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### Global Roadmap for Healthy Longevity

The world's population is aging. In recent decades, the population of people over age 65 has grown more quickly than other age groups due to longer life spans and declining birth rates, with growth expected to continue into the future.

The threat that demographic change may create new challenges is real. On average, older people are less healthy and have higher rates of functional and cognitive disabilities than younger people. Poor health and functioning is associated with lower workforce participation, adverse impacts on GDP, and increased demands on government-funded social services and health care.

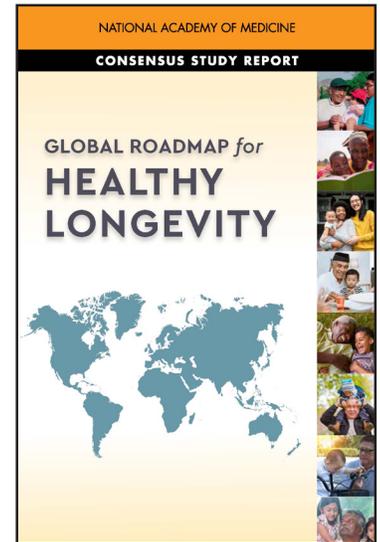
But evidence emerging in recent decades suggests that poor health and functioning in later years are not inevitable. A growing body of evidence also shows that older people with good health and functioning make valuable contributions to family, formal volunteer programs, and workplaces. Collectively, evidence across domains supports the potential for an optimistic future where people spend more of their later years with the good health and functioning needed to take advantage of opportunities for meaningful and productive engagement in society.

Recognizing the need to promote healthy longevity, the National Academy of Medicine formed an international commission of experts from multiple domains to develop an evidence-based roadmap to advance healthy longevity around the globe. The commission concluded that the future of aging societies could be optimistic, with older people contributing to family, community, and society and living lives with meaning and purpose. Within a virtuous cycle (see visual on page 3) anchored in equity and social cohesion at the center, healthy longevity increases human, financial, and social capital, generating the resources needed to support enablers of healthy longevity, and advancing healthy longevity.

Based on the evidence of what is possible, the commission envisions a future with healthy longevity, the state in which **years in good health approach the biological life span**, with physical, cognitive, and social functioning—enabling well-being across populations. According to WHO, **health is a state of complete physical, mental, and social well-being.**

By adopting an **all-of-society** approach to healthy longevity, societies can minimize societal and individual burdens of poor health while increasing human, social, and financial capital. Promoting healthy longevity can unleash the potential of older people in the near and long terms, benefiting people of all ages and societies around the globe. However, societies will not achieve equitable healthy longevity at individual or societal levels without changing and investing in the multiple complex systems that influence health and social outcomes from birth to death. The report recommends targets to catalyze complex system change, although each country will need to approach healthy longevity in a manner best suited for its financial, political, and social contexts.

To achieve this optimistic future, current trends in the health of older people will need to change. Between 2000 and 2019, the lifespan increased globally, with countries at all income levels seeing life expectancy gains.



During the same period, the years in good health has stayed roughly the same, so **people are living more years in poor health**. Globally, chronic conditions drive mortality, poor health, and disability at older ages. Biological aging increases the prevalence of chronic conditions, along with functional and cognitive decline. Although a majority of people have multiple chronic conditions by age 65, a majority of people over age 65 live independently, and only a minority have severe functional or cognitive limitations. The commission's vision to increase healthy longevity includes access to prevention, care, and social supports from birth to death to decrease the risk and prevalence of chronic conditions.

The cost of inaction is more people living with poor health, suffering, and dependence; financial burdens on individuals and families; lost opportunities for people of all ages; gross domestic product that is lower than it would be with better health and full inclusion of older people; and increased fiscal burdens on government for supporting unnecessarily high levels of illness and disability.

The commission envisioned a future of healthy longevity in 2050. It identified four domains critical to achieving the vision: **social infrastructure, physical infrastructure, health systems, and the longevity dividend (education, work, and volunteering)**. In identifying targets and recommendations within the domains, the commission focused on actionability, impact on people across the life course, equity, and importance to improving healthy longevity in the long term and tackling needs of older people in the near term. Principles for healthy longevity were established to spotlight critical aspects of healthy longevity that are relevant across all countries.

### **Social Infrastructure**

Health status in later life is influenced by social determinants of health, which include the physical and social environments, financial status, education, and work. Social determinants influence health even more than health care. The importance of social determinants of health is increasingly being recognized, but many countries spend more on reactive health care than on social and financial supports. The commission targeted age discrimination, social isolation and loneliness, and financial security for older people as preliminary targets for change.

Ageism and age discrimination have significant negative health effects and also limit older people's full participation in society. To combat these effects, governments should develop evidence-based, multipronged strategies that include intergenerational and cross-sector collaboration, public information campaigns, and legal protections.

While many older people have strong social and family ties, an estimated 20 percent to 34 percent of older adults in China, Europe, Latin America, and the United States identify as lonely. To address these challenges, small scale evidence-based programs to reduce loneliness and strengthen family, community, and social ties can be scaled and replicated.

The commission calls on all governments to develop plans to ensure financial security for older people by 2027, because, unlike younger people, many older people lack resources and opportunity to increase their incomes, especially those in low-income countries with no financial safety net.

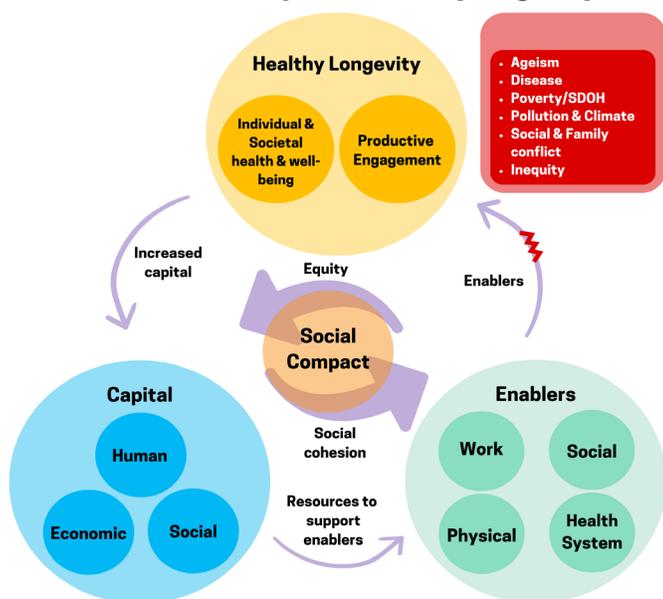
### **Physical Environment**

The World Health Organization found that 24 percent of death and disease is attributable to environmental hazards. Improvements needed to achieve healthy longevity, such as climate change mitigation and decreasing air and water pollution, will have positive population-wide impacts, with children and older people benefitting the most. The commission highlighted the need for environments and infrastructure that support functioning and engagement for people at older ages. To catalyze change within the physical environment, the commission recommends that **governments and the private sector partner to design user-centered and cohesion-enabling intergenerational communities for healthy longevity**.

### **Overarching Principles for Healthy Longevity**

1. People of all ages, particularly older adults, reach their full potential to live life with good health, functioning, meaning, purpose, and dignity.
2. Societies enable the best health and functioning that individuals at all ages are capable of attaining.
3. Societies reduce disparities and enhance equity within and among countries to realize the well-being and contributions of all people, including those of older ages.
4. The human, financial, and social capital of older people is realized for the benefit of all society.
5. Societies use data and meaningful metrics to track the achievement of outcomes and guide decision making.

## The virtuous cycle of healthy longevity



## Health Systems

In 2015, on average, only 2 percent of health spending by Organisation for Economic Co-operation and Development (OECD) countries was for prevention. The commission emphasized the need for countries to shift from current reactive “sick care” systems to an approach that focuses on prevention, access to care, mitigation of the effects of disease, preserving functional capacities, and supporting those with the greatest needs in living lives with meaning and purpose. Included in this shift is the creation of **integrated public health, social service, person-centered health care, and long-term care systems** designed to **extend years of good health and support the diverse needs of older people**. For people needing long-term care, the commission envisioned **quality long-term care systems** that ensure that people receive the care they require in the setting they desire for a **life of meaning and dignity**.

## Public Health

The commission identified the need for near-term strategies to **increase investments in robust public health systems to promote health at the population level and across the life course**. Increased investments in public health systems may require governments to **rebalance investments in health care and public health**. At the same time, public policies should create incentives for individuals, employers, and communities to engage in prevention and wellness activities.

## Health Care

Broadly speaking, health care for older people is less effective than care for younger people. To improve the health status of older people, health systems need to adopt **affordable, accessible, and culturally appropriate models**, including **geriatric care models**, for providing **person-centered, integrated care** for older people. To encourage needed system change, governments should develop plans to align health care payment and reimbursement systems with **health outcomes**, and to measure outcomes based on patient goals and preferences and patient-reported outcomes. Additional recommendations address supporting interoperable data systems, increasing geriatrics training for all clinicians, strengthening the geriatrics workforce, and empowering people to manage their own health.

## Long-Term Care

Long-term care is crucial to enable people with significant functional and cognitive challenges to experience lives with meaning and dignity. It is critical for long-term care to be driven by a person’s goals. The commission’s goals for long-term care are to maximize function, support living with dignity and respect, optimize autonomy, ensure a life of meaning, and provide appropriate health care consistent with the person’s goals. By 2027, governments, health and long-term care systems, and researchers should initiate development of (1) strategies to identify effective, accessible, affordable, and scalable models for delivering long-term care services and supports and (2) models for providing training and technological and financial support for family caregivers and the paid long-term care workforce.

## Longevity Dividend: Productive Engagement in Work, Volunteering, and Lifelong Education

Healthy longevity has the potential to contribute to growth in personal savings and government budgets across all countries. In countries with low workforce participation rates—primarily high- and middle-income countries—people will need to work longer than they do today. But raising the pension eligibility age can exacerbate inequity and disparities. Therefore, the commission recommended removal of structural barriers that prevent people from working as long as they want and establishing incentives to encourage people to continue to work.

Governments and the private sector should also ensure worker health, safety, legal, and income protections (including for those working in the informal and gig economies), increase opportunities for part-time work and flexible schedules, and promote intergenerational national and community service and encore careers. To support multiple career changes as work lives get longer, governments, employers, and educational institutions should prioritize investments in redesigning education systems for lifelong learning and training.

**Lives of good health, function, meaning, purpose, and dignity are achievable—now is the time to begin working toward this better future for all.**

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To read the full report, please visit: [nam.edu/LongevityRoadmap](https://nam.edu/LongevityRoadmap).



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