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Growing older, unhealthy and unequal.

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Portugal has one of the *fastest ageing populations* in the *European Union* [1], as the result of a combination of very low fertility rate, higher life expectancy (at birth) and high rates of emigration [2]. The economic and social stakes of these demographic transitions will depend on how people age and how the health care system responds to the corresponding challenges. Previous evidence shows that in Portugal older individuals report a declining health status, as they age [3] [4]. Worldwide predictions of rapid growth in health care expenditures due to population ageing (for a review see [5]) are still not reflected in the data [6] [7]. Despite its universal National Health System (NHS), high levels of socioeconomic related health inequalities persist at older ages [8] [9]. In addition, there is evidence of gender inequality: *despite their longer life expectancy*, women tend to experience poorer *health* outcomes than men [4] [10].

The current research note intends to present a simple description of the health status of the population aged 50 years and older in Portugal, based on a more extended and detailed study by Correia et al. [11]. Using data from the Survey of Health Ageing and Retirement in Europe

(SHARE)-Wave 6, Correia et al. [11], study the health status amongst non-institutionalised Portuguese residents aged 50 years and older. The study covers the questions of prevalence of mental health, chronic diseases, disabilities, and the influence of socio-demographic variables on access to health services. More details on data, methodology, results, and limitations can be found in the original study [11].

The socio-demographic profile of the Portuguese population aged 50 and above, included in the study, describes a poor and low-educated population. The average household net income is less than half of the national average. The average number of years of schooling is 6.3, and 55% of individuals had only attained a primary level of education or lower. Women are over-represented among those with the lowest educational and income levels.

The prevalence of physical and mental health problems is high, in particular when compared with their European *counterparts in the same wave*. Both deterioration of health and increase in morbidity show steep age-gradients. Almost 65% of individuals rate their health as ‘poor’ or ‘fair’, and only 3,3 % report excellent general health status, which compares with 39,9% and 6,3% respectively, of their *European counterparts*. Amongst individuals aged 80 and over, 88% reported ‘less than good’ health status.

Looking at specific health conditions, clinical depression affects around 41.8% of Portuguese aged 50 or over, increasing to 67% in the oldest group. Regarding prevalence of chronic disease, 85% of the Portuguese aged 50 or over suffer at least from one chronic disease, 60% report two or more chronic diseases (the percentage of people suffering from at least 2 chronic disease increases to 74% among population aged 65 or over) and 13%, report to suffer from 5 or more chronic diseases. Chronic diseases appear to be diagnosed relatively early in life, with 76% at ages 55-64 76 % already reporting suffering from chronic illness and 44% reporting two or more. Severe physical disability is strongly associated with age, but rapid deterioration

seems to start later in life. More than 22% of individuals aged 50 or over report severe disabilities, and for individuals aged 80 or over the percentage increases to 57%.

There are also distinctive gender issues. As reported in previous studies, the prevalence of bad health outcomes is significantly higher among women. The study concludes that: 73 % of women report lower than good health (poor and fair), which contrasts with 55% of the males. Women also report a greater decline in health status during the ageing process. Perhaps the most striking result is the incidence of depression. 55% of elderly women suffer from clinical depression, almost 30 percentage points higher than the prevalence among men. The gender gap increases over age; 81% women aged 80 or over report depression, in contrast to 42% of men of the same age group.

The results of a multivariate analysis indicate socioeconomic inequality in health outcomes. The odds of self-perceived health deterioration are more than twice higher among the highest educated Portuguese as compared to their lowest educated counterparts (odds-ratio 2.09; IC (95%): [1.63, 2.68]). The impact of secondary education is less evident. The protective effect of the highest level of education is evident, regardless of the health measure used. This is consistent with international evidence (see [9] and [12] for a review).

Evidence on income-effects are mixed. Overall, individuals in the highest income group are more likely to perceive their general health positively than those with lowest income. When compared with those with highest income, lowest income group are 2.8 (IC (95%): [1.81, 4.36]) times more likely to self-report poor health, and twice more likely to report depression (odds ratio: 1.98; IC(95%): [1.13,3.46]) everything else constant. This supports the evidence of income-related health-inequality in self-assessed health status in Portugal, favoring the higher income groups (see [13] [14]). There is nonetheless, no statistical evidence, at conventional levels, of income gradient on the likelihood of self-reporting two or more chronic

conditions and severe disability. Finally, adjusting for education and income quartiles does not significantly attenuate neither gender nor age groups differences. The results suggest that impacts of gender and age on self-reported health are not mediated by differences in socioeconomic status.

The extent of health depreciation during ageing in Portugal, and the gender differences observed, appear to be higher than that reported in other European studies. There is, nonetheless, variation within and between age-groups that suggests a potential for health gains in the future. Health projections point to a future improvement in the health of elderly [15].

We can anticipate that there can be substantial consequences of both low health of the elderly and rapid deterioration of their health. Ageing requires an adequate reorganisation of health care delivery to the elderly, including increased coordination of care, expansion of long-term care, development of e-health, management of multi-morbidity, and reinforcement of mental health care. Health policies should also better prepare people for healthy ageing, including enhancing prevention, promotion of healthy lifestyles, and encouragement of better self-care. Since health-related behaviours can be potentially influenced through education [16], the education policies, combined with the expected reduction of inequality in education, can help to mitigate socioeconomic health-inequality. Moreover, the evidence calls for an additional gender-based perspective on health policy, particularly in mental health.

We should keep in mind some limitations of this study. Self-reported health is not reported on an absolute scale, and is differently perceived by population groups [17]: the exclusion of the institutionalised population, inequality and steepness of the age-gradient are likely to be underestimated. The estimated (so-called) age-gradient actually mixes age and cohort effects. Nonetheless, age effects on health are generally stronger than cohort effects. It is nonetheless an important limitation of the present analysis. Moreover, the study also does not address

potential causal relations. It would be important to collect data on aging processes stressing the importance of behavioural choices. Finally, other additional analyses are needed to fully understand health patterns and gender differences among the elderly. However, it should be noted that detailed data collection and analyses as the ones underlying this short note can potentially uncover patterns of health outcomes and behaviours and provide clues to inform policy makers on how best to cope with the challenges of an ageing population.

References:

- [1] Commission, European- Directorate-General for Economic and Financial Affairs, "The 2015 Ageing Report," *European Economy*, vol. 3, 2015.
- [2] D. Bloom, "The Health and Wealth of Portugal," *Acta Med Port*, vol. 26(4), pp. 303-311, 2013.
- [3] C. Jagger, C. Gillies, F. Moscone, F. Cambois, H. Van Oyen, W. Nusselder and J. Robine, "Inequalities in healthy life years in the 25 countries of the European Union in 2005:," *Lancet*, vol. 372 (9656), p. 2124–2131, 2008.
- [4] Eurostat, "Healthy life years and life expectancy at age 65 by sex," [Online]. Available: <http://ec.europa.eu/eurostat/>. [Accessed 11 May 2017].
- [5] A. Gray, "Population Ageing and Health Care Expenditure," *Ageing Horizons*, vol. 2, pp. 15-20, 2005.
- [6] B. Rechel, E. Grundy, J. Robine, J. Cylus, J. Mackenbach, C. Knai and M. McKee, "Ageing in the European Union," *Lancet*, vol. 381, p. 1312–22, 2013.
- [7] P. Pita Barros, "The black box of health care," *Health Economics*, vol. 7, p. 533–544, 1988.
- [8] I. Matos, G. Russo and J. Perelman, "Connecting the dots on health inequalities – a systematic review on the social determinants of health in Portugal," *International Journal for Equity in Health*, vol. 15:26, 2016.
- [9] M. Huisman, A. Kunst and J. Mackenbach, "Socioeconomic inequalities in morbidity among the elderly: a European overview," *Social Science & Medicine*, vol. 57(5), p. 861–873, 2013.
- [10] J. Perelman, A. Fernandes and C. Mateus, "Gender disparities in health and healthcare: results from the Portuguese National Health Interview Survey," *Cad. Saúde Pública*, p. 88(12), 2012.
- [11] I. Correia, P. Ferreira, L. Pinto, M. Valente and P. Veiga, "Growing older, unhealthy and unequal," *Working papers NIMA*, vol. 67, 2017.
- [12] S. Read, E. Grundy and E. Foverskov, "Socio-economic position and subjective health and well-being among older people in Europe: A systematic narrative review," *Aging and Mental Health*, vol. 20(5), pp. 529-542, 2016.
- [13] E. van Doorslaer and X. Koolman, "Explaining the differences in income-related health inequalities across European countries," *Health Economics*, vol. 13(7), p. 609–628, 2004.

- [14] P. Veiga, "Income-related health inequality in Portugal," *Working papers NIMA*, vol. 28, 2005.
- [15] M. Martins, I. Rodrigues and T. Rodrigues, "Projecting health outcomes for Portuguese ageing population: Challenges and opportunities," *Health*, vol. 6, pp. 1874-1882, 2014.
- [16] L. Lochner, "Non-Production Benefits of Education: Crime, Health, and Good Citizenship," in *Handbook of the Economics of Education*, vol. 4, Amsterdam, Elsevier Science, 2011.
- [17] T. Bago d'Uva, O. O'Donnell and E. van Doorslaer, "Differential health reporting by education level and its impact on the measurement of health inequalities among older Europeans," *Int J Epidemiol*, vol. 37(6), pp. 1375-1383., 2008.
- [18] Pordata, "<http://www.pordata.pt>," [Online]. [Accessed 20 April 2016].
- [19] M. Huisman, A. Kunst and J. Mackenbach, "Socioeconomic inequalities in morbidity among the elderly: a European overview," *Social Science & Medicine*, vol. 57(5), p. 861–873, 2013.
- [20] S. Read, E. Grundy and E. Foverskov, "Socio-economic position and subjective health and well-being among older people in Europe: A systematic narrative review," *Aging and Mental Health*, vol. 20(5), pp. 529-542, 2016.