

Publication date: October 2015

Source: Technological Forecasting and Social Change, Volume 99

Author(s): Barry B. Hughes, Randall Kuhn, Eli S. Margolese-Malin, Dale S. Rothman, José R. Solórzano

The development of anti-aging technologies could have dramatic implications for a world already challenged by population aging. We explore how the world might evolve given the development and deployment of technologies capable of nearly eliminating mortality and morbidity from most causes. We consider both the great benefits and some of the complex sociopolitical rebalancing resulting from such advances. We use the International Futures (IFs) long-term, multi-issue, global forecasting system in our analysis of the interactions among demographic changes, the related changes in health costs and government finances, shifts in labor force participation, resultant economic transformations, and the environmental sustainability of the dramatically-altered human demands that emerge. We find that the widespread deployment of anti-senescence technologies would cause populations to surge—making fertility rates an issue of tremendous social import—while a much larger, healthier, labor force would spur economic growth. But this is not a given; the cost of treating entire adult populations could prove unbearable to non-high-income economies without significant transfers within and across societies. In the absence of new transformative production technologies, life-pattern financing would require the virtual elimination of retirement and a major restructuring of government finances. Pressures on the environment would also greatly intensify.

[Read Full Article](#)