



Trinity College Dublin
Coláiste na Tríonóide, Baile Átha Cliath
The University of Dublin



QUEEN'S
UNIVERSITY
BELFAST

Alcohol patterns and cognitive performance among older adults living in the North and South of Ireland

Dr Claire McEvoy

Queen's University Belfast

c.mcevoy@qub.ac.uk



afar

Paul B. Beeson
Career Development in Aging Research
Awards Program

DRINKING AND LATE-LIFE COGNITION

- Problem drinking accelerates cognitive decline and increases dementia
- Relatively little known about moderate alcohol and brain health
- Linked to *lower risk* of cognitive impairment and dementia
- J-shaped or U-shaped relationship, with harmful effects of both abstinence and excessive alcohol consumption
- Evidence is conflicting – some studies have shown harmful or no association of moderate alcohol on cognitive function
- Lack of standardisation of alcohol use across studies

Aim: To determine associations between alcohol patterns and cognitive performance in older adults across the island of Ireland

METHODS

- Cross-sectional study
- Data drawn from Wave 1 NICOLA, Wave 3 TILDA



- **Alcohol consumption**

- Alcohol amount & frequency
- UK units/week

Alcohol patterns

- **Cognitive test battery**

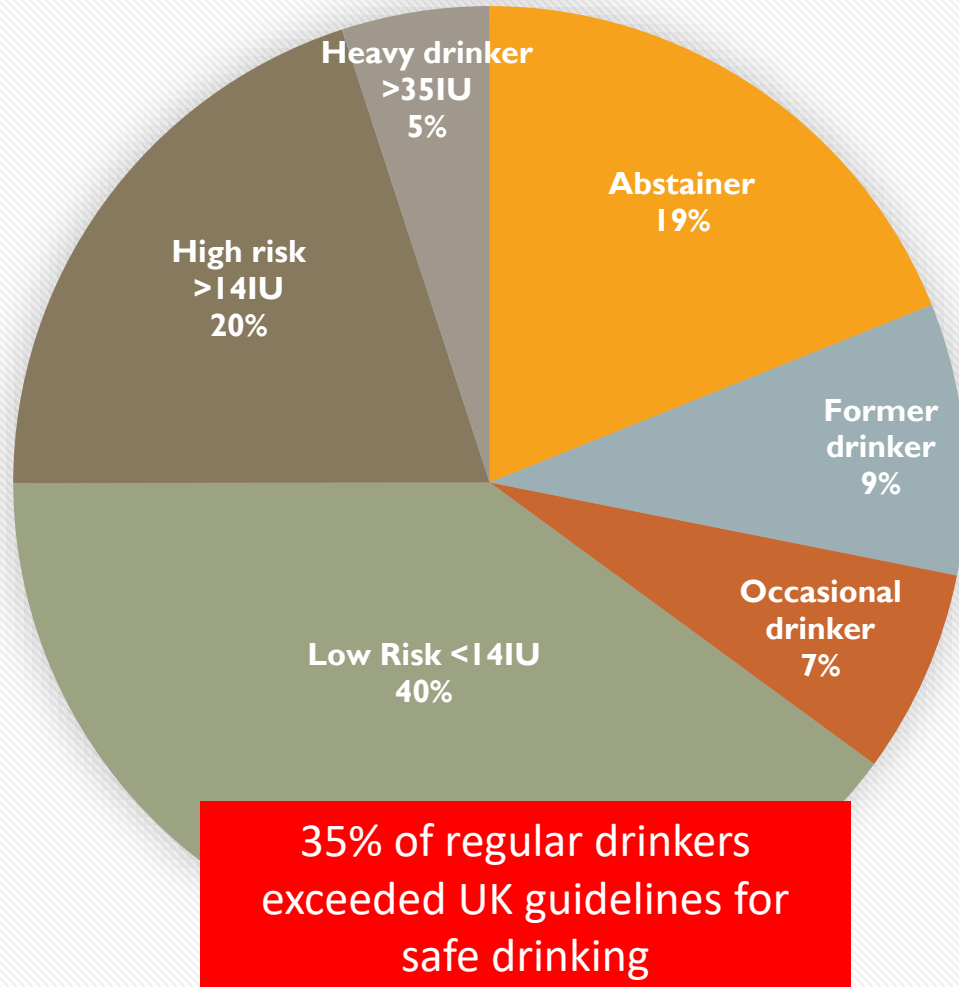
- Episodic memory
- Semantic memory
- Executive function
- Global cognition

Composite cognitive
function score

MoCA

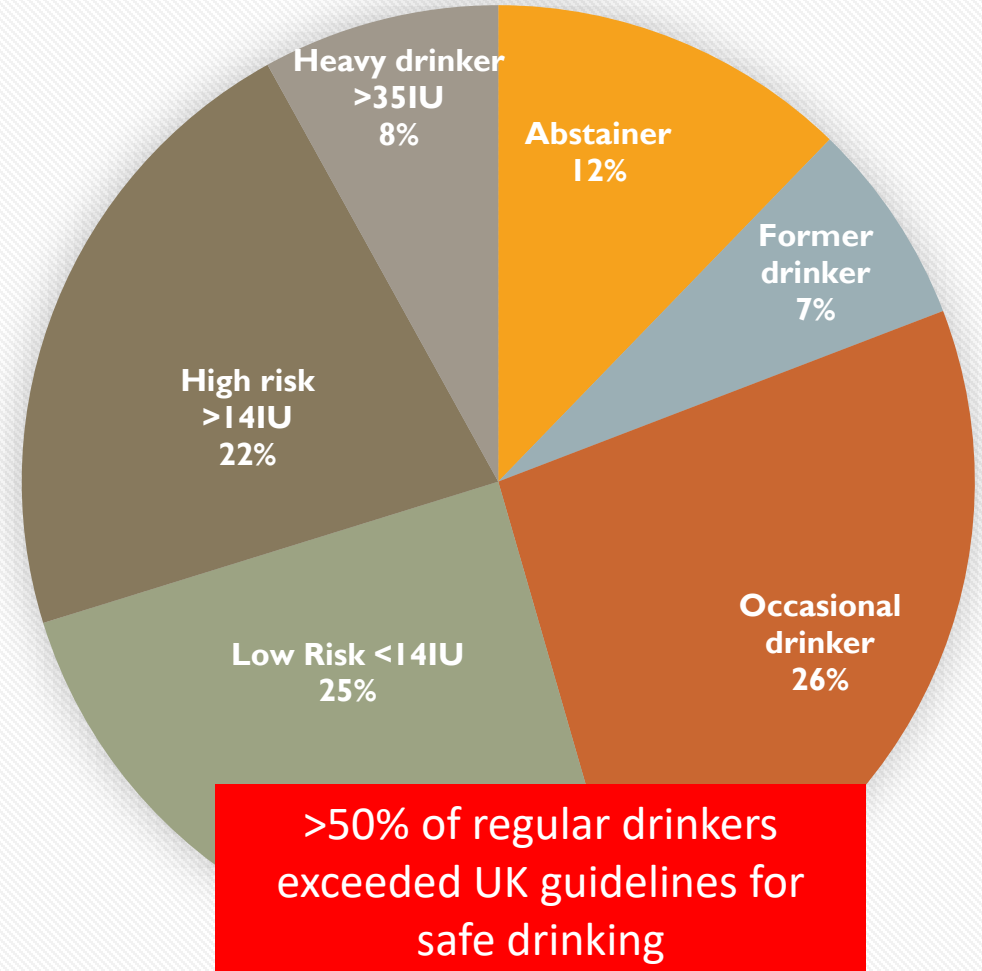
RESULTS- ALCOHOL PATTERNS

NICOLA n=2,510



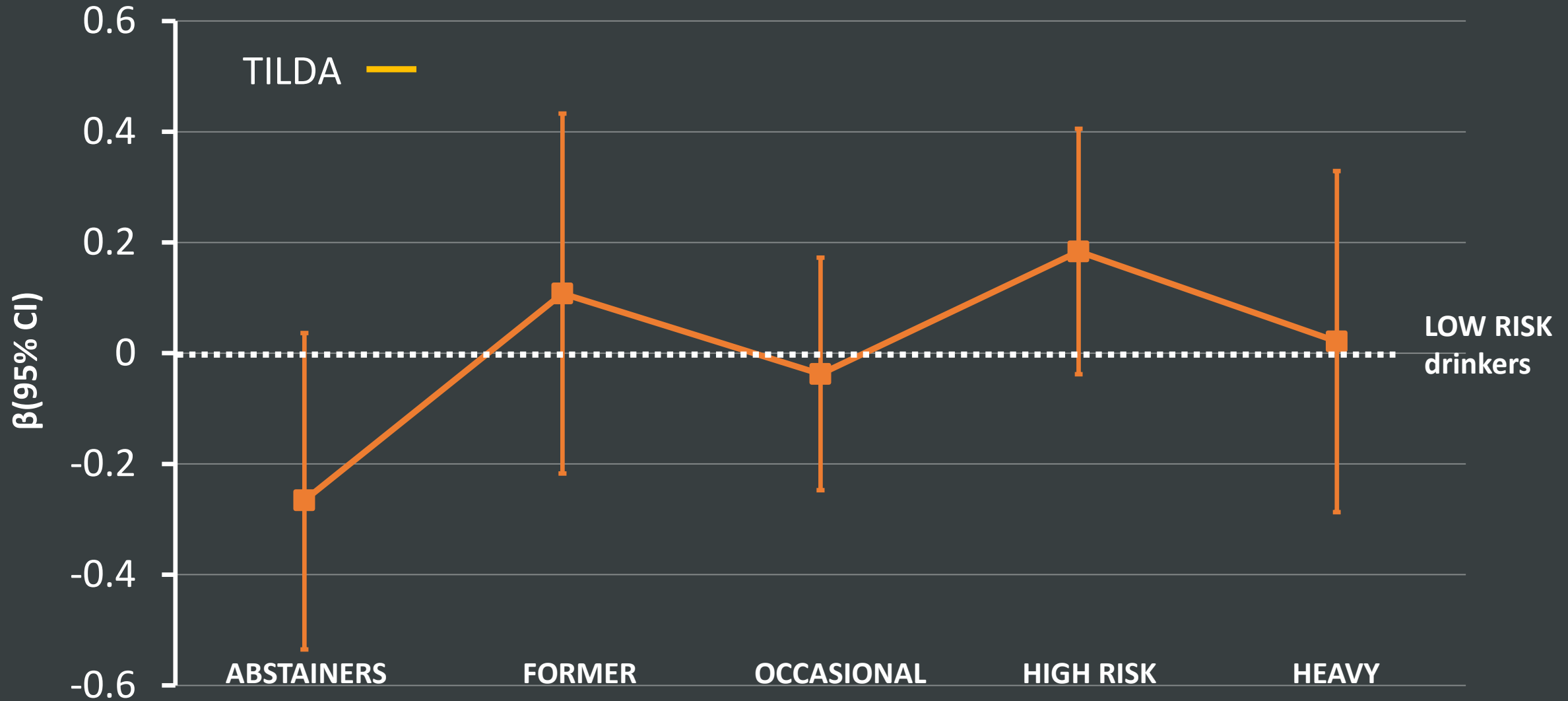
Mean age 64±9 years; 52% female

TILDA n=4,182



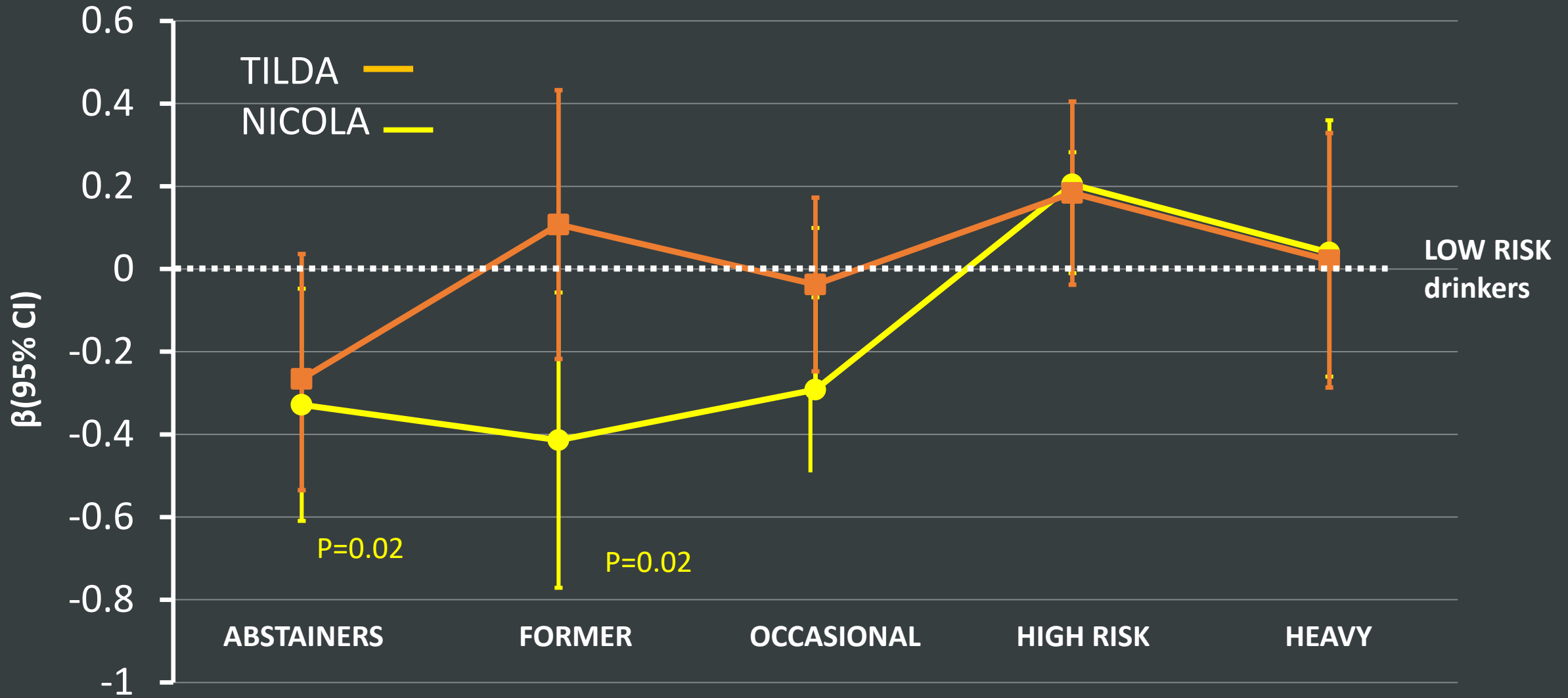
Mean age 66±9 years; 56% female

ALCOHOL PATTERNS AND COGNITIVE FUNCTION



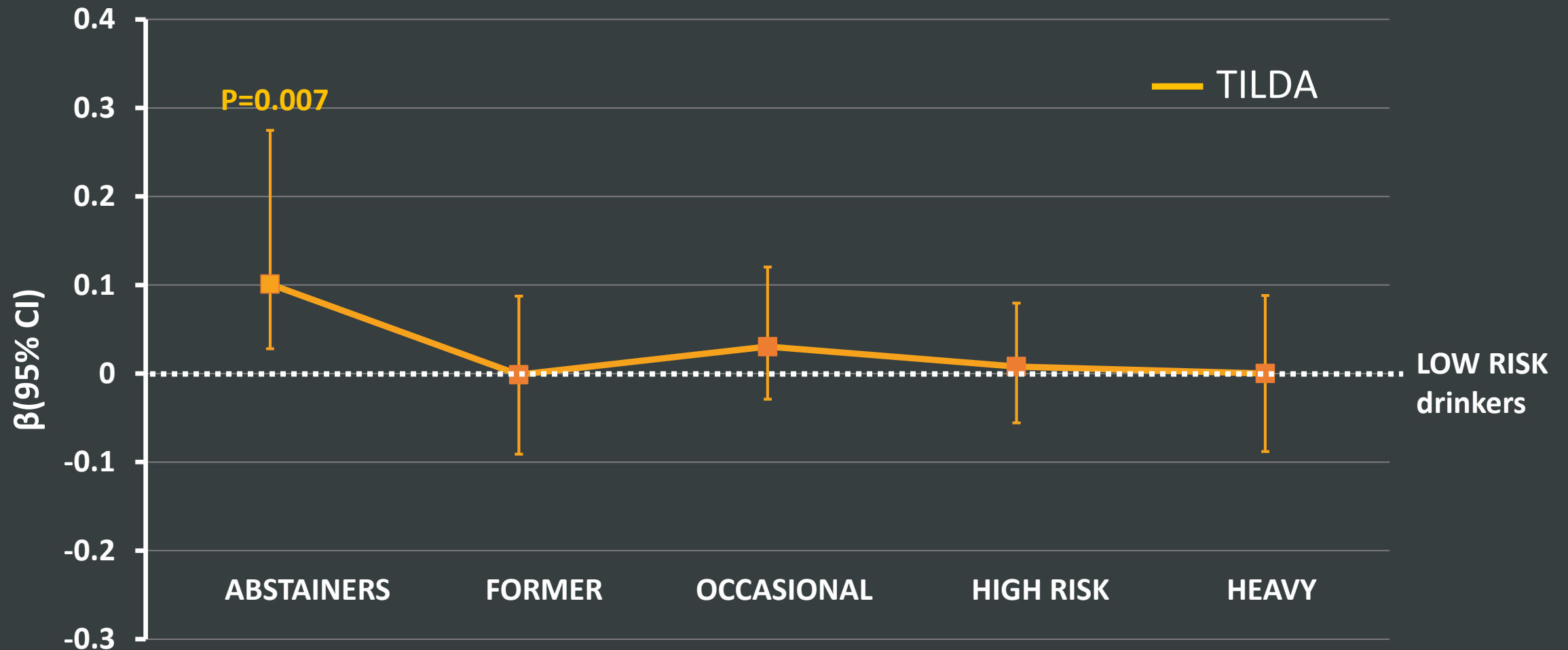
Model adjusted for sex, age, rural/urban location, marital status, education, SES, self-rated health, smoking status, depression, physical activity, social network index

ALCOHOL PATTERNS AND COGNITION FUNCTION



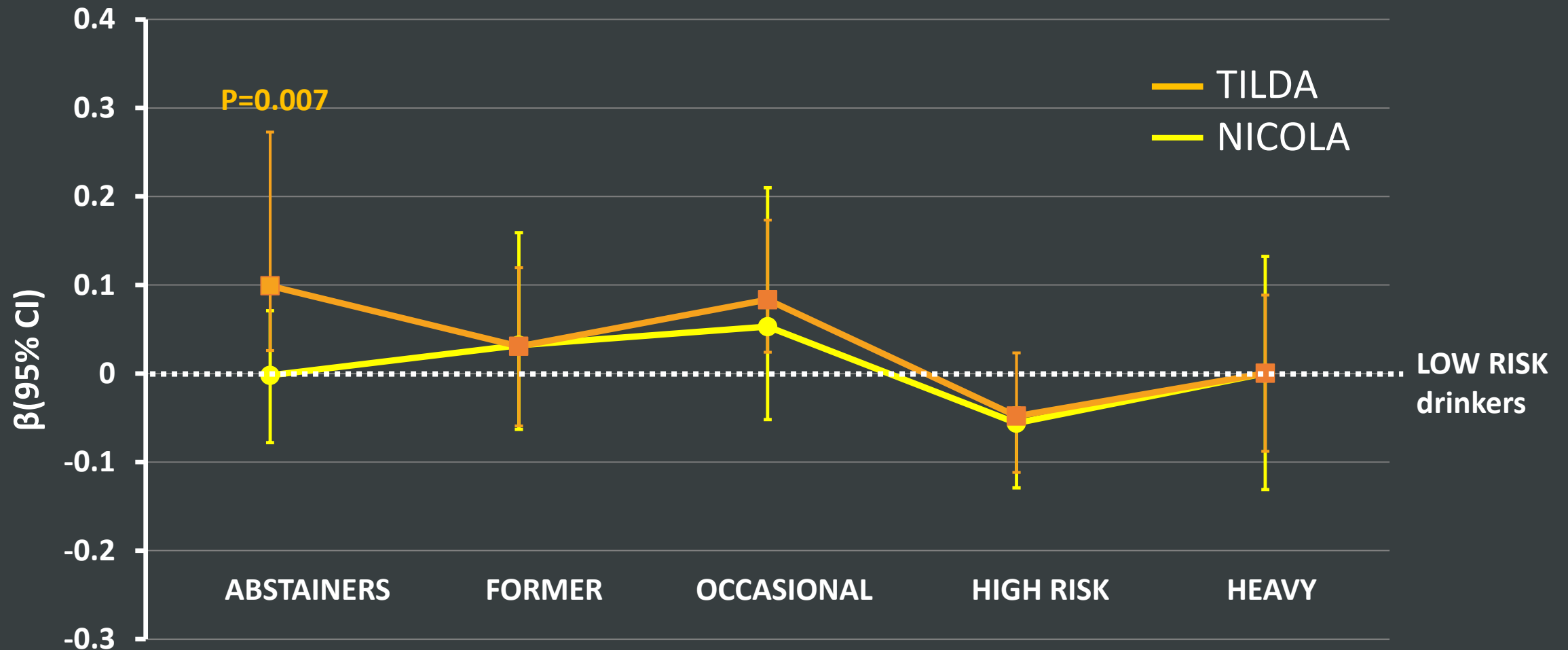
Model adjusted for sex, age, rural/urban location, marital status, education, SES, self-rated health, smoking status, depression, physical activity, social network index

ALCOHOL PATTERNS AND MOCA ERRORS



Model adjusted for sex, age, rural/urban location, marital status, education, SES, self-rated health, smoking status, depression, physical activity, social network index

ALCOHOL PATTERNS AND MOCA ERRORS



Model adjusted for sex, age, rural/urban location, marital status, education, SES, self-rated health, smoking status, depression, physical activity, social network index

SUMMARY AND FUTURE PLANS

- Low risk drinkers had slightly better cognitive performance compared to lifetime abstainers after adjustment for a broad range of potential confounders
- Observed effect estimates were small
- Stratify by gender – may be differences between older men and women both in drinking patterns and effects on cognitive health?
- Mediation analysis – do psychosocial factors such as loneliness and social isolation mediate alcohol intake and cognitive function in older age?
- Understanding mechanisms will identify older adults at increased risk of harmful impact of alcohol on brain health
- Need to determine longitudinal effects of regular alcohol consumption on cognitive decline

ACKNOWLEDGEMENTS

Co-investigators

Dr Joanne Feeney

Dr Joanna McHugh Power

Dr Viveka Guzman

Study participants

