

Life's Essential 8 & cognitive function and decline

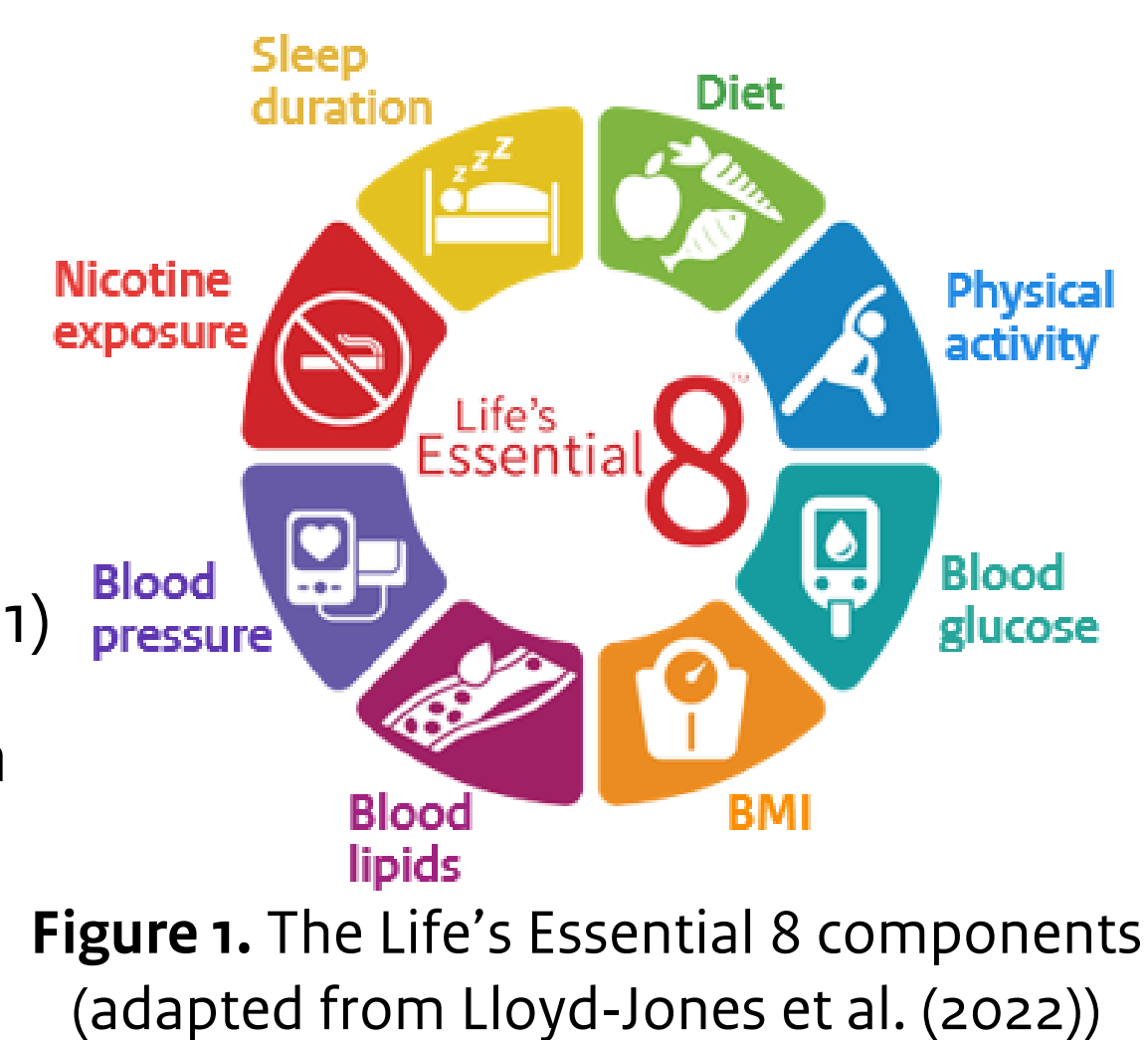
The Doetinchem Cohort Study

Authors: F. te Hoonte^{1,2}, N.J.N. Jong^{1,2}, K.E.J. Wessenhagen¹, M.L. Rietman¹, W.M.M. Verschuren^{1,2}

1. RIVM, National Institute of Public Health and the Environment, Bilthoven, the Netherlands
2. Julius Center for Health Sciences and Primary Care, University Medical Center Utrecht, University Utrecht, Utrecht, the Netherlands

Background

- Cardiovascular health is closely linked to **brain health**
- The **Life's Essential 8** (LE8) score summarizes cardiovascular health (Figure 1)
- Longitudinal, sex-specific population data on LE8 and cognitive function and decline are scarce



Methods

- 1831 men** and **1889 women**: up to 5 repeated cognition measurements per participant
- Standardized domain scores (z-scores): **global cognition**, **memory**, **flexibility**, and **processing speed**
- The **LE8** score (range 0-100) assessed through questionnaires and physical examination
- Linear mixed models** with random intercepts and slopes (**sex-stratified**)
 - Sex-specific LE8 tertiles
 - Ten-point increase in LE8 score
- Level** of cognitive function and cognitive **decline**

Results

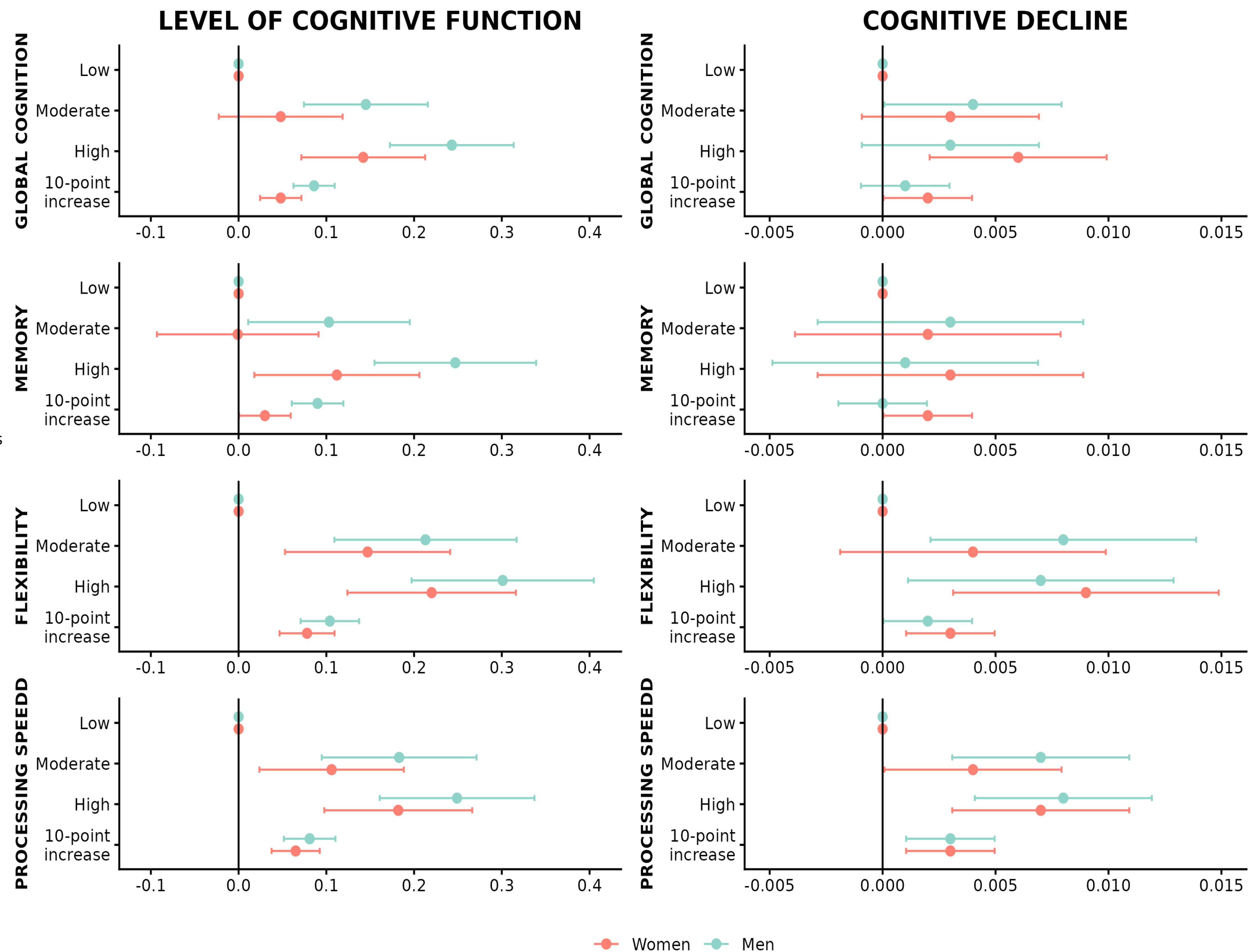
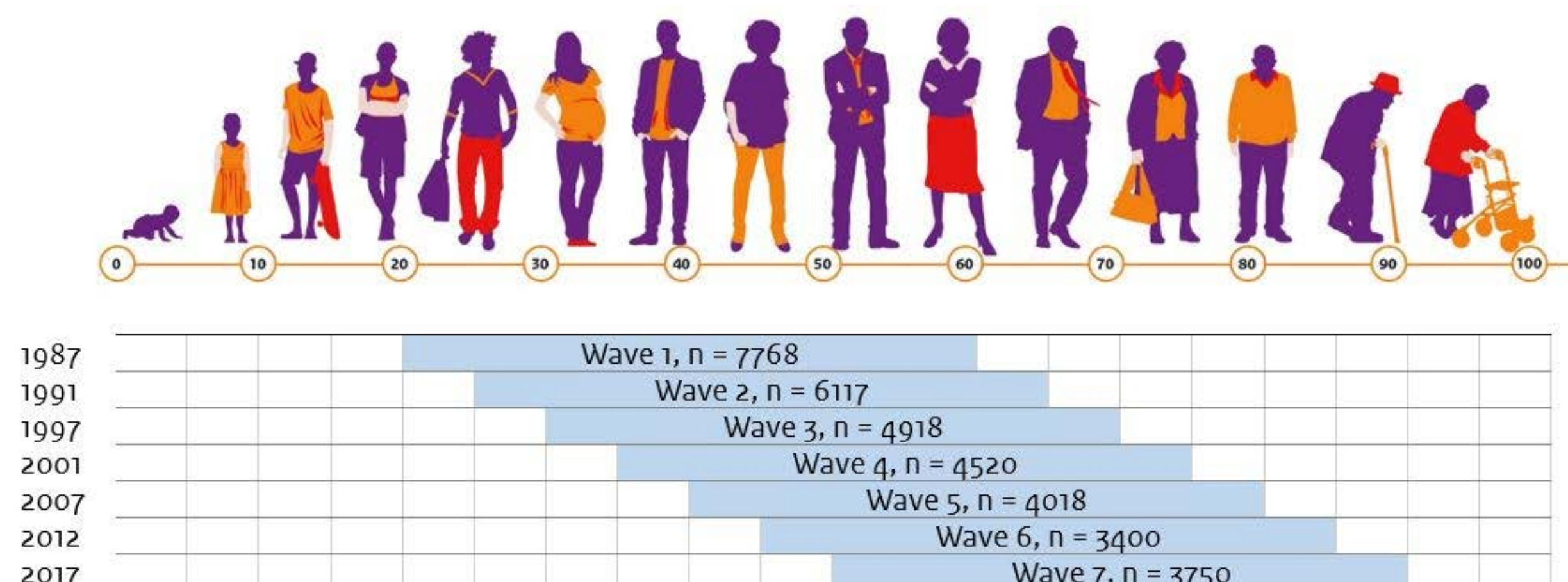


Figure 2. Association between LE8 tertiles and 10-point increase and the level of cognitive function and cognitive decline

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Key findings

- Higher LE8 is consistently associated with better level of cognitive function in both sexes for most domains, with a clear dose-response pattern across the LE8 tertiles
- Higher LE8 is less often associated with cognitive decline
- The associations between LE8 and cognition are more pronounced in men than in women

Contact:

Femke te Hoonte
femke.te.hoonte@rivm.nl

