

ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #431

1. a. Title: The Association Between Lung Function Impairment and Extremity Arterial Disease (LEAD)

b. Abbreviated Title: PFT impairment and LEAD

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4. Timeline: Preliminary findings were presented at the NHLBI-Sponsored Workshop on Pulmonary Function Testing, June 20-21, 1996.

5. Rationale: An association between lung function impairment and coronary heart disease manifestations has been reported, although these findings--mostly from the Framingham cohort--have not been replicated on other population-based data. If lung function impairment is related to coronary heart disease manifestations through atherothrombotic mechanisms, it would be informative to consider a hypothetical association between lung function indices and the brachial/ankle index (a marker of LEAD).

6. Main Study Questions:

a. Is there an association between LEAD, estimated through the ankle/brachial index and (1) forced expiratory volume adjusted for height, and (2) forced vital capacity adjusted for height.

b. If present, are these associations statistically independent of "established" cardiovascular risk factors?

7. Data to be Used: ARIC baseline survey data, CHS baseline data, and FHS Phase II data. The data collection protocol for the respiratory function, as well as the ABI index are fully comparable across the ARIC and FHS studies, and they are sufficiently comparable to those in CHS to allow for these analyses. The study questions listed above will be tested in each of these studies, to provide for replication across a wide age range.

8. Central/Distributed Analyses: Analysis will be carried out at the Department of Epidemiology, UNC at Chapel Hill. If necessary, the CHS data will be analyzed at the Department of Public Health Sciences, Bowman Gray School of Medicine.