

ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #166

1. Title:

Environmental smoking and wall thickness in Washington County

2. Writing Group:

(lead) Szklo, Comstock, Nieto, Diez

3. Timeline:

Analyses could start now

4. Rationale:

Cross-sectional analyses of visit 1 ARIC data suggest a graded relationship of passive smoking to wall thickness. As the 1975 census conducted in Washington County served as population frame for the ARIC cohort sample, it is possible to assess the association of exposure to household smoking in 1975 with wall thickness in ARIC visit 1. Approximately 2,900 subjects are available for this study. Four groups of nonsmokers can be studied: (1) exposed to household smoking (HS) in 1975 and to environmental (including household) (ES) smoking in 1986-89, (2) exposed to HS in 1975 but not to ES in 1986-89, (3) exposed to ES in 1986-89 but not to HS in 1975, and (4) exposed to neither HS in 1975 nor ES in 1986-89. Although temporality can only be established if wall thickness measures are available over time, the study allows further insight into dose-response, and strengthens the case for temporality by examining exposure 11-14 years apart. If the study yields positive results, analyses will be extended to ARIC-1963 linked subjects. (Data on household smoking are also available for subjects who participated in the 1963 census, although it is unknown how many ARIC linked subjects there are.)

5. Hypothesis:

Environmental smoking is positively related to carotid wall thickness in nonsmokers, after adjustment for risk factors.

6. Data:

Smoking, including environmental smoking in Washington County; data on traditional risk factors (age, sex, blood pressure, total cholesterol, HDL, etc.) in Washington Co.