

Adherence to the UK Eatwell Guide is associated with lower dementia risk: Findings from the UK Biobank Prospective Cohort

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Background

- Consuming a healthy diet could lower dementia risk
- Most research has focused on the Mediterranean and MIND diets as potential ‘brain healthy’ dietary patterns
- It is currently unclear whether following UK-specific healthy eating guidelines, as depicted in the UK Eatwell Guide, is associated with lower dementia risk
- This project aimed to:
 - Investigate whether adherence to the UK Eatwell Guide is associated with lower dementia risk in the UK Biobank
 - Compare associations to the Mediterranean and MIND dietary patterns

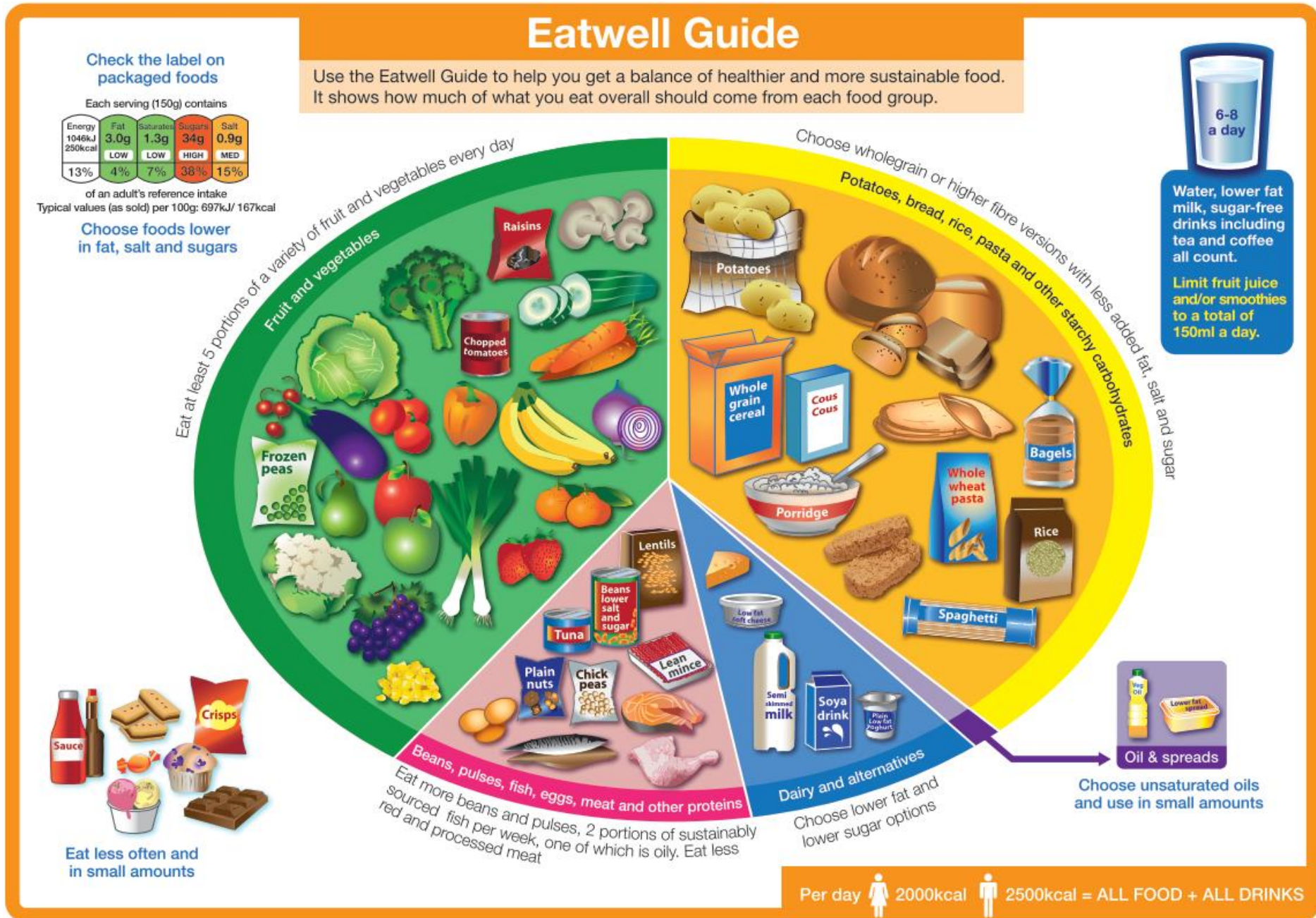


Figure 1: The UK Eatwell Guide. Produce by OHID in association with the Welsh government, Food Standards Scotland and the Food Standards Agency in Northern Ireland.

Methodology

- 148,655 UK Biobank participants (1831 dementia cases)
- Up to five 24-hour dietary recalls (Oxford WebQ) were used to derive Eatwell Guide, Mediterranean and MIND diet adherence scores
- Dementia diagnoses ascertained using data linkage to hospital, GP, and death registries. Average follow up time was 11.2 years
- Cox proportional hazards regression models examined associations between dietary pattern adherence and incident all-cause dementia risk. Analyses were pre-registered on the Open Science Framework

Results

- High Eatwell Guide adherence was associated with 13% lower risk for dementia (HR = 0.87, 95% CI = 0.78-0.98, p = 0.02)
- High Mediterranean Diet adherence was associated with 21% lower risk for dementia (HR = 0.79, 95% CI = 0.70-0.89, p <0.001)
- There were no significant associations between MIND Diet adherence and dementia risk

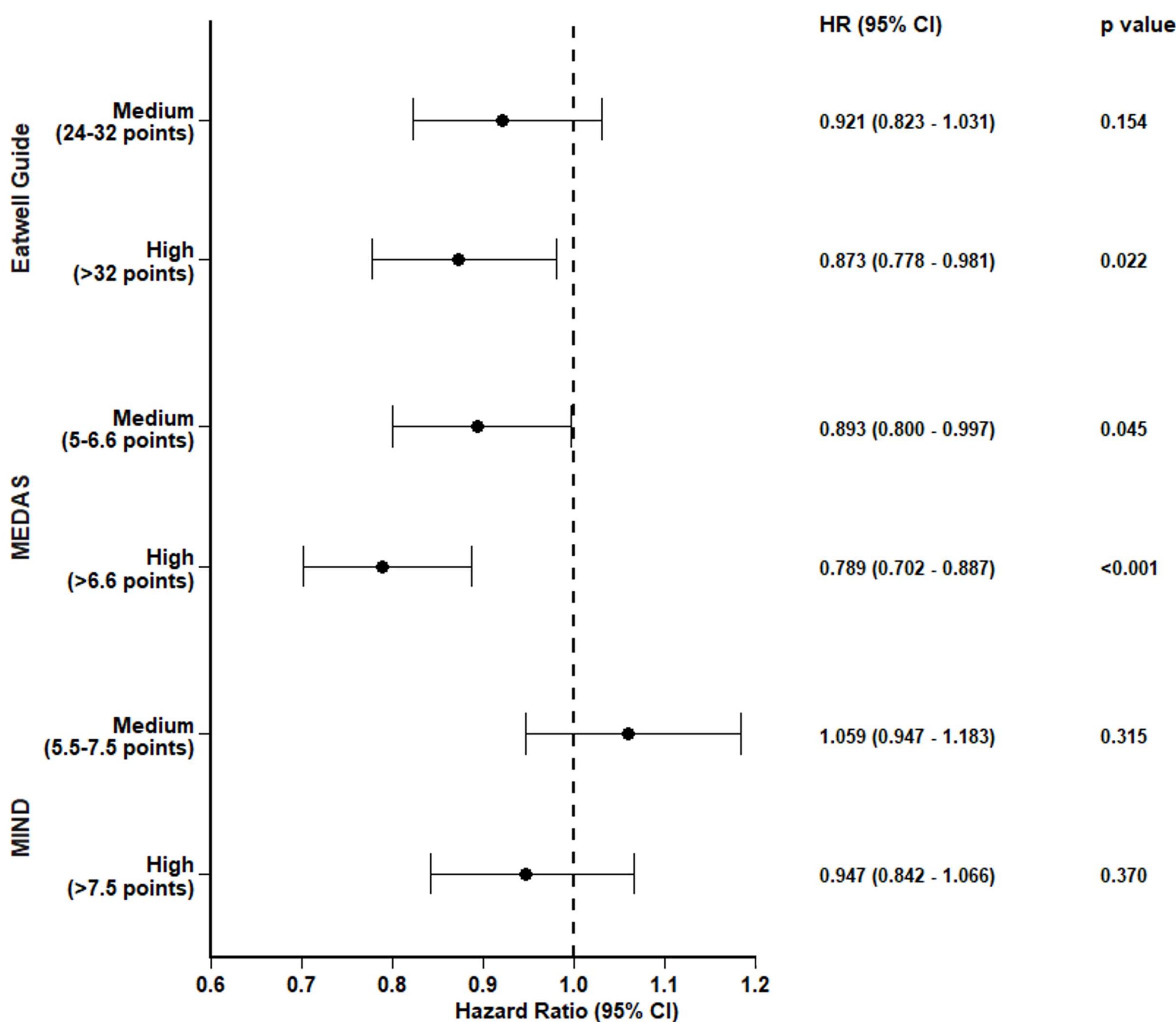


Figure 2: Comparative associations between dietary patterns and risk of all-cause dementia (n = 148655, including 1831 cases). Dietary pattern adherence is split into tertiles. Dashed line reflects low adherence reference group.

Conclusions

- Higher adherence to the UK Eatwell Guide is associated with significantly lower all-cause dementia risk in the UK Biobank prospective cohort
- Following UK government healthy eating advice may be relevant for lowering dementia risk, although effect sizes appear to be smaller than for the Mediterranean Diet
- Ongoing analyses will provide further insight into the impact on dementia sub-types, mechanisms of action, and potential differences between population sub-groups