geneva: World Health Organization; 2017 (<https://www.who.int/hepatitis/publications/global-hepatitis-report2017/en/>, accessed 14 April 2020).
153. Cozzolongo R, Osella A, Elba S, Petruzzi J, Buongiorno G, Giannuzzi V et al. Epidemiology of HCV infection in the general population: a survey in a southern Italian town. *Journal of Hepatology - J HEPATOL*. 2009;50. doi: 10.1016/s0168-8278(09)60398-6.
154. Tanaka J, Kumagai J, Katayama K, Komiya Y, Mizui M, Yamanaka R et al. Sex- and age-specific carriers of hepatitis B and C viruses in Japan estimated by the prevalence in the 3,485,648 first-time blood donors during 1995-2000. *Intervirology*. 2004;47:32-40. doi: 10.1159/000076640.
155. Domínguez À, Bruguera M, Vidal J, Plans-Rubió P, Salleras L. Community-based seroepidemiological survey of HCV infection in Catalonia, Spain. *Journal of medical virology*. 2001;65:688-93. doi: 10.1002/jmv.2091.
156. Meffre C, Le Strat Y, Delarocque-Astagneau E, Dubois F, Antona D, Lemasson J-M et al. Prevalence of hepatitis B and hepatitis C virus infections in France in 2004: social factors are important predictors after adjusting for known risk factors. *Journal of medical virology*. 2010;82:546-55. doi: 10.1002/jmv.21734.
157. Duong T, Nguyen P, Henley K, Peters M. Risk Factors for Hepatitis B Infection in Rural Vietnam. *Asian Pacific journal of cancer prevention : APJCP*. 2009;10:97-102.
158. Wong SN, Ong JP, Labio MED, Cabahug OT, Daez MLO, Valdellon EV et al. Hepatitis B infection among adults in the philippines: A national seroprevalence study. *World journal of hepatology*. 2013;5:214-9. doi: 10.4254/wjh.v5.i4.214.
159. Wang H, Men P, Xiao Y, Gao P, Lv M, Yuan Q et al. Hepatitis B infection in the general population of China: a systematic review and meta-analysis. *BMC infectious diseases*. 2019;19:811-. doi: 10.1186/s12879-019-4428-y.
160. Byambasuren A, Nyamsuren N, Batbaatar S, Erdenechuluun A-E, Erdenebat B, Riimaadai G et al. HCV Elimination Campaign and Risk Factors of HCV Infection in Arkhangai Province in Mongolia. *Open Journal of Epidemiology*. 2019;09:144-55. doi: 10.4236/ojepi.2019.92013.
161. Gao Y, Yang J, Sun F, Zhan S, Fang Z, Liu X et al. Prevalence of Anti-HCV Antibody Among the General Population in Mainland China Between 1991 and 2015: A Systematic Review and Meta-analysis. *Open forum infectious diseases*. 2019;6:ofz040-ofz. doi: 10.1093/ofid/ofz040.
162. WHO guidelines on hepatitis B and C testing. Geneva: World Health Organization; 2017 (<https://www.who.int/hepatitis/publications/guidelines-hepatitis-c-b-testing/en/>, accessed 14 April 2020).
163. Organization WH. Hepatitis B vaccines: WHO position paper—July 2017—Vaccins anti-hépatite B: note de synthèse de l’OMS—juillet 2017. *Weekly Epidemiological Record= Relevé épidémiologique hebdomadaire*. 2017;92:369-92.

Annex

164. Global tuberculosis report, 2019. Geneva: World Health Organization 2019 (<https://www.who.int/tb/tbscreening/en/>, accessed 14 April 2020).
165. Systematic screening for active tuberculosis: Principles and recommendations. Geneva: World Health Organization 2013 (<https://www.who.int/tb/tbscreening/en/>, accessed 14 April 2020).
166. Oral Health Key Facts. Geneva: World Health Organization; 2020 (<https://www.who.int/news-room/fact-sheets/detail/oral-health>, accessed 14 April 2020).
167. Ren C, McGrath C, Yang Y. Edentulism and associated factors among community-dwelling middle-aged and elderly adults in China. *Gerodontology*. 2016;34. doi: 10.1111/ger.12249.
168. New Zealand Health Survey, Annual Data Explorer. Auckland Ministry of Health New Zealand; 2019 (https://minhealthnz.shinyapps.io/nz-health-survey-2018-19-annual-data-explorer/_w_449340a9/#!/home, accessed 29 February 2020).
169. Oral Health Country Area Profile Project. Malmö: Malmö University; 2020 (<https://capp.mau.se>, accessed 29 February 2020).
170. Chiu C-T, Malhotra R, Tan S, Lim J, Chan A, Teoh K et al. Dental health status of community-dwelling older Singaporeans: Findings from a nationally representative survey. *Gerodontology*. 2016;34. doi: 10.1111/ger.12218.
171. Kossioni AE. The Association of Poor Oral Health Parameters with Malnutrition in Older Adults: A Review Considering the Potential Implications for Cognitive Impairment. *Nutrients*. 2018;10:1709. doi: 10.3390/nu10111709.
172. Tonetti MS, Bottenberg P, Conrads G, Eickholz P, Heasman P, Huysmans M-C et al. Dental caries and periodontal diseases in the ageing population: call to action to protect and enhance oral health and well-being as an essential component of healthy ageing - Consensus report of group 4 of the joint EFP/ORCA workshop on the boundaries between caries and periodontal diseases. *Journal of clinical periodontology*. 2017;44 Suppl 18:S135-S44. doi: 10.1111/jcpe.12681.
173. Cerutti-Kopplin D, Feine J, Padilha D, de Souza R, Ahmadi M, Rompré P et al. Tooth Loss Increases the Risk of Diminished Cognitive Function: A Systematic Review and Meta-analysis REVIEW. 2016;1. doi: 10.1177/2380084416633102.
174. Fang W-l, Jiang M-j, Gu B-b, Wei Y-m, Fan S-n, Liao W et al. Tooth loss as a risk factor for dementia: Systematic review and meta-analysis of 21 observational studies. *BMC Psychiatry*. 2018;18. doi: 10.1186/s12888-018-1927-0.
175. Oh B, Han D-H, Han K-T, Liu X, Ukken J, Chang C et al. Association between residual teeth number in later life and incidence of dementia: A systematic review and meta-analysis. *BMC Geriatrics*. 2018;18. doi: 10.1186/s12877-018-0729-z.
176. Tada A, Miura H. Association between mastication and cognitive status: A systematic review. *Archives of Gerontology and Geriatrics*. 2017;70:44-53. doi: <https://doi.org/10.1016/j.archger.2016.12.006>.
177. Fukai K, Takiguchi T, Ando Y, Aoyama H, Miyakawa Y, Ito G et al. Functional tooth number and 15-year mortality in a cohort of community - residing older people. *Geriatrics & Gerontology International*. 2007;7:341-7. doi: 10.1111/j.1447-0594.2007.00422.x.
178. Peng J, Song J, Han J, Chen Z, Yin X, Zhu J et al. The relationship between tooth loss and mortality from all causes, cardiovascular diseases, and coronary heart disease in the general population: systematic review and dose-response meta-analysis of prospective cohort studies. *Bioscience reports*. 2019;39:BSR20181773. doi: 10.1042/bsr20181773.
179. World Alzheimer Report: the global impact of dementia: an analysis of prevalence, incidence, cost and trends. London: Alzheimer's Disease International 2015 (<https://www.mhlw.go.jp/file/06-Seisakujouhou-10900000-Kenkoukyoku/0000047330.pdf>, accessed 17 April 2020).
180. Global action plan on the public health response to dementia 2017–2025. Geneva: World Health Organization; 2017 (https://www.who.int/mental_health/neurology/dementia/action_plan_2017_2025/en/, accessed 14 April 2020).

181. Risk reduction of cognitive decline and dementia: WHO guidelines. Geneva: World Health Organization; 2019
(https://www.who.int/mental_health/neurology/dementia/guidelines_risk_reduction/en/, accessed 14 April 2020).
182. Integrated care for older people (ICOPE): guidance for person-centred assessment and pathways in primary care. Geneva: World Health Organization; 2019
(<https://www.who.int/ageing/publications/icope-handbook/en/>, accessed 14 April 2020).