MINUTES
Observational Study Monitoring Board
for the Jackson Heart Study, April 27, 2009 Meeting

PARTICIPANTS:

OSMB Members Present: Gary Bennett, Trudy Burns, Mark Espeland, Paula Johnson, Shiriki Kumanyika (Chair), Warren Manning, Elizabeth Ofili (via telephone), Philip Wolf, Jackson Wright

Investigators: Francis Henderson, Mario Sims, Asoka Srinivasan, Herman Taylor, James Wilson

Data Management Center Staff: Daniel Sarpong (Director)

NHLBI Staff: Lorraine Silsbee (Executive Secretary), Fikirte Ashine, Diane Bild, Jane Harman, Cheryl Jennings, Cheryl Nelson (Project Officer), Jean Olson, Austin Sachs, Evelyn Walker

NCMHD Staff: Robert Nettey

STUDY DESCRIPTION: The Jackson Heart Study (JHS) is an investigation of causes of CVD in a population of African-American men and women from Jackson, MS. It was established in 1998 by the NHLBI with co-funding from the National Center on Minority Health and Health Disparities (NCMHD), building upon the success of the ARIC study's Jackson, MS Field Center in place since 1985. The JHS was designed to determine roles of CV risk factors on subsequent clinical CVD (with emphasis on hypertension-related diseases) and to assess roles of socio-cultural, hereditary, genetic, and gene-environment interactions in CVD in Jackson-area African-Americans. A total of 5,301 participants was recruited and completed the baseline Exam in 2000-04. Follow-up is conducted annually by telephone and every 4-5 years via in-person clinic visits. The cohort has been well characterized with respect to demographic, psychosocial, and clinical data including ambulatory blood pressure, echocardiography, and pulmonary function; a CT measure of coronary artery calcium and abdominal adiposity and a cardiac MRI scan to characterize ventricular structure and function are in progress. The JHS incorporates several Institutions in a collaboration between Jackson State University, Tougaloo College (both historically Black institutions), the University of Mississippi Medical Center, and an NHLBI field site collaborating with the Jackson-area institutions.

CALL TO ORDER: Dr. Kumanyika convened this regularly scheduled annual meeting at 8:00 a.m. The minutes from the April 28, 2008 meeting were approved. The Executive Secretary confirmed that OSMB members had no new conflict of interest issues to report. The Board members were thanked for their quick review of five ancillary study proposals in response to Challenge Grant announcements. They also were notified that a similar short turnaround time may be requested for review of ancillary study proposals in response to Grand Opportunity (GO) grant announcements due May 27. The Project Officer, Cheryl Nelson, described the current status of the study. Early recruitment for Exam 3 is slower than expected and the study will need to increase the weekly participation rate to reach the goal of 85% return of baseline participants. Annual telephone follow-up is also ongoing. Significant improvements in scientific productivity and "journal impact factors" for 2008 and 2009 publications were noted. The low CT exam completion rate in Exam

2 was partially because of the low number of clinic visits early in Exam 2 and because of fixed capacity at the CT scanning site. A cardiac MRI pilot study took place in Exam 2 and the Exam 3 cardiac MRI component is underway. A sub-study involving use of gadolinium contrast is also scheduled for Exam 3 though the protocol and exclusion criteria are not developed as yet.

RESPONSES TO 2008 RECOMMENDATIONS: The investigators presented their responses to the OSMB's April, 2008 recommendations. The investigators reported that a thorough review of the Exam 1 echocardiography data showed that the initial readings were valid even though results varied from the literature. An overview of recent JHS findings and publications was also presented. The Board noted that the report demonstrated responsiveness to its prior concerns with one exception. It requested further response to the previous 2008 recommendation to provide an annual follow-up report utilizing a cumulative (or person-years) model and requested that the study track the mobility of study participants in a report that identifies those that have moved, refused to participate, or been lost to follow-up.

STUDY PROGRESS: The Exam 2 data set has been closed. The data quality checks currently underway show vast improvement from Exam 1. The data set is currently under review by NHLBI. The JHS data access website is in the final testing stages and nearly complete. This site will enable both JHS and non-JHS investigators with approved manuscript or ancillary study proposals to download analysis data sets once required approvals are in place.

With respect to Exam 3, the Board would like to receive the written protocol for referral criteria for blood pressure. Questions centered around the protocol being followed when readings are below the limit for immediate referral to a hospital, but where clinical presentation of the participant indicates attention is needed. The Board also requested that two OSMB members participate in review of the protocol and exclusion criteria for the contrast MRI exam component. The study has developed an arrangement with University of Mississippi Medical Center to have follow-up cardiac CT scans performed at no cost for uninsured participants when abnormalities on the Exam 2-3 CT requiring follow-up are noted.

At present, only 23 ml of blood are being collected per participant in Exam 3. The current consent allows for collection of approximately 60 ml of blood, but more is required to meet the needs of anticipated analyses and ancillary studies. The investigators were strongly encouraged to revise the consent form and increase the volume collected to 100 ml. The Board also suggested surveying participants about acceptability of collecting a larger sample along with perceptions of other aspects of the exam including the CT scan and MRI with gadolinium. In addition, a system should be developed to prioritize approval for use of samples in ancillary studies. In anticipation of numerous potential ancillary studies requesting stored samples, the Board recommended the development of a priority system for approval of ancillary studies utilizing samples. It also suggested defining a per-participant minimal volume that must be retained in the repository except for very high priority uses requiring specific approval. Ancillary study applicants should provide a strong justification for use of baseline samples and be encouraged to use samples from Exam 2 and 3 when possible. It was also suggested that ancillary investigators

return unused samples to the study. Even though these samples are no longer pure, they still may be used in some capacity.

The investigators described procedures for collecting data on clinical events. Identifying heart failure events is particularly challenging. Because many heart failure patients are not hospitalized, records for outpatient heart failure diagnoses are collected in addition to those for hospital admissions. Since the information available to verify outpatient heart failure may differ substantially from that available in hospital records, the Board recommended that the investigators develop boilerplate language to use in describing ascertainment of outpatient vs. hospitalized heart failure events for use in analyses and publications.

An update on the Undergraduate Training Center Scholars Program at Tougaloo noted that the program has recruited and retained more male students than in the past. Though mentors are generally not compensated, the Board suggested that the study track the monetary value of mentoring that takes place at Tougaloo and throughout the entire study to quantify these important efforts.

A number of manuscripts related to genetic studies are being proposed or underway. The Board noted that genetics researchers collaborating with JHS need to be informed of the relatedness of many of the JHS participants and the need to consider this in their analytic plans. The Board suggested that a policy be established to invite and encourage participation of the study genetic epidemiologists in the phenotype working groups for CARe and other genetics research consortia in which JHS is a member.

PRESENTATIONS: Dr. Mario Sims presented an abstract on the association between perceived discrimination and hypertension in the JHS. Dr. James Wilson presented an abstract on research on understanding ancestral admixture in the JHS.

RECOMMENDATIONS: The Board convened in closed session with NHLBI staff at 3:00. The Board unanimously endorsed continuation of the study. The Board complimented the investigators for their efforts and success in recruitment and retention in Exams 1 and 2 along with increased scientific productivity as well as outreach and community education activities. The continued success of the JHS Scholars Program at Tougaloo College was noted. The Board also highly commended the investigators for establishing an arrangement with the University of Mississippi to obtain follow-up CTs for uninsured participants. OSMB recommendations for the investigators are as follows:

1. Develop a standardized description of the JHS cohort and study design for use in publications and ancillary study proposals. Establish a method to inform JHS collaborators for genetic studies of the relatedness of individuals in the cohort and the need to develop appropriate analysis plans.
2. Summarize cumulative rates of loss to follow-up and mortality over time from enrollment. Establish rules for censoring.
3. Track and present event rates over time, overall and for important subgroups, for adjudicated outcomes.

4. Provide the OSMB with a written protocol and criteria for emergent referral for elevated blood pressure below the threshold for immediate referral but where clinical presentation indicates medical evaluation is needed.
5. By June 2009, develop the protocol and exclusion criteria for the MRI component using contrast, for review by selected OSMB members.
6. Provide a plan for analysis of CT scan data if the minimum projected number of scans is not reached. Provide an estimate of the minimum number of CT scans that would provide useful data in terms of power and for research purposes.
7. Increase the volume of blood collected and stored in Exam 3. Use current consent form to obtain blood samples for now and increase volume collected when revised consent receives IRB approval.
8. Develop a procedure to prioritize use of samples in ancillary studies. Consider including. some non-JHS investigators in the decision making process.
9. Encourage use of samples from Exams 2 and 3 where feasible and require strong justification for use of baseline samples. Suggest investigators request that unused samples be returned, and establish an appropriate plan for handling and storing this subset of samples.
10. Develop a plan to track and report separately outpatient versus hospitalized verified heart failure clinical events.
11. Implement the data sharing website by June 2009.
12. For abstracts and presentations reported in future OSMB Reports, identify the conference or meeting where the presentations were given.
13. Survey participants about perceptions of exam burden.

NEXT MEETING: The OSMB meeting adjourned at 3:30 p.m. The next meeting is anticipated to take place in April 2010.

SIGNATURES
Respectfully submitted,

/s/ 05/06/2009
Shiriki Kumanyika, Ph.D
Chair,
Jackson Heart Study OSMB

/s/ 05/06/2009
Lorraine Silsbee, M.H.S.
Executive Secretary
Jackson Heart Study OSMB

___X__APPROVAL _____ DISAPPROVAL

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Deputy Director, NHLBI

May 8. 2009
Date