

THE PROMISE OF LONGEVITY FOR HUMAN HEALTH AND PROSPERITY

As populations age and new health threats emerge, investing in healthy longevity—improved length and quality of life—holds the promise to unlock economic and health benefits on a global scale.



Contents

Executive summary	2
McKinsey Health Institute and Future Investment Initiative Institute	3
Introduction: The importance of healthy longevity	4
Methodology and key findings	6
Implications: The opportunity of healthy longevity	12
Call to action: Potential avenues to unlock healthy longevity for individuals, families, and societies	16
Appendix	26
Endnotes	29

EXECUTIVE SUMMARY

Introduction

Humans are living longer, with global life expectancy reaching 73 years in 2023 and projected to rise to 77 years by 2050.¹ Despite the increase in life expectancy, the proportion of years a person spends in poor or moderate health has remained constant. Key issues such as infectious diseases, cardiometabolic conditions, and problems with brain health persist, accounting for substantial portions of the global disease burden. These shifts in human demographics call for transformative change in societal, health, economic, and cultural structures to ensure both lifespan and healthspan (the period of life spent in good health) improve globally.

Methodology

The McKinsey Health Institute conducted the Global Health Aging Survey (GHAS) between December 2022 and February 2023, gathering data from 22,261 older adults from 21 countries, about 1,000 participants per country. The survey covered physical, mental, social, and spiritual health and used quotas and weights to ensure representative samples. In August 2023, McKinsey also conducted the Future of Wellness Consumer Survey, collecting data from more than 5,000 consumers ages 18 to 29 across China, the United Kingdom, and the United States.

Key findings

One key takeaway was that perceived health status declines with age and varies significantly across countries. Key factors influencing perception of health globally include having a sense of purpose, managing stress, physical activity, lifelong learning, and social interaction. Participation in any type of activity correlates with better self-reported health.

Implications

The current landscape presents a chance to redefine the narrative around aging from a societal burden to an opportunity for healthy longevity for all. Holistic investments in healthy longevity can unlock opportunities in both health and economic benefits. By focusing on extending both lifespan and healthspan, 45 billion years of high-quality life—about six years per person—could potentially be added across humankind.² This shift could

also unlock trillions of dollars in consumer spending and increase global GDP by 9 percent through the inclusion of older individuals who want to work into the workforce. Such an approach would help mitigate some of the perceived economic challenges associated with an aging population.

Call to action

Achieving healthy longevity requires a comprehensive societal approach. By investing in strategic areas, leaders can take steps to improve quality of life, drive economic growth, and create a more equitable society. Key avenues include the following:

1. **Support societal participation:** Facilitate workforce reentry with optional extended “workspan,” lifelong learning, and volunteer roles for older adults.
2. **Invest in science:** Expand aging-related research and ensure equitable access to interventions.
3. **Strengthen healthcare:** Focus on preventative and holistic care.
4. **Address social determinants:** Create conditions for health in the places where individuals live, play, work, and travel.
5. **Promote consumer-driven wellness:** Encourage holistic wellness practices.
6. **Adopt technology:** Utilize tech for health and connectivity.
7. **Ensure financial inclusivity:** Offer financial education and support.
8. **Enhance safety:** Develop robust public safety measures.

By implementing targeted interventions in these avenues, global leaders can create a future in which healthy longevity is accessible to all, driving personal well-being and economic prosperity.

MCKINSEY HEALTH INSTITUTE AND FUTURE INVESTMENT INITIATIVE INSTITUTE

The McKinsey Health Institute (MHI) is an enduring, non-profit-generating entity within McKinsey. It was founded on the conviction that, over the next decade, humanity could add as much as 45 billion extra years of higher-quality life. Its mission is to catalyze the actions and investment needed across continents, sectors, and communities to realize this possibility. In collaboration with a robust ecosystem of organizations, it works to catalyze impact across historically underinvested areas of health. MHI does this by convening and activating leaders; advancing research; creating and promoting data and tools; and stimulating investment and innovation.³

The Future Investment Initiative Institute (FII Institute) is a global non-profit foundation, driven by data, with an investment arm and one agenda: Impact on Humanity. FII Institute fosters great minds from around the world and turns ideas into real-world solutions and actions. The institute focuses on four critical areas where the inequalities are most glaring and where exciting collective solutions can be found: Artificial Intelligence (AI) and Robotics, Education, Healthcare, and Sustainability. FII Institute strives to become a catalyst for global cooperation by working across the globe with decision makers and innovators to advance humanity.⁴

INTRODUCTION:

THE IMPORTANCE OF HEALTHY LONGEVITY

Humans are living longer than ever. Global life expectancy in 2023 was 73 years and is expected to increase to 77 years by 2050,⁵ with adults over the age of 50 projected to be one-third of the population globally. The rate of this growth in global population share increased in recent decades, with older adults jumping to 24 percent of the population in 2020 from 16 percent in 1950.⁶ This demographic shift is occurring across regions and in countries at every stage of development.

This is a great human achievement, but progress remains to be made. Although people are living longer, they are not necessarily healthier (Exhibit 1). On average, people spend more time in absolute terms in moderate and poor health compared to any other point in history. Many long-known threats to human health, such as infectious diseases and maternal health challenges, remain inadequately addressed, while newer threats, particularly cardiometabolic diseases and brain health issues, have continued to rise. For example, problems with brain health now account for more than 10 percent of global disease burden, more than all cancers combined.⁷

Exhibit 1

Globally, lives have gotten longer but not healthier.

Increase in overall life expectancy over the past 60 years¹



Decrease in proportion of life in moderate and poor health



¹Average global life expectancy and healthy years.

²Assumptions-based extrapolation of proportion of good or OK health from 2019 data.

³As of 2019.

Source: Institute For Health Metrics and Evaluation; World Bank; McKinsey analysis

An important demographic implication of increased lifespans is that for the first time in human history, older adults are becoming a large proportion of the global population. Globally, the number of people aged 50 and older is projected to reach 3.2 billion in 2050.⁸ Paired with a decline in fertility rates, their share of the population is expected to increase to 33 percent in 2050, up from 24 percent in 2020.⁹ This shifting demographic has led to concerns about healthcare costs, labor force participation, and social safety net support. Global spending (across 190 countries) on health continually rose between 2000 and 2018 and reached \$8.3 trillion (or 10 percent of global GDP).¹⁰ Labor shortages are being observed as participation in employment drops off at age 50, leading to an overall decline in GDP growth.¹¹ As the labor force shrinks, the number of workers sharing the cost of supporting pension and social security beneficiaries is projected to drop.

In Japan, the number of working-age adults per person above age 65 dropped from 12.20 to 1.98 between 1950 and 2020 and is projected to drop further to approximately 1.53 by 2040.¹² Similarly, in the European Union, this number is projected to drop from three persons of working age for every elderly citizen to only two by 2050.¹³ Coupled with a rise in life expectancy increasing the number of years that older adults receive benefits, there is potential that existing social safety nets may not be sufficient to handle this shift. Several European countries are already seeing pension costs of more than 15 percent of GDP,¹⁴ and Japan's pension benefit levels are projected to drop 30 percent by the mid-2040s.¹⁵

In these circumstances, there is a rare opportunity to shift our thinking in a profound way—from thinking of aging as a burden, to investing in longevity to unlock years of health and productivity across lifespans and well into “old age.” Cracking the code on longevity can improve the lived experience of billions of people and usher in economic prosperity, adding 45 billion years of high-quality life to the global population,¹⁶ opening the opportunity for trillions of dollars in consumer spending on wellness,¹⁷ and adding 9 percent to global GDP by building an age-inclusive workforce.¹⁸ To get there, leaders across all sectors can focus on lengthening and improving life across society, focusing on factors that can improve holistic health—that is, physical, mental, social, and spiritual—for all.

METHODOLOGY AND KEY FINDINGS

The challenges and opportunities presented by older adults are global in scope, so gaining an understanding of this demographic required intensive, widespread research. Below, we outline how we conducted our Global Healthy Aging Survey (GHAS) 2023 and Future of Wellness Survey 2023, as well as key findings.

GLOBAL HEALTHY AGING SURVEY

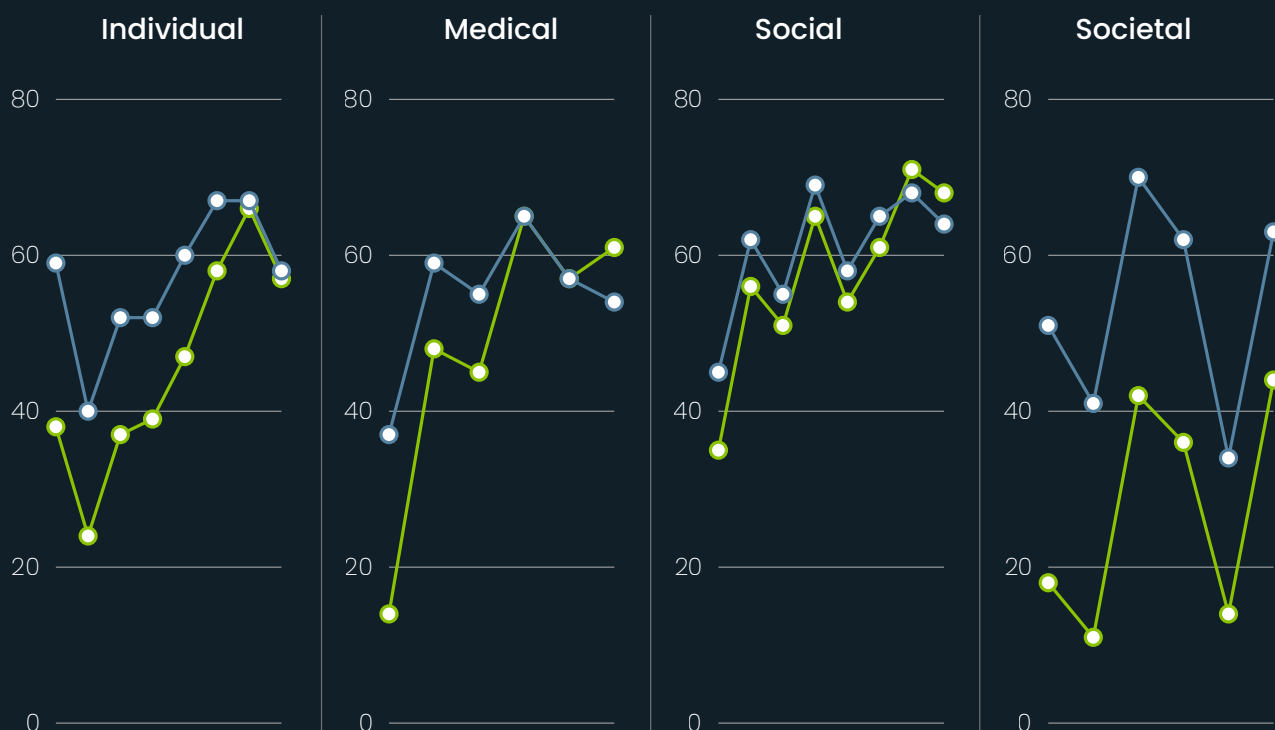
To gain a better understanding of the health perceptions, preferences, and activities of older adults (those aged 55 and older) around the world, the McKinsey Health Institute conducted an internet-based survey between late December 2022 and February 2023, collecting information from 22,261 older adults—about 1,000 older adults per country across 21 countries. This survey, planned to be conducted every three to five years, covered all four aspects of health: physical, mental, social, and spiritual (defined by MHI as having “a strong sense of purpose”) (Exhibit 2).

Exhibit 2

Global South respondents were more likely to report higher scores across many aspects of health.

Regional scores, % of respondents

● Global North ● Global South



Note: The McKinsey Health Institute conducted an internet-based survey between late Dec 2022 and Feb 2023, collecting information from 22,261 older adults across 21 countries, ~1,000 older adults per country. This survey covers all 4 aspects of health: physical, mental, social, and spiritual.

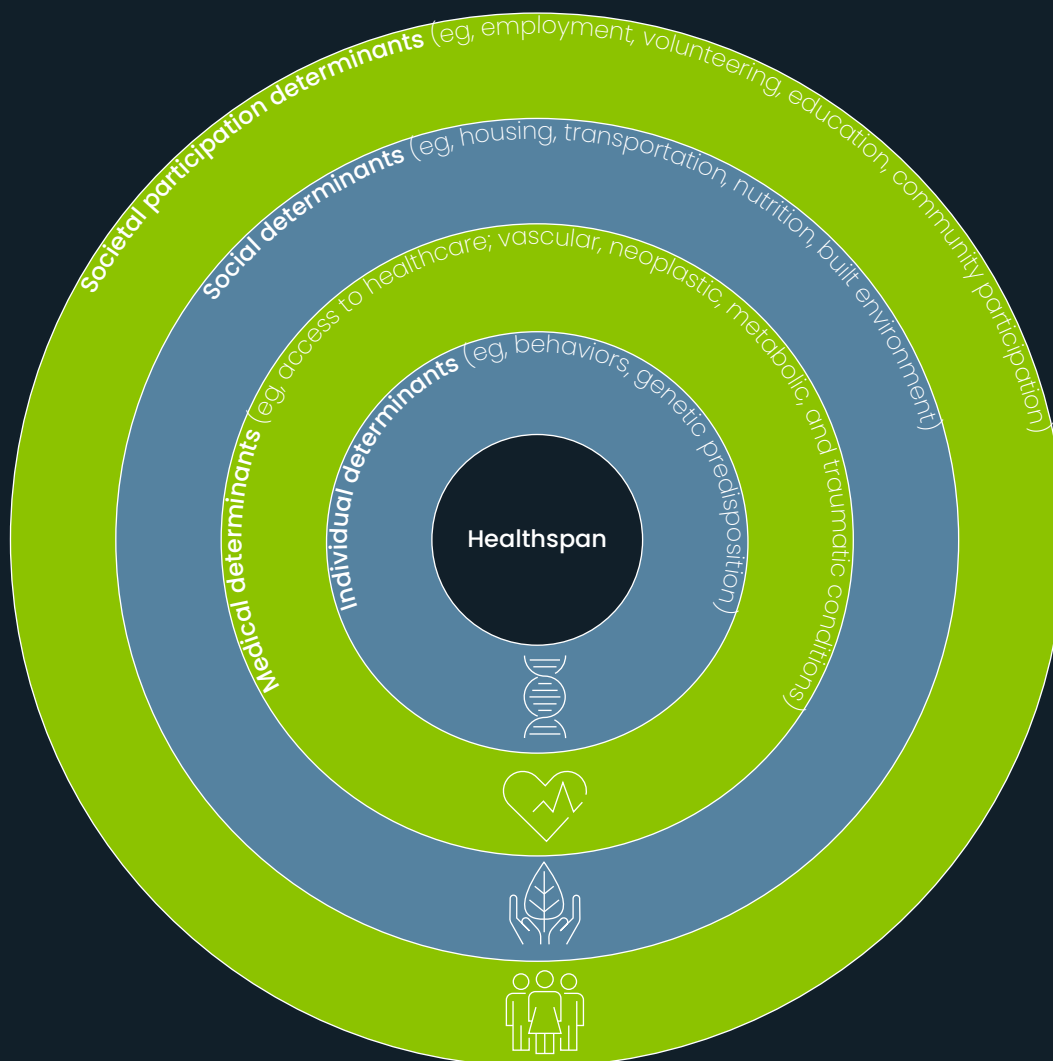
Source: McKinsey Health Institute Global Healthy Aging Survey, 2023

Within each country, quotas and respondent weights were applied to ensure that the final sample was representative for the entire country with respect to age, gender, and proportions of urban and rural locations and tertiary education. Weights were also used within each country to balance the sample, as much as possible, based on respondents' self-reported health status. This design was to ensure that results on some measures didn't look better in one country versus another solely because a higher proportion of respondents report that their health was substantially above the average for their age cohort.

Many individual health factors add up to determine overall health, from behaviors and genetics to housing and education. In this survey, we grouped health factors into four determinants of healthspan: individual determinants, medical determinants, social determinants, and societal participation determinants (Exhibit 3). Likewise, we grouped and analyzed questions on participants' attitudes and behaviors based on healthspan determinant. Notable trends related to gender and regional differences between the Global North¹⁹ and Global South²⁰ were reported in addition to overall findings.

Exhibit 3

Based on a survey of older adults, four sets of factors determine healthspans.



Source: McKinsey Health Institute Global Healthy Aging Survey, 2023

Once respondents had answered survey questions, we analyzed the results to understand how individual factors affected healthspan. We calculated how every factor was correlated with each of the four health dimensions across countries in aggregate. These correlations were then grouped based on magnitude levels (that is, quartiles). Each individual factor was then assigned an index value, and these values were summed across dimensions to arrive at an overall relative importance index.

After analyzing the data, a key finding stands out. Overall, perceived health status declines with age (Exhibit 4). However, this overall picture varies in magnitude widely across countries.

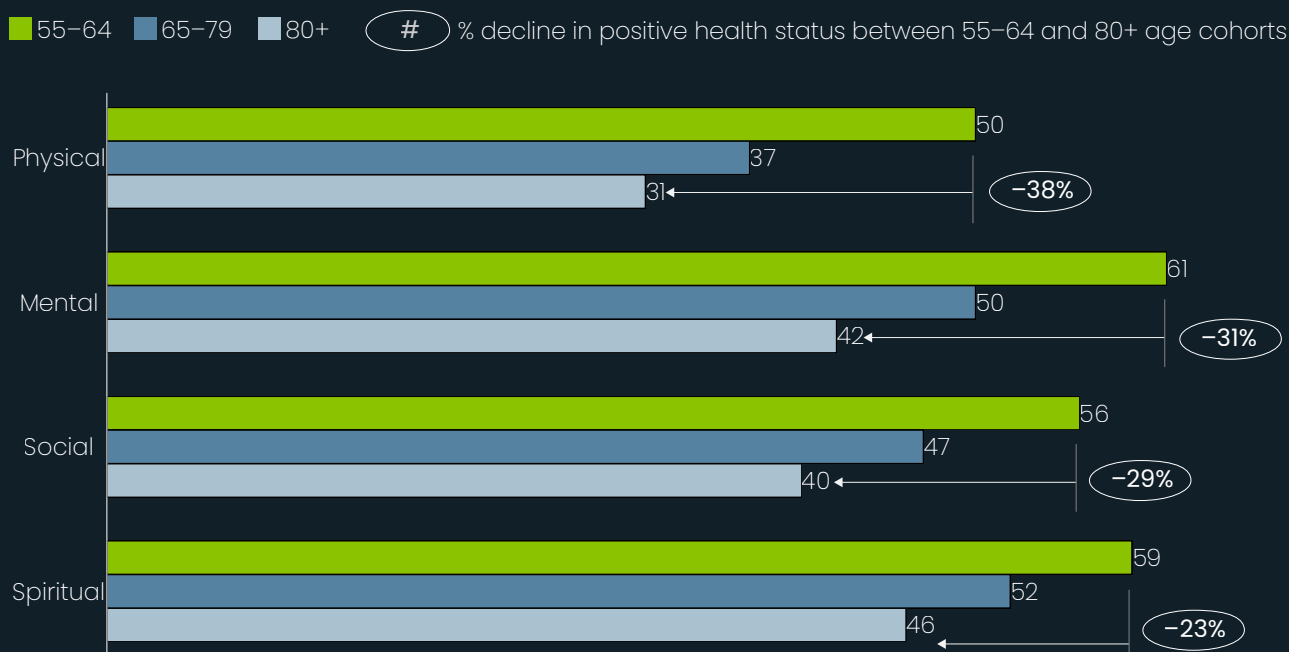
Globally, the top factors contributing to individual health include having purpose, maintaining balanced stress levels, being conscious about physical posture and movement, and participating in lifelong learning (Exhibit 5). When examining these factors by gender, additional findings emerge. For males, additional contributing factors include engagement in formal learning and opportunities to acquire new skills. In comparison, for females, additional contributing factors involve volunteering, being mindful of physical activity, and feeling confident in financial decision making.

Across all countries in aggregate, participation in any type of activity is correlated with better self-reported health (Exhibit 6). Of the adults who want to formally volunteer, those who do report good or very good health at eight percentage points higher than those who do not yet volunteer. Similarly, 7 percent of older adults who wish to participate in employment and do so reported good or very good health, compared to those who wish to be employed but are not.

Exhibit 4

Across countries, self-perceived measures of health decline as people age.

Self-reported health status across dimensions, % of older adults reporting good or very good health by age cohort¹

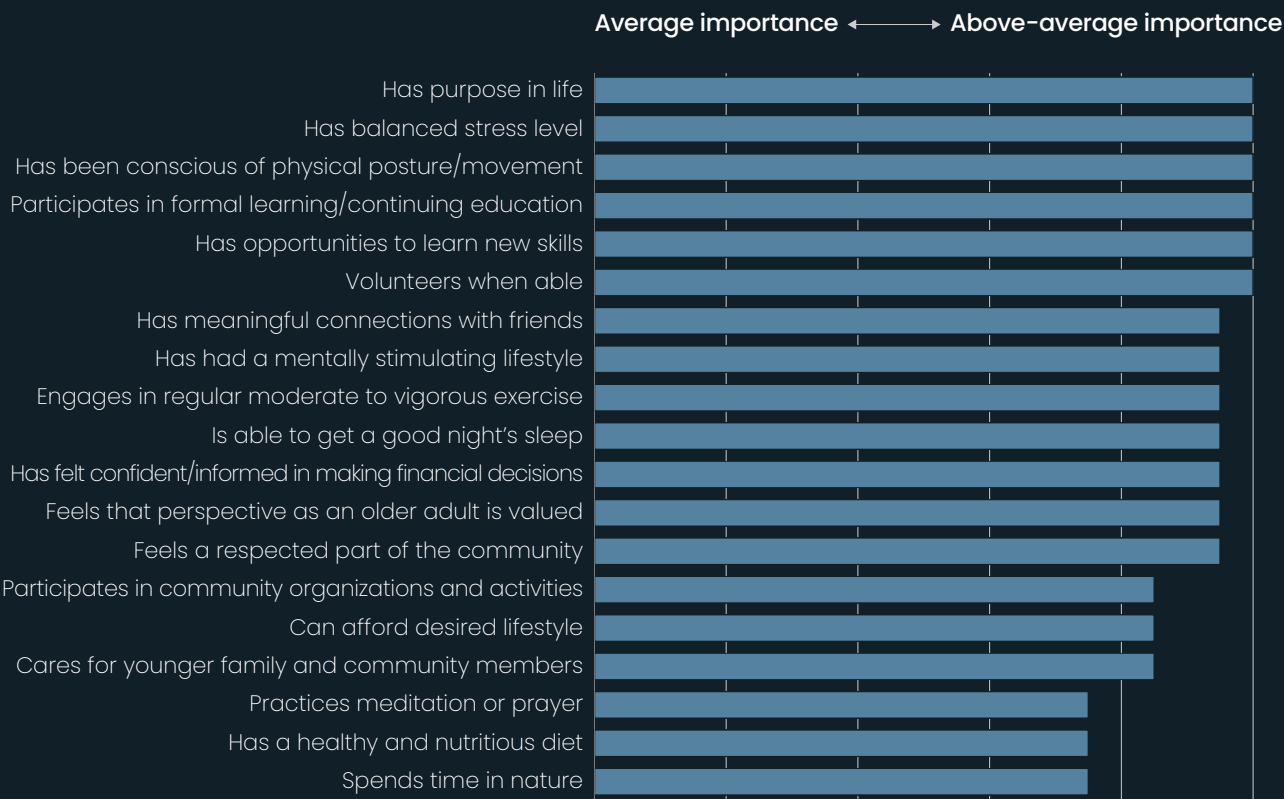


¹Question: How would you or the older adult being surveyed rate your or their health across each of the dimensions below?
Source: McKinsey Health Institute Global Healthy Aging Survey, 2023

Exhibit 5

Purpose, stress management, physical movement, lifelong learning, and volunteering when able matter most to overall health.

Top factors of individual health out of 53 factors tested,¹ relative importance index²



¹Questions: When considering the entire course of your life, how much do you agree with the following statements? Today and moving forward, how much do you agree with the following statements?
²To understand the importance of individual factors of health, we calculated the correlations of each factor with each of the 4 health dimensions across countries in aggregate. We grouped these correlations in magnitude levels based on quartiles. Each factor was then assigned an index value, and these values were summed across dimensions to arrive at an overall relative importance index.
Source: McKinsey Health Institute Global Healthy Aging Survey, 2023

Individual factors

When queried about individual factors, respondents were most likely to report being non-smokers over the past decade (67 percent), maintaining a proactive approach to their health (63 percent), and consuming fewer than two alcoholic drinks per day (58 percent).

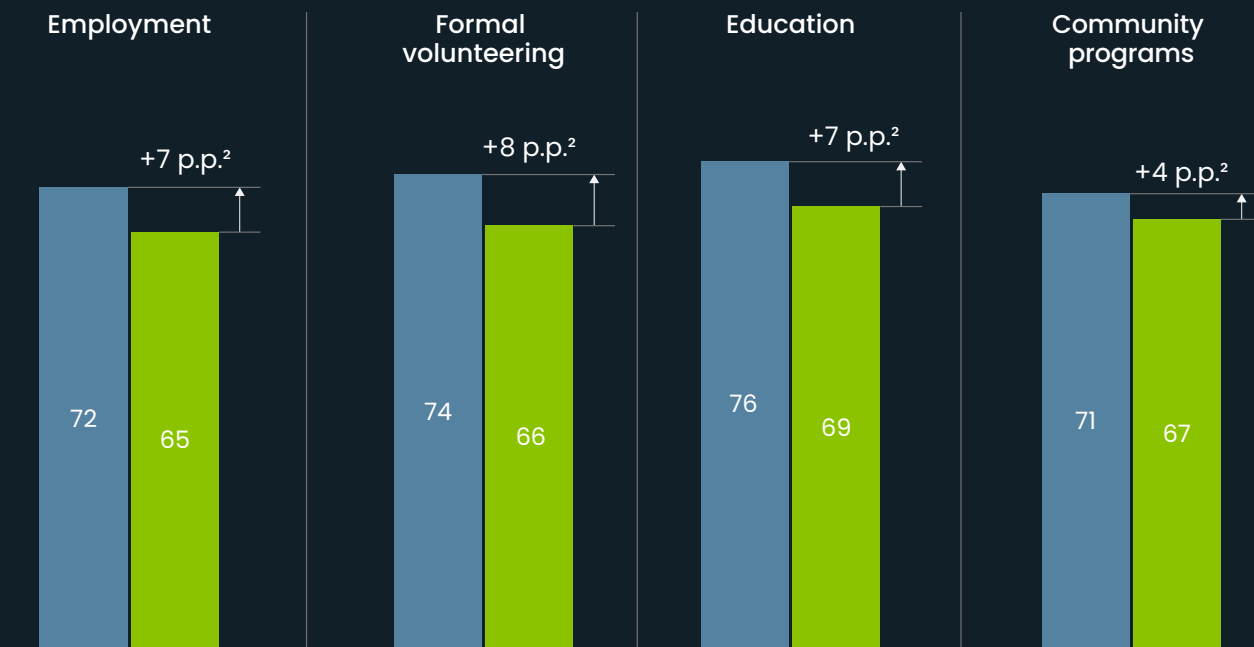
Conversely, they were least likely to report balanced stress levels (45 percent) and engaging in routine moderate to vigorous exercise (33 percent). The most significant disparity between respondents from the Global South and the Global North was observed in reporting quality sleep, with the former group exhibiting more than 20 percentage points higher levels compared to the latter.

Exhibit 6

Societal participation in any type of activity aligns with better self-reported health.

Perceived health by involvement and interest in societal participation,¹
% of respondents reporting good or very good health

■ Doing and wants to ■ Not doing but wants to



¹Simple average of self-reported health across each dimension. Excludes those with low health. Differences of more than 3.5% are statistically significant at a 95.0% confidence level.

²Percentage points.

Source: McKinsey Health Institute Global Healthy Aging Survey, 2023

Medical factors

When asked about medical factors, respondents were most likely to report having equitable health-care access²¹ (65 percent) and insurance coverage (57 percent) and were least likely to report seeking counseling or therapy (26 percent). Respondents from the Global South were 23 percentage points more likely to report seeking counseling or therapy compared to those from the Global North (37 percent versus 14 percent). In contrast, those from the Global North were six percentage points more likely to report having health insurance compared to those from the Global South.

Social factors

When asked about social factors, individuals were most likely to report access to technology products and services (69 percent), healthy food (67 percent), and reliable internet (66 percent). They were least likely to report access to public safety (56 percent), an accessible built environment²² (53 percent), and financial security (40 percent). The largest gap between Global South and Global North respondents was observed for financial security, with Global South respondents 10 percentage points more likely to report having financial security compared to those in the Global North (45 percent versus 35 percent).

Societal participation factors

When asked about societal participation factors, individuals were most likely to report having purpose in life (56 percent) and having meaningful connections with friends (54 percent). Conversely, they were least likely to report participation in formal learning (27 percent) or community organizations (25 percent). A 33-percentage-point difference was observed between the Global South (51 percent) and Global North (18 percent) reporting volunteering when able. Similarly, Global South respondents were about 30 percentage points more likely to report participating in formal learning and having a purpose in life compared to their Global North counterparts.

FUTURE OF WELLNESS SURVEY

The last decade has seen a renewed cultural focus on health and wellness that has been coupled with never-before-seen demographic shifts globally. Adults of all ages show a rising interest in healthy longevity, and as a result, the health and wellness market has grown rapidly.

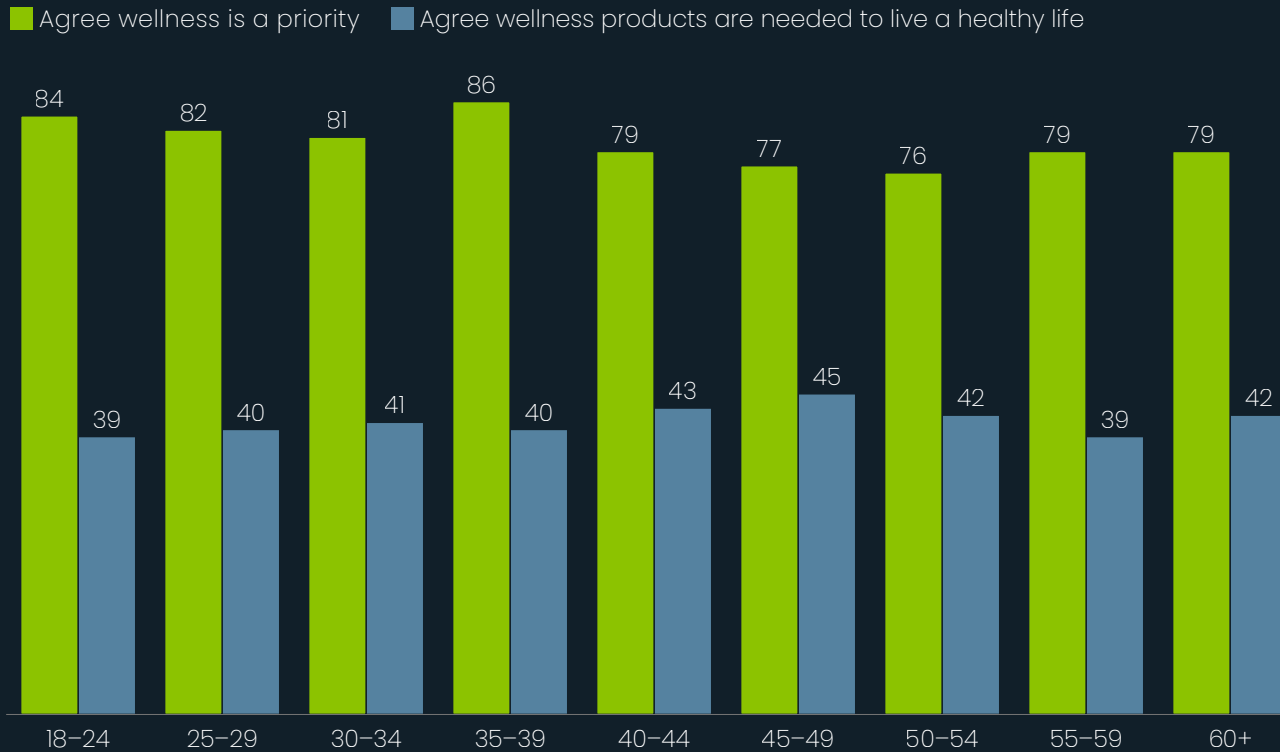
In August 2023, McKinsey's Future of Wellness (FoW) Survey collected data from more than 5,000 consumers aged 18 or older across China, the United Kingdom, and the United States to understand wellness trends. Data was segmented by both gender and age groups. The results of the survey allowed us to examine the trends shaping the consumer wellness landscape across different age cohorts.

Results from the Future of Wellness Survey found that adults of all ages prioritize wellness and longevity highly and moderately agree on the necessity of wellness products for maintaining a healthy life (Exhibit 7). Additionally, more than 60 percent of surveyed consumers deemed it "very" or "extremely" important to buy products or services that promote healthy aging and longevity. About 70 percent of consumers in the United Kingdom and the United States and 85 percent in China reported increased purchases in this category over the past year compared with previous years. This trend was consistent across different age groups, indicating that the drive for healthy aging is fueled by both younger generations looking for preventive measures and older generations aiming to enhance their longevity. As populations in developed economies continue to age, with one in six people worldwide projected to be 60 or older by 2030, there is expected to be an even greater global emphasis on healthy aging in wellness.²³

Exhibit 7

Across age groups, adults agree that wellness and wellness products are important to them.

Survey responses by age group,¹ %



Note: In August 2023, McKinsey's Future of Wellness Survey, planned to be conducted every 1-2 years, collected data from more than 5,000 consumers aged 18+ years old across China, the UK, and the US to understand wellness trends. Data was segmented by gender and age groups.

¹Ages 18+, respondents who answered "strongly agree" or "agree."

Source: McKinsey Health Institute Future of Wellness Survey, 2023

IMPLICATIONS:

THE OPPORTUNITY OF HEALTHY LONGEVITY

Harnessing the opportunity for healthy longevity can have significant health and economic implications. Building on the insights derived from both the GHAS 2023 and the Future of Wellness Survey 2023, this report explores several actionable opportunities that could emerge from taking steps to improve healthspans worldwide.

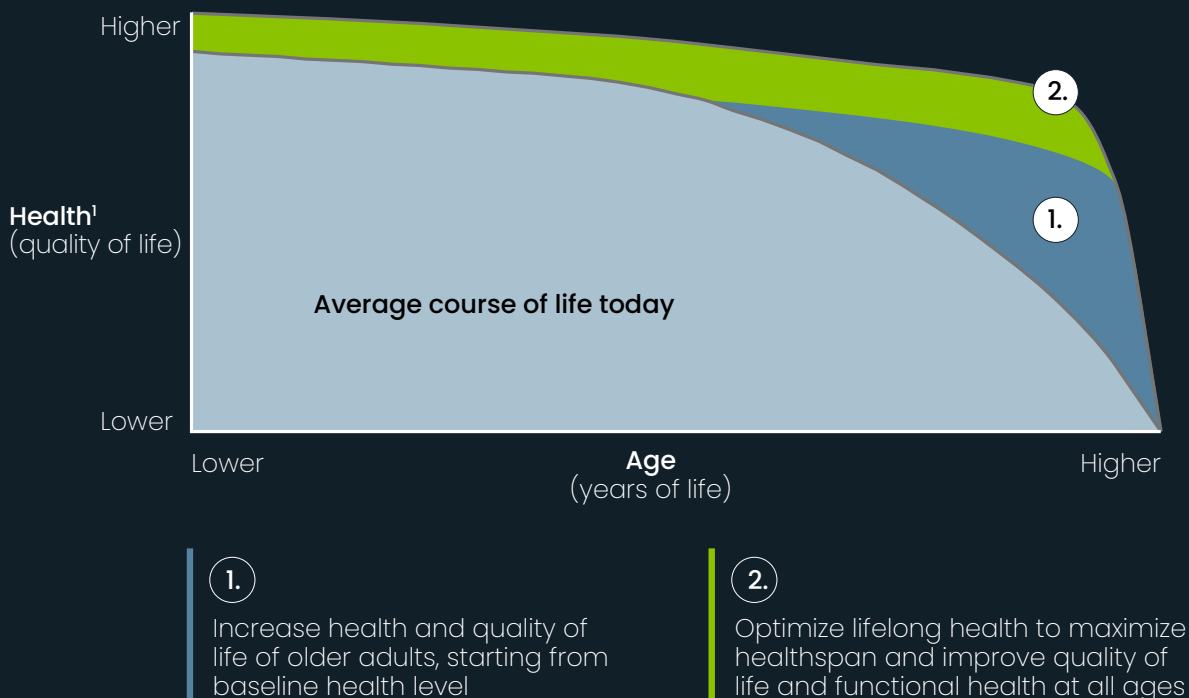
THE HEALTH OPPORTUNITY: ADDING UP TO 45 BILLION ADDITIONAL HEALTHY YEARS OVERALL BY 2030

According to our research at McKinsey Health Institute, as many as 45 billion extra years of high-quality life could be added over the next decade, equating to six years per person, on average.²⁴ The key to healthy longevity is twofold, involving both “extending” life expectancy over the baseline trend and “lifting” quality of life across the lifespan (Exhibit 8). The two opportunities are often interlinked because many interventions can affect both parts of the equation.

Exhibit 8

Healthy longevity encompasses lifting quality of life across lifespans and extending healthy years for older adults.

Illustrative



¹Functional health.

For example, lifelong chronic disease management, opportunities for routine exercise, and access to good nutrition can affect both length and quality of life. As a result, both extending and lifting life can often be tackled at once, although special focus may be needed on either extending or lifting health depending on the demographic characteristics of a country or region. For example, countries with lower median age (part of the “young world,” with a median age of 18 to 31 and with 3 to 10 percent of the population older than age 65) may focus more on lifting health across lifespans. Meanwhile, countries with higher median age (part of the “old world,” with a median age of 38 to 47 and with 14 to 25 percent of the population older than age 65) may focus more on extending health among older adults.

Irrespective of the focus, there are already-known strategies to dramatically extend and lift quality of life. Research suggests that more than a third—around 38 percent—of the disease burden in the world could be addressed by overcoming practical barriers to the expansion of known health interventions.²⁵ Known health interventions include environmental, social, and behavioral health interventions (such as measures to decrease pollution and improve road safety), therapeutic interventions (such as chronic disease management and acute treatment of established disease), and prevention and health promotion interventions (such as vaccines and dental care).

In addition, a cross-cutting focus on health equity is needed to bridge gaps in quality of life among different population groups. To identify opportunities to gain healthy years through proven interventions, it is essential for leaders to have an understanding of the magnitude of disease burden in each country and underlying sociodemographic characteristics.

Although more research is needed to quantify the economic value of capturing 45 billion additional healthy years of life, preliminary estimates put it at trillions of dollars. Sizing the economic opportunity of increasing health throughout life is an important area that warrants exploration in the future as stakeholders continue to look for ways to increase health outcomes and quality of life.

THE ECONOMIC OPPORTUNITY

Healthy longevity also offers great potential for economic prosperity, with opportunities spanning multiple sectors. For instance, the reentry of older adults into the workforce and the growth of the health and wellness market are two illustrative examples of how this potential can be harnessed, which we explore below. The true economic opportunity of healthy longevity is expected to be far larger and remains to be fully quantified, underscoring the need for further research.

Deep dive: Up to \$10 trillion GDP uplift potential with reentry of older adults into the workforce

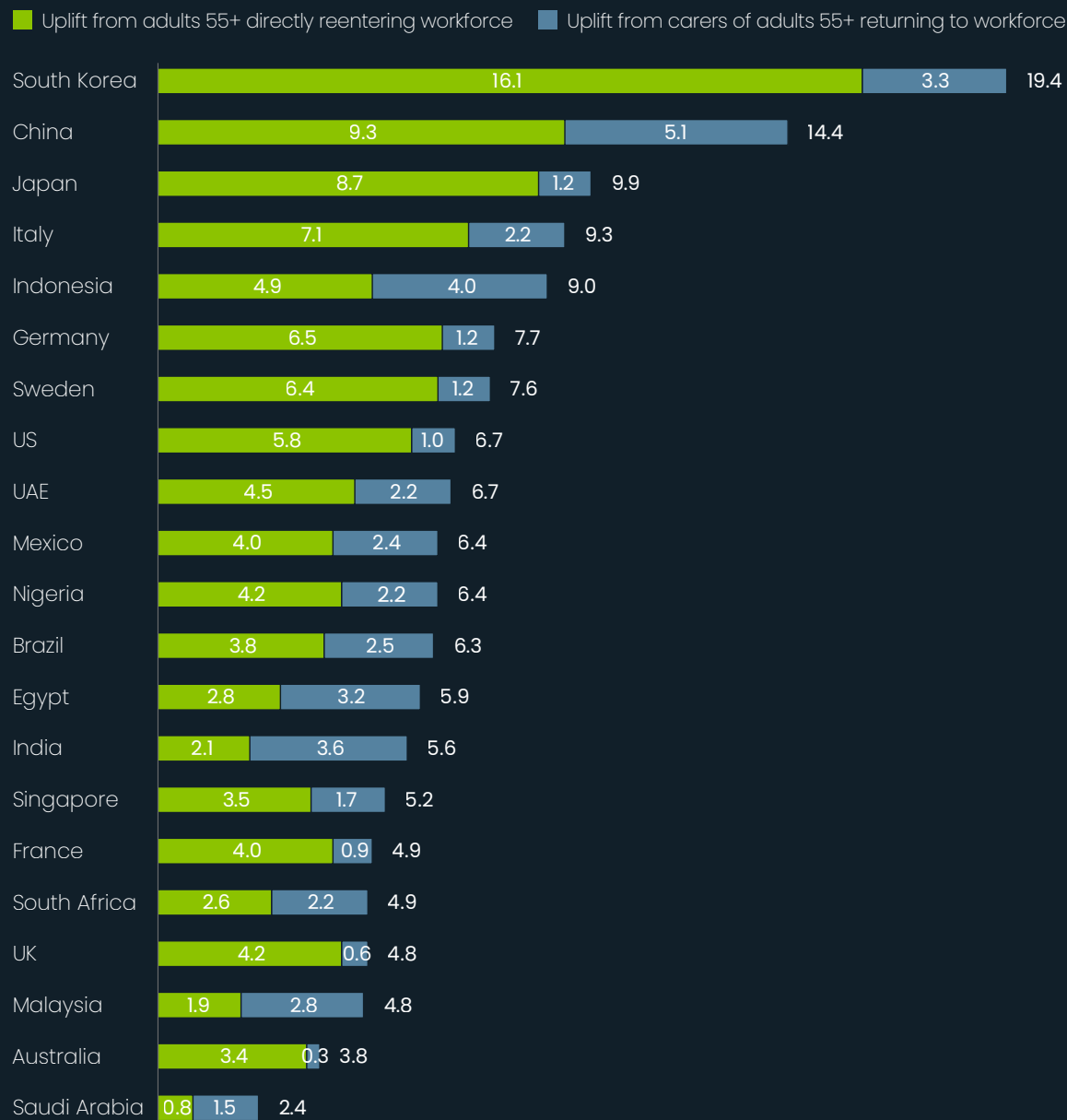
Supporting societal participation (defined as consistent involvement in deliberate activities that lead to meaningful engagement with one’s society and community) of older adults represents a significant potential for economic opportunity globally.²⁶ According to the GHAS, 32 percent of individuals older than 55 are working, with an additional 21 percent wanting to work but not employed. While there are differences across countries, supporting older adults who want to work but are currently unable to has the potential to boost global GDP by approximately 9 percent by 2030, which can amount to about \$10 trillion globally.²⁷ The economic uplift opportunities stem from two main sources: older adults reentering the workforce and caregivers returning to work.

The opportunity provides a substantial bump to GDP across all countries studied, ranging from 2 to 19 percent in economic uplift (Exhibit 9). There is substantial potential even in countries with younger populations such as Indonesia, Nigeria, and Brazil, with projected uplift in GDP estimated to be 9 percent, 6 percent, and 6 percent, respectively. Countries with a larger aging population, such as South Korea, China, and Japan, see a particularly large opportunity.

Exhibit 9

Countries with larger aging populations are expected to particularly benefit from improved healthy longevity.

Potential economic opportunity by 2030,¹ % of uplift in GDP²



Note: Figures may not sum, because of rounding.

¹Opportunity size represents total potential GDP uplift. Several factors may determine how much of this opportunity a country may capture. For example, the degree to which a country pursues or captures the older adult employment opportunity may be determined by structural characteristics of each country's labor market, including rates of youth unemployment.

²Includes direct uplift from adults aged 55+ employment and additional employment of under-55 carers who return to the workforce. Calculation of direct uplift is the product of the uplift in total labor force (from supporting older adults who aren't working but want to reenter the labor force, assuming a natural rate of unemployment prevents full uptake) and the total annual GDP attributable to labor income, using 2030 GDP data and 2024–30 natural unemployment rate from Oxford Economics, 2030 labor force population and compensation data from S&P Global, 2030 population composition data from the World Bank, and 2017–21 average labor share of GDP data and 2021–23 labor force composition data from the International Labour Organization (ILO). Calculation of additional employment of under-55 carers is based on primary and part-time carer data from the McKinsey Global Healthy Aging Survey and uses same GDP assumptions as above.

Source: "Population estimates and projections," World Bank, accessed September 4, 2024; "ILO Modelled Estimates database (ILOEST)," ILOSTAT, accessed August 12, 2024; "Global economy data," Oxford Economics, accessed September 4, 2024; "Global economy data," S&P Global, accessed September 4, 2024; McKinsey Health Institute Global Healthy Aging Survey, 2023

In addition to GDP uplift opportunities from reentering the workforce, 30 percent of adults 55 or older who are not currently volunteering are interested in doing so. The economic impact here could also be substantial—for example, one hour of volunteer work is valued to be US \$33.50 in the United States,²⁸ 64.16 Saudi riyals (US \$17.08) in Saudi Arabia,²⁹ and AU \$45.00 (US \$30.19) in Australia.³⁰

While the opportunity is large, there are several barriers cited by older adults who don't work but want to. For a few, leaving employment may be a choice of early retirement, but for the vast majority, it is a decision forced upon them. Age discrimination plays a meaningful role, making older workers more likely to lose their job and making it harder for them to find new employment due to biases against their perceived lack of adaptability, outdated skills, or higher salary expectations.³¹ According to the GHAS, 50 percent of GHAS respondents mentioned difficulty landing a job or lack of attractive opportunities as their primary barriers to reenter the workforce.

Reintegrating willing older adults into the workforce has potential to not only help the economy but also enhance physical and mental health outcomes. Increased societal participation is linked to reduced loneliness³² and a heightened sense of purpose,³³ which research shows can improve perceived health and lower risks of dementia, depression, and premature death.³⁴ Studies indicate that individuals who continue working past the age of 65 are three times more likely to report good physical health and are about half as likely to experience serious physical health issues such as cancer or heart disease compared to those who retire.³⁵

Deep dive: \$1.8 trillion consumer wellness market opportunity globally today

The health and wellness market overall—including products that address health, sleep, fitness, nutrition, appearance, and mindfulness—has grown to around \$1.8 trillion globally across all ages in 2024 from \$1.5 trillion in 2021³⁶ and is expected to grow annually by 5 to 10 percent.³⁷ As demonstrated in the Future of Wellness Survey, adults of all ages prioritize wellness and longevity highly and moderately agree on the necessity of wellness products for maintaining a healthy life. As global demographics shift, older adults are expected to have an increasing share of purchasing power in the economy. By 2050, older adults are expected to hold \$96 trillion in purchasing power, representing the wealthiest age cohort in the world.³⁸ From 2015 through 2030, individuals aged 60 and older are projected to drive half of consumer growth in the United States and nearly 60 percent of the growth in Europe and Asia.³⁹

Given the opportunity that older adults present, it is key that organizations and companies do not view them as a single homogenous market defined by aging and health challenges.⁴⁰ This group of spenders represents diverse economic statuses, preferences, and more. Some older adults may lead highly active lifestyles and seek luxury experiences, while others prioritize spending on health-care, home modifications, or daily living.⁴¹ There could also be regional differences. For example, according to a global survey of 4,000 citizens and domain specialists from over 20 countries conducted by the Hevolution Foundation, the demand for longevity products and services was the highest in emerging markets, with 52 percent of Brazilian and 45 percent of African citizens expressing interest (versus 32 percent globally).⁴² The GHAS also found that technology use can vary widely depending on the age of the adult and where they live. For example, 70 percent of those between ages 55 and 64 desired the use of a smartphone, and 49 percent said the same about a laptop or tablet—as compared to 42 percent and 25 percent, respectively, among the 80-and-older cohort.⁴³ Among respondents, only 6 percent of those in the 55 to 64 age range said “no” to all technology usage, while this figure was 20 percent for those aged 80 or older.⁴⁴ Within countries, the “no technology” share ranges from more than 40 percent in Brazil and France, to less than 10 percent in China, India, Nigeria, Saudi Arabia, and Sweden for those over the age of 80.⁴⁵ Customized wellness products and services and tailored marketing efforts will be essential to encompass different customer groups.⁴⁶

CALL TO ACTION:

POTENTIAL AVENUES TO UNLOCK HEALTHY LONGEVITY FOR INDIVIDUALS, FAMILIES, AND SOCIETIES

There is an opportunity to create lasting improvements in healthy longevity, which could enhance quality of life, benefit the global economy, and foster a healthier, more equitable society. Achieving this potential requires a comprehensive approach involving collaboration across sectors, supported by a commitment of resources and engagement from key stakeholders (for example, government agencies, medical researchers, or technology- or consumer-focused organizations). By ensuring that the solutions identified are both effective and inclusive, societies can work toward a future in which healthy longevity is accessible to all.

IDENTIFYING AVENUES TO INVEST IN

While there are multiple drivers of healthy longevity, eight potential avenues represent a holistic set of approaches that could have an outsize impact toward harnessing the opportunity of improving health across lifespans and for older adults (Exhibit 10). Leaders could frame these opportunities as potential options to consider against their own cultural and economic context.

Avenue 1: Support societal participation

Societal participation can manifest in many forms, both formal and informal, such as engaging in paid work, volunteering, lifelong learning, and community activities. Formal mechanisms such as building an age-inclusive workforce comprising multigenerational groups have been shown to stabilize retention and enhance productivity. Research indicates that firms with a 10 percent higher share of workers aged 50 and older (compared to the average firm) have lower turnover and are more productive. Roughly half of the productivity increase is attributable to a spillover effect, wherein older workers support and mentor younger workers, enabling increased productivity.⁴⁷ However, ageism may still present a key barrier to creating an age-inclusive workforce.⁴⁸

Supporting participation by older adults could involve a number of potential interventions, including the following:

- **Promote equitable hiring practices.** Implement and scale inclusive hiring practices, which may include hiring targets and reducing emphasis on traditional criteria (for example, educational qualifications).
- **Develop jobs and lifelong skill-building opportunities for a multigenerational workforce.**⁴⁹ Explore offering phased retirement or providing financial or non-financial incentives, which could help retain experienced workers in mid- and late-stage careers. Tailored job placement matching services may support individuals re-entering the workforce, and continuous reskilling programs could assist older adults in maintaining relevant skills in an evolving job market.⁵⁰
- **Create an age-inclusive work environment.** Offer flexible work arrangements to accommodate diverse life stages, tailored benefits packages, and continual career development opportunities.⁵¹

Eight avenues can influence healthy longevity.

Key avenues to influence healthy longevity



1. Support societal participation

Offer lifelong learning, community, volunteering, and employment opportunities, and adopt comprehensive age-inclusive practices (eg, flexible work arrangements, late-stage employment, or reentry to workforce)



5. Promote consumer-driven wellness

Enable comprehensive wellness through promoting healthy nutrition (eg, subscription services, AI meal planning), supporting fitness and mobility (eg, sleep technology, wearables, orthobiologics), and fostering mental wellness (eg, digital therapeutics)



2. Invest in science

Invest in geroscience, promote research into common aging pathways through novel funding opportunities, expedite research translation (eg, using biomarkers to develop therapeutics), and ensure sufficient production capacity to meet global demand



6. Adopt technology

Provide technology-driven supports that are widely available, continuously updated, and enabled by training and accommodations for those with lower digital literacy (eg, facilitating uptake on smart-home technology that supports aging in place)



3. Strengthen healthcare

Provide integrated prevention-focused, well-resourced healthcare facilities; reskill or hire specialized workers for specialized care; address women's health and quality of care for people with disabilities; and offer diverse care models



7. Ensure financial inclusivity

Enhance a broader ecosystem that supports economic security and wealth retention by providing affordable, accessible financial education and straightforward, cost-effective services to foster enduring financial resilience



4. Address social determinants

Develop accessible infrastructure that promotes social determinants of health, including a vibrant built environment (eg, spaces designed to encourage active lifestyles), community-focused housing (eg, access to local amenities), comprehensive transportation enabling mobility for all (eg, reduced bus fare), and education



8. Enhance public safety

Equip individuals to recognize and address threats, connect them to trained respondents and trusted resources, maintain integrated public alert systems for urgent threats, and enforce strict safety standards for consumer goods to ensure overall safety and protection

Businesses could also use validated frameworks to routinely audit hiring and retention policies⁵² and combat ageism.⁵³ Companies could then monitor their demographics over time and offer incentives or awards for outperforming in age diversity.

- **Create volunteer opportunities.** Establish platforms to match older adults with meaningful volunteer opportunities and roles. Virtual volunteer programs and opportunities could give people flexibility in how to offer their time and expertise (for example, mentoring, tutoring).
- **Encourage lifelong learning.** Promote “going back to school” through online courses. Create lifelong learning hubs in partnership with local universities.
- **Create systems and environments that foster social connection and purpose.**⁵⁴ Design physical and digital spaces to enhance social connection, facilitate multigenerational collaboration, and support individual autonomy. Intergenerational housing, clubs, and third spaces (for example, community gardens or libraries) could also reduce social isolation and allow for intergenerational socialization.

Engaging in meaningful societal participation across an individual's life, whether through work or volunteering, can provide meaningful engagement and a sense of purpose.

Avenue 2: Invest in science

Given aging-related diseases contribute to 51 percent of the global disease burden, allocating sufficient resources to this research is important, particularly as the population of older adults continues to grow.⁵⁵ Research investments may benefit from alignment with the disease burden, scaling as these burdens change over time. However, a 2021 study found that NIH funding for a range of conditions in 2019 was “remarkably similar” to the funding profile in 2008, despite changes in disease burdens over time.⁵⁶ Moreover, in a survey conducted by the Hevolution Foundation, 75 percent of policy professionals prefer to be a “fast follower” rather than a leader in approving longevity therapies,⁵⁷ underscoring the critical need for more proactive government leadership in advancing longevity-enhancing interventions.

There are many ways that science could improve longevity, including the following:

- **Invest in geroscience.** Raise awareness among stakeholders, including venture capital and private equity firms, philanthropists, and accelerators about the considerable benefits of longevity research. Educating these key entities on the transformative potential of this field may encourage greater funding. Additionally, securing endorsements from high-profile individuals could substantially boost interest and investment in geroscience research.
- **Expand research into common aging pathways.** Introduce novel funding or prize opportunities to promote research on common aging pathways—biological mechanisms that universally influence health and longevity, such as cellular senescence. Additionally, identify lifestyle interventions that can help delay the onset or progression of age-related diseases.
- **Expedite research translation.** Encourage partnerships among academia, government, and industry to promote research (for example, using AI to identify biomarkers of aging), accelerate the translation from discovery to application (for example, using biomarkers to develop therapeutics), and reduce the time required for market entry.
- **Ensure accessibility of new interventions.** Match production capacity for therapeutics to global demand (for example, optimizing workflows through outsourcing).

Implementing these strategies may help align research funding with evolving disease burdens and support equitable access to advancements in medical research for all populations.

Avenue 3: Strengthen healthcare

Healthcare systems could shift their focus from extending *lifespan* to enhancing *healthspan*. This means in addition to prioritizing the number of years lived, there is increased emphasis on quality of those years. To achieve this, it is important to strengthen primary and preventative healthcare systems and holistically deliver on improvements to physical, mental, and social health⁵⁸ while concurrently improving health system efficiency, access, and equity as well as patient satisfaction.⁵⁹ WHO's Health System Performance Assessment uses four functions to describe healthcare systems and opportunities to potentially strengthen them: governance, financing, service delivery, and resource generation (for example, workforce, medical equipment, and pharmaceuticals).⁶⁰

However, funding flows may need to be transformed to develop more robust and resilient health systems across these functions. Compared to current investments, an additional investment of \$200 billion to \$328 billion a year is needed to achieve primary healthcare targets set by WHO and directed at health systems.⁶¹ Within low- and middle-income countries alone, increasing investment in primary healthcare could save 60 million lives and increase average life expectancy by 3.7 years by 2030,⁶² indicating meaningful potential to enhance health of adults globally.

Many interventions could be utilized to strengthen healthcare, including the following:

- **Improve choices and adopt modern care models.** Ensure that patients have a variety of options for how and when to engage with the health system (for example, telemedicine, expanded hours, multidisciplinary teams, culturally appropriate providers), based on patients' health and preferences.
- **Improve women's health.** Tackle data insufficiency, less-effective interventions, and poorer care delivery, which together result in women spending an estimated 25 percent more time in "poor health" relative to men.⁶³
- **Prepare the next generation of health workers.** Offer financial bonuses or career advancement opportunities for those who pursue a specialization in areas that are expected to have greater need as demographics and disease burden shift (for example, geriatrics, preventive medicine). Instill a "full lifespan" perspective in medical education to ensure that health systems can address health needs at every stage of life.
- **Deliver specialized services.** Reskill healthcare workers or hire new workers who can provide specialized services, such as long-term chronic disease management, cardiometabolic disease management, and memory care services.
- **Improve services for patients with disabilities.** Implement facility-level assessments and comprehensive healthcare worker training programs to improve the accessibility and quality of healthcare for persons with disabilities,⁶⁴ who are often marginalized in healthcare services, face worse health outcomes, and experience a staggering ten- to 20-year life expectancy gap compared to those without disabilities.⁶⁵

These interventions, among others, could help health systems become more robust, sustainable, and better prepared to address future health challenges as population demographics evolve.

Avenue 4: Address social determinants

Alongside standing up resilient health systems, developing comprehensive social initiatives that address the social determinants of health could play a pivotal role in promoting healthy longevity. Social determinants of health encompass the conditions necessary for overall health in the places where individuals live, play, work, and travel, including a vibrant built environment, access to education, and economic stability.⁶⁶

To improve social determinants of health, leaders could consider varied interventions, including the following:

- ***Increase accessibility of public spaces and transit.*** Provide affordable or free public transit and rideshare fares or improve the accessibility of public spaces (for example, improved road signage). Integrate work and recreation spaces to create seamless transitions (for example, walkable cities with green spaces and playgrounds).
- ***Develop intergenerational relationships through living spaces.*** Encourage mixed-use and community-focused housing developments. Provide incentives to create safe and affordable housing that prioritizes intergenerational communities.
- ***Create incentives for innovative solutions that ensure access to healthcare.*** Support new techniques and technologies that reduce barriers to care for vulnerable populations (for example, improving affordability and geographic proximity).
- ***Align delivery of services.*** Ensure interventions are specific to the geographic context, acceptable to end users, and aligned with population needs.
- ***Create a healthy environment.*** Promote clean air, opportunities for healthy nutrition, and sanitation. Repurpose existing sites with thorough cleanup and sustainable redevelopment to transform contaminated areas into vibrant, healthy environments that reduce exposure to hazardous substances, promote physical and mental well-being, improve proximity to livelihoods, and foster social cohesion within the community.⁶⁷

Such investments create environments that support physical and mental well-being for all individuals.

Avenue 5: Promote wellness

While “health” has primarily been considered through the lens of physical health, this may be a narrow view that excludes additional factors necessary for comprehensive wellness: mental, social, and spiritual health.

Just as wellness exists along many dimensions, there are many potential interventions stakeholders could consider, including the following:

- ***Promote healthy nutrition.*** Encourage heart-healthy and longevity-focused diets through personalized nutrition plans (for example, AI-driven meal planning or food-tracking apps). Improving access to healthy nutrition and increasing targeted vitamins, minerals, and supplements could be supported by tailored food subscription services and products that are clinically proven to support health (for example, bone, cognitive, and gut health).⁶⁸
- ***Promote sustainable food systems.*** Support urban agriculture, vertical farming, and drought-resistant crops to enhance nutrition, improve equitable access to nutritious food, and play a role in overcoming “hidden costs” from the current food system, which involve costs to health, the environment, biodiversity, and livelihoods.⁶⁹

- **Support overall fitness.** Increase access to fitness through options such as fitness club memberships, studio classes, and wearable devices.⁷⁰ Make technology available to improve sleep habits and patterns, a top unmet desire for consumers in the wellness space.⁷¹ This technology ranges from cooling mattresses and gravity blankets to sleep monitoring wearables and alarms.
- **Enhance mobility, strength, and recovery.** Incorporate exercises through personalized fitness plans, telehealth physical therapy, and innovative virtual reality and interactive gaming to help maintain bone density and muscle mass. Invest in orthobiologics to accelerate recovery from injuries and illness.
- **Foster mental wellness.** Use digital therapeutics such as mental health apps and AI-powered chatbots⁷² to improve access to mental healthcare and mindfulness support. Develop programs, digital and otherwise, to provide peer support.⁷³

Addressing this range of needs, from physical to spiritual health, will require a holistic approach that incorporates various facets of wellness into everyday life through behavior changes and habits.⁷⁴

Avenue 6: Adopt technology

Adoption of sustainable technology is crucial across various avenues and requires meaningful attention because of its key potential to enable progress. Beyond existing applications in health monitoring (for example, telehealth, medical devices to support remote patient monitoring, tech-enabled care coordination), there are many potential uses of technology.

Many interventions could take advantage of technology's potential for older adults, including the following:

- **Make smart home and health technology available.** Use technology-powered appliances to allow for and improve the experience of aging in place (for example, those that track food expiry, control lights, monitor home security, or provide reminders for medications).
- **Utilize technology to provide virtual connectivity.** Deploy chatbots⁷⁵ and telehealth services to provide companionship, mental stimulation, and remote healthcare consultations. Develop online platforms for virtual social clubs and social media hubs that encourage physical activity and wellness.
- **Increase participation opportunities with technology.** Utilize technology to create flexible work or volunteer environments where possible (for example, remote meetings or voice-activated assistants). Find and access opportunities through novel technologies (for example, AI-driven job searches or digital platforms connecting older volunteers with rides to service location).
- **Address barriers to technology adoption.** Implement comprehensive education programs to improve digital literacy and awareness, engage individuals in the development process to ensure technologies are user-friendly and tailored to diverse needs, and provide accessible technical support to assist with troubleshooting and ongoing use. Increase access to internet through broadband and affordable connectivity programs (for example, in rural areas).

This is an evolving sector, and as with all technology products, adhering to global standards for data privacy and opt-in services are critical for implementation. Almost one-third of surveyed consumers are only open to using wearables if their data is shared with themselves exclusively.⁷⁶

By focusing on these areas, decision makers can create a more-inclusive technological environment that maximizes benefits for all.

Avenue 7: Ensure financial inclusivity

An inclusive financial landscape is essential to ensuring that people across all socioeconomic backgrounds can experience healthy longevity. A study conducted by S&P's Rating Services in collaboration with the Global Financial Literacy Excellence Centre, spanning 140 countries, found that only 33 percent of people worldwide are considered financially literate.⁷⁷ Additionally, the UN Capital Development Fund estimates that 80 percent of adults in developing countries are concerned about not having adequate financial resources to cover future medical expenses in the event of a serious illness or accident.⁷⁸

Ensuring financial inclusivity could take action along many interventions, including the following:

- ***Provide universal financial education.*** Offer comprehensive financial literacy curriculums that simplify and contextualize financial services to local contexts, ensuring greater comprehension and empowering individuals to make informed financial decisions. Mobile applications could also deliver information aimed at improving financial literacy in an approachable, engaging way.⁷⁹
- ***Deliver straightforward financial services.*** Use simple terminology and provide support options through financial institutions to build trust within communities, especially those with limited positive exposure to financial services.
- ***Democratize access to financial tools.*** Ensure universal access to financial savings and insurance vehicles in addition to retirement and wealth-building accounts.⁸⁰
- ***Ensure financial resilience through major life events.*** Consider incentive programs and education, starting with young and middle-aged adults, to understand how to build a financial safety net for catastrophic health expenditures. Forty-one percent of adults globally would find it either impossible or very difficult to access emergency money within 30 days.⁸¹
- ***Enhance digital and cost-effective financial services.*** Provide accessible digital banking services, offer low-cost retirement asset management, and implement comprehensive cost-of-living incentives to alleviate financial burdens and promote financial inclusion.⁸²

This holistic approach to financial inclusion will create a more equitable society in which people can live with dignity and security at all life stages.

Avenue 8: Enhance safety

An effective public safety framework is crucial for safeguarding the well-being of all individuals. While strong public safety regulations provide a foundation for health in many geographies (for example, speed limits and helmet use to reduce roadway deaths), there is potential to think more broadly about how to cultivate safety throughout life.

Creating a robust system for public safety could involve several interventions, including the following:

- ***Provide clear guidance.*** Equip individuals to recognize and address physical and other threats to their personal safety or the safety of others.

- **Connect to trained respondents.** Ensure individuals have well-defined pathways to trusted officials and resources, empowering them to take action when needed. This could be helped by training first responders how to identify vulnerable populations.
- **Prepare for urgent threats.** Develop and maintain full access to integrated public alert and warning systems to address urgent threats (for example, alert systems that notify residents to evacuate areas with sudden flood risks).
- **Enforce standards for consumer goods.** Conduct thorough safety testing and enforce strict standards for consumer products, especially food, drugs, and medical devices. Ensure these standards are upheld to protect consumers from harm.

Ensuring these interventions are fully operational, designed in consultation with adults of all ages, and accessible to everyone is a fundamental aspect of public safety in an increasingly unpredictable world.

APPLYING AN EQUITY LENS

Considerations for healthy longevity must take into account that people experience both benefits and disadvantages differently.⁸³ For example, women aged 65 and above in OECD countries receive 26 percent less retirement income on average than men,⁸⁴ largely because of their roles as informal unpaid caregivers (approximately 57 to 81 percent of caregivers for the elderly are women).⁸⁵ Additionally, in the United States, one in six Hispanic and Black Americans over age 65 live in poverty, compared with one in 14 White Americans.⁸⁶

Beyond ensuring appropriate equity considerations, addressing disparities can have economic implications. For example, addressing gender disparity in the workplace could add as much as \$13 trillion to global GDP.⁸⁷ Conversely, if left unaddressed, these growing inequities could place increasing strain on social safety nets.

To ensure an equity lens is applied, disparities may be considered at both the policy and intervention levels. As one example, when thinking about investing in science, ensuring equitable access to innovative medications is critical. As such, there has been a push toward more globalized clinical research process in recent years.⁸⁸ However, differences persist in access. Among countries contributing participants to trials for drugs approved in the United States, high-income nations gain market access within one year of approval; after five years, access rates were 46 percent for high-income countries compared to 13 percent for lower-middle-income countries.⁸⁹

Cross-sector collaboration among academia, government, and industry is essential to implement effective changes.⁹⁰ By embedding health equity into these areas and fostering broad collaboration, leaders can build a more just and resilient healthcare system for everyone.

TAKING ACTION BY BUILDING ECOSYSTEMS

The successful implementation of any of these interventions relies on a comprehensive ecosystem of players, with each stakeholder playing a crucial role in driving the intervention forward. Two sample interventions demonstrate the ecosystem-level approach needed for successful implementation.

For example, in the “investing in science” avenue, an intervention aimed at expanding research into common aging pathways as a means to effect change would necessitate collaboration among academic institutions, technology firms, pharmaceutical companies, and government agencies to achieve meaningful progress (Exhibit 11).

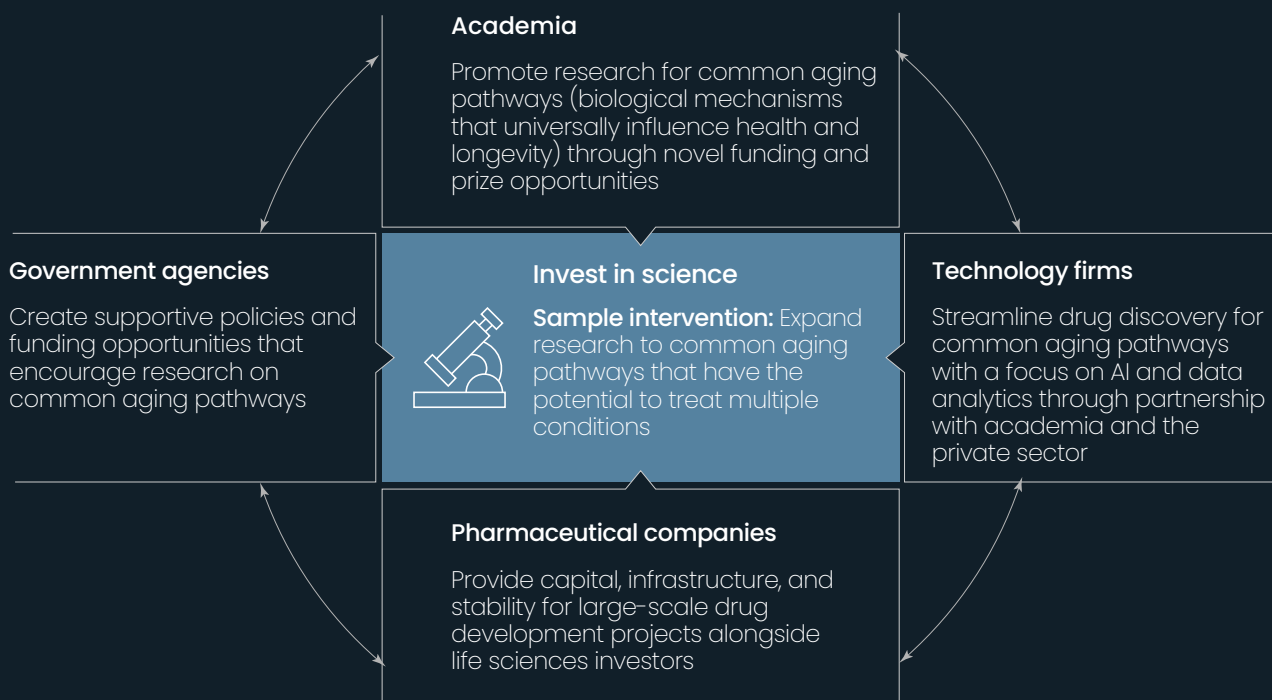
Participating stakeholders will vary depending on the avenue and intervention chosen. For example, key stakeholders for interventions to support participation, such as creating age-inclusive work environments, may include companies, governments, and nonprofit organizations (Exhibit 12).

Ultimately, the intended beneficiaries of such interventions may need to always be at the forefront of intervention development. They should be actively engaged throughout the entire process, from initial design to final execution.

Exhibit 11

Expanding research into common aging pathways requires collaboration among organizations such as academia and government agencies.

Ecosystem: Invest in science



Taking an ecosystem approach could help improve societal participation among older adults.

Ecosystem: Support societal participation



Given the world's changing demographics, there is a potential opportunity to transform the aging paradigm from a societal burden to a dynamic opportunity for economic and social growth. By maximizing investments in science, healthcare, and social determinants and by supporting participation, we can create a future in which healthy longevity is accessible to all, driving personal well-being and economic prosperity. This approach will not only improve the quality of life for individuals as they age but also yield substantial economic benefits, fostering a more inclusive and prosperous global society.

APPENDIX

METHODS: GLOBAL HEALTH AGING SURVEY

Between late December 2022 and February 2023, McKinsey Health Institute collected information on about 1,000 older adults (aged 55 or older) across 21 countries using existing non-probabilistic survey panels. This survey, planned to be conducted every three to five years, covered all four aspects of health:

- **Physical health**
 - the absence of debilitating pain or fatigue
 - the feeling of energy and vitality
 - the capacity to move with confidence and independence through familiar places
 - sharp sensory capacities, with keen senses of touch, vision, hearing, taste, and smell
- **Mental health**
 - the ability to maintain a positive and realistic sense of self
 - the resilience to cope with normal stresses and adverse events
 - the ability to experience joy and anger but restrain harmful impulsive behavior
 - the capacity to understand and interact with the world through memory and language
- **Social health**
 - the capacity to form meaningful connections with others
 - the capacity to receive and provide social support
 - a strong sense of belonging to a community
- **Spiritual health**
 - does *not* require holding religious beliefs
 - a strong sense of connection to something larger than oneself—could be a divinity but also a community or a group
 - a strong sense of purpose
 - the ability to feel rooted in the present moment

For participants unable to fill out the survey because of medical conditions or lack of internet access, responses were collected from a spouse, child, or child-in-law. Data privacy standards were also upheld throughout the survey process, including aggregation of results, provision of consent for use in analysis, and anonymization of data, especially personally identifiable information.

When thinking of the implications of this survey, it is important to keep several considerations in mind.

Considerations for cross-generational surveys

- Questions were asked about each participant's attitudes and behaviors only at the time of the survey. Therefore, when differences in average answers between age cohorts exist, it is not possible to determine how much they result from different generations thinking differently versus from people getting older and their preferences changing. It is possible that younger cohorts will eventually think and behave like older cohorts once they reach the same age.

Considerations for surveys conducted online

- The survey was conducted online. Without proper guardrails, the survey would have been affected by substantial nonresponse bias, as individuals without reliable internet access could not have been part of the sample. Therefore, spouses, children, and children-in-law were asked to answer on behalf of participants without reliable internet access. The best available information was used to determine the relative proportions of responses that came directly from participants and those that came from someone answering on behalf of an older adult. However, it is possible that there has been slight under- or overcorrection.

Considerations for cross-country surveys

- Substantial cultural differences are known to exist across countries, affecting how respondents interpret survey questions and answers, how they use the scales, how likely they are to agree with survey questions, and how likely they are to answer truthfully. For example, past McKinsey analysis has shown that, in general, survey respondents in India have a higher propensity to agree and to agree strongly with survey statements than respondents in most other countries do.⁹¹
- Although we relied on cultural experts to safeguard equivalence of meaning during translation across languages, the process may still induce some observed differences across countries. Country differences were computed as differences among country averages. Unless otherwise specified, analysis involved taking a simple average across countries within a country income archetype and then taking the simple average across archetypes to get an overall average.

FUTURE OF WELLNESS SURVEY

In August 2023, McKinsey's Future of Wellness (FoW) Survey, conducted every one to two years, collected data from more than 5,000 consumers aged 18 and older across China, the United Kingdom, and the United States to understand wellness trends. Data was segmented by both gender and age.⁹² The results of the survey allowed us to examine the trends shaping the consumer wellness landscape across different age cohorts.

CLASSIFICATION OF COUNTRIES: GLOBAL NORTH VERSUS GLOBAL SOUTH

Each year, the United Nations Conference on Trade and Development classifies nations into two relatively equal-sized groups based on economic activity.⁹³ In this system, which was used for the purpose of this analysis, the Global North refers to developed economies, and the Global South refers to developing economies.

Table

We classified the 21 countries in our research according to the United Nations Conference on Trade and Development framework.

GLOBAL NORTH	GLOBAL SOUTH
Australia	Brazil
France	China
Germany	Egypt
Italy	India
Japan	Indonesia
Singapore	Malaysia
South Korea	Mexico
Sweden	Nigeria
United Kingdom	Saudi Arabia
United States	South Africa
	United Arab Emirates

ENDNOTES

- 1 *Global longevity economy outlook: The economic contribution of people age 50 and older*, AARP, 2022; "Population estimates and projections," World Bank, accessed October 21, 2024.
- 2 *Adding years to life and life to years*, McKinsey Health Institute, March 29, 2022.
- 3 "McKinsey Health Institute," McKinsey, accessed October 21, 2024.
- 4 For more, see the FII Institute website.
- 5 *Global longevity economy outlook*, 2022; "Population estimates," accessed October 21, 2024.
- 6 *Global longevity economy outlook*, 2022.
- 7 "Neoplasms" comprise 8.8 percent of total disability-adjusted life years, compared to 12.8 percent for mental (including self-harm), substance-use, and neurological disorders combined; "GDB compare," Institute for Health Metrics and Evaluation, updated May 16, 2024.
- 8 "Population estimates," accessed October 21, 2024.
- 9 *Global longevity economy outlook*, 2022.
- 10 *Global spending on health: Weathering the storm*, World Health Organization, December 10, 2020.
- 11 Andrew Scott, *The Longevity Imperative*, New York, NY: Basic Books, 2024.
- 12 Based on 2022 data from the UN Population Division Data Portal.
- 13 "Population structure and ageing," Eurostat, updated February 28, 2024.
- 14 Nik Martin, "Aging Europe: Rising costs threaten EU pensions," Deutsche Welle, August 16, 2024.
- 15 "Editorial: Discussions on Japan pension reform must respond to anxiety about future," Mainichi, June 3, 2024.
- 16 *Adding years to life*, March 29, 2022.
- 17 McKinsey Future of Wellness Survey, 2023.
- 18 MHI Healthy Longevity Societal Participation Model, 2024.
- 19 For countries in the GHAS, Global North includes Australia, France, Germany, Italy, Japan, Singapore, South Korea, Sweden, the United Kingdom, and the United States; see Appendix C for details on categorization.
- 20 For countries in the GHAS, Global South includes Brazil, China, Egypt, India, Indonesia, Malaysia, Mexico, Nigeria, Saudi Arabia, South Africa, and the United Arab; see Appendix C for details on categorization.
- 21 Respondents rated agreement to "I have equitable access (regardless of race, age, ability) to healthcare and health outcomes."
- 22 Respondents rated agreement to "Buildings and public spaces are accessible to my needs."
- 23 "Ageing and health," World Health Organization, October 1, 2024.
- 24 *Adding years to life*, March 29, 2022. An individual in "good health" is defined as a person without a relevant chronic medical condition impacting quality or duration of life but who may have well-managed chronic conditions or acute injury with high potential for swift and complete recovery.
- 25 "Scale what works: The benefits of proven health interventions," McKinsey Health Institute, March 29, 2022.
- 26 "Aging with purpose: Why meaningful engagement with society matters," McKinsey Health Institute, October 23, 2023.
- 27 MHI Healthy Longevity Societal Participation Model, 2024.
- 28 "2024 value of volunteer time report," Independent Sector, 2024.
- 29 "Volunteering in the Kingdom," Saudipedia, accessed October 21, 2024.
- 30 *The value of volunteering support services*, Volunteering Australia, 2017.
- 31 Rebecca Perron, "Age discrimination against workers age 50-plus persists," AARP, October 9, 2024.
- 32 Hiroshi Adachi et al., "The association between community participation and loneliness among patients in rural community hospitals: A cross-sectional study," *Cureus*, March 2024, Volume 16, Number 3.
- 33 Julia K. Boehm et al., "Sense of purpose in life and five health behaviors in older adults," *Preventative Medicine*, June 2020, Volume 139, Number 106172.
- 34 *Social isolation and loneliness in older adults: Opportunities for the health care system*, Washington, DC: The National Academies Press, 2020.
- 35 "Working later in life can pay off in more than just income," Harvard Health Publishing, June 1, 2018.

- 36 Anna Pione, "On the future of wellness: The trends defining the wellness market," *Re:think* newsletter, *McKinsey Quarterly*, 2024.
- 37 Shaun Callaghan, Martin Lösch, Anna Pione, and Warren Teichner, "Feeling good: The future of the \$1.5 trillion wellness market," *McKinsey*, April 8, 2021.
- 38 *Global longevity economy outlook*, 2022.
- 39 "Thematic insights: The silver economy," Rothschild & Co, January 24, 2023.
- 40 Joseph Coughlin, *The Longevity Economy: Unlocking the World's Fastest-Growing, Most Misunderstood Market*, New York, NY: PublicAffairs, 2017.
- 41 *Global longevity economy outlook*, 2022.
- 42 *The global healthspan report: A new agenda for global health*, Hevolution Foundation, 2024.
- 43 "Age is just a number: How older adults view healthy aging," *McKinsey Health Institute*, May 22, 2023.
- 44 Ibid.
- 45 Ibid.
- 46 *Global longevity economy outlook*, 2022.
- 47 *Promoting an age-inclusive workforce: Living, learning and earning longer*, Organisation for Economic Cooperation and Development (OECD), December 16, 2020; *Retaining talent at all ages*, OECD, January 18, 2023; "2020 global employer survey of OECD countries: Annotated questionnaire," AARP, 2020.
- 48 *Promoting an age-inclusive workforce*, December 16, 2020.
- 49 *Longevity economy principles: The foundation for a financially resilient future*, World Economic Forum and Mercer, January 2024.
- 50 *Promoting an age-inclusive workforce*, December 16, 2020; Lin Chi, Rich Nuzum, and Graham Pearce, "How employers can unlock the potential of the longevity economy," World Economic Forum, January 17, 2024; *The new map of life*, Stanford Center on Longevity, April 2022.
- 51 *Promoting an age-inclusive workforce*, December 16, 2020.
- 52 "The Age AWARE Audit: Your key to the longevity economy," Age AWARE, accessed October 15, 2024.
- 53 "Age discrimination," AARP, accessed October 15, 2024.
- 54 *Longevity economy principles*, January 2024.
- 55 D. Scott Kehler, "Age-related disease burden as a measure of population ageing," *Lancet Public Health*, March 2019, Volume 4, Number 3.
- 56 Gerard F. Anderson et al., "Allocation of National Institutes of Health Funding by disease category in 2008 and 2019," *JAMA Network Open*, January 2021, Volume 4, Number 1.
- 57 *The global healthspan report*, 2024.
- 58 "Primary health care," World Health Organization, November 15, 2023.
- 59 "Implementing the primary health care approach: A primer," Chapter 4, World Health Organization, accessed October 17, 2024.
- 60 "Health system performance assessment," World Health Organization, accessed October 17, 2024.
- 61 "Primary health care," World Health Organization, November 15, 2023.
- 62 Ibid.
- 63 *Closing the women's health gap: A \$1 trillion opportunity to improve lives and economies*, *McKinsey Health Institute*, January 17, 2024.
- 64 "What we do," Missing Billion Initiative, accessed October 21, 2024.
- 65 *Reimagining health systems that expect, accept and connect 1 billion people with disabilities*, Missing Billion Initiative, September 2022.
- 66 "Social determinants of health," *Healthy People 2030*, accessed October 15, 2024.
- 67 "Smart growth and infill brownfields redevelopment," Environmental Protection Agency, updated July 23, 2024.
- 68 "The trends defining the \$1.8 trillion global wellness market in 2024," *McKinsey*, January 16, 2024.
- 69 *True cost of food: Measuring what matters to transform the U.S. food system*, The Rockefeller Foundation, July 2021.
- 70 This is an evolving sector, and as with all technology products, adhering to global standards for both data privacy and opt-in services are key; "The trends defining," January 16, 2024.
- 71 "Still feeling good: The US wellness market continues to boom," *McKinsey*, September 9, 2022.
- 72 M.D. Romael Haque and Sabirat Rubya, "An overview of chatbot-based mobile mental health apps: Insights from app description and user reviews," *JMIR mHealth and uHealth*, May 2023, Volume 11.
- 73 Karen L. Fortuna, Phyllis Solomon, and Jennifer Rivera, "An update of peer support/peer provided services underlying processes, benefits, and critical ingredients," *Psychiatric Quarterly*, February 2022, Volume 93, Number 2.
- 74 "Age is just a number," May 22, 2023.

- 75 Teresa Amezcua-Aguilar et al., "Qualitative analysis of conversational chatbots to alleviate loneliness in older adults as a strategy for emotional health," *Healthcare*, December 2023, Volume 12, Number 1.
- 76 "The trends defining," January 16, 2024.
- 77 Leora Klapper, Annamaria Lusardi, and Peter van Oudheusden, *Financial literacy around the world: Insights from the Standard & Poor's Ratings Services Global Financial Literacy Survey*, November 2015.
- 78 Based on 2022 data from the UN Capital Development Fund.
- 79 *Longevity economy principles*, January 2024.
- 80 Ibid.
- 81 *The Global Findex Database 2021: Financial inclusion, digital payments, and resilience in the age of COVID-19*, World Bank, July 7, 2022.
- 82 *Longevity economy principles*, January 2024.
- 83 Ibid.
- 84 *Towards improved retirement savings outcomes for women*, OECD, March 10, 2021.
- 85 Subho Chakrabarti, Sandeep Grover, and Nidhi Sharma, "Gender differences in caregiving among family—caregivers of people with mental illnesses," *World Journal of Psychiatry*, March 2016, Volume 6, Number 1.
- 86 Juliette Cubanski et al., "How many older adults live in poverty?," Kaiser Family Foundation, May 21, 2024.
- 87 "COVID-19 and gender equality: Countering the regressive effects," McKinsey Global Institute, July 15, 2020.
- 88 Robert M. Califf et al., "Ethical and scientific implications of the globalization of clinical research," *New England Journal of Medicine*, 2009, Volume 360, Number 8.
- 89 Peter B. Bach et al., "Evaluation of drug trials in high-, middle-, and low-income countries and local commercial availability of newly approved drugs," *JAMA Network Open*, May 2021, Volume 4, Number 5.
- 90 Jeanine Becker and David B. Smith, "The need for cross-sector collaboration," *Stanford Social Innovation Review*, 2017, Volume 16, Number 1.
- 91 "Age is just a number," May 22, 2023.
- 92 "The trends defining," January 16, 2024.
- 93 *Handbook of statistics 2023*, UN Trade and Development (UNCTAD), December 14, 2023; "Classifications," UNCTAD Handbook of Statistics 2023, accessed October 21, 2024.