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Inequalities in healthy and active aging across European countries

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Healthy and active aging

According to the World Health Organization (WHO): the process of optimizing opportunities for health to enhance quality of life as people age. The word **healthy** refers to physical, mental, and social wellbeing, while the word **active** refers to continuing participation in social, economic, cultural, spiritual, and civic affairs.

(Bousquet et al. 2015)
Motivation

• Population aging and inequality are two of the main concerns in Europe nowadays

• We intend to inform the design of policies that promote healthy and active aging in Europe

• Where are the largest inequalities? What are the most vulnerable groups?

• What are the main determinants, on which healthy and active aging policies should be focused?
Existing evidence (Barslund et al. 2017)

Figure 3. Average individual-level active ageing index versus Gini coefficients and ratio of the value for the 80th percentile to the 20th percentile (p80/p20), by age group.
Contributions

• Analysis of inequalities based on the *Selfie Aging Index* (SAI, Gonçalves et al. 2017)

• Estimation of inequalities in healthy and active aging related to socioeconomic status

• Decomposition of inequalities into the contributions of the various SAI indicators
Methods

• Healthy and active aging measured by the Selfie Aging Index (SAI, Gonçalves et al. 2017)

• Inequalities estimated by the Gini and concentration indices, adapted by Erreygers (2009)

• Decomposition using Wagstaff et al.’s (2003) methodology, adapted by Erreygers (2009)

• Analyses conducted by country, weighted to obtain nationally representative results
Selfie Aging Index (SAI)

• First index that captures both healthy and active aging at the individual level

• Based on the Bio-psycho-social assessment model (MAB, Botelho 2000)

• Based on an ordered probit model, avoiding the *ad hoc* selection of weights
The familiar Gini index
Gini for healthy and active aging

Cumulative share of people from lowest to highest SAI score

Cumulative share of healthy and active aging scores

Line of Equality (45 Degree)

Lorenz Curve
Concentration index

Cumulative share of healthy and active aging scores

Cumulative share of people from lowest to highest incomes
Decomposition

• What percentage of the estimated inequalities in each country can be attributed to each indicator underlying the SAI?

• An indicator’s contribution depends on (1) the weight of that indicator in the SAI, and (2) how unequally distributed in the population is the indicator itself.
Data

• 55+ individuals interviewed in 2015 in several European countries (Survey of health, aging, and retirement in Europe, SHARE, wave 6)

• Portugal, Spain, France, Belgium, Luxemburg, Switzerland, Italy, Austria, Germany, Denmark, Sweden, Estonia, Poland, the Czech Republic, Slovenia, Croatia, Greece, Israel
## SAI indicators

<table>
<thead>
<tr>
<th>Biological domain</th>
<th>Psychological domain</th>
<th>Social domain</th>
<th>Demographic controls and health behaviors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health complaints (general, eyesight, hearing, musculoskeletal system, nervous system)</td>
<td>Emotional status (dismay, lack of interest, trouble sleeping, lack of energy)</td>
<td>Type of job</td>
<td>Age</td>
</tr>
<tr>
<td>Difficulties in the activities of daily life</td>
<td>Cognitive status (time awareness)</td>
<td></td>
<td>Gender</td>
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<tr>
<td>BMI</td>
<td></td>
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<td>Physical activity</td>
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<td></td>
<td></td>
<td></td>
<td>Smoking status</td>
</tr>
</tbody>
</table>
Total inequalities

Gini index

- Estonia
- Italy
- Spain
- Croatia
- Belgium
- Greece
- Germany
- Denmark
- Portugal
- Austria
- Slovenia
- France
- Sweden
- Czech Republic
- Poland
- Israel
- Luxemburg
- Switzerland
Gini vs. average SAI score
Decomposition: total inequalities
Decomposition: SES-related inequalities

[Bar chart showing the distribution of SES-related inequalities across different countries.

- Switzerland
- Austria
- Israel
- Czech Republic
- Sweden
- Denmark
- Poland
- Belgium
- Germany
- Luxemburg
- Italy
- Spain
- Slovenia
- France
- Greece
- Estonia
- Portugal
- Croatia

Legend:
- Gender
- Residual
- Time awareness
- Smoking status
- Age
- Type of job
- BMI
- Difficulties in the ADLs and IADLs
- Physical activities
- Emotional status
- Health complaints]
Summary

• First investigation of inequalities in healthy and active aging

• Largest inequalities in Estonia, Italy, and Spain

• Lowest inequalities in Switzerland, Luxemburg, and Israel

• Importance of looking beyond the average – look at Portugal

• Negative correlation between average SAI and Gini index
Conclusions

• Reducing inequalities in healthy and active aging will require fighting inequalities in health, including mental health

• Promoting physical activity can play an important role in the reduction of inequalities

• Helping countries with the largest inequalities can be a way of promoting social cohesion in Europe
Next steps

- Exploring inequalities across regions (NUTS 2), gender, age groups, quartiles of the healthy and active aging distribution

- Investigate how behaviors, SES, have been changing and how that translated into lower/larger inequalities
Thank you

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References


References

