ARIC Manuscript Proposal # 1330

PC Reviewed: 01/15/08	**Status: A**	**Priority: 1**
SC Reviewed: _____	**Status: _____**	**Priority: ____**

1.a. Full Title: Community Trends in CHD Mortality, MI incidence, and case fatality from 1987 to 2004

b. Abbreviated Title (Length 26 characters): **Incidence trends 1987-2004**

2. Writing Group:

Writing group members: Wayne Rosamond, Lloyd Chambless, Gerardo Heiss, Tom Mosley, Joe Coresh, Eric Whitsel, Hanyu Ni, Aaron Folsom

I, the first author, confirm that all the coauthors have given their approval for this manuscript proposal. __WR___ **[please confirm with your initials electronically or in writing]**

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3. Timeline: First draft of manuscript Jan 15, 2008. Manuscript to journal by Mar 15, 2008

4. Rationale:

The determinants of national trends in CHD mortality remain an unanswered and important public health and clinical question. The contribution of trends in the incidence of myocardial infarction and that of survival after an event to trends in mortality are not

available from national vital statistics. The demographic correlates (gender, race, age, community location) of trend in MI incidence and case-fatality are also not well described as few single studies conduct community-based surveillance across various geographic locations that include a diversity of ethnic groups.

5. Main Hypothesis/Study Questions:

1. What are the trends from 1987 through 2004 in the mortality due to CHD, incidence of hospitalized MI and associated case fatality in the ARIC Communities?
2. How do the trends differ by gender-race groups?
3. How do trends in the most recent years compare with trends in the late 1980s and early 1990s?
4. How much of the decline in CHD mortality seen in the ARIC communities is associated with changing incidence and how much to trends in case-fatality?
5. Do the trends in MI incidence change after accounting for shifts in use of diagnostic biomarkers?

6. Design and analysis (study design, inclusion/exclusion, outcome and other variables of interest with specific reference to the time of their collection, summary of data analysis, and any anticipated methodologic limitations or challenges if present).

Community surveillance from 1987-2004 will be used in this analysis. Poisson regression of age-adjusted rates of CHD mortality and hospitalized MI will be evaluated from 1987-2004 as well as in predetermined time period segments (1987-1994, 1995-2004). Average annual percent change in CHD mortality rates, incidence, recurrent and attack rate of hospitalized MI, and MI case fatality will be determined for each of four race-gender groups. Center specific rates will also be determined as will some analysis using age specific rates.

7.a. Will the data be used for non-CVD analysis in this manuscript? ____ Yes ___ No

b. If Yes, is the author aware that the file ICTDER02 must be used to exclude persons with a value RES_OTH = "CVD Research" for non-DNA analysis, and for DNA analysis RES_DNA = "CVD Research" would be used? ____ Yes ____ No

(This file ICTDER02 has been distributed to ARIC PIs, and contains the responses to consent updates related to stored sample use for research.)

8.a. Will the DNA data be used in this manuscript? ____ Yes ___ No

8.b. If yes, is the author aware that either DNA data distributed by the Coordinating Center must be used, or the file ICTDER02 must be used to

exclude those with value RES_DNA = "No use/storage DNA"?
____ Yes ____ No

9.The lead author of this manuscript proposal has reviewed the list of existing ARIC Study manuscript proposals and has found no overlap between this proposal and previously approved manuscript proposals either published or still in active status. ARIC Investigators have access to the publications lists under the Study Members Area of the web site at: http://www.cscc.unc.edu/ARIC/search.php

_____ Yes _____ No

10. What are the most related manuscript proposals in ARIC (authors are encouraged to contact lead authors of these proposals for comments on the new proposal or collaboration)?

Manuscript #713 (Rosamond)
Manuscript #892 (Wang)
Manuscript #1102 (Rose)

11. a. Is this manuscript proposal associated with any ARIC ancillary studies or use any ancillary study data? ____ Yes ___ No

11.b. If yes, is the proposal

___ A. primarily the result of an ancillary study (list number* _____)
___ B. primarily based on ARIC data with ancillary data playing a minor role (usually control variables; list number(s)* _____ _____ _____)

*ancillary studies are listed by number at http://www.cscc.unc.edu/aric/forms/

12. Manuscript preparation is expected to be completed in one to three years. If a manuscript is not submitted for ARIC review at the end of the 3-years from the date of the approval, the manuscript proposal will expire.