

ARIC MANUSCRIPT PROPOSAL FORM

Manuscript # 449

1. a. Full Title: Alcohol consumption and incident CHD, CVD and total mortality
b. Abbreviated Title: Alcohol and incident CHD

2. Writing Group:

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3. Timeline:

Analysis can begin soon

4 Rationale:

A putative protective effect of alcohol consumption against CHD has been frequently reported. Most results come from non-representative studies and it is still lacking a clear definition of the shape of the association, compared to the relationship between alcohol consumption and total mortality. The association with the kind of beverage (the French paradox may happen in some American citizens?) still deserves a specific analysis, and certainly the ARIC cohort provides the opportunity to examine these issues. Besides, ARIC is unique among the observational studies because it has an estimate of alcohol consumption in visits 1 and 2, which can investigate the effect of changing in behavior.

5. Main Hypothesis:

1. Alcohol consumption is negatively associated with CHD incidence.
2. The protection is conferred by low levels of alcohol consumption.
3. The effect is independent of the type of beverage.
4. The associations with changing in behavior (same, start drinking and stop or decrease drinking) follow the same direction of the hypothesis 1 and 2.

6. Data (variables, time window, source, inclusions/exclusions):

Sample: The whole cohort for analysis of total mortality, stratified by prevalent CHD in the baseline, those without prevalent CHD at baseline for analysis of incident CHD.

Dependent variable: Incident CHD, total mortality, recurrent CHD.

Explanatory variables: alcohol amount ingestion, as a continuous variable and stratified by different cutpoints (none, 1-30, 30 to 80, 80 or more g per day = depending on the distribution of the exposition). The variable "change in behavior" (same, start drinking and stop or decrease drinking between visit one and 2).

Control variables: age, race, center, sex, BMI, hypertension, physical activity, HDL, LDL, total cholesterol; hypertension and HDL levels can mediate the effect or part of the effect, the modification in the association according the "change in behavior" variable would give an insight on the mechanisms of the putative protection.