



## International Journal of Gerontology

journal homepage: <http://www.sgecm.org.tw/ijge/>



Letter to the Editor

### Rethinking Resilience in Aging Societies Ahead of the Next Global Pandemic

Michael Annear

Faculty of Sport Sciences, Waseda University, Tokyo, Japan

#### ARTICLE INFO

Accepted 27 July 2020

To the editor,

The COVID-19 crisis is the most serious global pandemic of the last 100 years. It has highlighted vulnerabilities in aging societies, including the United States, Italy, Japan, and others. Older adults have been disproportionately affected with mortality increasing exponentially after age 50 and fatality rates exceeding 15% for those aged 80 and older.<sup>1</sup> In recent decades, health systems in developed nations have focused significant resources on chronic disease management among their aging populations.<sup>2</sup> This pragmatic approach addresses lifestyle-related causes of morbidity and mortality, including cardiovascular disease, stroke, cancers, diabetes, and frailty. While chronic disease remains a long-term challenge, there are also existential threats that are less foreseeable. Global pandemics belong to category of phenomena that have been referred to as *black swan events* – threats to human health of unpredictable occurrence and extreme impact.<sup>3</sup>

Although population aging is a public health success that reflects reductions in childhood mortality and improvements in health services, larger cohorts of older adults increase pandemic vulnerability due to their lower immunity, reduced organ reserve, and higher levels of dependency. It is evident that developed nations have not sufficiently invested in the resilience of their aging populations to prevent widespread pandemic-related morbidity and mortality. For example, the last century has seen a proliferation of large-scale institutional and communal living arrangements for older adults, including hospices and aged care facilities, which provide a cost-efficient approach to managing age-related functional and cognitive declines. However, such settings are problematic during a pandemic as they complicate social distancing, which is one of the few effective strategies for limiting disease transmission.

To enhance readiness for the next pandemic a social-ecological approach is required that focuses on improving resilience at multiple levels: individual, community, and institutional. Firstly, preventive

health measures should promote individual behavioral change that specifically supports cardiorespiratory health and immune function, including moderate aerobic exercise, tobacco cessation, adequate nutrition, and sleep hygiene.<sup>4</sup> Secondly, a renewed focus on community care and support for independent living services (e.g. in-home nursing visits and meals-on-wheels) is required to reduce the negative effects associated with the clustering of vulnerable individuals during a pandemic. Finally, pandemic risk reduction measures should be implemented at a municipal level (e.g. towns and villages), including stockpiling health supplies and personal protective equipment, to ensure rapid and efficient community distribution at the time of crisis.

The final chapter of the COVID-19 pandemic has yet to be written. It remains unclear whether the disease will show patterns of seasonality, whether there will be multiple waves, and what the final toll will be in terms of confirmed mortality. Irrespective of the ultimate outcome, the havoc wrought by this illness on aging populations has already been staggering in terms of numbers afflicted and the speed of global transmission. With ample evidence of our present vulnerability we need to turn our attention to building resilience for inevitable future pandemics.

#### Declaration

The author declares no financial or non-financial conflicts of interest.

#### References

1. Verity R, Okell L, Dorigatti I, et al. Estimates of the severity of coronavirus disease 2019: a model-based analysis. *Lancet Infect Dis.* 2020;20(6):669–677.
2. World Health Organization. *Global recommendations on physical activity for health.* Geneva, Switzerland: World Health Organization; 2010.
3. Taleb N. *Foiled by Randomness: The Hidden Role of Chance in Life and in the Markets.* New York, United States: Random House; 2005.
4. Fagundes C, Gillie B, Derry H, et al. Resilience and immune function in older adults. *Annu Rev Gerontol Geriatr.* 2012;32(1):29–47.

\* Corresponding author.

E-mail address: [annear@aoni.waseda.jp](mailto:annear@aoni.waseda.jp) (M. Annear)