

SHAPING ENVIRONMENTS TO SHAPE US:

THE CASE FOR LONGEVITY CITIES

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About Us

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ABOUT THE FUTURE OF AGING

The Milken Institute Future of Aging advances healthy longevity and financial security for all through research, convenings, multisector partnerships, and the elevation of high-impact policies and practices.

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Introduction

Medical and public health advancements have doubled global life expectancy in the past century.¹ This achievement presents opportunities and challenges, especially in urban areas where most of the world's population lives. Traditional health-care models are insufficient in the face of today's polycrisis, which includes climate change, food insecurity, and geopolitical tensions. A proactive approach that integrates health care within the community and emphasizes personalized prevention is necessary to support aging populations.

Cities are at the forefront of a demographic shift toward aging populations, with 70 percent of the global population expected to reside in cities by 2050.²

In the United States, eight in 10 older adults already live in metropolitan areas.³ While urbanization is positively linked with improved mortality rates, infant mortality rates, and life expectancy at birth, cities must evolve to meet the growing demand for physical, financial, and social support required by aging populations.⁴

The current global city-building boom, as described in the *Economist*, presents a unique opportunity to reimagine communities based on principles of health, longevity, and well-being. Because genetics accounts for only one-quarter of a person's lifespan, there is a pressing need to optimize environments to support lifestyle factors such as dietary choices, exercise, and social interaction.⁵ During the Milken Institute's 2024 Global Conference session "Longevity Lab: Can You Live to 100?" James Bethell, a former UK minister of health and current member of the House of Lords, emphasized the importance of creating healthconducive environments to improve longevity. He explained his mission to "address the underlying drivers of health issues like obesity and cardiovascular disease by improving the surroundings that impact long-term well-being," emphasizing the need to "cultivate healthier environments for our population to achieve escape velocity from illness."



Longevity Cities

Longevity Cities are emerging as pivotal platforms where health, environment, and social factors converge to foster longer, healthier lives. As urban populations age, the demand for health-care and societal resources will increase, requiring a shift beyond traditional health-care systems. These cities, composed of municipal agencies, private businesses, entertainment venues, public spaces, and educational institutions, serve as unique laboratories to experiment with innovative policy levers, smart technologies, and urban planning strategies to promote personalized longevity on an urban scale. For next-generation cities to support better health and human flourishing, the link among the built environment, health services, and public policies must be strengthened.

Healthy longevity champion and early proponent for Longevity Cities, Tina Woods, explains that the goal for Longevity Cities is to "facilitate the adoption of healthier lifestyles from an early age through infrastructure, services, and policies that address the social determinants responsible for 80 percent of our health." At the Milken Institute's 2023 Middle East and Africa Summit, Woods explained that "longevity cities are the perfect microcosm to test and examine the interconnections between health and environment, serving as ideal test beds to drive human flourishing and necessitate system change across government, community investment, and various industry sectors."



(left to right) James Mellon, Tina Woods, and Sergey Young exchanged views on a panel titled "Longevity Cities: Creating Optimal Environments for Healthy Aging" at the 2023 Milken Institute Middle East and Africa Summit.

Recognizing the need to look beyond health-care systems alone, the Milken Institute Future of Aging has spotlighted healthy aging and Longevity Cities through global event panels featuring experts across environmental science, urban planning, investment, geroscience, brain health, and government to envision purposefully designed cities that support longevity (see Appendix for a list of event panels referenced in this paper). During a Longevity Cities panel organized by the Milken Institute during the 2024 South by Southwest (SXSW) conference, Upali Nanda, PhD, executive vice president and global director of innovation at HKS, Inc., and a co-author of this report, stressed the importance of aligning "our image of a city with a place to live and thrive. The community's design challenge lies in baking physical, mental, and brain health into the places we live."

This report synthesizes the findings from these panels and offers a five-pillar framework (Table 1) underpinning these Longevity Cities.

Table 1: A Framework for Longevity Cities

Framework Pillar	Call to Action for Longevity Cities
Exposome Optimization	Optimize external factors and environmental exposures to build resilient aging
Brain Health and Economic Prosperity	Develop workplace policies, community programs, and brain optimization strategies to foster economic vibrancy
Urban Livability and Community Well-Being	Reshape the urban environment to encourage physical activity, healthier dietary choices, and social connection
Technology Integration	Connect communities to drive personalized and affordable population-level care
Equity and Inclusion	Ensure democratization of policies, access to products and services, and community-driven interventions to benefit all citizens

Source: Milken Institute (2024)

Pillar 1:

Exposome Optimization

Healthy aging goes beyond individual choices or health-care treatments; it involves a complex interplay among behaviors, environmental factors, and social dynamics. In cities that aim to facilitate healthy aging for their residents, understanding and addressing the exposome is critical. As relayed on <u>ScienceDirect</u>, the exposome encompasses environmental exposures such as food quality, air pollution, and access to public spaces. These cumulative exposures over a lifetime influence health outcomes and the aging process.⁸ Recognizing that these external factors can be modified to improve later-life outcomes, Longevity Cities are uniquely positioned to address and improve these exposures.

Sun **Damage Temperature** Air Changes **Pollution Environment Exposome** Lifestyle Lack of Poor Sleep Diet **Psychological Smoking** Stress

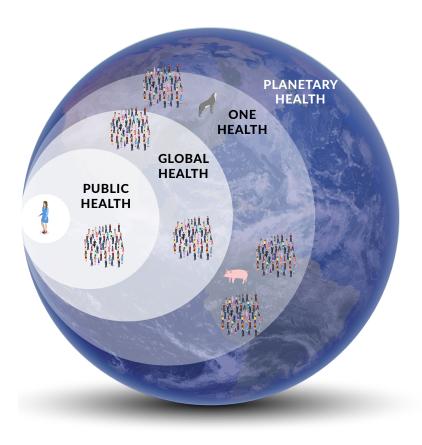
Figure 1. Exposome: Behavioral, Environmental, and Social Factors That Influence Aging

Source: Milken Institute (2024), adapted from Wild CP, "Complementing the Genome with an "Exposome": The Outstanding Challenge of Environmental Exposure Measurement in Molecular Epidemiology," Cancer Epidemiology, Biomarkers & Prevention, 14 (8): 1847–1850 (2005), doi:10.1158/1055-9965.epi-05-0456.

UNIFYING EXTERNAL INFLUENCES

The concept of planetary health, which emphasizes the interdependence of human health and natural systems, unifies these external influences. Climate change, a significant component of planetary health, directly impacts longevity by exacerbating environmental hazards such as floods, storms, wildfires, and extreme temperatures. Indirectly, it worsens air and water quality, which increases the risk of respiratory and heart diseases, tick-borne diseases such as Lyme disease, and mosquito-borne diseases such as malaria. Older adults with limited mobility and compromised immune systems are particularly vulnerable to these environmental threats.

Figure 2: Schematic for Planetary Health



Source: Milken Institute (2024), adapted from John Drake, "What Is Planetary Health?" Forbes, April 22, 2021, https://www.forbes.com/sites/johndrake/2021/04/22/what-is-planetary-health/.



ADDRESSING CLIMATE CHANGE

The 2023 Lancet Countdown report on health and climate change highlights many alarming trends, including the increasing frequency of life-threatening temperatures, the spread of infectious diseases, and the exacerbation of food and shelter insecurity due to extreme weather events. Notably, children bear a significant burden, with half of the world's children residing in countries at high risk for climate change exposure. For the first time, the annual <u>United Nations Climate Change Conference</u> featured health as a key theme, designating an official <u>Health Day</u>. Although climate change poses a global health threat, it also offers opportunities to redefine social and environmental determinants of health. A cross-sector approach to address economic, energy, transportation, waste, and infrastructure needs is imperative to achieve net zero emissions by 2050, signaling a new area of climate-smart cities focused on enhancing citizens' well-being. Well-being.

INVESTING IN NATURAL SYSTEMS TO PROMOTE PHYSICAL ACTIVITY

In addition to addressing climate change, investing in green spaces, parks, and recreational spaces plays a crucial role in promoting physical activity. Access to such spaces improves cognitive performance, emotional regulation, and even health outcomes. ¹¹ These areas positively impact the exposome by enhancing air, soil, and water quality. Moreover, engaging in physical activities, such as walking, jogging, cycling, and group sports reduces sedentary lifestyles and mitigates the risk of cardiovascular diseases, obesity, and type 2 diabetes. Environments designed to stimulate physical, cognitive, sensory, and social interactions

contribute to neurogenesis and resilient brain health, reflecting the wisdom of traditional design strategies. 12

Community design expert Dan Buettner, Jr., executive vice president and chief development officer at <u>Blue Zones, LLC</u>, which was founded by his father, advocates the importance of traditional human-centered design. At <u>SXSW</u>, Buettner Jr. noted that "in the world's oldest communities, longevity isn't about fancy design or modern conveniences. It's about timeless practices and environments built for humans."





REFORMING THE FOOD INDUSTRY TO ADVANCE SUSTAINABILITY AND HEALTH

Finally, access to affordable, nutritious food is essential for healthy aging and longevity. The global trend toward increasing consumption of ultraprocessed foods contributes significantly to dietrelated chronic diseases¹³ and substantial health-care costs. ¹⁴ Longevity Cities can serve as a platform for reforming the corporate-industrial food industry toward sustainability and health promotion. ¹⁵ Innovations such as cellular agriculture and precision fermentation offer promising solutions to disrupt the food industry. ¹⁶ However, further research will be needed to fully understand these innovations' potential benefits.

Public health messaging must continue to underscore the critical link between food and health. Investor and entrepreneur Jim Mellon advocates a shift toward labgrown food. During the Milken Institute's 2023 Middle East and Africa Summit, Mellon explained that this shift is needed because "food's health risk is no longer just about what we eat, but what those animals are fed. Lab-grown food, free of antibiotics and hormones, offers a path to a safer, healthier future."

Spotlight: Healthier SG

In 2023, Singapore launched Healthier SG, aimed at shifting from reactive to preventive health care. Initially targeting residents aged 60 and older, and later expanding to those aged 40-59, the plan encourages enrollment with family doctors who collaborate with community partners to provide lifelong care. Singapore's health-care system faces challenges such as an aging population and a high burden of noncommunicable diseases, with primary care services under-resourced. Healthier SG aims to enhance primary care by supporting general practitioners with administrative resources, training, and digital tools while addressing social determinants of health through initiatives such as social prescribing to combat inequalities. This reform represents a shift toward integrated, community-based care, emphasizing the importance of public engagement and evidencebased policymaking.

Pillar 2:

Brain Health and Economic Prosperity

Brain health is increasingly recognized as a central component of overall well-being, extending beyond medical interventions to impact economic prosperity, urban growth, and vitality. A population with healthy brains demonstrates resilience, productivity, and adaptability, alleviating the strain on health-care systems and contributing to a city's economic vitality. Prioritizing brain health in the workplace fosters innovation, problem-solving, and a positive work environment, enhancing overall productivity and economic growth.¹⁷

SHIFTING TOWARD A QUALITY-OF-LIFE APPROACH

A transformative shift toward the concept of brain healthspan emphasizes the quality of brain function throughout an individual's life. ¹⁸ Unlike lifespan, which measures the number of years lived, brain healthspan measures the duration our brains function optimally, with enhanced cognitive performance and mental well-being at each life stage. Countries worldwide are developing frameworks to elevate brain health in response to the increasing impact of brain disorders. For example, the Swiss Brain Health Plan provides a country-level framework to raise awareness and promote brain health over the life course.

Spotlight: Brain Health Scotland

Brain Health Scotland, a collaborative effort between the Scottish government and Alzheimer Scotland, was launched in April 2020 to increase brain health awareness, research, and care across Scotland. Recognizing that modifiable risk factors influence up to 40 percent of dementia cases, the initiative prioritized lifelong brain health promotion and dementia prevention strategies. Through partnerships with educators, health-care providers, and researchers, Brain Health Scotland disseminated core principles of brain health, established Scotland's first brain health clinics for personalized risk reduction plans, and facilitated engagement in research programs. Its proactive approach has led to increased public and professional interest in brain health, positioning Scotland as a leader in the field and paving the way for a healthier and more informed society.

ADDRESSING NEURODEGENERATIVE DISEASES AND CREATING INCLUSIVE ENVIRONMENTS FOR SUSTAINABLE CARE

Addressing neurodegenerative diseases such as Alzheimer's disease and related dementias is crucial, given their threat to quality of life and productivity, especially in underserved communities. The Milken Institute's Alliance to Improve Dementia Care (Alliance), a multi-sector coalition of more than 130 organizations, works to address the economic and societal burden on health-care systems posed by dementia. Through its consensus-based recommendations geared toward advancing timely detection, access to treatment and coordinated care, and healthy equity for people at risk for and living with dementia, the Alliance aims to implement effective strategies to mitigate the impact of these neurodegenerative diseases. Dementia-friendly communities, which provide care and support within the community, provide inclusive environments that reduce health-care costs and better support caregivers. 19 Despite the urgent global health issue of dementia, only one-quarter of countries worldwide have a national policy or plan to support those affected.20

INVESTING IN COGNITIVE HEALTH FOR ECONOMIC PROSPERITY

Additionally, the concept of brain capital recognizes brain health as essential for long-term economic and social resilience, offering opportunities to nurture brain health and maximize economic potential at individual, national, and global levels. In the pursuit of longevity cities, Harris Eyre, MD, PhD, neuroscientist, leader of the Brain Capital Alliance, and a co-author of this report, observes that the built environment and architectural design are tangible manifestations of the brain economy. Eyre notes that "by creating spaces that promote brain health and cater to all life stages, we are investing in our greatest asset—our brains. This embodies the essence of a longevity city, one that not only meets the needs of an aging population but also integrates brain health as a cornerstone of urban

development." During the 78th United Nations General Assembly (2023), 150 key stakeholder organizations released a call to action to prioritize brain health on the global agenda. This Call to Action reflects the urgent calls from the brain community to elevate brain health as a top economic and health priority, equal in importance to a country's basic infrastructure, such as bridges, roads, and electrical grids.

Spotlight: Business Collaborative for Brain Health

The <u>Business Collaborative for Brain Health</u> unites private-sector partners to enhance cognitive health across all ages. Driven by the crucial role of brain health for economic growth, national security, and overall wellbeing, the collaborative's goal is to establish a world where brain health is recognized as a vital asset, contributing to longevity, economic competitiveness, empowerment, and societal resilience. To achieve this, the collaborative aims to build brain health capital by advancing measurably effective brain-healthy workplaces, communities, and product and service innovations.

Pillar 3:

Urban Livability and Community Well-Being

Urban livability and community well-being are closely linked to neighborhood layout and design, influencing residents' behaviors and interactions. ²² Innovative approaches to architecture and urban planning optimize the exposome and impact human cognition and perception, actively supporting the health and well-being of the community. ²³

NUDGING HEALTHIER CHOICES

Reshaping the urban environment to encourage physical activity, healthier dietary choices, and wellness practices at critical decision points makes healthy choices easier for residents by strategically placing grocery stores, healthy restaurants, and farmers' markets.²⁴ At the Milken Institute's 2023 Asia Summit, Dan Buettner emphasized the importance of integrating nudges into urban design, stating, "If you want to change someone's life, shift the focus from the individual to their surroundings and make the healthy

choice the easy choice." Enriched environments offer valuable insights into designing urban spaces to improve brain health. These environments support individuals' physical, mental, social, and cognitive needs, promoting neurogenesis and enhancing brain health. Cities embracing characteristics of environmental enrichment can foster brain health and longevity through initiatives such as providing affordable housing with ample light and social spaces, colocating living and learning areas, prioritizing multimodal mobility, and facilitating access to nature and healthy food options.



James Bethell (left) and Dan Buettner spoke on "Longevity Lab: Can You Live to 100?" at the Milken Institute 2024 Global Conference in Los Angeles.

SUPPORTING PURPOSE AND HEALTHSPAN

The World Health Organization (WHO) outlined a framework for the Urban Physical Environment in 2007, highlighting eight factors that set the foundation for how cities can support longevity, including transportation, housing, social participation, respect and inclusion, civic participation and involvement, communication and information, community support, and outdoor spaces and buildings.²⁶



Figure 3: Eight Interconnected Domains of the WHO's Age-Friendly Cities Framework

Source: Milken Institute (2024), based on Chenghao Wang, Diego Sierra Huertas, John W. Rowe, Ruth Finkelstein, Laura L. Carstensen, and Robert B. Jackson, "Rethinking the Urban Physical Environment for Century-Long Lives: From Age-Friendly to Longevity-Ready Cities, Nature Aging, 1(12), 1088–1095 (2021), https://doi.org/10.1038/s43587-021-00140-5.

Although the link between the urban environment and aging is well documented, the need remains for more evidence on key environmental factors that impact healthspan beyond the factors influencing lifespan.²⁷ And while much is known about air quality, daylighting (that is, illumination of buildings by means of natural light), access to nature, mobility infrastructure, and access to healthy foods, other environmental factors—such as access to cultural artifacts and art, and access to purposeful connections—are emerging as influential. There is much

opportunity to bring together policymakers, business owners, designers, and communities in planning Longevity Cities.

Meaningful community engagement is crucial for overall well-being, as studies demonstrate increased happiness and health among older adults actively engaged in society.²⁸ The Milken Institute's brief, Transcending Age-Based Divides: The Case for Scaling Intergenerational Solutions, highlights several physical and mental health benefits stemming from intergenerational engagements, such as less depression and anxiety, reduced cognitive decline, and improved physical functioning. Urban environments that foster meaningful interactions among age groups can prevent isolation for older adults and create opportunities for younger generations to learn from their elders. Cities based on purpose and impact, rather than sheer size, can transcend bureaucratic policy formulations and conventional city planning. During the SXSW discussion, Marc Freedman, founder and co-CEO of CoGenerate, urged the audience to think beyond traditional discussions of increasing life expectancy, emphasizing that "our goal should be the same goal that human beings have always had, which is to live on through investing in future generations."

COCREATING VIBRANT COMMUNITIES

A collective movement spanning generations and communities can engage citizens of all ages, policymakers, and community-based organizations in cocreating urban environments that are both physically resilient and culturally vibrant. These vibrant environments can be achieved by integrating better mobility and social infrastructure, green spaces, and health hubs into cities, which benefits the environment, human health, and social interaction. At SXSW, Dan Buettner Jr. identified a "tremendous opportunity to work in existing communities to bring people together in a culturally relevant way, and to create a movement around community design, leadership, and economic incentives. This creates a heritage for people."

Spotlight: Mirabella

University-based retirement communities (UBRCs) are a recent housing trend for seniors, blending age-friendly principles and university design. Mirabella at Arizona State University (ASU) exemplifies this model, fostering an intergenerational community on ASU's campus. Mirabella at ASU offers older adults a unique retirement experience combining lifelong learning with campus vitality. This partnership with ASU distinguishes Mirabella as a leader in progressive senior living. Further research is needed to understand how UBRCs integrate with universities and their impact.



Pillar 4:

Leveraging Emerging Technologies for Well-Being

Cities transitioning toward prioritizing prevention over treatment of illness must utilize emerging technologies to support interconnectedness within their communities. The future of health lies in tailoring each person's journey, guided by interoperable data and analytics that enable positive choices for health.

IMPLEMENTING PRECISION MEDICINE FOR LONGEVITY CITIES

Advanced technology, including smart-city elements as described by <u>IBM</u>, such as mobile device sensors and vehicular networks, alongside innovations in quantum computing, robotics, and artificial intelligence (AI) will reshape urban living and enhance well-being. This convergence opens avenues for personalized health-care interventions and sophisticated health-monitoring applications, empowering individuals to manage their health proactively. A Longevity City rooted in intelligent technology can pinpoint health disparities with precision, anticipate threats, and promptly implement preventive measures.



Longevity investor and entrepreneur Sergey Young, founder of the Longevity Vision Fund, believes that new technologies will accelerate this transition. During the Milken Institute Middle East and Africa Summit, Young said, "In the past, this conversation on health and longevity wouldn't have been conceivable. We have a unique opportunity to build new cities like Abu Dhabi and Saudi Arabia's NEOM and embed advanced technologies from the start. With AI, we're cracking the complexity of human biology, compressing drug discovery cycles, and paving the way for a healthier future." (Learn more about NEOM.)

TRANSFORMING INTO A HUB FOR CONNECTED WELLNESS

The home is evolving into a central hub for connected wellness and care, supported by telehealth, remote patient monitoring, and smart-home and wearable devices that contribute to safety and health monitoring. Smart devices play a crucial role in monitoring instrumental activities of daily living, which is essential for independent community functioning. In the Milken Institute's 2023 Asia Summit Power of Ideas essay series, Hon Pak, MD, senior vice president, head of team, digital health team, mobile eXperience, and Ricky Choi, MD, head of digital health at Samsung Electronics America, Inc., described a new care ecosystem whereby caregivers are empowered through technology. "Advances and adoption of telehealth, remote patient monitoring technology, and smart-home devices have been remarkable, allowing for a vast improvement in how we monitor safety, health status, and care. However, we have just begun to tap the potential impact of the Internet of Things (IoT) within the home."

Spotlight: Vitalia City

Vitalia City is a pop-up city that aims to accelerate progress in extending a healthy human lifespan. Located within the Special Economic Zone of Próspera on Roatán Island, Honduras, Vitalia is a pioneering initiative dedicated to advancing longevity research. By bringing together multidisciplinary professionals—from life scientists to entrepreneurs—Vitalia aims to accelerate the development and dissemination of aging interventions. With an ambitious goal of compressing drug development timelines from years to months, Vitalia represents an innovative approach to city building using cutting-edge technologies within a legal framework that promotes medical freedom and fosters entrepreneurial spirit.

PROMOTING HEALTH BEYOND THE HOME

IoT is also essential for promoting health outside the home by managing traffic, improving sanitation, and increasing environmental sustainability. These technologies provide valuable data on health risks, enabling data-driven decisions to enhance city spaces and promote healthier lifestyles.

Additionally, geroscience, an evolving interdisciplinary field, is transforming our understanding and approach to aging.²⁹ Researchers are exploring the biological processes underlying aging, uncovering common pathways influencing many chronic diseases. By targeting these mechanisms, geroscience aims to delay age-related diseases, ultimately extending healthy lifespans. Beyond individual benefits, embracing geroscience can yield economic and societal advantages, especially in Longevity Cities.³⁰

Brian Kennedy, PhD, professor of biochemistry and physiology at the National University of Singapore, during the 2023 Milken Institute Asia Summit emphasized geroscience's goal of preemptive intervention. He highlighted the challenge of translating animal model interventions to humans, stressing the importance of connecting interventions with biomarkers. Utilizing aging clocks, researchers can gauge how the aging process can be modified to extend lifespan healthily. Kennedy underscored that extending healthspan by just five years surpasses curing individual diseases, as aging is the primary risk factor. Identifying people who are aging faster biologically aids in developing strategies for healthier lifespans.

Spotlight: Hevolution Foundation

In 2021, the Hevolution Foundation was established, with a budget of US\$1 billion provided by the government of Saudi Arabia, to support basic research on the biology of aging and incentivize independent research and entrepreneurship in the emerging field of healthspan science. Hevolution focuses science and business on aging as a treatable process, not just on its terminal symptoms. Through grants and early-stage investments, Hevolution aims to accelerate aging science and bring therapies to the market. As a nonprofit organization devoted to collaboration and sharing information, its goal is to advance healthy longevity around the world and democratize science and knowledge by creating partnerships, offering grants, and making investments in the longevity space.

Pillar 5:

Equity and Inclusion

There is growing recognition of the need for collective societal inclusivity to achieve lasting stability. A notable trend is evidenced by tech billionaires such as Jeff Bezos, Larry Page, and Peter Thiel investing vast wealth to extend human life.³² This surge in interest is reflected in a recent Consumer Sentiment Survey, revealing that higher-income groups are inclined to invest more time and resources in optimizing their health and lifespan.³³ However, while affluent individuals may pursue personalized longevity, it is crucial to emphasize that societal well-being hinges on broader equity and inclusion measures.

Fostering well-being for the entire population, regardless of socioeconomic status, lays the groundwork for a more sustainable future. In doing so, urban planners and policymakers make collective well-being a cornerstone of urban resilience. Inclusivity is not an abstract concept but an active approach involving tailored solutions and deliberate actions (Table 2).

Table 2: Longevity Cities' Inclusive Ecosystem

Community-Driven Interventions	Action Items
Health-Care Accessibility	Establish community centers and mobile clinics, provide low- cost services, and employ culturally specific workers and programs
Affordable Housing	Implement rent subsidies or rent-control measures, and offer financial supports for buyers in low-income neighborhoods
Cultural Competency	Diversify staff and provide training to ensure that language barriers are overcome and cultural sensitivities are respected
Workforce Development	Offer scholarships, vocational training, and mentoring initiatives
Engagement	Develop youth centers, after-school programs, and mentorship initiatives

Community-Driven Interventions	Action Items
Community Policing	Enhance safety and trust, bridge gaps, and foster a sense of security
Accessible Transportation	Expand public transportation networks, implement affordable transportation programs, and connect individuals to essential services and employment opportunities.
Food Security	Establish community gardens, farmers' markets, and affordable healthy food programs
Shared Decision-Making	Create neighborhood councils and community boards that incorporate the diverse needs of residents into policies

Source: Milken Institute (2024)

Community-driven solutions promote equity and inclusion in various facets of society. Initiatives that increase health-care accessibility through community centers and mobile clinics, affordable housing through subsidies and financial support, and workforce development via scholarships and vocational training contribute to leveling the playing field. Moreover, cultural competency measures, engagement programs such as youth centers and mentorship initiatives, and accessible transportation options all bridge gaps and foster a sense of security and belonging. Ensuring food security through community gardens and farmers' markets, along with promoting shared decision-making processes through neighborhood councils, also gives voice to the diverse needs of residents and fosters inclusivity.

Conclusion and Next Steps

Longevity Cities envision a world where age knows no limits and cities are designed to enhance life. The ideas discussed here can guide us to a future where aging is embraced and communities thrive. The power of Longevity Cities goes beyond physical transformation: It ignites a transformation of mindset. The implications ripple far and wide, touching individual lives while shaping the trajectory of entire cities and nations. Given the global trend of population aging, we must approach this issue with the same urgency as climate change or any other major urban priority.

To facilitate the multisector and multi-industry strategies and investments needed to refocus current and future cities around health and longevity, the Milken Institute convenes creative collectives to design new city infrastructure, housing, health centers, and health-promoting neighborhoods. Developing consensus-driven measures and indicators will be crucial for benchmarking and tracking the cities' progress.

"By engineering their environment, we can nudge people towards healthier choices—moving more, eating better, and connecting socially. This approach, applied across communities, has consistently reduced BMI, lowered health-care costs, and increased life expectancy for everyone, not just the affluent. If we focus on these proven strategies, Americans could gain 10 extra years of life and significantly cut health-care expenses."

-Dan Buettner, Founder, Blue Zones, LLC, at the Milken Institute 2024 Global Conference

The Milken Institute is advancing the pillars of brain health, exposome optimization, economic prosperity, and community well-being. Positioned at the intersection of business, policy, academia, advocacy, and philanthropy, the Institute leverages its expansive network of industry leaders and decision-makers to drive high-impact collaborations across various domains.

By integrating efforts across our four health portfolios—<u>FasterCures</u> (accelerating biomedical innovation), <u>Public Health</u> (improving public health), <u>Feeding Change</u> (using food as medicine), and <u>Future of Aging</u> (optimizing aging)—we offer a comprehensive approach to increasing healthspan. The Milken Institute invites forward-thinking leaders to help translate this vision into a new health-care model that integrates health, the built environment, finances, and social factors to advance longevity.

Appendix: Key Resources

For additional information and ideas, watch the following panels from recent Milken Institute and related events:

Longevity Cities: Creating Optimal Environments for Healthy Aging

Longevity Cities at SXSW

Longevity Lab: Can You Live to 100?

Hacking Aging: The Quest for Longevity

Endnotes

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