Manuscript #055

1. Title (length 26):
PULMONARY FUNCTION METHODS

2. Writing Group (list individual with lead responsibility first):
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3. Timeline:
Circulate Outline to Publications and Steering Committee 1/08/90
Data Set Request 1/22/90
Complete Analysis and Submit for CSCC Data Verification 2/19/90
Circulate First Draft to Publications Committee 3/05/90
Submit to Journal 3/19/90

4. Rationale:
Original contributions to spirometric survey methods include:
a. Specific algorithms for computer evaluation of spirogram "acceptability".
b. Electronic evaluation of spirometer linearity
c. Electronic randomization and selection of 10% QC sample
d. Electronic identification of technician "acceptability" errors with emphasis on supportive, corrective feedback
e. Annual maintenance of Calibrating Syringes with central standardization to a single syringe

5. Main Hypothesis:
Survey spirometry conducted according to the ARIC protocol demonstrates improved "acceptability" and "reproducibility" over time and better spirogram quality than a concurrent spirometry survey using routine clinical lab procedures.

6. Data (variables, time window, source, inclusions/exclusions):
Year 01 cohort data are to be used. Independent variables include age, height, sex, race, smoking history (ever smoked, ever smoke cigarettes, age at start/stop, period of not smoking, and cigarettes per day), histories of high blood pressure, heart attack, cancer, chronic lung disease, asthma, the study center, and technician number. Dependent variables include acceptability code detail for best and second best tests, quality code, FEV1-6, FVC and PEFR with corresponding predicted values.