1. a. **Full Title**: Individual and neighborhood SES and its association with measures of social support

b. **Abbreviated Title (Length 26 characters)**: SES and social support

2. **Writing Group**:
   Writing group members: Kathryn Rose, Thomas Mosley, Ana Diez Roux, and Gerardo Heiss

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

**First author**: Melissa Hagan
Address: 137 East Franklin Street, Suite 306
Bank of America Plaza
Chapel Hill, NC 27514

Phone: (919) 966-1403  Fax: (919) 966-9800
E-mail: mhagan@email.unc.edu

**Corresponding/senior author (if different from first author correspondence will be sent to both the first author & the corresponding author)**:
Address:

Phone:  Fax:
E-mail:

3. **Timeline**: Sept 2005 data analyses to begin; manuscript preparation to begin January 2006

4. **Rationale**:
Social support is defined as the perception or experience that one is loved and cared for, esteemed and valued, and part of a social network of mutual assistance and obligations [1]. Social support may be classified as informational, instrumental or emotional support.
Informational support occurs when one individual helps another to understand a stressful event better and to ascertain what resources and coping strategies may be needed to deal with it. Instrumental support involves the provision of tangible assistance such as services, financial assistance, and other specific aid or goods. Emotional support involves providing warmth and nurturance to another individual and reassuring the person that he or she is a valuable person who is cared about. 

Another dimension of social support is social networks. Social networks comprise the social contacts of a group of persons which can be described in terms of number of contacts and frequency of contacts. Advantages of using network measures are that they are relatively easy to measure and that they provide a good measure of social integration.

Several studies have examined the association between measures of social support and socio-economic status (SES) and have found that SES has a positive association with social support. However, these studies have been conducted in middle class cohorts and that individuals with low SES have less social support has not been well established.

There are two frameworks which have been used to explain the association between SES and social support: the cultural and structural perspective. According to the cultural perspective, minorities (who are disproportionately represented in lower SES groups) may have stronger attitudes toward responsibility to the extended family network than whites. The structural perspective suggests that the strong emphasis on extended kin is a result of economic deprivation. However, there is much debate about the specific effect of economic deprivation. Some argue that economic deprivation leads to a restriction in the availability of social support networks (e.g. less emotional support or increased conflict) because of the scarcity in individual resources and impaired social/coping skills. Other researchers hypothesize that economic deprivation leads to increased mobilization of social support networks because it benefits all in the network to share resources. This premise suggests that economic deprivation decreases the availability of support resources, despite the culturally strong value placed on social support among disadvantaged groups.

SES is also a multidimensional measure. Some researchers have used a life course model to measure SES. From this perspective, observations of income or health differences in adulthood would be a result of intertwining chains of biological and social factors operating over the life course to influence adult outcomes. A number of studies have demonstrated the long-term influence of childhood SES on adult health (particularly cardiovascular health).

SES has also been examined from neighborhood (census tract) indicators. It has been hypothesized that living in a low SES area may have a negative effect on health outcomes. While some studies have failed to find an association, other studies have demonstrated that living in a low SES area confers adverse health consequences regardless of individual level SES.

The physical environment (i.e. neighborhood) can also, to some extent, determine the opportunities for social support among residents of a particular area; in this context social support from neighbors and friends is important. For example, research has shown that residents who are more involved in their local community tend to be happier where they live, regardless of the physical quality of their homes. Therefore, social support within neighborhoods may play an important role in explaining the relationships between neighborhood SES and health outcomes.
As stated previously, SES has been found to be positively associated with measures of social support; however, the evidence that individuals with lower SES have less social support has not been well established. Studies examining the association between SES and social support should be conducted in cohorts with a wide range of income. We thus propose to investigate the relationship between individual and neighborhood SES in adulthood and across the life course with social support among African Americans and White men and women in the ARIC study.

5. Main Hypothesis/Study Questions:

- Individual SES is positively associated with social support in adulthood
  - This association is modified by gender and race/ethnicity
    - The association is stronger for women than men
    - The association is stronger for African Americans
- Neighborhood SES (assessed at the census tract level) is positively associated with social support in adulthood.
  - This association will persist after adjusting for individual SES
  - The association is stronger in African Americans.
- Individual SES over the life course (assessed by childhood SES and SES in young adulthood) is positively associated with social support in adulthood.
  - The association is stronger in women
  - The association is stronger in African American

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

Social support is the outcome variable. In ARIC, two measures of social support were collected at visit 2. The Lubben Social Network Scale [27] which provides a measure of social network and structure (i.e. frequency and number of social ties) and the Interpersonal Support Evaluation List (ISEL) [28] which is a measure of perceived support that assesses the supportive functions provided by social relationships.

Socioeconomic status (SES) is the exposure variable. SES will be assessed: (1) by parental education and occupation (in childhood from the LC-SES ancillary study) (2) by highest education level, occupation and income (at the time of the ARIC baseline examination) (3) neighborhood (census tract) SES (using data assembled by the LC-SES Study)

Covariates- race, gender, age, ARIC center, homeownership, preexisting health conditions at baseline (i.e. CVD and diabetes), smoking status and measure of health status.
Inclusions/Exclusions- Participants with missing data on the outcome of interest and with missing relevant lifecourse SES variables will be excluded from the analysis.

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.cscu.unc.edu/ARIC/search.php

   ____X__  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)?
ARIC proposal # 691 Mosley T. The moderating effects of social support on the association between negative emotions and CHD events, carotid arterial wall thickness and mortality

ARIC proposal # 692 Mosley T. Dimensions of social support and risk of CHD events, carotid arterial wall thickness and mortality

11. a. Is this manuscript proposal associated with any ARIC ancillary studies or use any ancillary study data?  ____X__ 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)* 2004.05__________ __________) Lifecourse SES ancillary study

*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.

REFERENCES:


