

Prevalence and factors associated with cognitive frailty in older adults. Results from ELSI-BRAZIL



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CONFLICT OF INTEREST

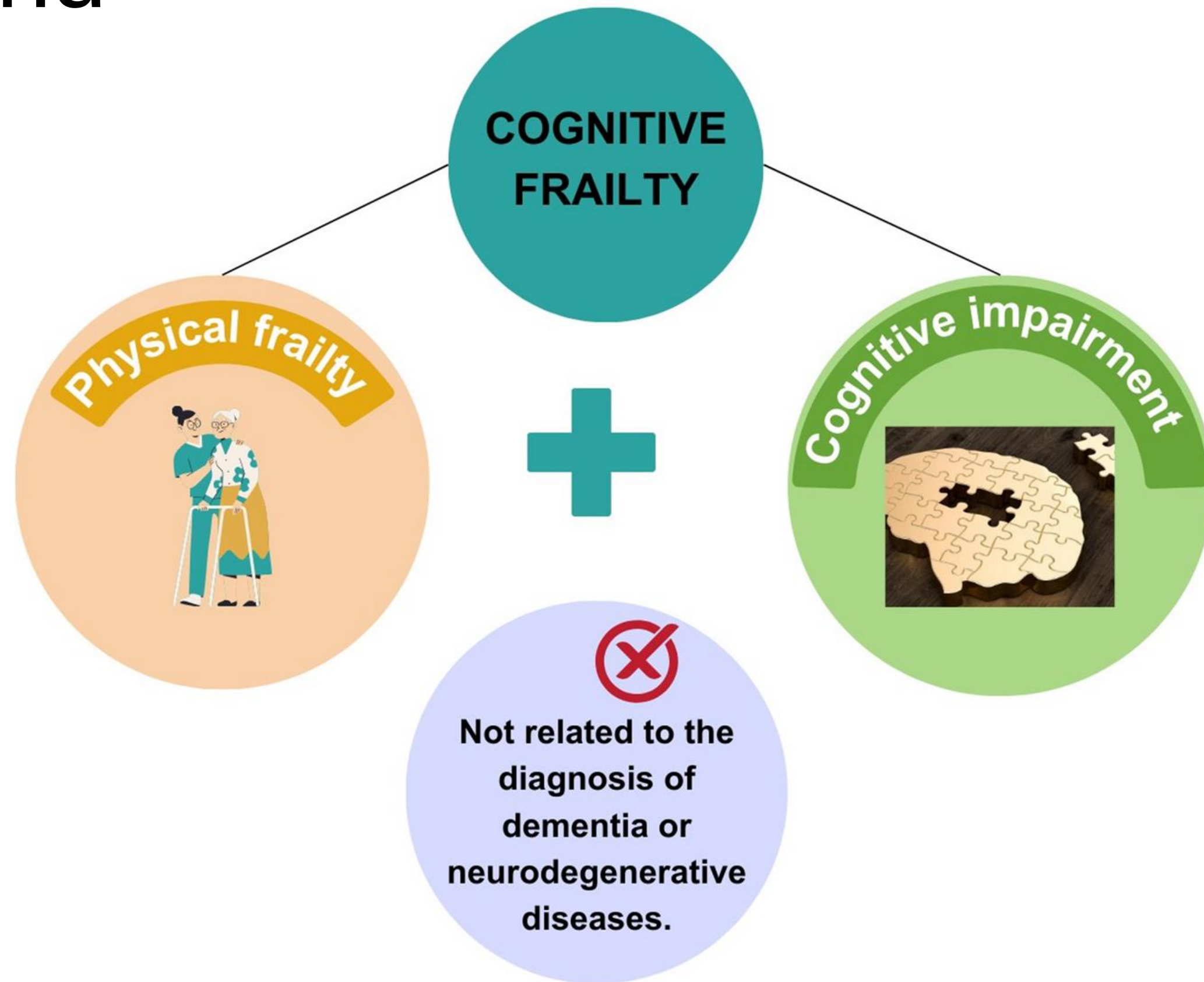
I have no conflict of interest to declare

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Background



Kelaiditi et al., 2013

Background



- Cognitive frailty has been investigated using various methods, both in the frailty phenotype and in the definition of cognitive decline.
- However, regardless of the different types of measurement of cognitive decline and frailty, cognitive frailty has been associated with all-cause mortality and dementia in older adults.

Background

To our knowledge, this is the first study to estimate the prevalence of cognitive frailty and associated factors in a representative cohort of older adults from the Brazilian population.

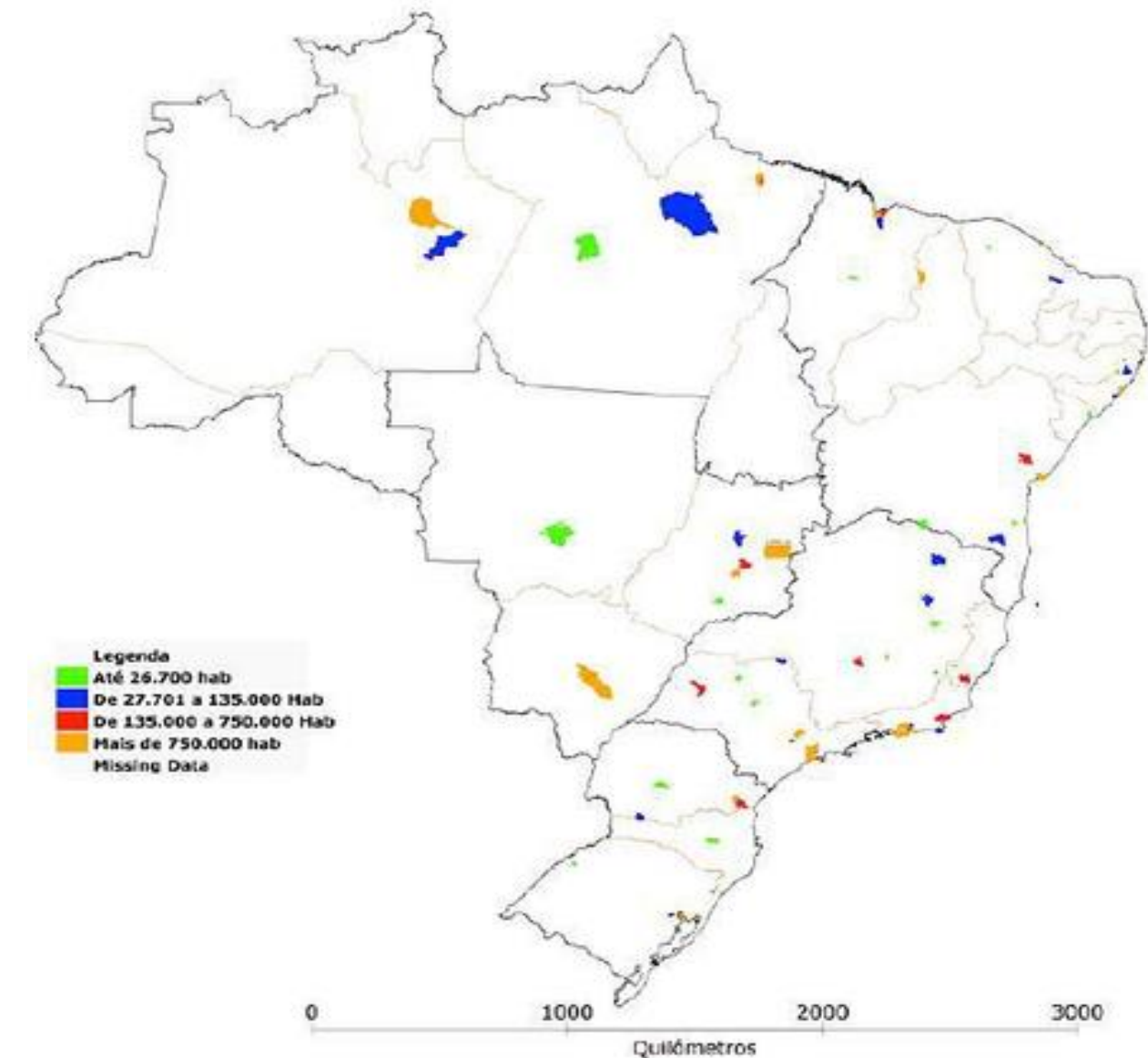


Methods

- This is a cross-sectional study with data from the Brazilian Longitudinal Study of Aging (ELSI-Brazil) (2015-16).



- The ELSI-Brazil is designed to be representative of the Brazilian population aged 50 and older (70 cities across 5 Brazilian regions).
- The study was approved by the Research Ethics Committee (CAAE: 34649814.3.0000.5091).



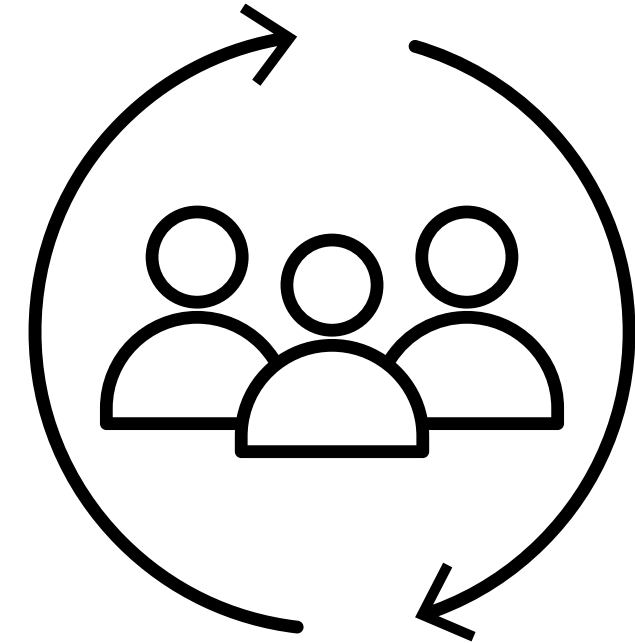
Methods

Inclusion Criteria

- 9,412 participants aged 50 or older.

Exclusion Criteria

- Self-reported diagnosis of dementia or Alzheimer's disease;
- Cognition module not completed by the participant;
- Incomplete cases.



Methods

Cognitive Frailty

Fried Frailty Phenotype

≥ 3 characteristics:

Unintentional weight loss (4,5 kg)

Muscle weakness (lower quintile of handgrip strength according to sex and BMI))

Reduction in walking speed (lower quintile of walking speed according to sex and height)

Exhaustion (more than 3 days a week unable to get things done or routine activities were too demanding)

Low physical activity (Bottom quintile of weekly energy expenditure by sex)

Cognitive Impairment

z-score ≤ -1 standard deviation composed of the average z-scores of

Temporal orientation (4 questions related to the date on the Mini-Mental State Examination)

Verbal fluency (names of animals in 1 minute)

Memory (immediate and delayed recall of 10 words)

Fried et al., 2001; Castro-Costa et al., 2018; Ruan et al., 2020

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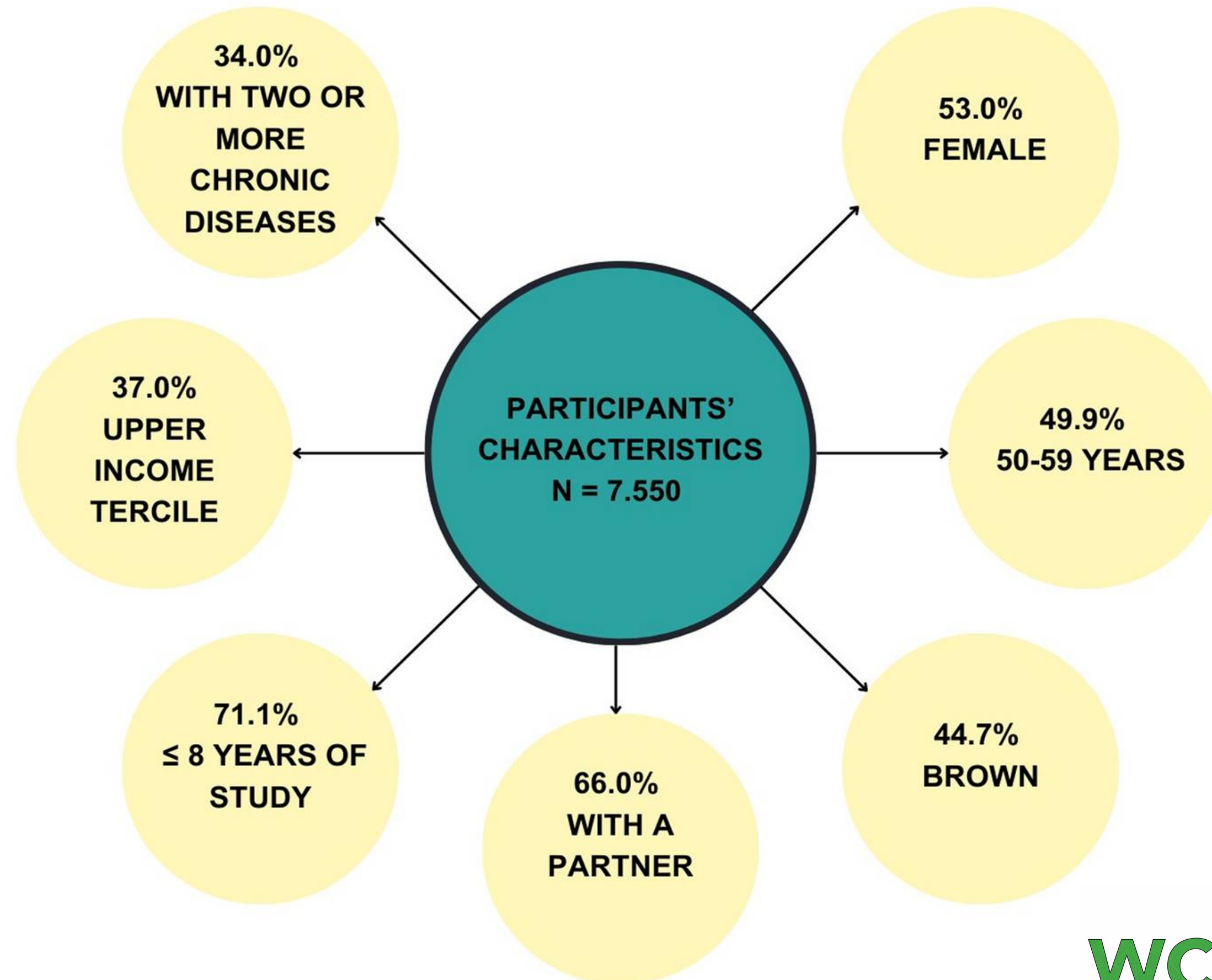
Methods

STATISTICAL ANALYSIS



- All analyses were conducted using the software Stata 16.1.
- Descriptive analysis and logistic regression adjusted by sex, age, marital status, wealth and chronic diseases were performed.
- Interaction between sex and age was tested.

Results



Results

Associated with age, with an 18% increase (95%CI 1.11-1.26) for each additional year, and the lower income tercile (OR: 1.53; 95%CI: 1.01-2.33)

Physical Frailty

7.7%
(IC95%: 6.8; 8.5)

- 19.0% Muscle weakness
- 18.7% Reduction in walking speed
- 18.7% Low physical activity
- 27.6% Exhaustion
- 7.1% Weight loss

Cognitive Impairment

12.9%
(IC95%: 11.5; 14.4)

- 13.6% SD<=-1 Temporal orientation
- 15.7% SD<=-1 Memory
- 14.0% SD<=-1 Verbal fluency

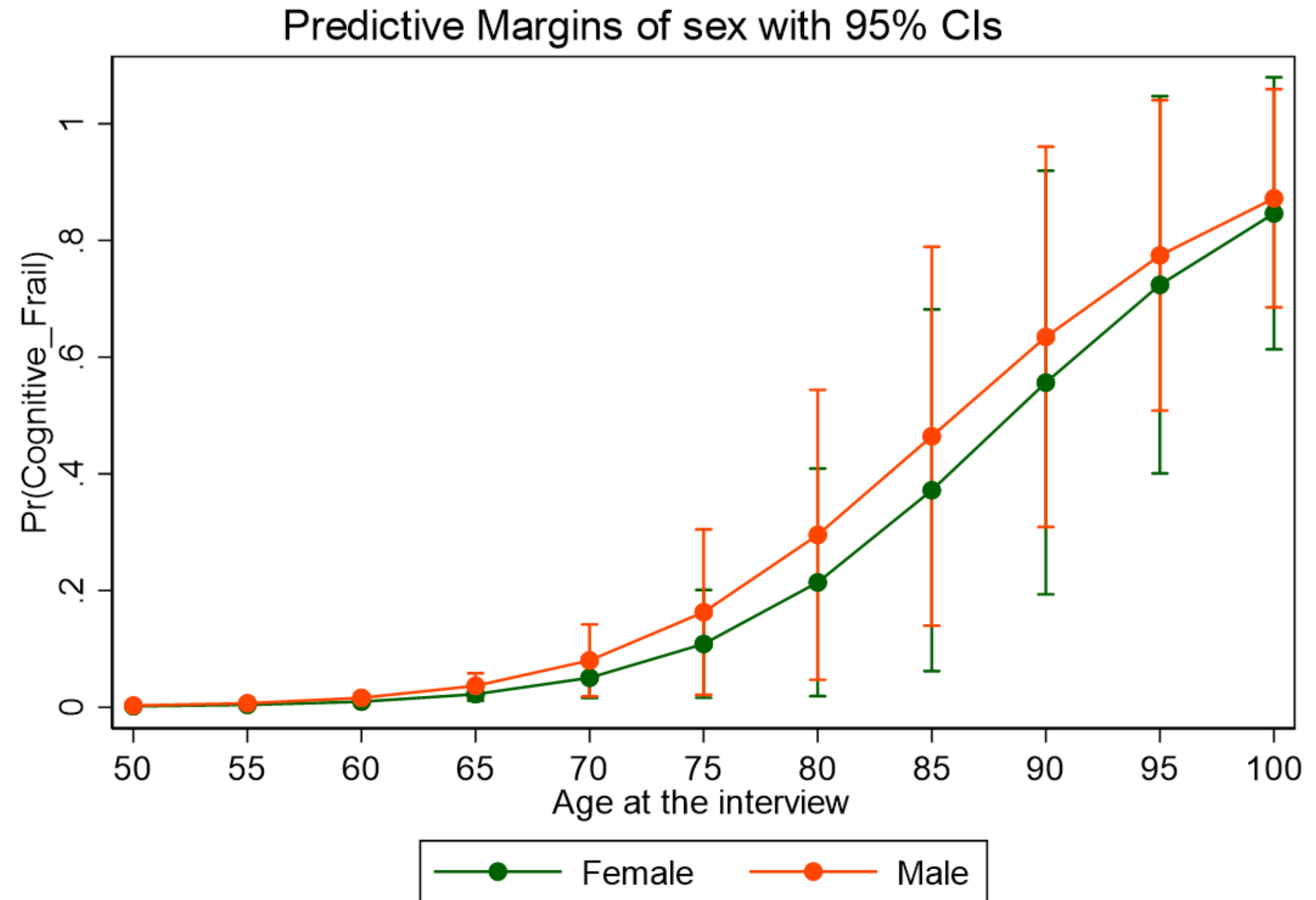
Cognitive Frailty

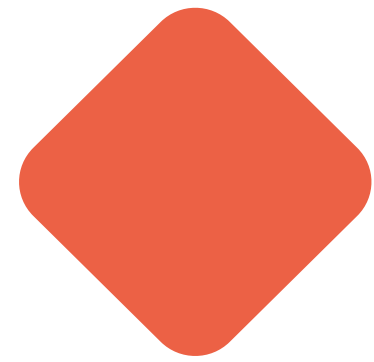
1.9%
(IC95%: 1.5; 2.3)



Results

**No interaction
between sex and
age**





Conclusion



The prevalence of cognitive frailty was low and there was significant increase with age.

It is worth highlighting the need to track and to implement prevention programs for this condition in order to reduce its impact on the society.

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Thank you!

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