JACKSON HEART STUDY: A RESPONSE TO CARDIOVASCULAR DISEASE DISPARITIES

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Abstract: An estimated 79.4 million US adults (1 in 3) have one or more types of cardiovascular disease (CVD). Among whites, 11.9% have heart disease compared to 9.6% African Americans (AA) and 9.2% Hispanics or Latinos. In 2004, 1 of every 2.8 deaths in the US was attributed to CVD. The 2004 overall death rate (per 100,000) from CVD was 288.6. The rates were 335.7 for white males, 448.9 for AA males, 239.3 for white females, and 331.6 for AA females. In 2002, heart disease and stroke were the #1 and #3 killers of Mississippians. Heart disease and stroke related deaths in MS in 2002 were 9,061 and 1,926, respectively. Approximately 42% of all mortality in MS is attributed to CVD. The overriding scientific objective of the JHS is to identify biologic, genetic, and environmental risk factors and causes for the disproportionate development and progression of CVD in African Americans (AA). The intent of this study is not to study racial differences, but to understand the causes of the excessive mortality burden such as the high rates of hypertension induced target-organ diseases in AA, especially left ventricular hypertrophy (LVH), congestive heart failure (CHF), stroke, and renal failure. Socio-cultural factors including stress, racism and discrimination, positive and negative emotions, social support, and coping strategies that may be especially important in AA will also be studied in relation to CVD morbidity and mortality. A cohort of 5,302 AAs has been assembled (2000-2004) for the purpose of examining the myriad hypotheses emanating from the interaction of biologic, genetic, and environmental factors. Hereditary factors, specific genetic variants, and gene-environment interactions are a specific focus of the JHS and its embedded Family Study (nested within the total cohort). There are over 40 million data points, which is increasing daily. Examples of data available in the JHS database are: body composition, imaging, blood and urine chemistries, lipid profile, blood pressure, battery of interviews on psychosocial factors, personal and medical history, medication survey, genotype data, and CVD events. The objectives of this presentation are: 1) to demonstrate how data from the JHS are being used to increase the knowledge of cardiovascular health and 2) to stimulate collaboration with other researchers committed to minimizing CVD burden especially among people of color.

Keywords: Cardiovascular disease (CVD), African Americans (AA), Whites, Hispanics and Latinos, left ventricular hypertrophy (LVH), congestive heart failure (CHF), stroke, renal failure. Socio-cultural factors, stress, racism, discrimination, positive emotions, negative emotions, social support, coping, morbidity, mortality, Mississippi, USA.