

**Supporting Information for**

Going beyond the gender gap in healthy lifespans

Vanessa di Lego1\*, Marília R. Nepomuceno2, Cássio M. Turra 3

1 Wittgenstein Centre for Demography and Global Human Capital (IIASA, OeAW, Univ. Vienna), Vienna Institute of Demography at the Austrian Academy of Sciences

2 Max Planck Institute for Demographic Research, Rostock, Germany.

3 Universidade Federal de Minas Gerais, Cedeplar, Brazil.

\*Vanessa di Lego corresponding author

**Email:**  [Vanessa.DiLego@oeaw.ac.at](mailto:Vanessa.DiLego@oeaw.ac.at)

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Methods

Decomposition analyses help us to disentangle the components of gaps derived from aggregate health measures. For instance, when the gender gap comes from differences in healthy life expectancies, decomposition analyses break down the gap into two components: mortality and health (Nusselder and Looman 2004; van Raalte and Nepomuceno 2020; Nepomuceno et al. 2021). The contributions of mortality and disability to the gender gap in health expectancy have shown that gender differences in mortality and disability can be masked when only the total gap is analyzed (Nusselder and Looman 2004; Jagger et al. 2010; Mairey et al. 2014). In some contexts, this effect can be substantial (Van Oyen et al. 2013; Yokota et al. 2019).

For some countries, where the gender gap in health expectancies was virtually zero, decomposition analyses revealed considerable differences in both mortality and health, but in different directions (Nusselder et al. 2010; Van Oyen et al. 2013). As a consequence, the combination of a high prevalence of disability coupled with a high mortality advantage among women resulted in a small gender gap (Nepomuceno et al. 2021). In such cases, interpreting a small gender gap in health expectancy as a metric for low gender inequality ignores the higher burden of disability among women and disregards the intricate relationship between health and mortality.

The number of person-years lived free of disability () is calculated as,

where *nLxi*  is the number of person-years lived without disability between ages *x* and *x+n*, *nLx* is the total number of person-years lived in the age group *x* and *x+n*, and *nπx* is the proportion of disabled individuals in the age group *x* and *x+n*. The same is for chronic-free person-years lived, however with the prevalence for at least one chronic condition instead of prevalence of ADLs, and we call the person-years derived by the same process as

Then, life expectancy free of disability (*DFLE*) is calculated as:

With its equivalent life expectancy free of chronic disease (*CFLE*):

Heading

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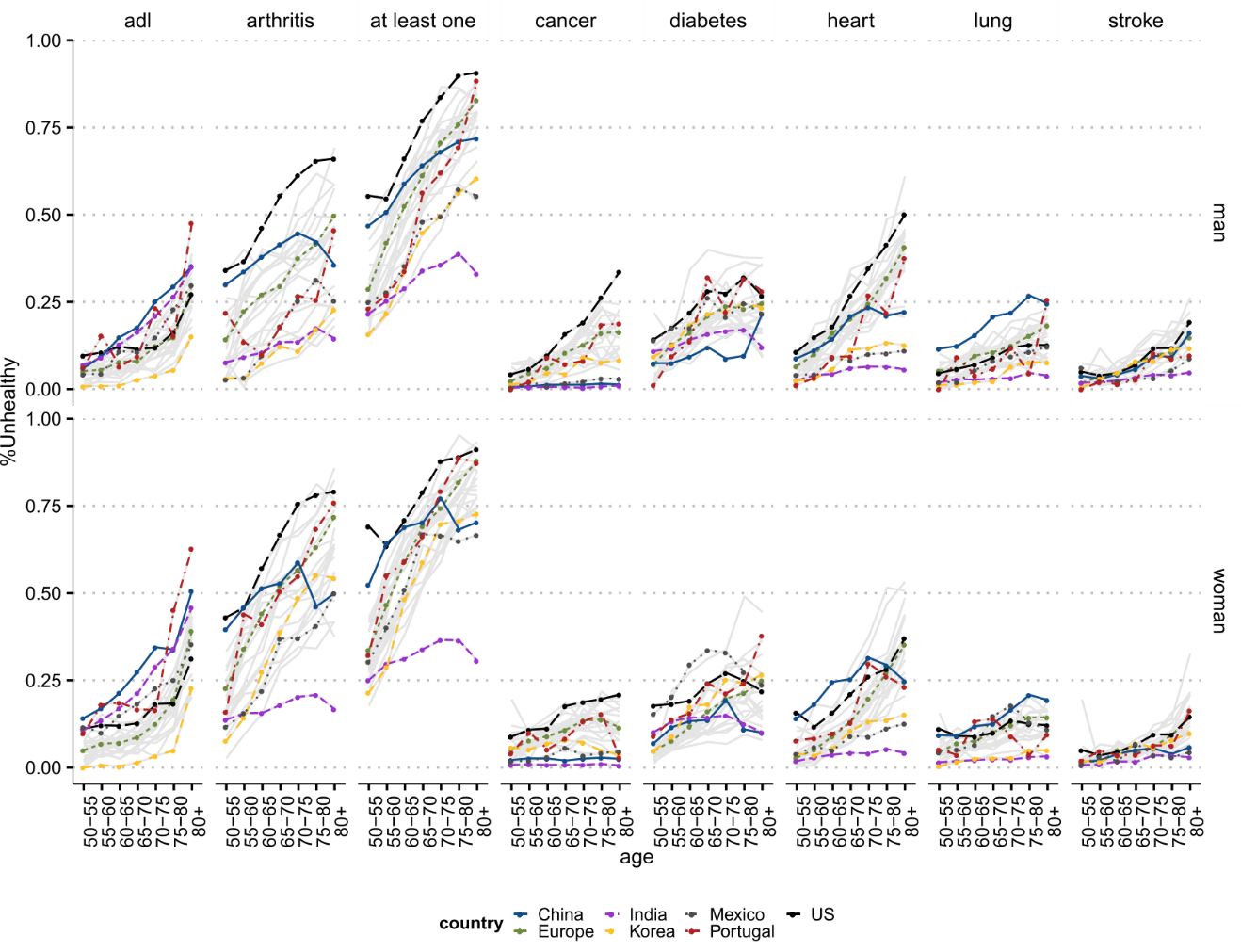


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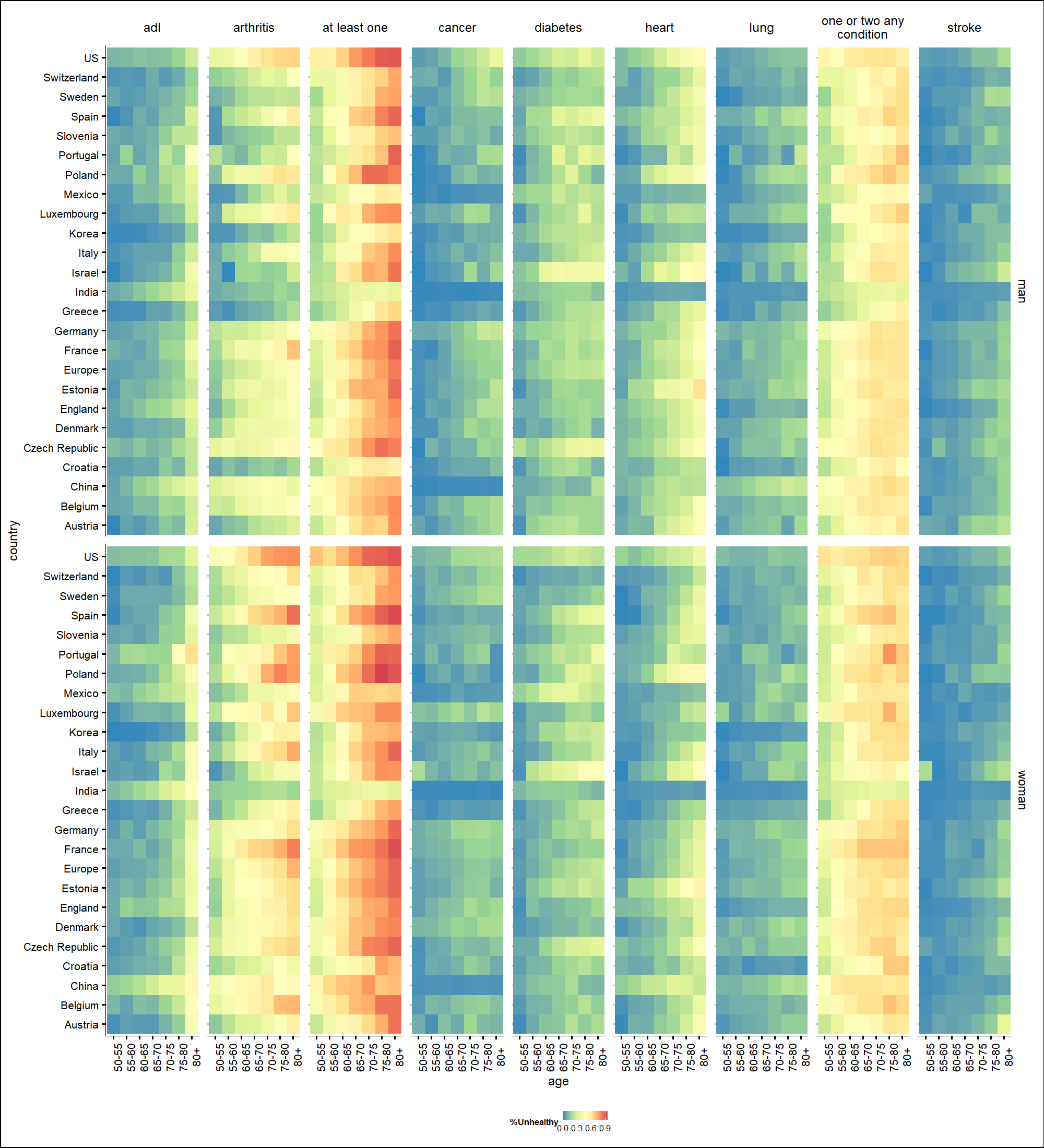


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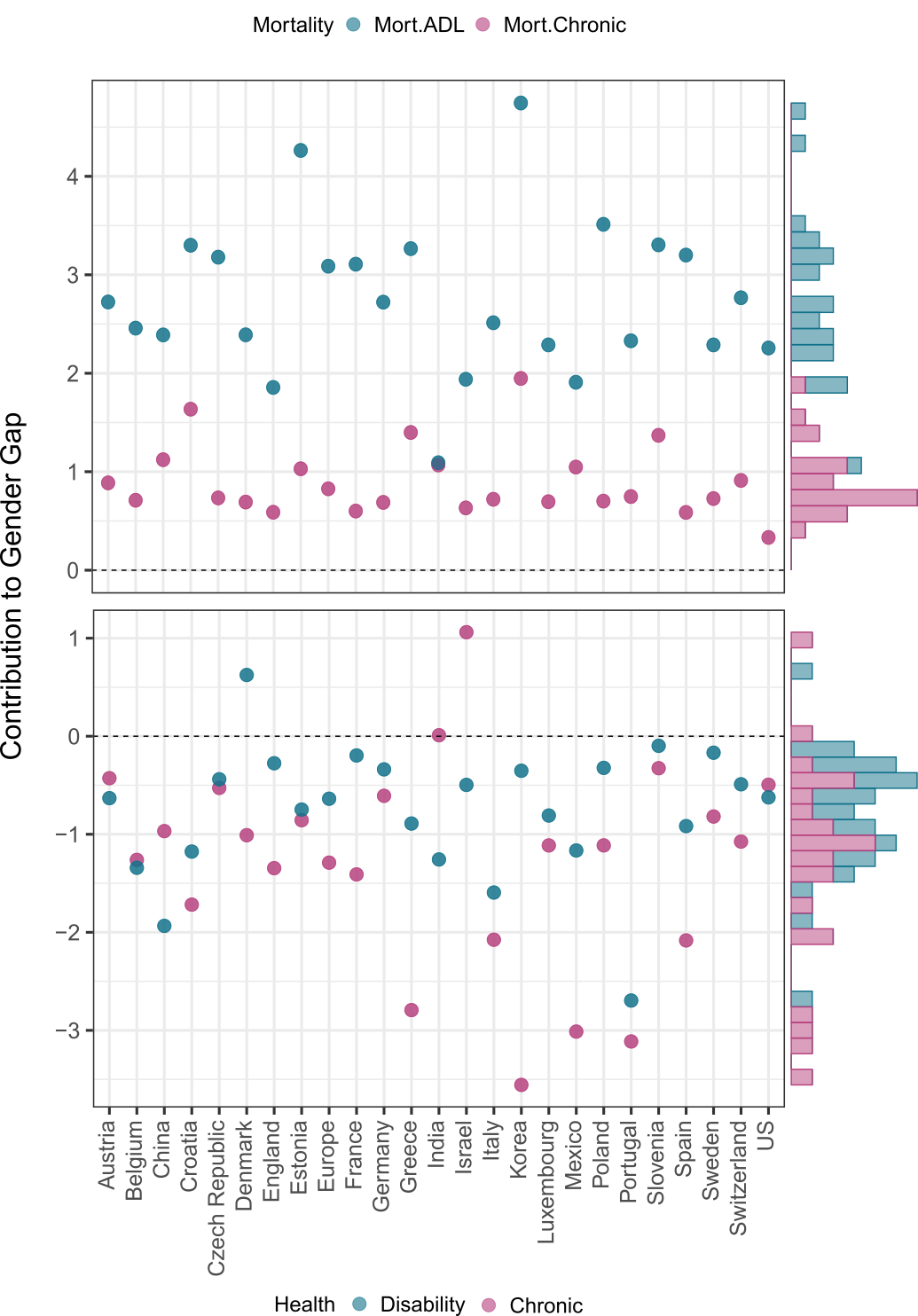


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**SI References**