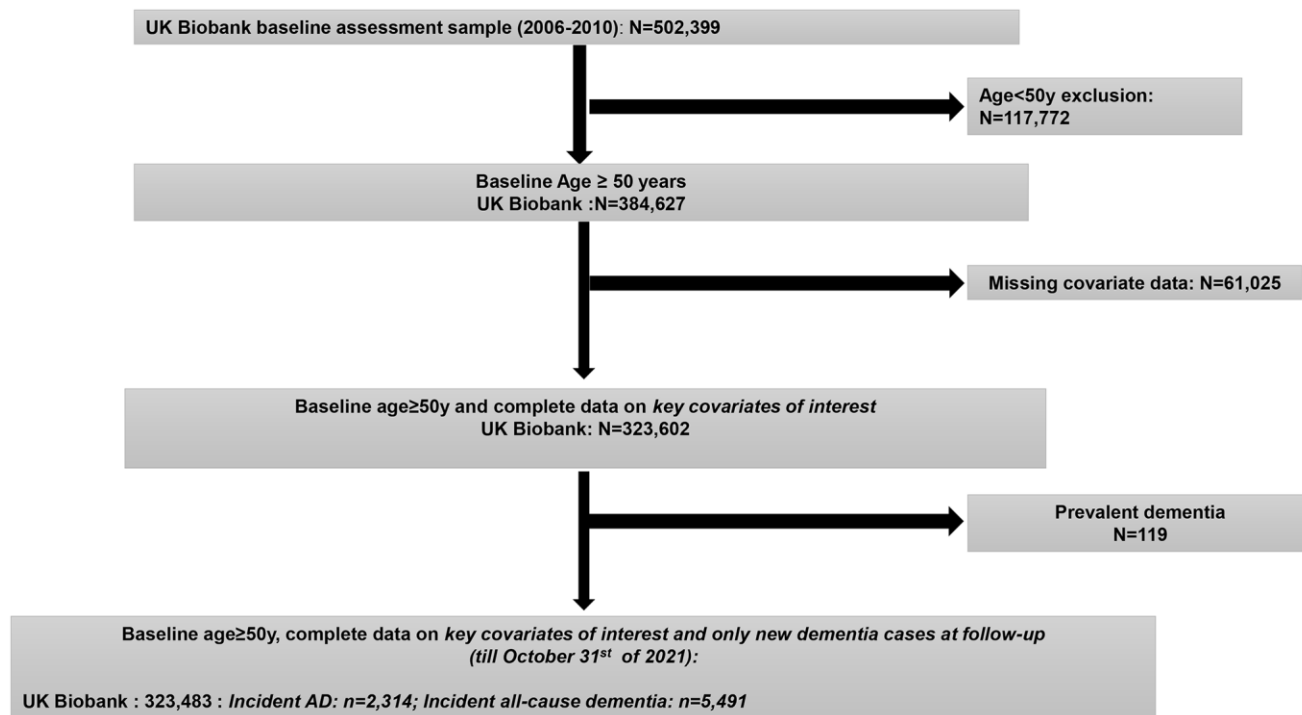
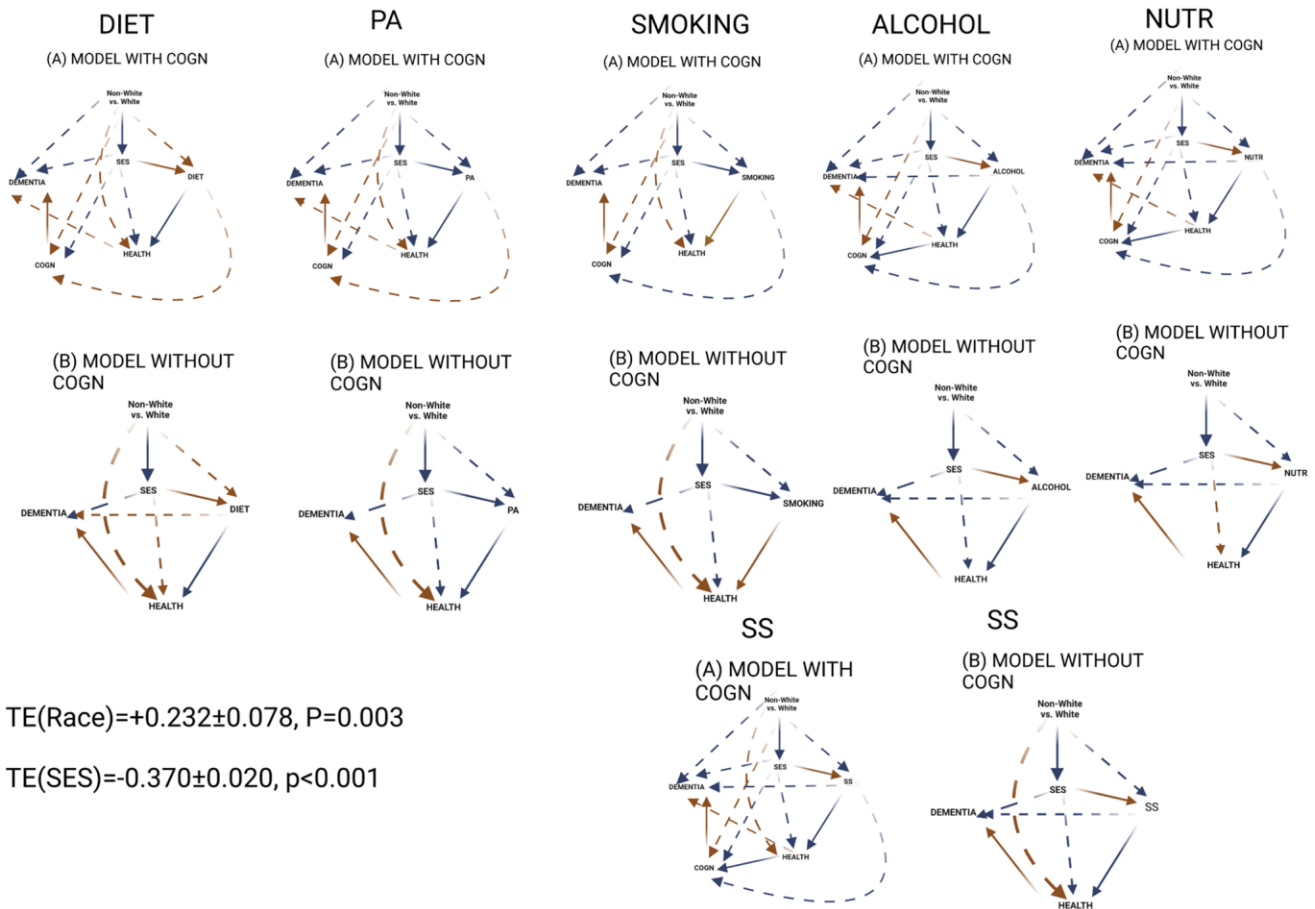


## SUPPLEMENTARY FIGURES



**Supplementary Figure 1. Participant flowchart: The UK biobank 2006–2021.** Abbreviations: AD: Alzheimer’s disease; N: Sample size; UK: United Kingdom.



**Supplementary Figure 2. GSEM findings from models with alternative mediators, HEALTH and COGN.** Abbreviations: AD: Alzheimer’s Disease; ALCOHOL: Alcohol consumption z-score; COGN: Poor cognitive performance z-score; DIET: diet quality z-score; HEALTH: Poor cardio-metabolic and general health z-score; PA: Physical Activity z-score; NUTR: Nutritional biomarker z-score; SES: Socio-economic status z-score; SMOKING: Smoking z-score; SS: Social Support z-score; TE: Total Effect. Red lines: Positive associations; Blue lines: Inverse associations; Solid lines: Within hypothesized pathway; Dashed lines: Outside hypothesized pathway.