

Wittgenstein Centre (IIASA, OEAW, Univ. Vienna) Vienna Institute of Demography Austrian Academy of Sciences Dr. Ignaz Seipel Platz 2, 1010 Vienna, Austria

## Dear Editors,

I would like to submit my manuscript "How many times have lives been saved? Trends in mortality improvement through the revivorship approach" for consideration at Population Studies. This paper investigates mortality improvement using revivorship models, which are very unique and remain underexplored in demographic research. Such models define mortality improvement through how deaths are redistributed once a life is saved, thus providing a different perspective to understanding the nature of mortality change.

This perspective adds to the important debate of whether the conventional life table approach, the delayed-death model, the stretched-lifetime model or heterogeneity models best describe mortality change. The approach also allows to demonstrate how age-specific probabilities of death and their impact on life expectancy depend not only on how many lives have been saved, but also on how long those lives have been saved. Lastly, it offers an alternative view on lifespan disparity as a measure of the potential for lifesaving, which is based not on how unequally deaths are distributed, but on how unequally is the potential life years to be gained per life saved. Hence, I believe this work is a great fit for Population Studies.

The submitted version of this paper has been seen and agreed to by all authors. We declare that there is no conflict of interest and that our material is original and it has not been published before or submitted for publication simultaneously. Should our work be accepted, we confirm that it will not be published elsewhere in the same form, in English or in any other language, without written consent of the copyright holder.

Thank you for your consideration of this manuscript.

Sincerely,

Vanessa di Lego, PhD,