ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #562  (This is a companion manuscript proposal to the one approved by FHS as MS# 067)

1. Title: Reproducibility of b-mode ultrasound
   Short Title: Reproducibility of IMT

2. Writing Group (lead author first):
   (lead)  L.E. Chambless, Ward Riley, Greg Evans, Vicki Davis, Michael Province, Gerardo Heiss

3. Correspondence:
   L.E. Chambless
   Collaborative Studies Coordinating Center
   Department of Biostatistics
   UNC School of Public Health
   137 E. Franklin Street
   NationsBank Plaza, Suite 306
   Chapel Hill, North Carolina 27514
   Email Address: ucclec@csc.mhs.unc.edu

4. Timeline:
   The database for this manuscript has been assembled. Analyses can begin when approval is obtained.

5. Rationale:
   The reproducibility of b-mode ultrasound in multi-center studies is of interest for the study of subclinical cardiovascular disease and its genetic epidemiology. Knowledge of the magnitude of error and its sources is of interest to analysts. Repeat ultrasound scans have been obtained on approximately 300 individuals who participated in both FHS and ARIC (at the Minnesota and Forsyth County centers). These data permit an assessment of the reproducibility of ultrasound measures over a relatively short time. All data were read at the Ultrasound Reading Center. The sonographers and readers were trained, and their performance monitored, by this center.

6. Main Study Questions:
   a. Estimate the reproducibility of IMT, IMA, and arterial lumen diameter over an average period of 6 months, by arterial segment and side.
   b. Estimate the effect of sex, age, and time between scans on these estimates

7. Data to be Used:
   ARIC Visit 3 and FHS Phase II ultrasound data.
8. Central/Distributed Analyses:
The analyses will be performed at ARIC coordinating center.