

Old-Age Poverty and Health – How Much Does Income Matter?

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September, 2013

The question concerning the material situation of older people and its consequences for their wellbeing seems to be more important than ever. This is especially true given rapid demographic changes in the Western World and economic pressures on governments to reduce public spending. We use data from the Survey of Health, Ageing and Retirement in Europe (SHARE) to examine different aspects of old-age poverty and its possible effects on deterioration in health. The data contains information on representative samples from 12 European countries including the Czech Republic and Poland. We use the longitudinal dimension of the data to go beyond cross sectional associations and analyze transitions in health status controlling for health in the initial period and material conditions. We find that poverty matters for health outcomes in later life. Wealth-defined and subjective poverty correlates much more strongly with health outcomes than income-defined measure. Importantly subjective poverty significantly increases mortality by 58.3% for those aged 50–64 (for details see Adena and Myck, 2013a and 2013b).

Measuring Poverty

When measuring poverty, the standard approach is to define the poverty threshold at 60% of median equalized income. This standardized measure offers some advantages, such as simplicity and comparability with already existing studies. However, there are valid arguments against its use when analyzing old-age poverty. The permanent-income theory provides arguments against current income as a major determinant of quality of life of older people. Moreover, poverty defined with respect to current income while taking account of household size through equalization, ignores other important aspects of living costs such as disability or health expenditures. Additionally, most analysis using income-poverty measures ignore such

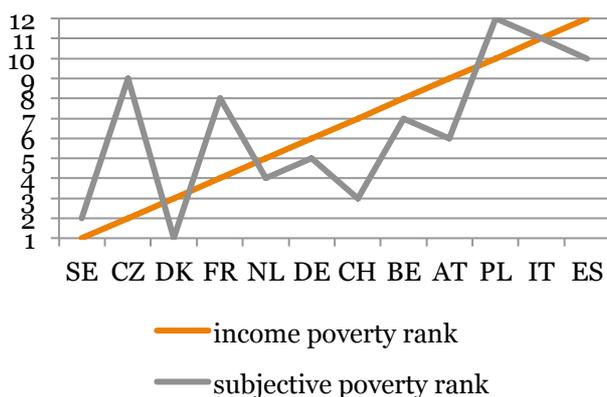
aspects as housing ownership and housing costs.

Our analysis examines different aspects of poor material conditions of the elderly. The first poverty definition refers to respondents' wealth as an alternative to income-defined poverty. Poor households, defined with reference to wealth ("wealth poverty" - WEALTH), are those that belong to the bottom third of the wealth distribution of the sample in each country. For this purpose, household wealth is the sum of household real assets (net of any debts) and household gross financial assets. Secondly, we compare the above poverty measures to a subjective measure of material well-being. This measure is based on subjective declarations by respondents, in which case ("subjective poverty" - SUB) individuals are identified as poor on the basis of a question of how easily

they can make ends meet. If the answer is “with some” or “with great” difficulty, individuals in the household are classified as “poor”.

One reflection of potential problems with the standard income poverty measure becomes visible when it is compared with the subjective measure. The graph below shows the differences in country rankings when using one or the other poverty measure. The country with the greatest disproportion is Czech Republic. While being ranked as second according to the income measure, it is ninth according to the subjective measure.

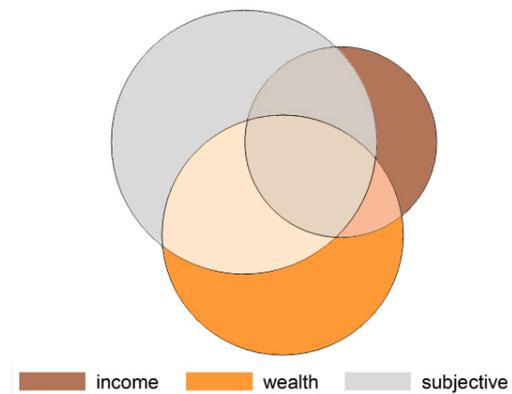
Figure 1. Country Ranks in Old-Age Poverty According to an Income versus a Subjective Measure



Source: Authors' calculations using SHARE data (Wave 2, release 2.5.0).

Even more striking is the fact that the differences between ranks are not because of over or under classification of individuals as poor, but rather because of misclassification. Figure 2 shows that there is little overlap between different poverty measures. The share of individuals classified as poor according to all three measures is only 7.95%, whereas it is 60% according to at least one of the measures.

Figure 2. Poverty Measure Overlap



Notes: Data weighted using Wave 2 sample weights. Source: Authors' calculations using SHARE data (Wave 2, release 2.5.0).

Measuring Well-Being

We examine three binary outcomes measuring the well-being of the respondents – two reflecting physical health, and one measuring individuals' subjective health. The two measures of physical health are generated with reference to the list of twelve symptoms of bad health and the list of twenty-three limitations in activities of daily living (ADLs). In both cases, we define someone to be in a bad state if they have three or more symptoms or limitations. The two definitions are labelled as: “3+SMT” (three or more symptoms) and “3+ADL” (three or more limitations in ADLs). Subjective health “SUBJ” is defined to be bad if the subjective health assessment is “fair” or “poor”. Finally, we also analyze mortality as an “objective” health outcome.

Poverty and Transitions in Well-Being and Health

There is some established evidence in the literature that poverty negatively affects health and other outcomes at different stages of life.¹ At the same time, there is little evidence on how the choice of the poverty measure might

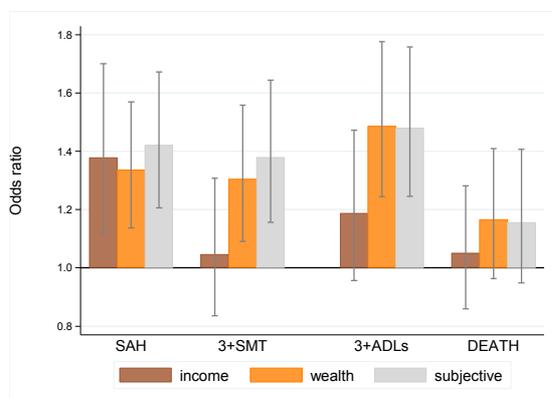
¹ For a literature review, see our publications.

result in under- or over-estimation of the effects of poverty. We address this question by examining different poverty measures as potential determinants of transitions from good to bad states of health.

The results confirm that living in poverty increases an individual's probability of deterioration of health. In a compact form, Figure 3 presents our results from 12 separate regressions (4 outcomes, three poverty measures). Here we report the odds ratios related to the respective estimated poverty dummies. Individuals classified as poor according to the income measure are 37.7% more likely to report bad subjective health in a later wave of the survey than their richer counterparts; they are 4.5% more likely to suffer from 3 or more symptoms; 18.7% more likely to suffer from 3 or more limitations; and 5% more likely to die. The last three effects, however, are not statistically significant.

In contrast, the effects of wealth-defined poverty and subjectively assessed poverty are 2-8 times stronger than those of income poverty, and they are also significant for all outcomes but death. Overall, wealth-defined poverty and subjective assessment of material well-being strongly correlate with deterioration in physical health (exactly the same goes for improvements in health, see Adena and Myck 2013b).

Figure 3. Poverty and Transitions from Good to Bad States Overlap

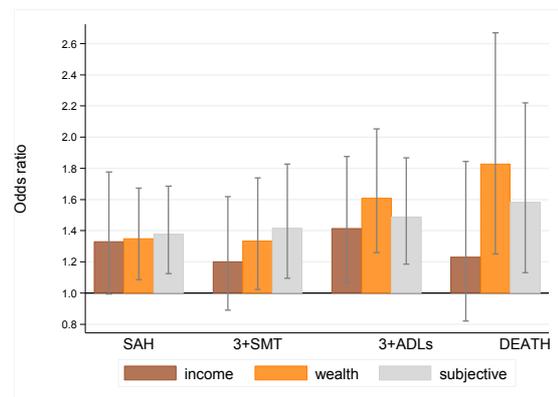


Notes: Data weighted using Wave 2 sample weights. Source: Authors' calculations using SHARE data (Wave 2, release 2.5.0, Wave 3, release 1, Wave 4, release 1).

Poverty and Mortality in the Age Group 50-64

Our analysis reveals differences between age groups and confirms the decreasing importance of income (and thus income defined poverty) with age. As compared to the average effects presented in Figure 3, for the younger age group 50–64 income poverty proves more important as a determinant of bad outcomes, with transition probabilities between 20 and 40% for all outcomes (see Figure 4). The magnitudes are closer to those of other poverty measures, but still lower in all cases. Importantly, we find that wealth-defined and subjective poverty is an important determinant of death in the age group 50–64.

Figure 4. Poverty and Transitions from Good to Bad States 50-64



Notes: Data weighted using Wave 2 sample weights. Source: Authors' calculations using SHARE data (Wave 2, release 2.5.0, Wave 3, release 1, Wave 4, release 1).

Conclusions

The role of financial conditions for the development of health of older people significantly depends on the measure of material well-being used. In this policy brief, we defined poverty with respect to income, subjective assessment, and relative wealth. Of these three, wealth-defined poverty and

subjective assessment of material well-being strongly and consistently correlate with deterioration and improvements in physical and subjective health. We found little evidence that relative income poverty plays a role in changes in physical health of older people. This suggests that the traditional income measure of household material situation may not be appropriate as a proxy for the welfare of older populations, and may perform badly as a measure of improvements in their quality of life or as a target for old-age policies. To be valid, such measures should cover broader aspects of financial well-being than income poverty. They could incorporate aspects of wealth and the subjective assessment of material situations as well as indicators more specifically focused on the consumption baskets of the older population.

References

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