



World Health  
Organization

## **SUMMARY**

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# WORLD REPORT ON **AGEING AND HEALTH**

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*Cover:* The painting on the cover of the Report is Rose Wiley's 'PV Windows and Floorboards'. At 81 years old Rose Wiley's style is fresh, unpredictable and cutting edge. This painting won the John Moores Painting Prize in 2014 from more than 2,500 entries. At double the age of previous winners, Rose Wiley shows that older age need not be a barrier to success. The John Moores Painting Prize unlike other prestigious art prizes does not restrict submissions for contemporary works by age. The copyright for this painting is held by the artist.

## Preface

At a time of unpredictable challenges for health, whether from a changing climate, emerging infectious diseases, or the next microbe that develops drug resistance, one trend is certain: the ageing of populations is rapidly accelerating worldwide. For the first time in history, most people can expect to live into their 60s and beyond. The consequences for health, health systems, their workforce and budgets are profound.

The *World report on ageing and health* responds to these challenges by recommending equally profound changes in the way health policies for ageing populations are formulated and services are provided. As the foundation for its recommendations, the report looks at what the latest evidence has to say about the ageing process, noting that many common perceptions and assumptions about older people are based on outdated stereotypes.

As the evidence shows, the loss of ability typically associated with ageing is only loosely related to a person's chronological age. There is no "typical" older person. The resulting diversity in the capacities and health needs of older people is not random, but rooted in events throughout the life course that can often be modified, underscoring the importance of a life-course approach. Though most older people will eventually experience multiple health problems, older age does not imply dependence. Moreover, contrary to common assumptions, ageing has far less influence on health care expenditures than other factors, including the high costs of new medical technologies.

Guided by this evidence, the report aims to move the debate about the most appropriate public health response to population ageing into new – and much broader – territory. The overarching message is optimistic: with the right policies and services in place, population ageing can be viewed as a rich new opportunity for both individuals and societies. The resulting framework for taking public health action offers a menu of concrete steps that can be adapted for use in countries at all levels of economic development.

In setting out this framework, the report emphasizes that healthy ageing is more than just the absence of disease. For most older people, the maintenance of



functional ability has the highest importance. The greatest costs to society are not the expenditures made to foster this functional ability, but the benefits that might be missed if we fail to make the appropriate adaptations and investments. The recommended societal approach to population ageing, which includes the goal of building an age-friendly world, requires a transformation of health systems away from disease-based curative models and towards the provision of integrated care that is centred on the needs of older people.

The report's recommendations are anchored in the evidence, comprehensive, and forward-looking, yet eminently practical. Throughout, examples of experiences from different countries are used to illustrate how specific problems can be addressed through innovation solutions. Topics explored range from strategies to deliver comprehensive and person-centred services to older populations, to policies that enable older people to live in comfort and safety, to ways to correct the problems and injustices inherent in current systems for long-term care.

In my view, the *World report on ageing and health* has the potential to transform the way policy-makers and service-providers perceive population ageing – and plan to make the most of it.

A handwritten signature in black ink, appearing to read 'M. Chan', with a small dot below the 'n'.

Dr Margaret Chan  
Director-General  
World Health Organization

## Introduction

Today, for the first time in history, most people can expect to live into their 60s and beyond (1). When combined with marked falls in fertility rates, these increases in life expectancy are leading to the rapid ageing of populations around the world.

These changes are dramatic and the implications are profound. A child born in Brazil or Myanmar in 2015 can expect to live 20 years longer than one born just 50 years ago. In the Islamic Republic of Iran in 2015, only around 1 in 10 of the population is older than 60 years. In just 35 years' time, this will have increased to around 1 in 3. And the pace of population ageing is much faster than was the case in the past.

A longer life is an incredibly valuable resource (2). It provides the opportunity for rethinking not just what older age might be, but how our whole lives might unfold. For example, in many parts of the world, the life course is currently framed around a rigid set of stages: early childhood, studenthood, a defined period of working age and then retirement. From this perspective, it is often assumed that the extra years are simply added to the end of life and allow a more extended retirement. However, as more and more people live into older age, there is evidence that many are rethinking this framing of their lives. They are looking instead to spend the extra years in other ways, perhaps in further education, a new career or pursuing a long neglected passion. Moreover, as younger people start to expect longer lives, they too may plan things differently, for example by starting careers later and spending more time earlier in life to raise a family.

Yet the extent of the opportunities that arise from increasing longevity will depend heavily on one key factor: health. If people are experiencing these extra years of life in good health, their ability to do the things they value will be little different from that of a younger person. If these added years are dominated by declines in physical and mental capacity, the implications for older people and for society are much more negative.

Unfortunately, although it is often assumed that increasing longevity is being accompanied by an extended period of good health, there is little evidence to suggest that older people today are experiencing better health than their parents did at the same age.

However, poor health does not need to dominate older age. Most of the health problems that confront older people are associated with chronic conditions, par-

ticularly noncommunicable diseases. Many of these can be prevented or delayed by engaging in healthy behaviours. Other health problems can be effectively managed, particularly if they are detected early enough. And even for people with declines in capacity, supportive environments can ensure that they live lives of dignity and continued personal growth. Yet, the world is very far from these ideals.

Population ageing therefore demands a comprehensive public-health response, although debate on just what this might comprise has been narrow, and the evidence on what can be done is limited (3, 4). But this does not mean that nothing can be done now. Indeed, the need for action is urgent. This report looks in detail at what we do know about health and ageing, and builds a strategic framework for taking public-health action, with a menu of practical next steps that can be adapted for use in countries at all levels of economic development.

In doing so, it approaches the changes associated with ageing in the context of the entire life course. However, given the unique issues that arise in older age and the limited attention this period has traditionally received, the report focuses on the second half of life.

## Changing perceptions of health and ageing

One of the challenges to developing a comprehensive response to population ageing is that many common perceptions and assumptions about older people are based on outdated stereotypes. This limits the way we conceptualize problems, the questions we ask and our capacity to seize innovative opportunities (5). The evidence suggests fresh perspectives are needed.

### **There is no typical older person**

Older populations are characterized by great diversity. For example, some 80-year-olds have levels of physical and mental capacity comparable to those of many 20-year-olds. Policies must be framed in ways that enable as many people as possible to achieve these positive trajectories of ageing. And they must serve to breakdown the many barriers that limit the ongoing social participation and contributions of older people. But many people will experience significant declines in capacity at much younger ages. For example, some people in their 60s may require help from others to undertake even basic activities. A comprehensive public-health response to population ageing must address their needs too.

Enabling the abilities and meeting the needs of such diverse populations can result in policies that appear disjointed and that may even be administered through different and competing arms of government. Yet the diverse needs of older people are best viewed as a continuum of functioning, and a comprehensive policy response should be able to reconcile these different emphases into a coherent narrative of ageing.

## Diversity in older age is not random

Although some of the diversity seen in older age reflects our genetic inheritance (6), most arises from the physical and social environments we inhabit. These include our home, neighbourhood and community, and these can affect health directly, or through barriers or incentives that influence our opportunities, decisions and behaviour.

But the relationship we have with our environments varies according to many personal characteristics, including the family we were born into, our sex and our ethnicity. The influences of environments are often fundamentally skewed by these characteristics, leading to inequalities in health, and where these are unfair and avoidable, to health inequities (7). Indeed, a significant proportion of the vast diversity of capacity and circumstance that we see in older age is likely to be underpinned by the cumulative impact of these health inequities across the life course (8).

These trends can be seen in [Fig. 1](#), which illustrates trajectories of physical capacity across the life course using data from the Australian Longitudinal Study on Women's Health (9). This shows the wide range of physical capacity (denoted by the dark lines at the top and bottom of the figure) in older age. But the figure also divides the cohort into quintiles of income adequacy. The higher the level of income adequacy, the higher the early-life peak in average physical capacity. And this disparity tends to persist across the whole life course.

These patterns have major implications for policy development because people with the greatest health need at any point in time may also be those with the fewest resources to call on to address this need. Policy responses need to be crafted in ways that overcome, rather than reinforce, these inequities.

## Older age does not imply dependence

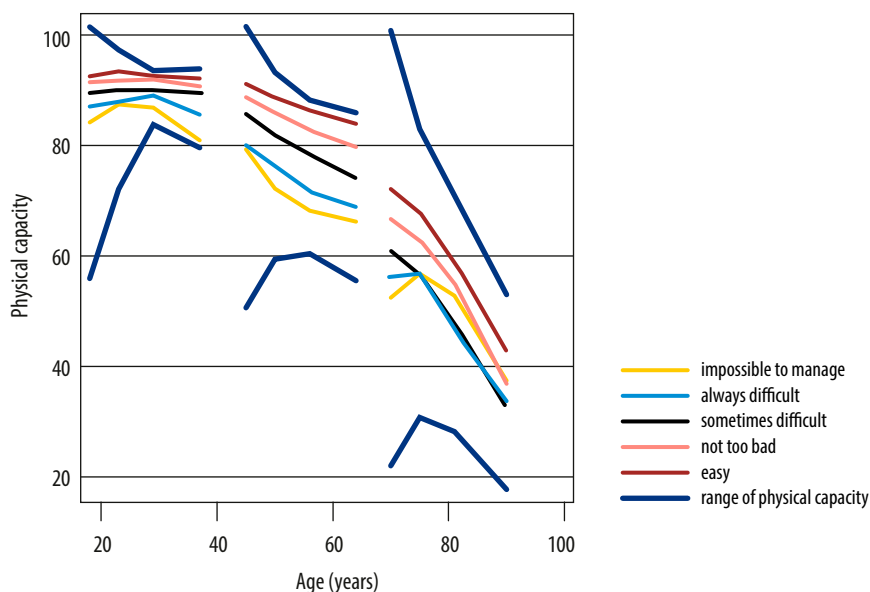
Although there is no typical older person, society often views older people in stereotypical ways that can lead to discrimination against individuals or groups simply on the basis of their age. This has been labelled ageism, and this may now be an even more pervasive form of discrimination than sexism or racism (10, 11). One widespread ageist stereotype of older people is that they are dependent or a burden. This can lead to an assumption during policy development that spending on older people is simply a drain on economies, and to an emphasis on cost containment.

Aged-based assumptions of dependence ignore the many contributions that older people make to the economy. For example, research in the United Kingdom of Great Britain and Northern Ireland in 2011 estimated that, after setting the costs of pensions, welfare and health care against contributions made through taxation, consumer spending and other economically valuable activities, older people made a net contribution to society of nearly £40 billion, which will rise to £77 billion by 2030 (12).

Although less evidence is available from low- and middle-income countries, the contribution of older people in these settings is also significant. In Kenya,



**Fig. 1. Physical capacity across the life course, stratified by ability to manage on current income**



Source: G Peeters, J Beard, D Deeg, L Tooth, WJ Brown, A Dobson; unpublished analysis from the Australian Longitudinal Study on Women's Health.

for example, the average age of smallholder farmers is older than 60 years. Older people may therefore be critical to maintaining food security in Kenya and in other parts of sub-Saharan Africa (13). They also have a crucial role in supporting other generations. In Zambia, for example, around one third of older women are the main providers and caregivers for grandchildren whose parents either have been lost to the HIV epidemic or migrated for work.

Moreover, in all resource settings, older people contribute in many ways that are less tangible economically, for example, through providing emotional support in times of stress or mentorship on challenging problems. Policy should be shaped in ways that foster the ability of older people to make these multiple contributions.

## Population ageing will increase health-care costs – but not by as much as expected

Another commonly held assumption is that the growing needs of ageing populations will lead to unsustainable increases in health-care costs. In reality, the picture is far less clear.

Although older age is generally associated with increased health-related needs, the association with both health-care utilization and expenditure is variable (14–17). In fact, in some high-income countries health-care expenditure per person actually falls significantly after the age of around 75 (while expenditure

on long-term care increases) (18–20). Because more and more people are growing into advanced old age, enabling people to lead long and healthy lives may therefore actually ease pressures on inflation in health-care costs.

The association between age and health-care costs is also strongly influenced by the health system itself (21). This is likely to reflect differences in provider systems, incentives, approaches to interventions in frail older people and cultural norms, particularly near the time of death.

Indeed, no matter how old we are, the period of life associated with the greatest health-care costs is the last year or two of life (22). But this relationship, too, varies significantly among countries. For example, around 10% of all health-care expenditures in Australia and the Netherlands, and around 22% in the United States of America, are incurred in caring for people during their last year of life (23–25). The increased costs associated with the last years of life also appear to be lower in the oldest age groups compared to the younger age groups.

Although much more evidence is needed, predicting future health-care costs on the basis of the age structure of the population is thus of questionable value. This is reinforced by historical analyses that suggest ageing has far less influence on health-care expenditures than several other factors. For example, in the United States between 1940 and 1990 (a period of significantly faster population ageing than has occurred since), ageing appears to have contributed only around 2% to the increase in health expenditures while technology-related changes were responsible for between 38% and 65% of growth (19).

## **70 is not the new 60 – but it could be**

One assumption that runs counter to the generally negative misconceptions associated with ageing is that older people today are experiencing life in better health than was the case for their parents or grandparents. This is summed up by the saying “70 is the new 60.” Although superficially positive, this assumption carries a sting in its tail. If 70-year-olds today have the same health as 60-year-olds in the past, one conclusion that might be drawn is that today’s 70-year-olds are better placed to fend for themselves and so there is less need for policy action to help them do this.

Although there is strong evidence that older people are living longer, particularly in high-income countries, the quality of these extra years is unclear (26). Research findings are very inconsistent, both within and among countries (27–35). Moreover, trends within different subgroups of a population may be quite distinct (36, 37).

Analysis by WHO of people born between 1916 and 1958 who are participants in several large longitudinal studies has suggested that while the prevalence of severe disability (that requires help from another person just to engage in basic activities such as eating and washing) may have declined slightly, there has been no significant change in the prevalence of less-severe disability (38).

Moreover, regardless of the setting, research has generally only considered the significant losses of capacity that commonly occur during the last years of life. Because declines generally start much earlier, how the intrinsic capacity of

people who still have 10–20 years to live compares with that of previous generations remains largely unknown.

Although 70 does not yet appear to be the new 60, there is no reason why this cannot become reality in the future. But making this happen will require much more concerted public-health action on ageing.

### **Looking forward, not back**

Many other major social changes are occurring alongside population ageing. Combined, these mean that getting older in the future will be very different from the experience of previous generations.

For example, urbanization and globalization have been accompanied by increased migration and deregulation of labour markets (39, 40). For older people with desirable skills and financial flexibility, these changes create new opportunities. Others may see younger generations migrating to areas of growth, while they are left in poorer rural areas without the family structures and social safety nets that traditionally they may have been able to turn to for support.

Gender norms are also changing in many parts of the world. A key role for women has been that of caregiver, both for children and for older relatives. This restricted women's participation in the paid workforce, which had many negative consequences for them in later life, including a greater risk of poverty, less access to high-quality health-care and social-care services, a higher risk of abuse, poor health and reduced access to pensions. Today, women are increasingly filling other roles, which provides them with greater security in older age. But these shifts also limit the capacity of women and families to provide care for older people who need it. Together with the rapidly increasing numbers of older people who may need care, this means that old models of family care are simply not sustainable.

Technological change is also accompanying population ageing and creates opportunities that were never previously available. For example, the Internet can allow continued connection with family despite distance, or access to information that can guide an older person's self-care or provide support to caregivers. Assistive devices, such as hearing aids, are more functional and more affordable than in the past, and wearable devices provide new opportunities for health monitoring and personalized health care.

These significant social and technological changes mean that policies should not be designed around outdated social models of ageing but should instead seize the opportunities that these developments provide for innovative new approaches. Equally, however, developing policy based on what might happen in the future is likely to be limiting because it is hard for us to imagine future change and its impact. Therefore, the approach taken by this report is to focus on building the abilities of older people to enable them to navigate their changing world and to invent new, better and more productive ways of living. This is consistent with work in other policy areas that aims to give people the opportunity to achieve the things that they have reason to value rather than to focus solely on economic utility (41–43).

## Expenditure on older populations is an investment, not a cost

Expenditures on health systems, long-term care and broader enabling environments are often portrayed as costs. This report takes a different approach. It considers these expenditures as investments that enable the ability and, thus, the well-being and contribution of older people. These investments also help societies meet their obligations with regards to the fundamental rights of older people. In some cases, the return on these investments is direct (better health systems lead to better health which allows greater participation and well-being). Other returns may be less obvious but require equal consideration: for example, investing in long-term care will help older people with a significant loss of capacity maintain lives of dignity and it can also allow women to remain in the workforce, and foster social cohesion through risk-sharing across a community.

Reframing the economic rationale for action in this way again shifts the debate from a focus on minimizing so-called costs to an analysis that considers the benefits that might be missed if societies fail to make the appropriate adaptations and investments. Fully quantifying and considering the extent of the investments and the dividends they yield will be crucial if decision-makers are to shape truly informed policies.

## Ageing, health and functioning

### What is ageing?

The changes that constitute and influence ageing are complex (44). At the biological level, ageing is associated with the accumulation of a wide variety of molecular and cellular damage. Over time, this damage leads to a gradual decrease in physiological reserves, an increased risk of many diseases and a general decline in the intrinsic capacity of the individual. Ultimately, it results in death. But these changes are neither linear nor consistent, and they are only loosely associated with a person's age in years.

Furthermore, older age frequently involves significant changes beyond biological losses. These include shifts in roles and social positions, and the need to deal with the loss of close relationships. In response, older adults tend to select fewer and more meaningful goals and activities, optimize their existing abilities through practice and new technologies, and compensate for the losses of some abilities by finding other ways to accomplish tasks (45). Goals, motivational priorities and preferences also appear to change (46–48). Although some of these changes may be driven by an adaptation to loss, others reflect ongoing psychological development in older age that may be associated with “the development of new roles, viewpoints and many interrelated social contexts” (45, 49). These psychosocial changes may explain why in many settings, older age can be a period of heightened subjective well-being (50).

In developing a public-health response to ageing, it is thus important not only to consider approaches that ameliorate the losses associated with older age but also those that may reinforce resilience and psychosocial growth.

### Health in older age

By age 60, disability and death largely result from age-related losses in hearing, seeing and moving, and noncommunicable diseases, including heart disease, stroke, chronic respiratory disorders, cancer and dementia. These are not only problems for the rich world. In fact, the burden associated with many of these conditions in older people is far higher in low- and middle-income countries.

However, the presence of these health conditions says nothing about the impact they may have on an older person's life. For example, despite having a significant hearing impairment, someone may maintain high levels of functioning by using a hearing aid. Moreover, it is simplistic to consider the impact of each condition independently because ageing is also associated with an increased risk of experiencing more than one chronic condition at the same time (known as multimorbidity). For example, in Germany nearly one quarter of 70–85-year-olds experience five or more diseases concurrently (51). The impact of multimorbidity on functioning, health-care utilization and costs is often significantly greater than might be expected from the individual effects of these conditions.

Furthermore, other health states occur in older age that are not captured by traditional disease classifications. These can be chronic (for example, frailty, which may have a prevalence of around 10% in people older than 65 years) or acute (for example, delirium, which may result from multiple determinants as diverse as an infection or the side-effects of surgery).

This complexity in the health and functional states experienced by older people raises fundamental questions about what we mean by health in older age, how we measure it and how we might foster it. New concepts are needed, defined not just by the presence or absence of disease but in terms of the impact these conditions are having on an older person's functioning and well-being. Comprehensive assessments of these health states are significantly better predictors of survival and other outcomes than the presence of individual diseases or even the extent of comorbidities (52).

### Healthy Ageing

To frame how health and functioning might be considered in older age, this report defines and distinguishes between two important concepts. The first is **intrinsic capacity**, which refers to the composite of all the physical and mental capacities that an individual can draw on at any point in time.

However, intrinsic capacity is only one of the factors that will determine what an older person can do. The other is the environments they inhabit and their interactions with them. These environments provide a range of resources or barriers that will ultimately decide whether people with a given level of capacity can do the things they feel are important. Thus, while older people may have limited capacity,

they may still be able to shop if they have access to anti-inflammatory medication, an assistive device (such as a walking stick, wheelchair or scooter) and live close to affordable and accessible transport. This combination of individuals and their environments, and the interaction between them, is their **functional ability**, defined by the report as the health-related attributes that enable people to be and to do what they have reason to value.

Building on these two concepts, this report defines *Healthy Ageing* as **the process of developing and maintaining the functional ability that enables well-being in older age**.

Central to this conceptualization of *Healthy Ageing* is an understanding that neither intrinsic capacity nor functional ability remains constant. Although both tend to decline with increasing age, life choices or interventions at different points during the life course will determine the path – or **trajectory** – of each individual.

*Healthy Ageing* is a process that remains relevant to every older person because their experience of *Healthy Ageing* may always become more positive or less positive. For example, the *Healthy Ageing* trajectory of people with dementia or advanced heart disease may improve if they have access to affordable health care that optimizes their capacity and if they live in a supportive environment.

## A public-health framework for *Healthy Ageing*

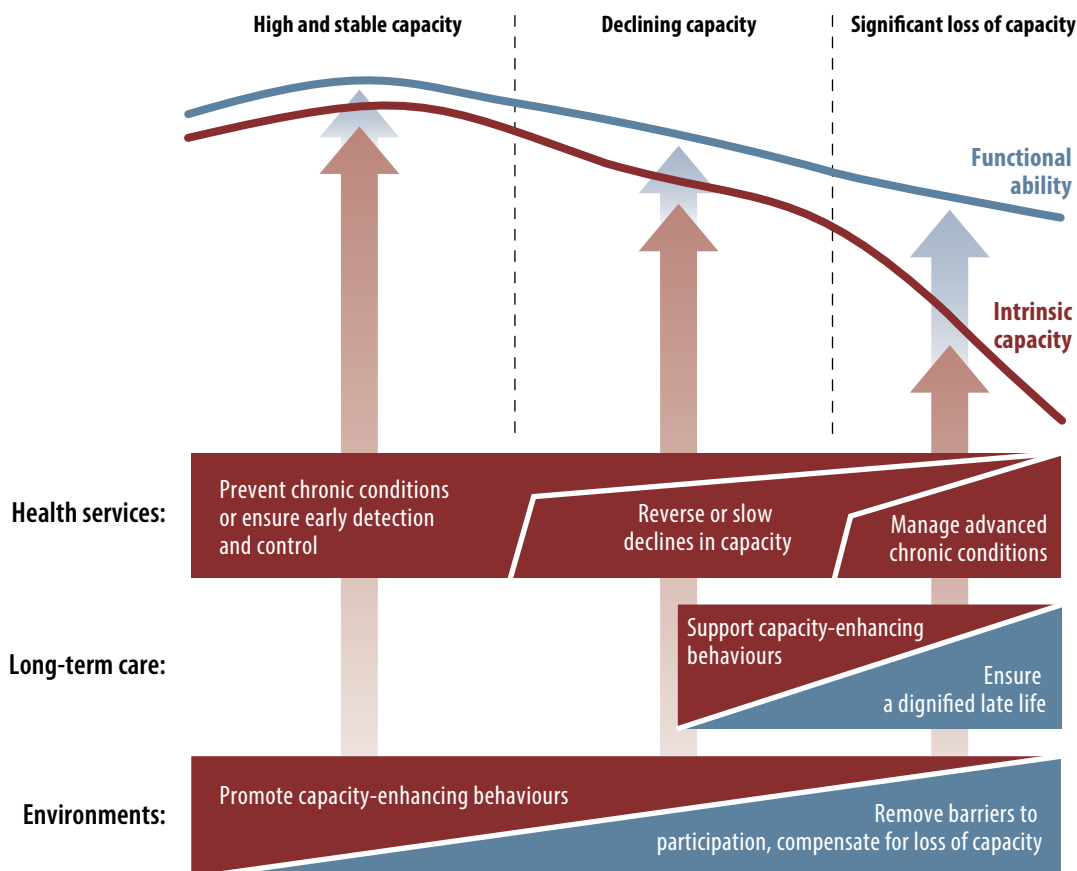
Comprehensive public-health action on ageing is urgently needed. Although there are major knowledge gaps, we have sufficient evidence to act now, and there is something that every country can do irrespective of its current situation or level of development.

Numerous entry points can be identified for interventions to foster *Healthy Ageing* but all will have the one goal: to maximize functional ability. This can be achieved in two ways: by building and maintaining intrinsic capacity and by enabling someone with a decrement in functional capacity to do the things that are important to them.

Key opportunities for taking action to optimize trajectories of functional ability and intrinsic capacity across the life course are shown in Fig. 2. The figure identifies three different subpopulations of older people: those with relatively high and stable capacity, those with declining capacity and those with significant losses of capacity. These subgroups are not rigid nor do they cover the course of every older person's life. However, if the needs of these subgroups are addressed, most older people will find their functional ability enhanced. Four priority areas for action can help achieve this:

1. aligning health systems to the older populations they now serve;
2. developing systems of long-term care;
3. creating age-friendly environments;
4. improving measurement, monitoring and understanding.

**Fig. 2. A public-health framework for *Healthy Ageing*: opportunities for public-health action across the life course**



Although each country will vary in its preparedness to take action, several approaches that are likely to be effective can be taken in each of these areas. Precisely what needs to be done in what order will depend very much on the national context.

### **Aligning health systems to the needs of the older populations they now serve**

As people age, their health needs tend to become more chronic and complex. Health care that addresses these multidimensional demands of older age in an integrated way has been shown to be more effective than services that simply react to specific diseases independently (53–55). Yet older people often encounter services that were designed to cure acute conditions or symptoms, which manage health issues in disconnected and fragmented ways, and that lack coordination across care providers, settings and time. This results in health care that not only

fails to adequately meet the needs of older people but that can have great costs both to them and to the health system.

Therefore, fostering *Healthy Ageing* is not simply a case of doing more of what is already being done. Instead, health systems need to be developed that can ensure affordable access to integrated services that are centred on the needs of older people. These have been shown to result in better outcomes for older people and are no more expensive than traditional services. Although these systems will share an intersectoral focus on building and maintaining the functional ability of older populations, the main contribution of health services in achieving this will be by maximizing intrinsic capacity.

Making this transition may be particularly challenging for low- and middle-income countries and poorer settings around the world. In these resource-constrained settings, the basic building blocks of health systems are often missing. But this offers an opportunity for developing new approaches that can deliver older-person-centred and integrated care while addressing the needs for acute care that remain important at younger ages.

Three key approaches will help align health systems to the needs of older populations:

1. developing and ensuring access to services that provide older-person-centred and integrated care;
2. orienting systems around intrinsic capacity;
3. ensuring there is a sustainable and appropriately trained health workforce.

### Services that provide older-person-centred and integrated care

Providing older-person-centred care and guaranteeing access to it will require systems to be organized around older people's needs and preferences, and will require services to be age-friendly and closely engaged with families and communities. Integration will be needed between levels and across services, as well as between health care and long-term care. Key actions that can help achieve this include:

- ensuring that all older people are given a comprehensive assessment and have a single service-wide care plan that aims to optimize their capacity;
- developing services that are situated as close as possible to where older people live, including delivering services in their homes and providing community-based care;
- creating service structures that foster care by multidisciplinary teams;
- supporting older people to self-manage by providing peer support, training, information and advice;
- ensuring availability of the medical products, vaccines and technologies that are necessary to optimize their capacity.

### Systems that are oriented around intrinsic capacity

Shifting the orientation of systems to focus on intrinsic capacity will require modifying the health and administrative information they collect, the way they monitor performance, the financing mechanisms and incentives they use, and the training they offer. Several actions are likely to assist with this transformation:

- adapting information systems to collect, analyse and report data on intrinsic capacity;



- adapting performance monitoring, rewards and financing mechanisms to encourage care that optimizes capacity;
- creating clinical guidelines to optimize trajectories of intrinsic capacity and updating existing guidelines so that their impact on capacity is clear.

### **A sustainable and appropriately trained health workforce**

These new systems will require all service providers to have basic gerontological and geriatric skills, as well as the more general competencies that are needed to work within integrated-care systems, including those related to communication, teamwork and information and communication technologies. But strategies should not be limited to current workforce delineations. Key actions that might be taken include:

- providing basic training about geriatric and gerontological issues during preservice training and in continuing professional development courses for all health professionals;
- including core geriatric and gerontological competencies in all health curricula;
- ensuring that the supply of geriatricians meets population need, and encouraging the development of geriatric units for the management of complex cases;
- considering the need for new workforce cadres (such as care coordinators and self-management counsellors) and extending the roles of existing staff, such as community health workers, to coordinate the health care of older people at the community level.

### **Developing systems for providing long-term care**

In the 21st century, no country can afford not to have a comprehensive system of long-term care. The central goal of these systems should be to maintain a level of functional ability in older people who have or are at high risk of significant losses of capacity, and to ensure that this care is consistent with their basic rights, fundamental freedoms and human dignity. This will require acknowledging their continuing aspirations to well-being and respect.

Long-term-care systems have many potential benefits beyond enabling care-dependent older people to live lives of dignity. These include reducing the inappropriate use of acute health-care services, helping families avoid catastrophic care expenditures and freeing women to have broader social roles. By sharing the risks and the burdens associated with care dependence, systems of long-term care can thus help foster social cohesion.

In high-income countries, the challenges to building comprehensive systems are likely to revolve around the need to improve the quality of long-term care, develop financially sustainable ways to provide it to all who need it, and to better integrate it with health systems. In low- and middle-income countries, the challenge may be to build a system where one does not already exist. In these settings, the responsibility for long-term care has often been left entirely to families.

Socioeconomic development, population ageing and the changing roles of women mean that this practice is no longer sustainable or equitable.

Only governments can create and oversee these systems. But that does not mean long-term care is the sole responsibility of governments. Instead, long-term-care systems should be based on explicit partnerships with families, communities, other care providers and the private sector, and reflect the concerns and perspectives of these stakeholders. The role of government (often implemented through ministries of health) will be to steward this partnership, train and support caregivers, ensure that integration occurs across various services (including with the health sector), ensure the quality of services, and directly provide services to those most in need (either because of their low intrinsic capacity or their socioeconomic status). This is achievable even in countries that are the most resource-constrained.

The report identifies three approaches that will be crucial for developing systems for providing long-term care. These are:

1. establishing the foundations necessary for a system of long-term care;
2. building and maintaining a sustainable and appropriately trained workforce;
3. ensuring the quality of long-term care.

### **The foundations of a system of long-term care**

Long-term-care systems require a governance structure that can guide and oversee development and assign responsibility for progress. This can help define the key services and roles that are required, the barriers that may exist, who is best placed to deliver services, and who might best fill other roles, such as training and accreditation. A key focus should be on developing the system in ways that help older people to age in a place that is right for them and to maintain connections with their community and social networks. Ensuring access to this care while reducing the risk that recipients or their caregivers incur financial hardship will require adequate resources and a commitment to prioritizing support for those with the greatest health and financial needs. Key actions that might be taken include:

- recognizing long-term care as an important public good;
- assigning clear responsibility for the development of a system of long-term care and planning how this will be achieved;
- creating equitable and sustainable mechanisms for financing care;
- defining the roles of government and developing the services that will be necessary to fulfil them.

### **A sustainable and appropriately trained workforce**

Developing the workforce needed for these new systems will require several actions. Many of those outlined in relation to health systems, will also be relevant for paid long-term caregivers. However, because the field of long-term care is undervalued, an additional crucial strategy will be to ensure that paid caregivers receive the status and recognition their contributions deserve.

Furthermore, unlike in the health system, the majority of caregivers in the long term-care system are currently family members, volunteers, members of

community organizations and paid but untrained workers. Most of them are women. Providing the training that allows them to do their job well, while relieving them of the stress that arises from being insufficiently informed about how to deal with challenging situations, will be central to building a system of long-term care. Key actions to be taken include:

- improving the salaries and working conditions of paid long-term caregivers and creating career pathways to allow them to advance to positions of increased responsibility and remuneration;
- enacting legislation supporting flexible working arrangements or leaves of absence for family caregivers;
- establishing support mechanisms for caregivers, such as offering respite care and accessible training or information resources;
- raising awareness of the value and rewards of caregiving, and combating social norms and roles that prevent men and young people from acting as caregivers;
- supporting community initiatives that bring older people together to act as a resource for caregiving and other community-development activities. In low- and middle-income countries exciting examples exist in which older volunteers have been empowered through older people's associations to advocate for their rights and provide care and support to peers in need. These concepts may be transferable to higher-income settings.

### Quality long-term care

The first step towards ensuring the quality of long-term care will be to orient services towards the goal of optimizing functional ability. This requires systems and caregivers to look at how they can both optimize the older person's trajectory of capacity and compensate for loss of capacity by providing the care and transforming environments that help the older person to maintain functional ability at a level that ensures well-being. Key actions to be taken include:

- developing and disseminating care protocols or guidelines that address key issues;
- establishing accreditation mechanisms for services and professional caregivers;
- establishing formal mechanisms for care coordination (including between long-term care and health-care services);
- establishing quality-management systems to help ensure that the focus on optimizing functional ability is maintained.

### Creating age-friendly environments

This report adopts the framework of the *International classification of functioning, disability and health* in considering that environments encompass the entire context in which we live (56). This includes transport, housing, labour, social protection, information and communication, as well as health-care services and long-term care, although these are dealt with in more detail separately in the report. The public-health framework for *Healthy Ageing* identifies a common goal for all

these stakeholders: to optimize functional ability. The report explores how this might be achieved in five strongly interconnected domains of functional ability that are essential for enabling older people to do the things that they value; these are the abilities to:

- meet their basic needs;
- learn, grow and make decisions;
- be mobile;
- build and maintain relationships;
- contribute.

Together these abilities enable older people to age safely in a place that is right for them, to continue to develop personally, to contribute to their communities and to retain their autonomy and health.

The actions necessary to foster these abilities take many forms but operate in two fundamental ways. The first is by building and maintaining intrinsic capacity, either by reducing risks (such as high levels of air pollution), encouraging healthy behaviours (such as physical activity) or removing barriers to them (for example, high crime rates or dangerous traffic); or by providing services that foster capacity (such as health care). The second is to enable greater functional ability in someone with a given level of capacity. In other words, by filling the gap between what people can do given their level of capacity and what they could do if they lived in an enabling environment (for example, by providing appropriate assistive technologies, providing accessible public transport or developing safer neighbourhoods). Although population-level interventions may improve environments for many older people in both these ways, many will not be able to benefit fully without individually tailored support.

Because so many sectors and players can influence *Healthy Ageing*, a coordinated approach to policy and practice that puts the needs and aspirations of older people at its centre will be crucial. This report identifies three approaches that cut across almost all sectors as priorities for implementation. These are:

1. combating ageism;
2. enabling autonomy;
3. supporting *Healthy Ageing* in all policies and at all levels of government.

## Combating ageism

Age-based stereotypes influence behaviours, policy development and even research. Addressing these by combating ageism must lie at the core of any public-health response to population ageing. Although this will be challenging, experiences combating other widespread forms of discrimination, such as sexism and racism, show that attitudes and norms can be changed.

Tackling ageism will require building, and embedding in the thinking of all generations, a new understanding of ageing. This cannot be based on outdated conceptualizations of older people as burdens or on unrealistic assumptions that older people today have somehow avoided the health challenges of their parents and

grandparents. Rather, it demands an acceptance of the wide diversity of the experience of older age, acknowledgement of the inequities that often underlie it, and an openness to ask how things might be done better. Key actions to be taken include:

- undertaking communication campaigns to increase knowledge about and understanding of ageing among the media, general public, policy-makers, employers and service providers;
- legislating against age-based discrimination;
- ensuring that a balanced view of ageing is presented in the media, for example by minimizing sensationalist reporting of crimes against older people.

### Enabling autonomy

The second cross-cutting priority is enabling autonomy. Autonomy is heavily dependent on an older person's basic needs being met and, in turn, has a powerful influence on older people's dignity, integrity, freedom and independence, and it has been repeatedly identified as a core component of their general well-being.

Older people have a right to make choices and take control over a range of issues, including where they live, the relationships they have, what they wear, how they spend their time and whether they undergo treatment or not. The potential for choice and control is shaped by many factors, including the intrinsic capacity of older people, the environments they inhabit, the personal and financial resources they can draw on, and the opportunities available to them.

One key action for enabling autonomy will be to maximize intrinsic capacity, and this is largely discussed in the strategies related to health systems. But autonomy can be enhanced regardless of an older person's level of capacity. Actions that can help achieve this include:

- legislating to protect the rights of older people (for example, by protecting them from elder abuse), supporting older people in becoming aware of and enjoying their rights, and creating mechanisms that can be used to address breaches of their rights, including in emergency situations;
- providing services that facilitate functioning, such as assistive technologies, and community-based or home-based services;
- providing mechanisms for advance care planning and supported decision-making that enable older people to retain the maximum level of control over their lives despite significant loss of capacity;
- creating accessible opportunities for lifelong learning and growth.

### Healthy Ageing in all policies and at all levels of government

In a rapidly increasing number of countries, more than 1 in 5 of the population is older than 60 years. There will be few policies or services that do not affect them in some way. Embedding *Healthy Ageing* in all policies and at all levels of government will therefore be crucial. National, regional, state or municipal strategies and action plans for ageing can help to guide this intersectoral response, and ensure coordination that spans multiple sectors and levels of government. These will need to establish clear commitments to goals and clear lines of responsibility, have adequate budgets, and specify mechanisms for coordination, monitoring,

evaluation and reporting across sectors. Collecting and using age-disaggregated information about older people's abilities will also be important. This can facilitate reviews of the effectiveness of, and gaps in, existing policies, systems and services. Furthermore, mechanisms to consult and involve older people or older people's organizations in the development and evaluation of policies can help ensure their relevance to local populations. There are, however, many other areas for action, which include:

- establishing policies and programmes that expand housing options for older adults and assist with home modifications that enable older people to age in a place that is right for them;
- introducing measures to ensure that older people are protected from poverty, for example through social protection schemes;
- providing opportunities for social participation and for having meaningful social roles, specifically by targeting the processes that marginalize and isolate older people;
- removing barriers, setting accessibility standards and ensuring compliance in buildings, in transport and in information and communication technologies;
- considering town-planning and land-use decisions and their impact on older people's safety and mobility;
- promoting age-diversity and inclusion in working environments.

## Improving measurement, monitoring and understanding

Making progress on *Healthy Ageing* will require a far better understanding of age-related issues and trends. Many basic questions remain to be answered.

- What are the current patterns of *Healthy Ageing* and are they changing over time?
- What are the determinants of *Healthy Ageing*?
- Are inequalities increasing or narrowing?
- Which interventions work to foster *Healthy Ageing* and in which population subgroups do they work?
- What is the appropriate timing and sequencing of these interventions?
- What are the needs for health care and long-term care among older people, and how well are these being met?
- What are the real economic contributions made by older people and the true costs and benefits of fostering *Healthy Ageing*?

As a first step towards answering these questions, older people will have to be included in vital statistics and general population surveys, and analyses of these information resources should be disaggregated by age and sex. Appropriate measures of *Healthy Ageing* and its determinants and distributions must also be included in these studies.

But research will also need to be encouraged in a range of specific fields related to ageing and health, and this will require agreement about key concepts and how they can be measured. Approaches such as multicountry and multidisciplinary

studies should be encouraged because they can be representative of a population's diversity and investigate the determinants of *Healthy Ageing* and the distinct context of older adults. So, too, should the involvement and contribution of older people because this may lead to more relevant and more innovative results. Then, as new and more relevant knowledge on ageing and health is generated, global and local mechanisms will be needed to ensure its rapid translation into clinical practice, population-based public-health interventions or health and social policies.

Three approaches will be crucial for improving measurement, monitoring and understanding. These are:

1. agreeing on metrics, measures and analytical approaches for *Healthy Ageing*;
2. improving understanding of the health status and needs of older populations and how well their needs are being met;
3. increasing understanding of *Healthy Ageing* trajectories and what can be done to improve them.

### Metrics, measures and analytical approaches

The current metrics and methods used in the field of ageing are limited, preventing a sound understanding of key aspects of *Healthy Ageing*. Consensus is needed on which approaches and methods are most appropriate. These will need to draw from a range of fields and allow comparisons to be made, and possibly linkages of data collected from a range of countries, settings and sectors. Priorities include:

- developing and reaching consensus on metrics, measurement strategies, instruments, tests and biomarkers for key concepts related to *Healthy Ageing*, including for functional ability, intrinsic capacity, subjective well-being, health characteristics, personal characteristics, genetic inheritance, multimorbidity and the need for services and care;
- reaching consensus on approaches for assessing and interpreting trajectories of these metrics and measures during the life course. It will be important to demonstrate how the information generated can serve as inputs for policy, monitoring, evaluation, clinical or public-health decisions;
- developing and applying improved approaches for testing clinical interventions that take account of the different physiology of older people and multimorbidity.

### The health status and needs of older populations

Although general population-based research and surveillance need to place a greater emphasis on older people, specific population-based research about older people is also required to identify levels and the distribution of functional ability and intrinsic capacity; how these change over time; and needs for health care and care and support, and how well these are being met. This research might include:

- establishing regular population surveys of older people that can reflect in detail functional ability; intrinsic capacity; specific health states; the need for health care or long-term care, or broader environmental changes, and whether these needs are being met;

- mapping trends in intrinsic capacity and functional ability in different birth cohorts and determining whether increasing life expectancy is associated with added years of health;
- identifying indicators and mechanisms for the continuous surveillance of *Healthy Ageing* trajectories.

### **Healthy Ageing trajectories and what can be done to improve them**

Fostering *Healthy Ageing* will require a much better understanding of common trajectories of intrinsic capacity and functional ability, their determinants and the effectiveness of interventions to modify them. Key actions to take to achieve this include:

- identifying the range and types of trajectories of intrinsic capacity and functional ability, and their determinants in different populations;
- quantifying the impact of health care, long-term care and environmental interventions on trajectories of *Healthy Ageing*, and identifying the pathways through which they operate;
- better quantifying the economic contribution of older people and the costs of providing the services they require for *Healthy Ageing*, and developing rigorous, valid and comparable ways of analysing returns on investments.

## **Conclusion**

Comprehensive public-health action on ageing is urgently needed, and there is something that can be done in every setting, no matter what the level of socio-economic development.

This report outlines a public-health framework for action that is built on the concept of *Healthy Ageing*. This societal response to population ageing will require a transformation of health systems away from disease-based curative models and towards the provision of older-person-centred and integrated care. It will require the development, sometimes from nothing, of comprehensive systems of long-term care. And it will require a coordinated response from many other sectors and multiple levels of government. It must be built on a fundamental shift in our understanding of ageing to one that takes account of the diversity of older populations and responds to the inequities that often underlie this. And it will need to draw on better ways of measuring and monitoring the health and functioning of older populations.

Although these actions will inevitably require resources, they are likely to be a sound investment in society's future: a future that gives older people the freedom to live lives that previous generations might never have imagined.



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Comprehensive public health action on population ageing is urgently needed. This will require fundamental shifts, not just in the things we do, but in how we think about ageing itself. The *World report on ageing and health* outlines a framework for action to foster *Healthy Ageing* built around the new concept of functional ability. This will require a transformation of health systems away from disease based curative models and towards the provision of older-person-centred and integrated care. It will require the development, sometimes from nothing, of comprehensive systems of long term care. It will require a coordinated response from many other sectors and multiple levels of government. And it will need to draw on better ways of measuring and monitoring the health and functioning of older populations.

These actions are likely to be a sound investment in society's future. A future that gives older people the freedom to live lives that previous generations might never have imagined.