1. Title (length 26):
Changes in Lipids V2-V1 to Changes in Resting BP

2. Writing Group (list individual with lead responsibility first):
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3. Timeline:
Analyses are expected to be completed within 8 months. A report formatted as a draft manuscript can be presented to the steering Committee three months after the completion of the study.

4. Rationale:
As reported by Ekelund, et al. in the Lipid Research Clinics Coronary Primary Prevent Trial (1,2), a change in LDL-Cholesterol was related to the incidence of Hypertension and also related to change in Blood Pressure already after 6 weeks treatment. The change in cholesterol in the CPPT study was induced by cholestyramine, a drug not known to change blood pressure. In the ARIC study, lipid values and other variables known to change blood pressure are measured at baseline (Visit 1) and about 3 years later (visit 2). Due to the rigorous quality control in ARIC, we expect to be able to observe a relationship between a change in LDL-cholesterol and change in Prevalence of Hypertension.

5. Main Hypothesis:
Null Hypothesis: 1) There is no relationship between change in LDL-C and change in BP between Visit 1 and 2.
2) There is no difference in LDL-C change between participants normotensive at visit 1, who remain normotensive at visit 2 and those whom become hypertensive at visit 2.

6. Data (variables, time window, source, inclusions/exclusions):
ARIC participants at V1 and V2 with values for resting BP, lipid values and other covariates. Include subjects with normal blood pressure at V1,(140 mm Hg systolic and 90 mm Hg diastolic), and no blood pressure medications at baseline.

Analyses will consider changes between V1 and V2 in body masss medications, gonadal hormone use, reported physical activity, menopause status, resting heart rate, season, and clinic.

References:
1. Ekelund L-G, McMahon RP, Whaley FS, Corder EH, Rubenstein CL. Does lowering of cholesterol by cholestyramine decrease the incidence of hypertension in hypercholesterolemic men? Presented at the 28th Annual Conf. on Cardiovascular Epidemiology, Santa Fe, March 17-19, 1988.- In manuscript.