ARIC MANUSCRIPT PROPOSAL FORM

Manuscript #271

1. Title:
Family CHD Hx & Hemostasis

2. Writing Group (list individual with lead responsibility first):
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3. Timeline:
Begin work Summer 1994.
Draft by January 1995.

4. Rationale:
Levels of hemostatic factors are likely controlled by both genetic and environmental determinants. Previous studies have estimated the heritability of fibrinogen to be 30-50%, and polymorphisms of the factor VII gene have been associated with plasma factor VII levels in several populations. Genes predisposing to subtle or overt hypercoagulability should be more common in families with a history of cardiovascular disease, if these hemostatic factors are causally related to CVD. Therefore, different levels of hemostatic factors might be present in probands from families with greater family CHD risk relative to probands from families with lower family CHD risk.

5. Main Hypothesis:
Sex-specific levels of hemostatic factors in ARIC probands will be related to FHS-derived family risk score, after controlling for age, race, center, and other covariates. The risk score variable FRSFH31, which incorporates information from both probands and relatives, will most likely be used as the primary independent variable.

6. Data (variables, time window, source, inclusions/exclusions):
Data are from ARIC visits 1 and 2 (Minneapolis and Forsyth County cohorts).
Dependent variables: AP Thromboplastin Time (Hema05), Factor VIII:c(Hema07), Factor VII (Hema11), Fibrinogen (Hema09), Antithrombin III (Hema13), Protein C (Hema15), von Willebrand Factor (Hema17).
Independent variables: FRSINIT, FRSFH1, FRSFH3, FRSFH31, FRSFH3V.
Covariates: Age, Race, Field Center, LDL, HDL, Diabetes, Hypertension, Waist-Hip Ratio, Cigarette-years.
Data analysis may be extended to the subset of ARIC participants who had fibrinolytic and platelet factors measured.