Trajectories of socio-economic position over four time points and mortality: The role of gender

Ilona Koupil

*I Koupil<sup>1,2</sup>, A Goodman<sup>1,3</sup>, A Heshmati<sup>1</sup>, G Mishra<sup>4</sup>*<sup>1</sup>Department Public Health Sciences, Stockholm University, Stockholm, Sweden

Sweden

Department Global Public Health, Karolinska Institutet, Stockholm, Sweden

Faculty of Epidemiology and Population Health, LSHTM, London, UK

School of Public Health, University of Queensland, Brisbane, Australia

Contact: ilona.koupil@su.se

### **Background:**

Studies investigating the effect of social mobility on mortality in Sweden have used socioeconomic position (SEP) at only two time points and traditional methodological approaches. Our recent study has used SEP at four time points, but not employed latent class analyses when investigating the relationship between SEP trajectories and mortality in later life.

### Methods:

A cohort of 14,192 live births at Uppsala University Hospital between 1915-1929, of whom 97% were traced through parish records until routine registers became available in the 1960s. 5729 men and 5607 women were alive and living in Sweden in 1980. SEP was measured as social class of the head of household: at birth, in childhood (age 10, +/- five years), in adulthood (age 30-45, in the 1960 Census), and in later life (age 50-65, in the 1980 Census). Latent class analysis was employed to identify social class trajectories and Cox proportional hazard models used to estimate all-cause and cause-specific mortality (data from Causes of Death Register).

# **Results:**

Compared to men and women with stable high SEP trajectories, we found a higher risk of death from circulatory disease among men with stable low (HR 1.56, 95%CI 1.29-1.87), stable middle (HR 1.28, 95%CI 1.06-1.55) and upwardly mobile from low (HR 1.35, 95%CI 1.10-1.66) SEP trajectories, as well as in women with stable low or mobile from low to middle SEP trajectory (HR 1.27, 95%CI 1.02-1.59). SEP trajectories and total mortality showed similar, albeit, weaker associations in both genders. SEP trajectories were gender-specific and associations of SEP trajectories with circulatory disease mortality tended to be weaker in women.

### **Conclusions:**

Men's and women's socioeconomic position during childhood and over the life course affect their risk of late life all-cause mortality, and death from circulatory disease in particular. Improvements in social conditions at early stages of the life course are likely to contribute to reducing mortality at old age.

# Key messages:

- Men's and women's socio-economic position during child-hood and over the life course affect their risk of late life all-cause mortality and mortality from circulatory disease in particular.
- Trajectories of socioeconomic position across life course appear to be related to cause specific and total mortality in a gender specific pattern.