1. Title:
Physical Activity and Echocardiographic Characteristics in an African American Cohort

2. Writing Group:
Lead: Herman A. Taylor, Jr, MD
Address: The Jackson Heart Study
Jackson Medical Mall
Jackson, MS 39213

Others: T Skelton, C Burchfiel, M Andrew, R Garrison, D Jones

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4. Rationale:
Physical activity (PA) is an important risk factor for cardiovascular disease. While echocardiography has been employed extensively in the evaluation of cardiac performance and structural changes related to exercise in trained athletes, the relationship between echocardiographic variables and physical activity levels in the general population is largely unexplored. This is especially true for AAs. The high prevalence of physical inactivity among AAs makes the ARIC Jackson cohort a particularly important one in which to investigate the echocardiographic correlates of varying levels of PA. In addition, the high prevalence of obesity and hypertension in this cohort provides the opportunity to assess the influence of these risk factors on associations of physical activity with echocardiographic characteristics.

5. Hypotheses:
A. In non-obese, non-hypertensive individuals, LVmass will be related to physical activity (PA). Diastolic performance indices will be optimal among the most active individuals.
B. Within the hypertensive subgroup, LVmass will be inversely relate to PA. Diastolic performance will be best among the highly active individuals.
C. Eccentric hypertrophy / increased LVmass will be highly prevalent among obese participants; however, it will be most severe among the most sedentary.
   Higher levels of activity will be positively associated with improving diastolic function.

6. Data:
Physical activity of all Jackson cohort members, as determined by modified Baecke questionnaire at visits 1 & 3.
Clinical variables: demographics; medical hx; VSS; anthropometry; hypertension, (BP), diabetes, total cholesterol, HDL, TG, alcohol, smoking status; prevalent stroke, angina, TIA, CHD, peripheral vascular disease.
Echo variables: chamber sizes, wall thicknesses, LVH, LVmass, LVmass index, valvular regurgitation, mitral annular Ca++, Aortic root diameter/Ca++, doppler indices of diastolic function (#'s ECHA34 & ECHA68-79),
% fractional shortening, cardiac output