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Delivering better health and well-being of older people through wisdom sharing and innovation

The world's population is currently estimated to exceed 8 billion. It will reach 9 billion by 2037, and 10 billion by 2058. The population aged 65 and over is expected to increase from 10% currently to 16% by 2050. Additionally, the population aged over 80 is expected to triple in the next 30 years1.

Although various measures have been taken to prepare for population aging, a super-aged society still faces many health and social care issues that need to be resolved. As we enter this major demographic transition, there is a need to achieve a society in which an increasing number of people can enjoy health, well-being, and independence throughout their lifespans to the fullest extent as highlighted by the goals of the UN Decade of Healthy Ageing2. To this end, the G7 countries with an advanced aging population and a long history of implementing various healthcare measures for older people, have an exceedingly important role to play.

While it has been well established that maintaining an appropriate environment, physical activity, and social interactions is beneficial in reducing the likelihood of developing age-related diseases, our understanding of the underlying biological mechanisms is still insufficient if we are to develop effective and personalized prevention strategies, and delay or suppress the disease onset due to aging. Thus, more investment is needed to promote aging science or "Geroscience."

The WHO's definition of health as inclusive for individuals and society includes social relationships; the reduction of social isolation is an important issue for physical and mental health. Therefore, it is necessary to develop new systems that enable older people to participate actively in society, particularly when their capabilities are likely to decline, as during pandemics and disasters. The three-year-long COVID-19 pandemic not only caused many deaths due to infection but also continues to have an immeasurable impact on society. Social policies such as lockdowns have restricted the physical and community activities of daily life and resulted in problems such as a lack of access to healthcare services, social isolation, and functional and cognitive decline. Older people are also particularly vulnerable to climate changes (exposome and repeated heatwaves) while the increase in travel favors the abnormal circulation of highly contagious emergent pathogens that affect the more vulnerable. In addition, socioeconomic and demographic factors such as fuel poverty can disproportionately affect older people.

High-income countries are particularly challenged by the need to provide elder care and sustain social cohesion in an aging population as their birth rates and working-age populations decline rapidly. Who will provide such care? Birth rates are unlikely to increase and even if they did, it would take decades to adjust the demographic imbalance and influence its social consequences. In particular, in high-income countries and regions, the impact of family-based care provision and its limitations are being recognized; a corollary of this is the serious shortage of care workers. To address current and future challenges, we cannot rely on only established professional care services and informal care as until now; we need caring and inclusive communities. This should also include accessibility and continuous training for older people and the care sector in general concerning access and use of (digital) technology as well as setting-up resilient backup infrastructures that can be activated and fully leveraged in emergencies.

Overall, the recent and complex changes in human demography are fundamentally transforming the planet and thereby represent a global challenge for our future. Should societies fail to address these challenges, aging may constitute a self-amplifying mechanism of social inequalities and consequently a factor of societal destabilization. It is therefore essential to adopt innovative scientific, public health, and technological approaches to provide lasting solutions to the challenges of aging.

Therefore, we call on the G7 Governments to take the following actions.

Recommendation 1

Improve our understanding of the complexity of aging biology and the diversity of aging trajectories for sustainable solutions to the challenges of global population aging

- Implement educational policies for healthy lifestyles starting from childhood as they are likely to determine the aging trajectory.
- Increase research into biological mechanisms of aging to increase healthy lifespan in good health for biomedical applications.
- Characterize the very early aging deregulation biomarkers and thereby develop personalized preventive strategies to identify individuals at risk of unhealthy aging and who are eligible for innovative therapies.
- Leverage new knowledge gained to maintain and promote the independence of older people and to provide a proper environment to human populations that facilitates healthy aging, including adapting older people to climate change.
- Develop and tailor new drug strategies to target aging biology to prevent, delay, and intercept age-related diseases (Alzheimer's disease, diabetes mellitus, osteoporosis, cardiovascular disease, etc.) onset as well as to maintain capabilities.

Recommendation 2

Promote the construction of a comprehensive healthcare system that integrates evidence-based, tailor-made disease and frailty prevention

- Emphasize policies that address the determinants of health, particularly economic and social inequality; and implement public health approaches across the life course.
- Maximize preserving and improving capabilities by not only good disease management but also effective health promotion from the earliest age (e.g. childhood obesity) and attention to functioning at the individual level and through societal policies and programs.
- Bolster widespread awareness of evidence-based approaches for the identification and prevention of frailty at an early stage to healthcare practitioners.
- Support global access to new technologies of the digital age, such as information technology (IT), artificial intelligence (AI), and robotics, along the entire value chain ranging from drug discovery to (care) support. Prevent the emergence of oligopolistic corporate structures.
- Establish a robust public health system to prevent the spread of infectious diseases and public health education to address vaccine hesitancy. Promote accurate online and other tools to maintain communication and physical activity when measures are taken to curb social activities and connections to prevent infection.
- Establish a comprehensive, long-term care system that is highly receptive to dementia and declining daily functions. Having an evidence-based responsive medical and social care system appropriate to the culture and means of any given society through life course approaches is ideal to enable people to pursue their own daily lives meaningfully and as independently as possible.
- Ensure that healthcare services using advanced technologies such as information and communication technology (ICT) and robotics are responsive to the goals, rights, preferences, and needs of older people, while maintaining and improving cognitive and physical functions, and protecting personal dignity and privacy using technologies as support and augmentation for better and more accessible help.

Recommendation 3

Build a new social support system that promotes successful lives and proactive social participation by older people through the use of a wide range of community-based programs and advanced technologies

- Create inclusive and integrated community care aiming to reduce social isolation and maintain the engagement of people in need of social or mental healthcare with society through community activities.
- Aim for an inclusive and symbiotic society where older people can use their experience and knowledge to play a meaningful role as mentors and invest in educational programs that facilitate and accelerate the adoption of novel technologies by older individuals to facilitate their social integration and health.
- Provide a place where people of multiple generations can gather and engage with each other, along with a living place where all the people who need care can also live and integrate formal and informal care. In addition, deploy integrated community care centers that ensure security for the individual as a social prescribing hub and social being.
- Promote the development of sustainable smart houses and new transportation services including on-demand mobility that utilize Internet of Things (IoT), trustworthy AI, and robotics to meet the diversifying lifestyles and needs of people for the safe, secure, and self-determined living of older people.

Recommendation 4

Improve the socioeconomic status and well-being of formal and informal caregivers and increase the efficiency and quality of care through technological innovation and adequate support system

- Legal migration policies must be developed to address the need for a workforce of caregivers in high-income countries and the need for more employment opportunities for the young in low-income countries because of the demographic asymmetry between high- and low-income countries. This requires education programs for the workforce, information for the public about this mutual benefit, and political flexibility to facilitate such migration.

- Promote technological innovations in care to reduce the burden on care workers and improve the efficiency of care through the analysis of scientific evidence and place emphasis on the human aspect of care to optimize the mutual relationship between persons needing care and caregivers.

- Understand and mitigate the burden of family care, including on women, older adults, and young caregivers, and establish a system to prevent their social isolation and provide instrumental, emotional, and financial support.

- Build an inclusive society in which caregivers from diverse social backgrounds, ethnicities, and countries of origin proactively participate and receive necessary social protection and legal certainty. In building such a society, highlight the role of professionals in supporting caregivers.

References:

1) World Population Prospects 2019: Highlights (2019).
   https://www.un.org/development/desa/publications/world-population-prospects-2019-highlights.html
2) Decade of Healthy Aging (2020).
   https://cdn.who.int/media/docs/default-source/decade-of-healthy-ageing/final-decade-proposal/decade-proposal-final-apr2020-en.pdf?sfvrsn=b4b75ebc_25&download=true

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