

## **Towards Equitable Healthspan Extension: Balancing Innovations with the Social Determinants of Health**

As we navigate through the UN Decade of Healthy Ageing, efforts to promote healthy longevity are becoming increasingly prominent in both scientific research and the popular imagination. Modern technology, biomedical research, and pharmaceutical innovations now promise to revolutionise our understanding of ageing and are beginning to offer plausible pathways towards extending healthy lifespan.

However, just as innovative treatments may cause undesirable side effects in individuals, these scientific developments might come with an unintended societal side effect: exacerbating inequalities in health. Despite their potential for helping understand and mitigate age-related diseases, high-tech interventions come with high development and deployment costs which can initially limit their accessibility to wealthier sections of society, thus potentially widening inequities.

Alongside the benefits, it is important to pre-emptively confront the risk of these advancements increasing inequalities both within and between societies. Proactive strategies, such as equitable research design, strengthening health systems, fostering symbiotic public-private partnerships, enforcing fair policy measures, and promoting global collaboration, can steer the course towards equity.

Further, as we rely on public participation in research to understand these technologies better, a moral imperative emerges. If the benefits of this research are available only to a privileged few, we risk breaching a fundamental principle of fairness. Ensuring broad accessibility to new technologies becomes a matter of ethical conduct, as much as it is about public health policy or economic efficiency.

While anticipating the potential of high-tech developments to slow ageing and reduce age-related diseases, even if distributed equitably, we should not lose sight of the broader landscape of health determinants. Population increases in lifespan are often not matched by proportionate increases in healthspan, a disparity rooted in social determinants of health rather than a lack of novel medical interventions.

The path towards equitable healthspan extension is multi-faceted; the potential of high-tech innovations to slow ageing and the importance of tackling social determinants of health are not mutually exclusive. As we move forward, we can choose to steer the course towards a future where these advancements contribute to healthy ageing for all.

Ursula Pool

*Healthy & Sustainable Settings Unit, University of Central Lancashire*  
upool1@uclan.ac.uk <https://orcid.org/0000-0002-3658-3346>