ARIC MANUSCRIPT PROPOSAL FORM

Manuscript # 440

1. a. Title: Trends in MI Severity: The ARIC Surveillance Study
   b. Abbreviated Title: MI Severity Trends

2. Writing Group:
   Goff (Lead), Howard, Cooper, Rosamond, Folsom, Chambless and other interested ARIC investigators

   Address: David Goff  Phone: (910) 716-9837  Fax: (910) 716-5425
   716-5425  E-mail: dgoff@phs.bgsu.edu
   Medical Center Blvd.
   Winston-Salem, NC 27517-1063

3. Timeline:

   Begin ASAP, finish by summer 97

4. Rationale:

   Current data from a variety of sources indicate that case-fatality rates are declining. This trend could be due to improving medical care or to decreasing severity of MI related to risk factor change. A FINMONICA paper has reported evidence supporting a decline in severity. I propose to examine ARIC data to address this issue. It is my impression that Dr. Rosamond is examining the Case-fatality rate trend in manuscript number 338 and that treatment trends are being examined by both Dr. Rosamond (#175) and Dr. O'Reilly (#395).

5. Objectives/Hypothesis:

   1. Describe temporal trends in MI severity using the following indicators of severity: initial pulse and blood pressure, peak enzymes (stratified by receipt of thrombolysis), ECG findings (e.g., Q vs. Non-Q), complications (shock, CHF, VF, ?stroke, CPR, in-hospital mortality), the Peel index and the Norris short term mortality index.
   2. Test hypothesis that MI severity has been declining.
   3. Test hypotheses that the observed trends are similar in magnitude and direction in subgroups defined by community, sex and race/ethnicity

6. Design: Community surveillance of hospitalized events
7. Data:
   Inclusion: community surveillance events
   Independent variables: time (year), sex, race/ethnicity, community
   Dependent variables: Described above
   Covariate: age
   Analysis: Regression modeling of temporal trends to examine the questions: are the trends linear, if not is there evidence for flattening; are there differences in trends between subgroups defined by community, sex, and race/ethnicity?