

EXECUTIVE SUMMARY

AS GLOBAL DEMOGRAPHICS SHIFT, WITH OVER 2 billion people projected to be over the age of 60 by 2050, it is crucial to not just to extend lifespan - the total number of years lived - but to also enhance healthspan—the number of years lived in good health1. While life expectancy has increased to an average of 73.4 years, many individuals spend the last decade of life in poor health, straining healthcare systems and economies2.

Aging is the single most important risk factor for many devastating diseases and conditions, including Alzheimer's disease and related dementias, most cancers, many types of heart disease, osteoporosis and hip fracture, kidney failure, and diabetes. Expanding healthspan is an economic imperative and a societal need. Research suggests that increasing the global

healthspan by just one year could generate trillions of dollars annually in healthcare cost savings and productivity gains3. However, global investment in healthspan research remains insufficient despite its potential to alleviate the burden of age-related diseases and improve overall quality of life.

Public-private partnerships (PPPs) can play a pivotal role in advancing healthspan science and preventative healthcare solutions. By combining public sector support with private sector innovation, PPPs can drive scalable, impactful interventions that prioritize disease prevention and healthspan extension.

This report outlines the economic impact of preventative healthcare, the role of PPPs in fostering longevity innovation, and strategic recommendations for ensuring global access to healthy aging solutions.

GLOBAL ACCESS TO HEALTHY LONGEVITY: BARRIERS AND CONSIDERATIONS

CULTURAL BARRIERS

- → The legal definition of medicine often excludes aging interventions, limiting regulatory approvals for longevity-related treatments. Many regulatory frameworks do not classify aging as a disease, leading to fragmented policies that fail to recognize aging as a modifiable process rather than an inevitable decline4.
 - → Aging interventions face skepticism, often dismissed as "biohacking" rather than essential healthcare. Overcoming these biases requires evidence-based awareness campaigns and scientific consensus on aging as a manageable disease.

POLICY ADVOCACY

- → Governments play a crucial role in shaping longevity-focused policies, yet there is a leadership gap—one-third of consumers believe governments should lead longevity efforts, but only one in four believe they actually will (WHO).
- → Today, 108 of the WHO's 194 member countries have a national policy or strategy aligned with healthy aging, highlighting the urgent need for stronger policy engagement5. Governments that proactively integrate healthspan science into policy solutions can achieve substantial economic gains, with countries like Singapore and Saudi Arabia leading investments in the healthspan science field.

In particular, Hevolution Foundation, a global non-profit based in Riyadh, has rapidly catalyzed and convened the field with an annual budget of up to \$1 billion. Hevolution has allocated over \$400 million to grants, partnerships, and impact investments aimed at advancing the healthspan field, positioning Saudi Arabia as a leader in driving scientific consensus and innovation in aging interventions (Global Healthspan Report 2023, Hevolution Foundation). To date, over 250 grants, supporting approximately 300 grantees, along with several early-stage biotech companies (all of whom are now in the clinic conducting patient trials) have been supported through the Foundation. The Kingdom has also become the world's largest healthspan convener, with its Global



Healthspan Summit attracting a global audience of high-value stakeholders, further solidifying its role as a central player in advancing healthspan science worldwide.

→ Regulatory frameworks for aging science remain inconsistent, with many healthspan interventions lacking clear approval pathways. Policy innovation is needed to accelerate clinical translation of emerging therapies and provide clearer market entry strategies for longevity-focused innovations⁶.

EQUITY AND ACCESS

- → Healthspan inequality is strongly tied to socioeconomic status—people in wealthier areas tend to live longer and experience fewer years of poor health compared to those in lower-income regions. Access to longevity science is largely concentrated in high-income countries, leaving lower-income nations without cutting-edge therapies. Public-private partnerships are essential to bridging this gap and democratizing access to preventative health solutions.
- → There's a global shortage of healthcare professionals specializing in geriatric care. Enhancing education and training in longevity science is critical to ensure the wider adoption of healthspan interventions and meet the needs of an aging population.

¹ LIFE EXPECTANCY AND HEALTHY LIFE EXPECTANCY, THE GLOBAL HEALTH OBSERVATORY, WORLD HEALTH ORGANIZATION

GLOBAL HEALTHSPAN REPORT 2023, HEVOLUTION FOUNDATION

³ THE ECONOMIC VALUE OF TARGETING AGING, NATURE AGING 4 THE FOUNTAIN OF YOUTH REVISITED: REGULATORY CHALLENGES AND PATHWAYS FOR HEALTHSPAN PROMOTING INTERVENTIONS, FDLA

THE ECONOMIC IMPERATIVE OF **EXPANDING HEALTHSPAN**

COST SAVINGS AND PRODUCTIVITY GAINS

Preventative healthcare reduces the burden of chronic diseases, leading to substantial cost savings. Estimates suggest that early intervention and preventative measures can lower global healthcare expenditures by trillions annually, while also improving workforce productivity.7

- → Age-related disability-adjusted life years (DALYs) increased by 32% between 1990 and 2019 and are expected to increase by 55% between 2004 and 2030⁸.
- → One additional healthy year of life expectancy can increase GDP by 4% in most countries9.
- → By 2025, 20% of healthcare spending growth will be attributed to aging¹⁰.
- → Early diagnosis and prevention programs have proven cost-effective-studies show that treating cancer patients diagnosed early is 2 to 4 times less expensive than treating advanced cases11.
- → The economic return on investment (ROI) for preventative health measures is substantial, particularly in less advantaged countries. The World Bank estimates suggest that reducing the prevalence of non-communicable diseases (NCDs) could generate \$220 billion per year by 2050 in Low- and Middle-Income countries, with an ROI of up to 16:1.
- → Healthcare costs for chronic diseases are projected to rise sharply—for example, global costs of Chronic Obstructive Pulmonary Disease (COPD) alone are expected to double from 2010 levels to \$4.8 trillion by 203012.
- → Investments in healthy longevity can significantly boost economic productivity. In China, the 'silver economy'-driven by longer lifespans and an aging population—is projected to grow from \$750 billion in 2020 to \$4.2 trillion by 2035, accounting for 10% of China's GDP 13.

INVESTMENT IN HEALTHSPAN RESEARCH

Despite clear economic advantages, investment in healthspan research remains disproportionately low compared to spending on treating age-related diseases. Over the past decade, investment in longevity has fluctuated, reaching an all-time high of \$9.99 billion in 2021 before declining to \$3.87 billion in 2023 14. However, the amount of investments in 2024 has shown signs of recovery, indicating renewed investor confidence in the sector. Notably, investments are increasingly diversified across regenerative medicine, AI-driven diagnostics, and precision healthcare 15.



ALL, HEVOLUTION FOUNDATION
ALL, HEVOLUTION FOUNDATION
ALL, HEVOLUTION FOUNDATION
EXPENSE BURDEN AMONG THE OLDER ADULTS AND WHAT ARE THE CONTRIBUTING FACTORS?, NATIONAL INSTITUTE OF HEALTH
VICES LIVES, CUTS TREATMENT COSTS, WORLD HEALTH ORGANIZATION
DEN OF NONCOMMUNICABLE DISEASES, GENEVA: WORLD ECONOMIC FORUM

GLOBAL HEALT OF 2024 SEES \$4.89 BILLION SURGE IN LONGEVITY FINANCING, LONGEVITY TECH REVIEW GLOBAL HEALTHSPAN REPORT 2025, HEVOLUTION FOUNDATION



THE ROLE OF PUBLIC-PRIVATE PARTNERSHIPS (PPPS) IN ADVANCING HEALTHY LONGEVITY

COVID-19 AS A CASE STUDY IN PUBLIC-PRIVATE COLLABORATION

The COVID-19 pandemic demonstrated the effectiveness of rapid innovation, investment, and regulatory flexibility in global health, enabling the accelerated development and global distribution of vaccines. Key lessons applicable to longevity science include:

- Accelerated vaccine development through unprecedented collaboration between governments, pharmaceutical companies, and research institutions.
- → Strategic investment in biotech and mRNA platforms, paving the way for future breakthroughs in aging science.
- Regulatory fast-tracking of essential health interventions without compromising safety.

ACCELERATING INNOVATION

PPPs enable collaboration between governments, research institutions, and private enterprises to accelerate the development of healthspan solutions. By leveraging private sector efficiency and government resources, PPPs can scale preventative healthcare initiatives globally.

KEY BENEFITS OF PPPS IN HEALTHSPAN SCIENCE:

- → Derisking Investments: Governments provide regulatory support and financial incentives, while private enterprises drive innovation and commercial viability.
- → Scalability: Private sector expertise ensures the large-scale deployment of preventative healthcare interventions.
- → Data & AI Utilization: Public-private collaborations in AI-driven health diagnostics enhance early disease detection and personalized treatments.

POLICY REFORMS TO SUPPORT PPPS

Governments must implement policy reforms to encourage PPP participation in healthy longevity initiatives. This includes:

- → Tax incentives for private investment in preventative healthcare.
- → Regulatory frameworks that facilitate public-private collaboration and remove barriers in health data sharing.
- → through funding programs and grants.

CROSS-SECTOR COLLABORATION DATA SHARING AND AI IN LONGEVITY RESEARCH

- → AI is transforming healthspan science, accelerating drug discovery, enhancing diagnostics, and improving clinical trials. Despite privacy concerns and regulatory hurdles, AI adoption is growing, promising significant advancements in personalized healthcare and longevity research.
- → Google's Willow Quantum Computing Chip: A 105qubit breakthrough in quantum computing, Willow's capabilities could help accelerate aging science by enhancing drug discovery, advancing biomarker research, optimizing artificial intelligence applications, and driving innovations in regenerative medicine, and epigenetic data, unraveling the molecular mechanisms of aging, and enabling more precise synoptic models of age-related diseases and treatments.
- → Biomarkers are increasingly being used to measure biological aging, helping refine personalized health interventions.
- → Epigenetic reprogramming, senolytics, and regenerative medicine are showing promise in slowing biological aging.



SAUDI ARABIA LEADING THE WAY

SEIZING THE DEMOGRAPHIC OPPORTUNITY

Saudi Arabia is in a unique demographic position with 63% of its citizens under the age of 30, offering a window to invest in preventative healthcare and healthy longevity initiatives before this sizable population segment begins to experience the negative effects of aging.

PROGRESS IN HEALTHSPAN SCIENCE

Over the past six decades, Saudi Arabia has significantly improved life expectancy:

- → In the 1960s, the average Saudi lived to be 46 years old.
- → By 2023, that number had risen to 77.6 years, a testament to healthcare advancements.¹⁶
- → Despite this progress, the average Saudi spends the last 13 years of life in poor health, highlighting the need for focused healthspan investment.¹⁷
- → Saudi Arabia's Healthspan Challenges: With one of the highest rates of non-communicable diseases (NCDs) in the Arabian Gulf (32.15% prevalence), Saudi Arabia faces significant healthspan challenges, including a rising aging population. By 2050, the number of individuals aged 65+ in the Arab region is projected to more than triple, reaching 102 million. Despite impressive gains in life expectancy—from 46 years in 1960 to 77.6 years in 2023—the Kingdom still faces high rates of obesity (41% in males, 78% in females) and diabetes (18.3% prevalence), with the average Saudi spending the last 13 years of life in poor health, highlighting the need for focused healthspan investments.

INVESTING IN HEALTHSPAN RESEARCH

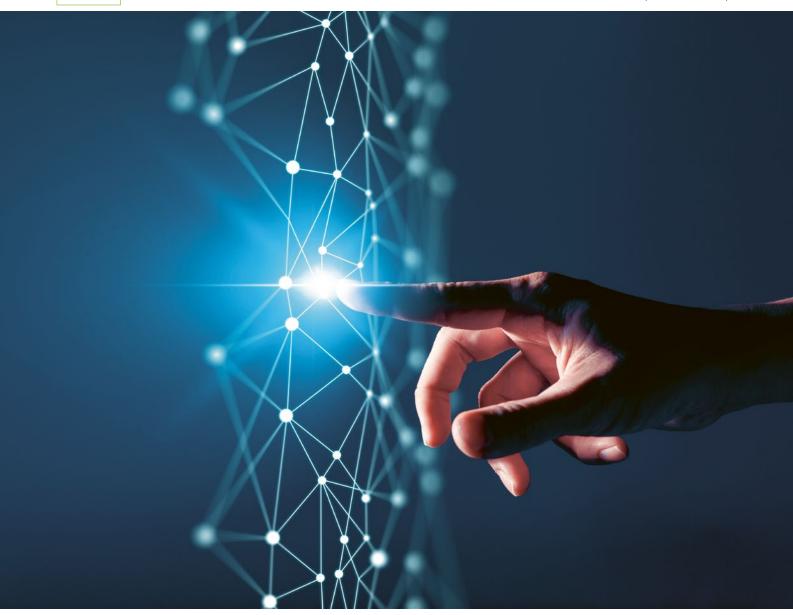
Saudi Arabia is increasing its investment in healthspan-focused research, drawing parallels to the growth trajectory seen in cancer and HIV therapeutics. Targeted healthy longevity investments today can yield significant long-term economic and public health benefits.

Today, Saudi Arabia is the world's second-largest funder of healthspan science, positioning the Kingdom as a leader in driving scientific consensus and innovation in aging interventions (Global Healthspan Report 2023, Hevolution Foundation). The Kingdom is also now the world's largest healthspan science convener, with its Riyadh-based Global Healthspan Summit attracting a global audience of high-value stakeholders (including policymakers, scientists, researchers, CEOs, venture capitalists, biotech leaders, big pharma, international non-profits, and entrepreneurs), further solidifying its role as a central player in advancing healthspan science worldwide.

CONCLUSION

Ensuring global access to healthy aging solutions requires a strategic approach integrating economic, policy, and private sector initiatives. Preventative healthcare offers unparalleled economic benefits, and PPPs serve as a catalyst for innovation and scalability in healthspan solutions.

The time to act is now. Governments, investors, and industry leaders must work together to establish a global framework for healthy longevity. By fostering collaboration between governments, research institutions, and private enterprises, we can ensure that longer lifespan translates into extended healthspan—unlocking prosperity and well-being for future generations without creating additional burden for today's population.



is a global non-profit foundation with an investment arm and one agenda: Impact on Humanity. Global, inclusive, and driven by data, we foster great minds from around the world and turn ideas into tangible solutions and actions in four critical areas: Artificial Intelligence (AI) and Robotics, Education, Healthcare and Sustainability. We are in the right place at the right time, when decision-makers, investors and an engaged generation of youth come together in aspiration, energized and ready for change.

We harness that energy into three pillars: THINK, XCHANGE, ACT. Our THINK pillar empowers the world's brightest minds to identify technological solutions to the most pressing issues facing humanity. Our XCHANGE pillar builds inclusive platforms for international dialogue, knowledge-sharing and partnership. Our ACT pillar curates and invests directly in the technologies of the future to secure sustainable real-world solutions. Join us to own, cocreate and actualize a brighter, more sustainable future for humanity. \leftarrow

THE FII INSTITUTE

is guided in all it does by a strong purpose, vision and mission.

PURPOSE
"Enabling a brighter future for humanity"

"Bringing together the brightest minds and most promising solutions to serve humanity"

MISSION
"Creating a purposeful present, promising future"

BOARD OF TRUSTEES



MR. RICHARD ATTIAS Chairman of the Executive Committee, FII Institute



H.E. YASIR AL-RUMAYYAN Governor PIF, Chairman Saudi Aramco, Saudi Arabia



H.R.H. AMBASSADOR REEMA BANDAR AL-SAUD KSA Ambassador to the USA, Saudi Arabia



PROF. TONY CHAN
Former President, King
Abdullah University of
Science and Technology



H.E. MOHAMED AL ABBAR Founder & Chairman EMAAR Properties, UAE



H.E. MATTEO RENZISenator of Florence, Italy
(former Prime Minister)



DR. PETER H. DIAMANDISFounder of the XPrize
Foundation & Singularity
University, USA



PROF. ADAH ALMUTAIRI Professor of Pharmaceutical Chemistry at UCSD, Saudi Arabia



SIR NOEL QUINNFormer Group Chief
Executive, HSBC

FII-I has three pillars to deliver its mission: THINK, ACT and XCHANGE

1 FII-I THINK
Identify societal
challenges and current
inhibitors. Curate the brightest
ideas to address societal issues

2 FII-I ACT
Catalyze innovation
and initiatives by mobilizing
partners and resources

3 FII-I XCHANGE
Create platforms for live discussions on the future of humanity. Share knowledge, stories and publications with different stakeholders

IMPRINT

FUTURE INVESTMENT INITIATIVE INSTITUTE

PUBLISHER

Future Investment Initiative Institute 3884 Alakheel District Unit 9 Riyadh 12382 - 6613 Kingdom of Saudi Arabia

CONTACT

For clarifications and inquiries, kindly email: info@fii-institute.org



For details on how to become a member, please visit fii-institute.org/membership/









