ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #487

1. Full Title: Does Health Affect Drinker Status and Level of Alcohol Consumption?
Abbreviated Title: Health and Drinking

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4. Rationale:
The U-shaped association between cardiovascular mortality and alcohol consumption has been under debate for a number of years (St Leger 1979, Marmot 1981, Wannamethee 1988, Shaper 1988, Criqui 1990, Shaper 1990, Klatsky 1930, Marmot 1991). One of the main questions under debate is whether self-selection for drinking results in the apparent protective effect of moderate alcohol intake. It has been suggested that as a person develops medical conditions that could contribute to mortality, they cease drinking or they drink at a lower level (Shaper 1988, Wannamethee 1988). In our study on the trends of alcohol consumption in the ARIC population, there was a trend for persons who viewed their health as poor at either visit 1 or visit 3 to not be a drinker at visit 3 (Eigenbrodt et al, under ARIC Review). Also in a cross-sectional evaluation of the association of alcohol consumption and cognition in the ARIC population, never drinkers and former drinkers had a significantly higher prevalence of a number of health problems (Eigenbrodt et al, under co-author review). If there is a significant tendency to change from drinker to nondrinker or to a lower level of alcohol consumption because of poor health, using current alcohol intake as a measure of alcohol will bias any study looking for an association between alcohol and disease processes. We intend to investigate the effect of changing health on drinking status and level of alcohol consumption.

5. Main study questions:
1) Cross-sectionally at visits 1 and 3, is the prevalence of disease (MD diagnosis of hypertension, stroke, diabetes, cancer or chronic lung disease) or the self-view of health significantly different for never, former, occasional drinkers (<1 drink per week), light drinkers (10-70g/wk), moderate drinkers (70-280g/wk) and heavy drinkers (>280g/wk)? Does this vary by ethnic/gender group or level of education, age, or income?

2) In those who, at visit 1, reported no history of the illnesses listed in question 1 and who report one or more of the illnesses at visit 3, is there a significant decrease in the

percentage of those who drink or is there a significantly higher percentage who drink at a lower level compared to those who do not develop any of the illnesses listed?

3) Is there a significant decrease in the percentage of those who drink or a significant percentage who drink at a lower level for those whose self-view of health changes from good to poor compared to those whose self-view of health continues to be good? (We have looked at the decrease in the percentage of drinkers in our paper on alcohol trend.)

4) Does the prevalence of diseases vary for quartile of lifetime alcohol consumption as determined from visit 3 data for current and former drinkers compared to never drinkers?

6. Data (variables, sources, inclusion/exclusion): Exclusions include non-white and non-African-American participants and those at visit 1 who were not 45-64 years of age at visit 1

Visit 1: gender, race, age, study site, education, income, drinker status, ethanol consumption, Hom 09 (self-view of health), HOM 10a (elevated BP by MD),
HOM10c (MD diagnosis of MI) HOM10d (MD diagnosis of stroke), HOM10e (MD diagnosis of diabetes), HOM10f (MD diagnosis of cancer),
HOM10g (MD diagnosis of chronic lung disease).

Visit 3: PHXA40 (currently drink), PHXA41 (ever drank), PHXA42 years stopped drinking), PHXA43 (years drank for former drinkers),
PHXA44a&b-PHXA46a&b (# wine, beer and liquor, and days in week usually drink), PHXA48 (years drank for current drinkers), PHXA49 (usual
wine/wk for life), PHXA50 (usual beer/wk for life), and PHXA51 (usual liquor/wk for life); PHXA8a (increased BP by MD), PHXA8i (heart attack by
MD), PHXAj (heart failure by MD), PHXAk (diabetes by MD), PHXAI (chronic lung disease by MD), PHXAo (cancer by MD), PHXAp (region of
cancer); AFUD6 from AFU723P (self-view of health)