ARIC Manuscript Proposal # 834

PC Reviewed: 10/16/01	**Status: __A_**	**Priority: __2__**
SC Reviewed: 10/17/01	**Status: __A_**	**Priority: __2__**

1.a. Full Title: The association between the local food environment (LFE) and cardiovascular disease (CVD) health: the Atherosclerosis Risk in Communities (ARIC) study

b. Abbreviated Title (Length 26 characters): The LFE and CVD health

2. Writing Group (list individual with lead responsibility first):

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3. Timeline:

Submit proposal to ARIC steering committee	09/01
Obtain health status data	11/01
Complete analysis	03/02
Submit manuscript to ARIC steering committee	06/02

4. Rationale:

We have recently finished two ARIC manuscripts (526 and 526a) that describe the local food environments (LFE) of ARIC participants. One paper describes the differential distribution of food stores and food service place. We found predominately black American neighborhoods have fewer supermarkets and more corner markets. The second paper describes the association between the physical availability of supermarkets, grocery stores, fast food and full service restaurants and resident's report of meeting dietary requirements for fruits, vegetables, fat and cholesterol. We found the presence of supermarkets, in particular, are beneficially associated with meeting requirements for fruits and vegetables (OR=1.54, 95% CI: 1.11, 2.12), total fat (OR=1.22, 95% CI: 1.03, 1.44) and saturated fat

(OR=1.30, 95% CI: 1.07, 1.56) for black Americans even after adjustment for other food establishments and socioeconomic factors.

We are now interested in investigating the relationship between the presence of specific food establishments and the cardiovascular health of residents. We are particularly interested in researching the association between the local food environment and the prevalence of diabetes, hypertension and obesity because of their documented relationships with diet and heart disease.

5. Main Hypothesis/Study Questions:

We hypothesize that we will observe similar relationship as we have shown with our diet and the local food environment analyses, where fewer supermarkets are associated with a greater prevalence of diabetes, hypertension and obesity for black Americans. We do not expect the local food environment to be as associated with the health status of white Americans because of their greater access to transportation.

We will control for other risk factors associated with these conditions as well as other food establishments and socioeconomic factors.

Study Questions:
Is the prevalence of supermarkets associated with the prevalence of hypertension, diabetes or obesity?

If so, is the association between the prevalence of supermarkets and the prevalence of hypertension, diabetes and obesity independent of other known risk factors and other characteristics of the local food environment?

Is the prevalence of other types of food stores or food service places associated with the prevalence of hypertension, diabetes or obesity?

6. Data (variables, time window, source, inclusions/exclusions):

We have collected, cleaned and geocoded the local food environment data. We would require the health status and demographic data of ARIC participants. We will include ARIC participants who have complete health data through the 3rd visit.

7.a. Will the data be used for non-CVD analysis in this manuscript? ____ Yes __X__ 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 __X__ 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://bios.unc.edu/units/cscc/ARIC/stdy/studymem.html

   ___X___ Yes _____ No