Manuscript #077

1. Title:
Arterial Distensibility Variability Study

2. Writing Group:
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3. Timeline:
Partial data are now available from the arterial distensibility IIV Study at the Coordinating Center, and three
field centers are now finished with data collection. It is important to begin now in order to get the IIV Study
into the literature in a timely manner.

4. Rationale:
Total analytic variance would be broken into components: between person, within person, between visits,
intra-sonographer, inter-sonographer, inter-reader, and intra-reader. Measures of repeatability will be
presented and the effects of measurement variability on the use of arterial distensibility data in cardiovascular
epidemiology will be discussed. Access to these estimates of variance will be of value to subsequent ARIC
analyses.

5. Main Hypothesis:
This is primarily a descriptive study, but confidence intervals for repeatability coefficients will be presented to
support the hypothesis that ARIC arterial distensibility measurements are highly repeatable.

6. Data:
Data gathered in the ARIC ultrasound and distensibility IIV Study would be used.