# #Pop Health Lab

# **Employment Trajectories in Women and Cancer Onset at Older Age** Bernadette W.A. van der Linden<sup>1</sup> PhD, Stefan Sieber<sup>2</sup> PhD, Rainer Gabriel<sup>3</sup> PhD, Matthias Studer<sup>4</sup>PhD,

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#### BACKGROUND

- Life course theory and accumulation of dis/advantage: timing, sequence, context of events and experiences over one's life course shape trajectories and influence health (Dannefer, 2003).
- We spend a large portion of our lives at work, and working conditions and lifetime exposure to work affect later life health (Lu et al., 2017; Nilsen et al., 2019).
- Cancer: long latency period
  - Lifestyle behaviors, socioeconomic conditions, occupation: exposures, stressful conditions,...
  - Timing and sequence of events (sensitive period) + accumulation

# OBJECTIVE

To assess how employment trajectories predict cancer onset in later life among women.

### METHODS

- Survey of Health, Ageing and Retirement in Europe (SHARE), 2004-2020: 9543 women, mean age 67 years (55-99), from 14 European countries.
- Life calendar on past employment life (16-60 years) → sequence analysis.
- Cancer: self-reported overall, breast, cervix, colorectal, lung, skin.
- Cox regression
  - adjusted for age, birth cohort, attrition, body mass index, smoking, multimorbidity, physical activity, and country.

#### References

Dannefer D, *J Gerontol B Psychol Sci Soc Sci* 2003;58(6):S327-37. Lu W, Benson R, Glaser K, et al. *J Epidemiol Community Health* 2017;71:439-445. Nilsen C, Andel R, Darin-Mattson A et al. *BMC Public Health* 2019;19:1125.







#### 5 trajectories:

(n=1019)

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- C1: mainly fulltime (n=3588, 37%)
  - C2: mainly domestic and family work (n=3849, 39%)
  - C3: mainly self-employed (n=763, 8%)
  - C4: mainly unemployed/other (n=595, 6%)
  - C5: fulltime to part-time (n=1019, 10%)

#### RESULTS

- **Risk** of all types of cancer (N=1112) was **lower** for women in the C2 and C3 trajectories compared to women in the C1 trajectory (hazard ratio (HR) = 0.75; HR = 0.54, respectively).
- For **breast** (N=509) cancer, results were similar.
- For **colorectal** cancer (N=133), women in the C2 trajectory had a lower risk.
- For skin (N=125), cervix (N=83) and lung cancer (N=39), no differences between the trajectories were found.

### **KEY MESSAGES**

- Women's employment trajectories associated with cancer risk in later life.
- The **domestic and family work** and mainly **self-employed** trajectories associated with the lowest risk.
- **Mainly fulltime** associated with highest risk.
- Potential explanations: occupational health risks? Health-related lifestyle?

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