Overall and Cause-specific Mortality differences by Partnership status in 21st Century England & Wales

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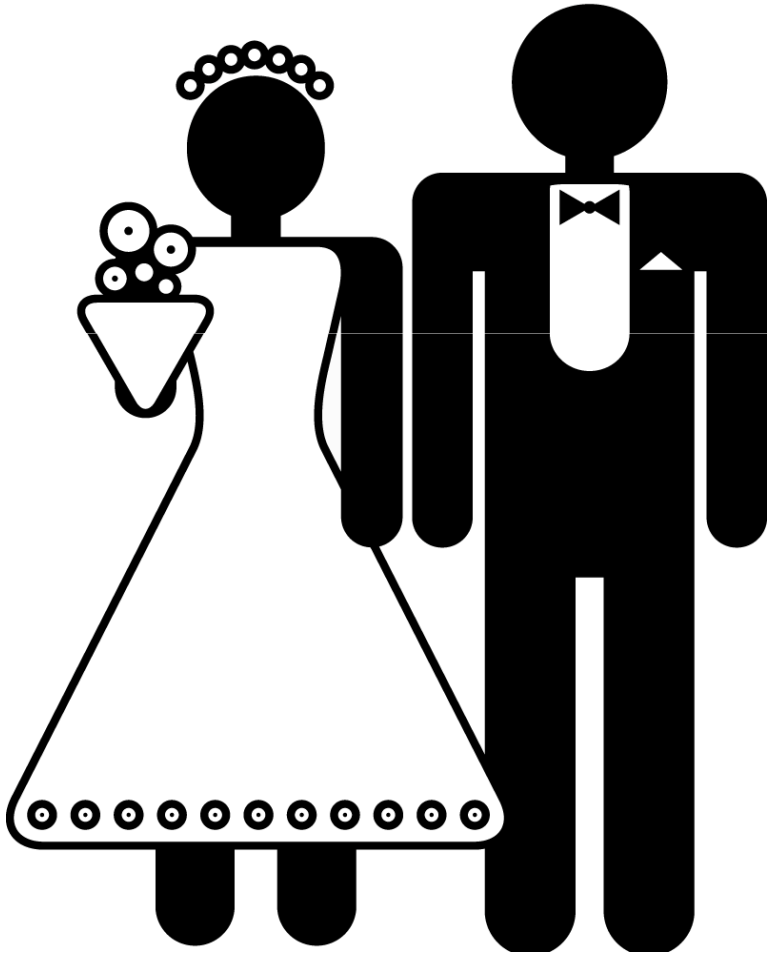
Background



Lower mortality rates

-Since 1850s

-More pronounced for men than for women

- independent from socio-economic and socio-demografic factors

Western Countries have changed…

- Increase in cohabitation
- Increase in divorce rates
- Increase in lone parent families
- Increase in life expectancy

Data and Methods

ONS Longitudinal Study

- set up in 1974 - linked census and vital events data
- 1% sample population of England and Wales
- deaths yearly, PS, socioeconomic characteristics from census years

Cox Proportional Hazard Model

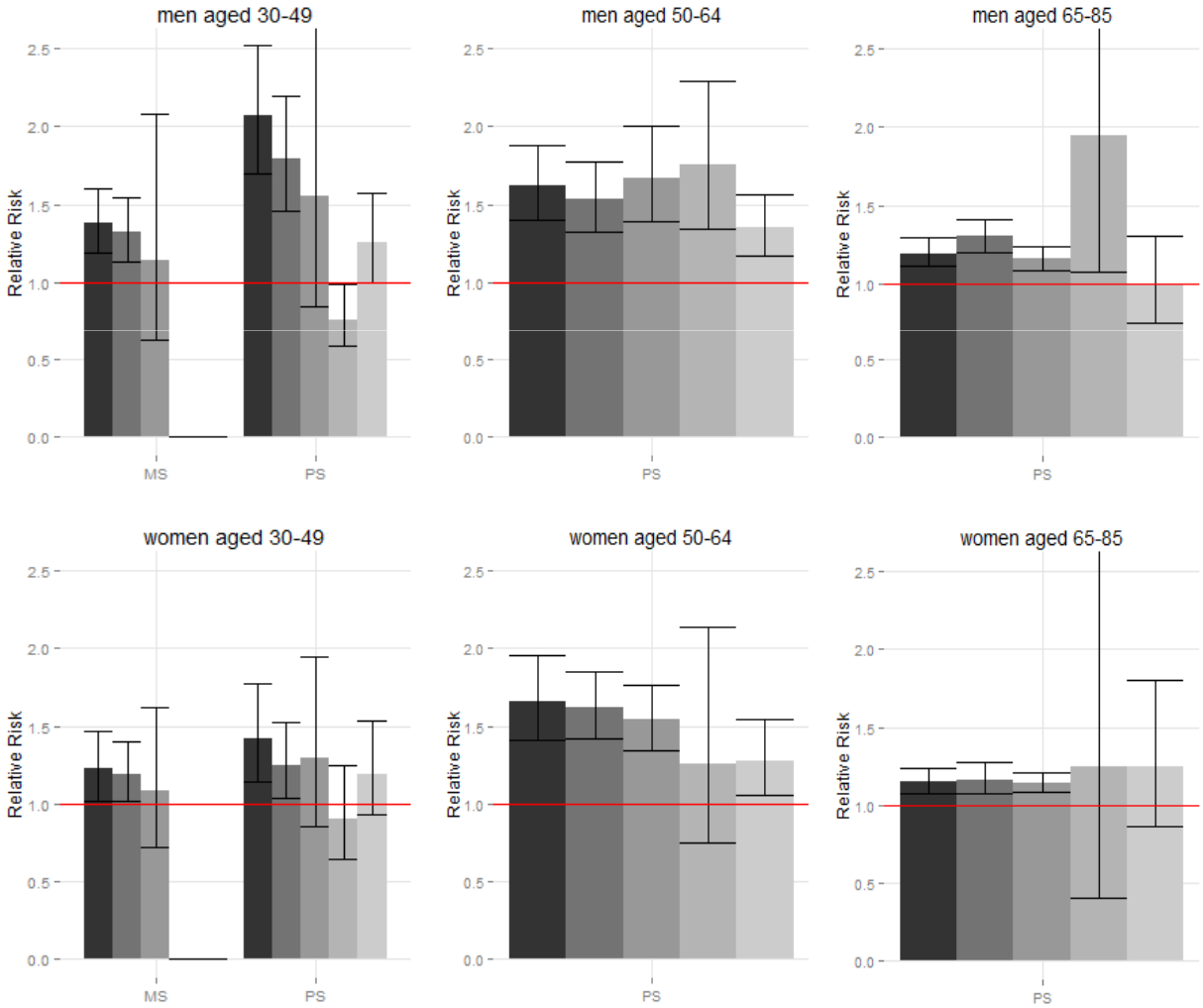
$$h_i(t) = h_0(t) \exp\left(\beta_1 x_{i1} + \beta_2 x_{i2} + \cdots + \beta_k x_{ik}\right)$$

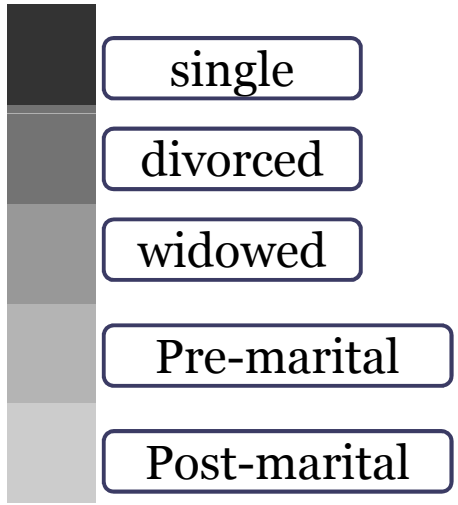
Data

- Census 2001
- Men and women aged 30-85 (in age groups 30-49,50-64,65-85)
- Country of Birth, Ethnicity, Education, SES, Household size, Children
- Marital status, Household composition

First paper

Mortality differences by partnership status(2001) in England & Wales between census 2001 and census 2011



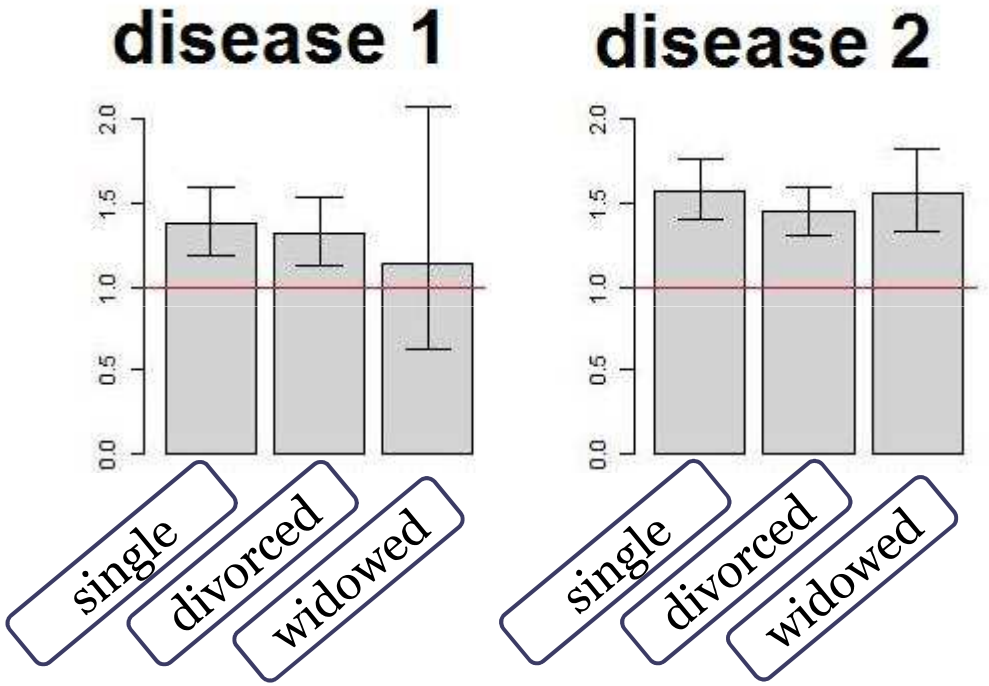


Source:ONS LS, Authors own work

Cause-specific analysis

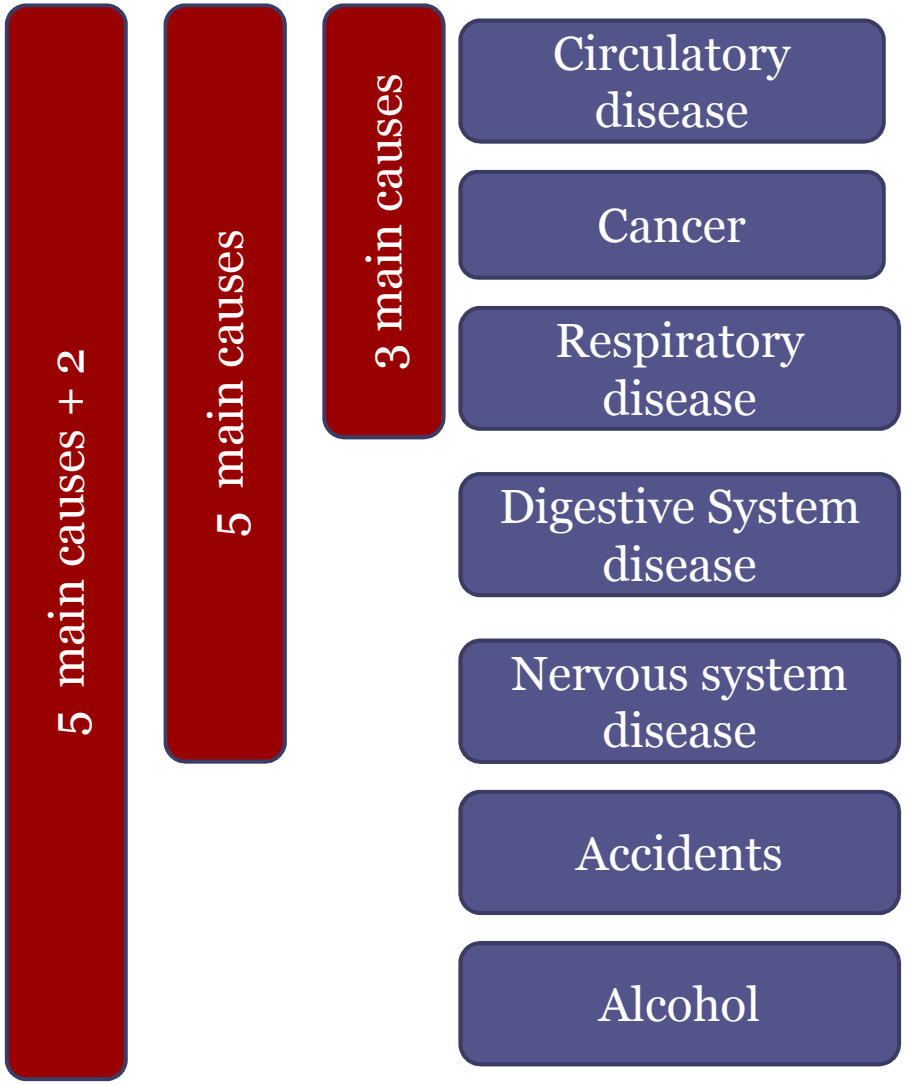
Comparing by cause – but how?

Example:

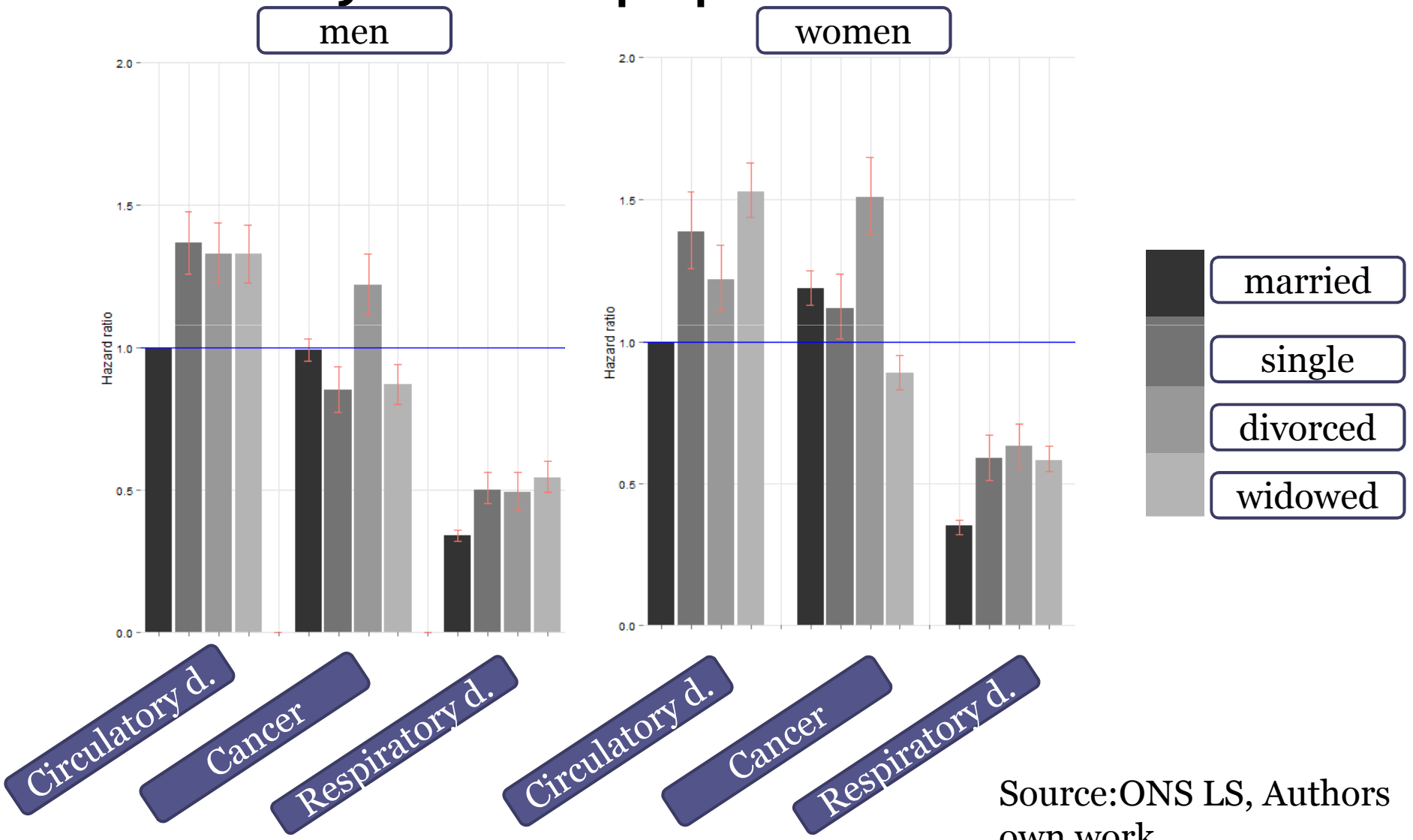


Simultaneous survival analysis (Competing Risk analysis)
[An Introduction to Survival Analysis using Stata (3rd Edition)
– Cleves et al.]

Comparing by cause – but what?

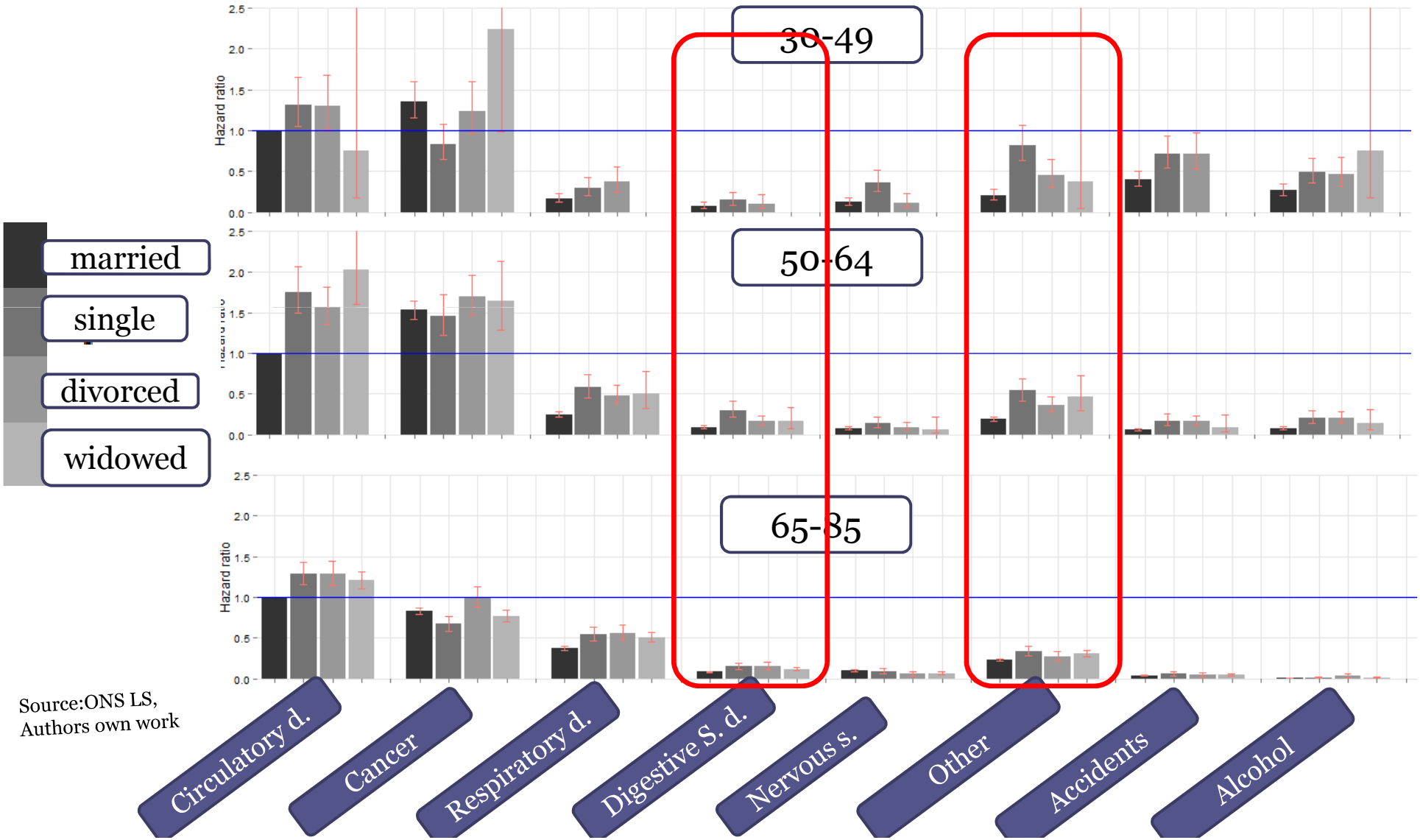


Comparative Mortality risk of population- 30-85



Source:ONS LS, Authors own work

Comparative Mortality risk of men by age-group



Source:ONS LS,
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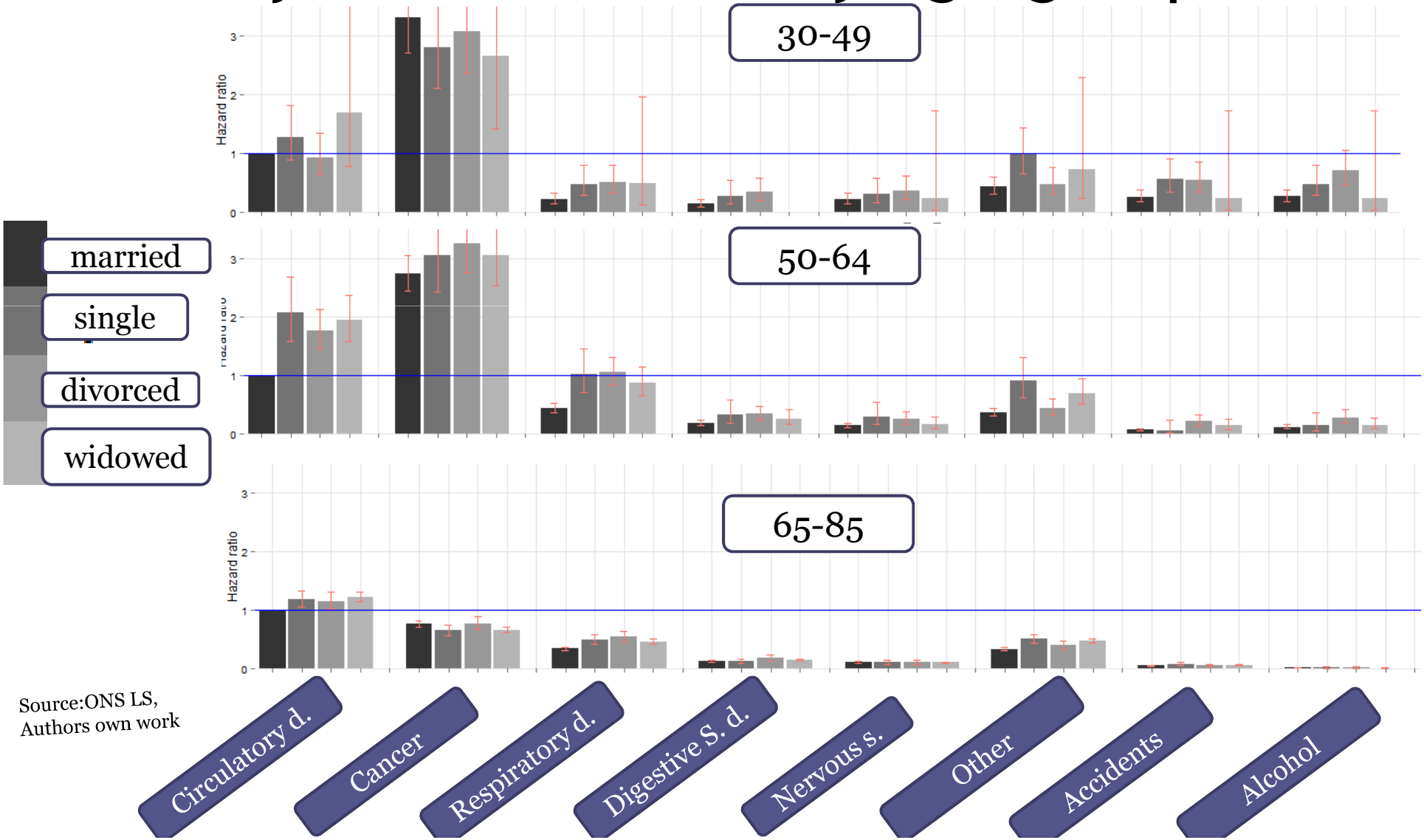
Comparative Mortality risk of women by age-group



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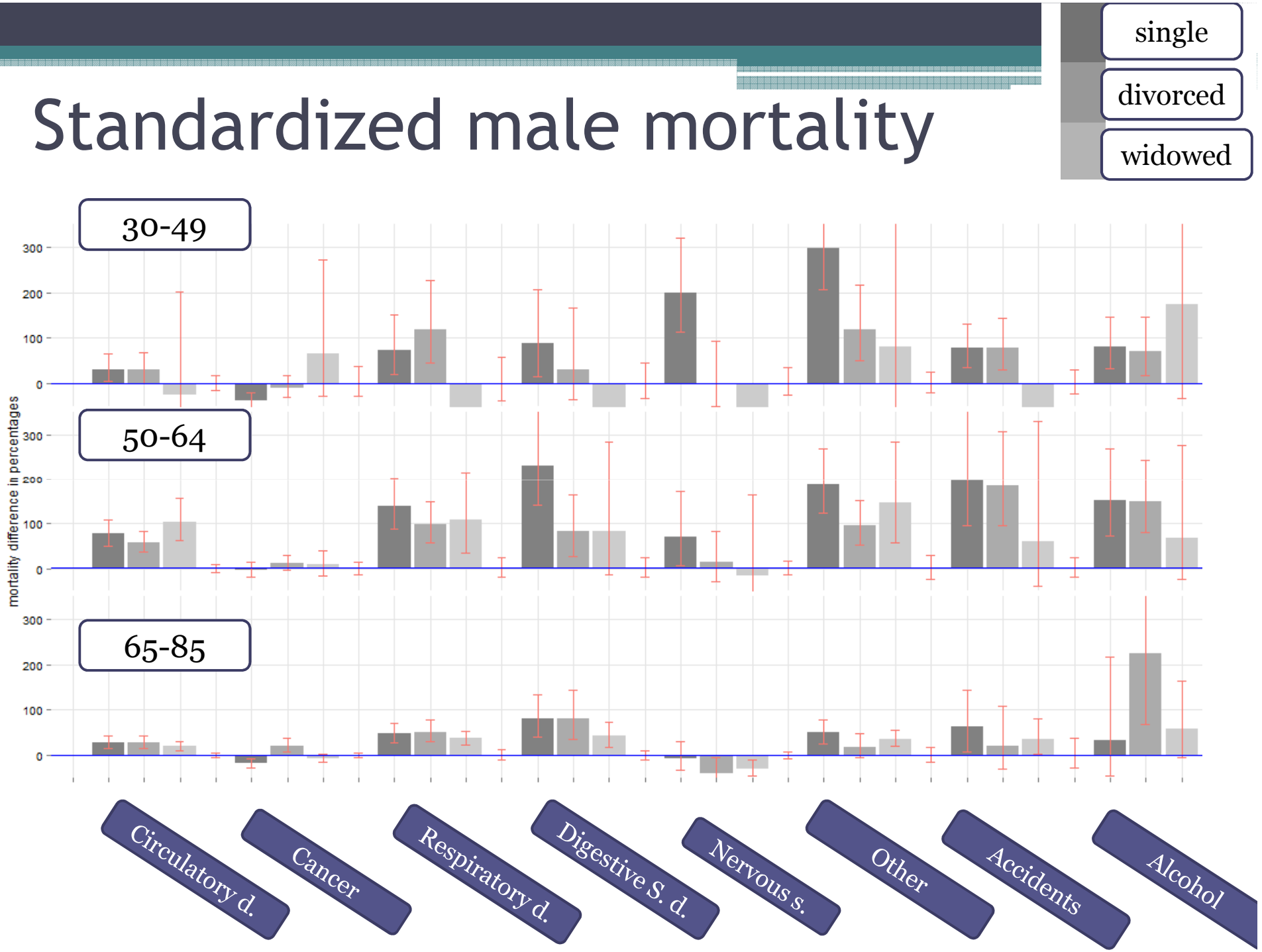
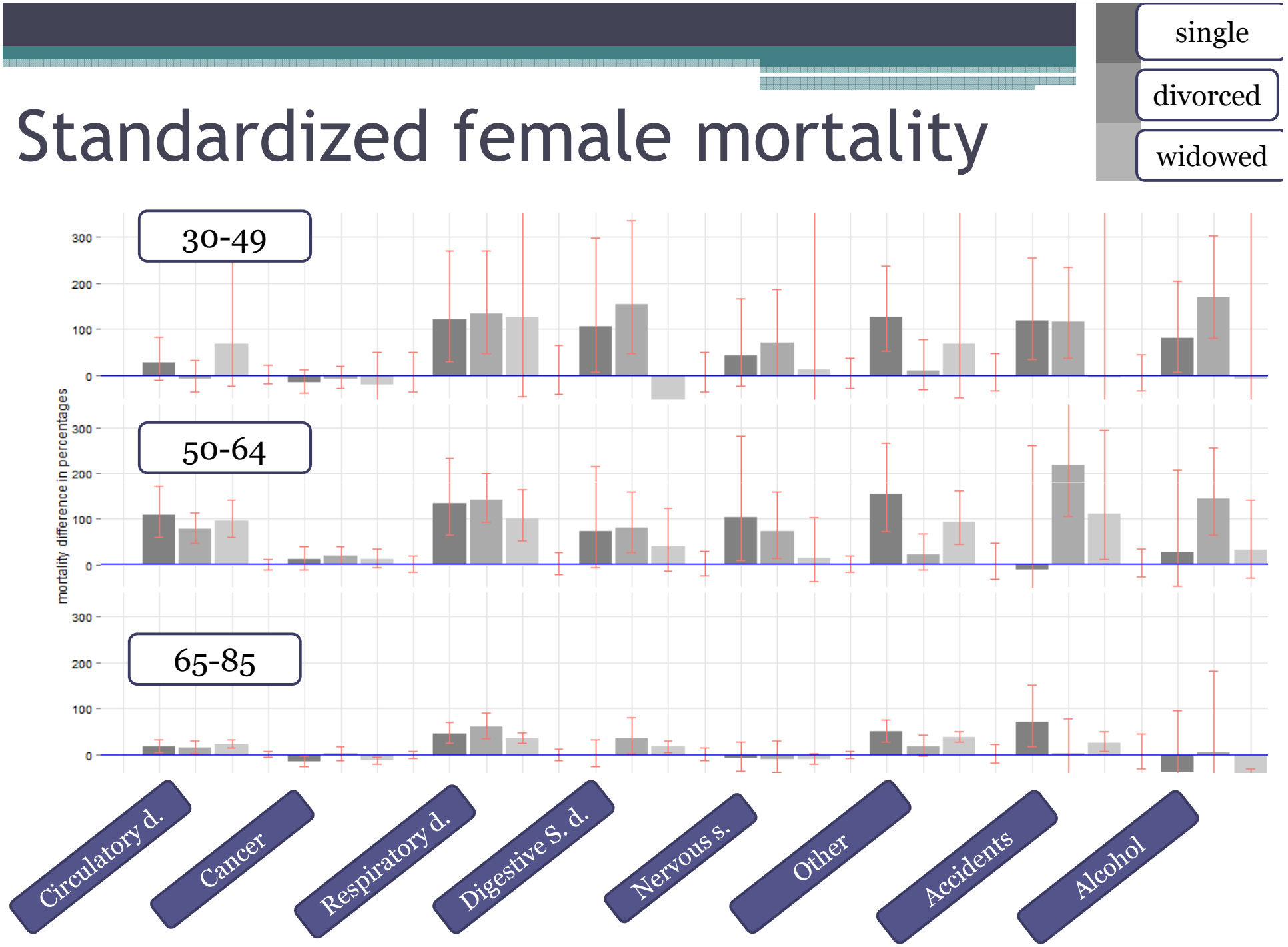
Adjusted/standardized mortality risk by cause

Standardized male mortality



Standardized female mortality



Summary and Conclusions

All-cause mortality

- Marital status differences are even bigger for non-married without a partner

Cause-specific mortality

- Cancer seems to be MS independent – same treatment for everyone?
- Some can be explained by change in behaviour of married people (protection effect)

Acknowledgement and Copyright

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Thank you for you attention!

Selected references
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