1.a. **Full Title:** The role of anger and vital exhaustion in the relationship between alcohol consumption and risk of coronary heart disease (CHD)

b. **Abbreviated Title (Length 26 characters):** Anger, drinking & CHD

2. **Writing Group (list individual with lead responsibility first):**

   **Lead:** Shaila Khan, Ph.D  
   **Address:** Tougaloo College, Department of Psychology  
   500 County Line Road  
   Tougaloo, MS  
   **Phone:** (601)977-7807  
   **Email:** shaila.khan@tougaloo.edu  

   Writing group members: Robert Murray, Ph.D., Candice Silversides, Michael Andrew, PhD, D. Abu Khan, Ph.D.

3. **Timeline:**
   Analysis to begin following Publications Committee approval. Manuscript anticipated for initial review by July 2000.

4. **Rationale:**

   There is a well established empirical relationship where moderate consumption of alcohol is found to be protective against CHD. This has now been documented in over 100 studies, and several reviews are available (1,2). More specifically, there is a U- or J-shaped relationship between level of alcohol use and mortality, where moderate drinkers have a lower risk than either heavy drinkers or abstainers. Among older men where CHD is prevalent, the overall effect of alcohol consumption can appear protective (3). These relationships are less clearly identified for women. A similar relationship has been found between alcohol and morbidity, but again less clearly among women (4).

   The underlying mechanisms are only partly understood. In studies that assess the protective effect of alcohol as well as the protective effect of HDL cholesterol, about 50% of the protective effects of alcohol appear to be mediated by HDL cholesterol (5). Another possibility is that moderate alcohol use serves to minimize the impact of trait anger and vital exhaustion on the risk for CHD. Moderate alcohol use has, for example, been shown to affect the relationship between stress and depression (6,7). Moderate alcohol use has also been found to buffer the relationship between stress and self-reported somatic symptoms (8). Our expectation is that moderate alcohol use may attenuate the effect of stress (here defined as trait anger or vital exhaustion) on the risk of CHD, and that this effect may provide a further partial explanation of the CHD-protective effect of alcohol.
5. Main Hypothesis/Study Questions:
The primary hypothesis is that anger and vital exhaustion will be modified by the moderate use of alcohol in their effect on the model predicting morbidity and mortality from CHD.

6. Data (variables, time window, source, inclusions/exclusions):
Data to be used will come primarily from Visit 1. Variables will include HDL cholesterol, trait anger, vital exhaustion, smoking status, smoking amount, use of alcohol, race, age, gender, BMI, income, and education. Outcome measures will include follow-up evidence of coronary heart disease and cardiovascular disease, and evidence of deaths attributed to these diseases.

References:

7.a. Will the data be used for non-CVD analysis in this manuscript? _x_ Yes    ____ No

7.b. If Yes, is the author aware that the file ICTDER01 must be used to exclude persons with a value RES_OTH = “CVD Research” for non-DNA analysis, and for DNA analysis RES_DNA = “CVD Research” would be used? _x_ Yes    ____ No
(This file ICTDER01 has been distributed to ARIC PIs, and contains the responses to consent updates related to stored sample use for research.)

8.a. Will the DNA data be used in this manuscript?    ____ Yes    _x_ No

8.b. If yes, is the author aware that either DNA data distributed by the Coordinating Center must be used, or the file ICTDER01 must be used to exclude those with value RES_DNA = “No use/storage DNA”?    ____ Yes    _x_ No
Not applicable.