

## **PRESS RELEASE**

# Socioeconomic disadvantages reduce physical function in old age

- 60-year-old individuals living in disadvantaged socioeconomic conditions lost up to 7 years of good physical function.
- The years of functioning lost due to adverse socioeconomic circumstances were comparable to obesity, diabetes, and insufficient physical activity, and were higher than those lost due to hypertension and smoking tobacco.
- The study was conducted on more than 109,000 adults from 24 countries in Europe,
  the United States, Latin America, Africa, and Asia, including the UK.
- These findings suggest that tackling socioeconomic adversities might substantially increase the number of years one can spend in good physical function.

**Milan/Brussels**, **26 March 2018** – Low socioeconomic position is linked to a deterioration in the quality of ageing equivalent to a loss of 4-7 years of good physical health by age 60. This is the conclusion of a study published in the <u>BMJ</u> by LIFEPATH, a project funded by the European Commission, which investigates the biological pathways underlying social differences in healthy ageing.

Men aged 60 with lower economic status (e.g. working in manual occupations) had the same walking speed as men aged 66.6 with a higher economic status (e.g. working in non-manual occupations). Measured by walking speed, this is a 6.6-year loss of good physical function. Women lost 4.6 years, a smaller but still relevant decrease.

This negative impact was comparable to that provoked by other major risk factors: by age 60, insufficient physical activity led to a loss of 5.7 years in the function of men and 5.4 in women, while the reduction due to obesity was 5.1 for men and 7.5 for women. The loss ascribed to diabetes was, respectively, 5.6 and 6.3. The effect of other risk factors such as hypertension (2.3 and 3 years of lost function) and tobacco use (3 and 0.7 years lost) was smaller.

"Our study added further evidence to the role of poor social and economic circumstances as powerful risk factors, which may seriously impact on healthy ageing", says Silvia Stringhini, researcher at Lausanne University Hospital in Switzerland and lead author of the study. "Previous studies have shown that different risk factors, including socioeconomic disadvantage, tend to cluster in the same individuals. However, our results suggest that the association of low occupational profile with physical functioning is not attributable to other risk factors".

### A worldwide research, from low- to high-income countries

LIFEPATH researchers analysed data from 37 studies comprised of a total of 109,107 men and women aged between 45 and 90 years. The 24 countries involved were in Europe, the United States, Latin America, Africa, and Asia, including the UK. They used walking speed as an indicator of physical function since it declines with age and is a good predictor of survival, hospital admission, and cognitive decline. To assess an individual's socioeconomic condition, the information of their last known occupational title was collected during enrolment.

"Another relevant finding was the difference between high-income countries on the one hand, and low- and middle-income countries on the other, with the former showing higher number of years of functioning lost due to socioeconomic disadvantage", says Paolo Vineis, professor at the Imperial College of London and leader of the LIFEPATH project. "This could be due to regional differences in the social patterning of major risk factors, such as physical inactivity, obesity, and diabetes".

#### Evidence for innovative global health policies and strategies

Current global health policies are targeted towards established risk factors of health, such as smoking and physical inactivity. The negative impact of these factors is mainly assessed using hard parameters such as mortality, while broader measures of wellbeing like physical function has received less attention so far. "We should not limit our analysis to the length of our lives, but also to the quality of our ageing", says Mika Kivimaki, professor at the University College of London. "By focusing on healthy ageing and functional wellbeing, we aim to provide further evidence for broader health policies dealing with socioeconomic adversity, in addition to standard risk factors".

#### **About LIFEPATH**

LIFEPATH is an EU-funded project aimed to provide updated, relevant and innovative evidence for the relationship between social disparities and healthy ageing to lay ground for the development of future health policies and strategies. LIFEPATH experts develop an original study design that integrates social science approaches with biology and big data analysis, using existing population cohorts and omics measurements.

#### **Media resources**

Additional information, photos and videos about the project can be found in online Media Centre of LIFEPATH project.

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