



Community Celebrates 6th Annual Jackson Heart Study—“Celebration of Life!”

(Donna Antoine-LaVigne, MPH, MSED)

Women’s Heart Health “Getting to the Heart of the Matter” resonated with the community as the theme for the Jackson Heart Study’s (JHS) 6th Annual “Celebration of Life!” More than 300 supporters ignored gusting winds and driving rain February 25, 2006 demonstrating their trust of and commitment to the Jackson Heart Study’s quality programming.

They were not disappointed. This year’s guest speaker was Mississippi’s own Dr. Myrna Alexander. Alexander, a local cardiologist and community heart health advocate, is a partner in Jackson Cardiology and Associates. She is also an active staff physician at St. Dominic-Jackson Memorial Hospital and Central Mississippi Medical Center. Alexander is a graduate of Tougaloo College and Meharry Medical College. She completed her internship and residency in internal medicine and her Cardiology Fellowship and Interventional Cardiology Fellowship at Henry Ford Hospital in Detroit, Michigan. Her special interests in medicine are cardiovascular diseases in women and adult congenital heart diseases.

Dr. Alexander delivered a riveting presentation—“Cardiovascular Disease in Women: Under-diagnosed, Under-treated, Misunderstood.” The only African American female cardiologist in the state boldly challenged all African American women to take control of their heart health.

However, the strongest message in her presentation was that women should know the signs and symptoms of heart disease and how they differ from men. She stated “recognition of these differences results in earlier diagnosis and better outcomes.” Alexander exposed common myths and discussed in detail late symptoms associated with women and heart disease. Some of these are listed below:

Myths

- heart disease is uncommon in women;
- women are protected from heart disease; and
- women live longer than men;

Signs and Symptoms

- chest discomfort that spreads to shoulders, neck or arms;
- fainting, sweating, shortness of breath associated with chest discomfort;
- sometimes stomach pain, weakness or fatigue, nausea; and
- palpitations, cold sweats, unexplained anxiety;



Cynthia Dorsey Smith, Dr. Myrna Alexander and Donna Antoine-LaVigne celebrate a successful “Celebration of Life”

Late Symptoms of Heart Disease

- shortness of breath;
- leg swelling, inability to lie flat;
- sleeping multiple pillows to breath; and
- sudden death.

An additional highlight of this year’s Celebration of Life was the provision of blood pressure, cholesterol and glucose screenings by the local health care industry. Those volunteering their services to JHS and the community were: The Diabetes Foundation of Mississippi, Eliza Pillars Registered Nursing Association, Pearl Grove MB Church Nursing Ministry, Mississippi Health Department, Central Mississippi Health Services, Inc., and the Department of Hospital Education University of Mississippi Medical Center.



2006 Celebration of Life Attendees await health screenings

We continue to be appreciative of and humbled by this community’s vibrant, vigorous support of the Jackson Heart Study. Furthermore, we pledge to continue to try and earn that support.

It's Heartbeat

JHS Clinic Update (Debra Douglas, LMSW)

Exam 2 of the Jackson Heart Study began just over six months ago. The clinic staff is working to complete exams on each of the over 5,000 participants who participated in Exam 1. The clinic exam, which takes about 1½ to 2 hours to complete, consists of: an interview with health and medical questions, an examination to measure blood pressure, height, weight and body composition using a special scale, and laboratory tests for cholesterol and blood sugar. Participants are also being given a home blood pressure monitor and taught to use it.

While participation for Exam 2 has been steady, the clinic staff is encouraging participants who have already been contacted by the annual follow up staff or called by

the clinic patient representative to schedule their clinic visit as soon as possible. It is important to the study that we retain as many participants as possible from the first exam phase. Shirley Forbes, the clinic patient representative, says that many of the participants whom she contacted stated that they have a desire to come back for Exam 2, but schedule conflicts often keep them from scheduling. In an effort to accommodate more participants, clinic staff have willingly offered to work more Saturdays. This allows those who work during the week to schedule appointments on Saturday. Adding the additional Saturday to the schedule is part of the clinic staff's effort to increase participation.

Based on the social work interview done at the end of each clinic visit, the majority of the participants are pleased with Exam visit 2. On a scale from 1 to 10, with 1 being the worst possible clinic experience and 10 being the best possible clinic experience, over 95% of participants surveyed rate the clinic visit a 10. The participants are always complimentary of Patricia Hayes, LPN and Cora Champion, LPN, two of the clinic nurses, for their friendliness, professionalism and their ability to make them feel so comfortable. One participant summed it up by saying, "coming to the Jackson Heart Study is like visiting friends and family."

Jackson Heart Study Investigator Presents JHS Findings to Scientific Audience

Dr. Daniel Sarpong, Director of the Coordinating Center of the Jackson Heart Study gave a recent presentation at the Research Rounds sponsored by the Center of Excellence in Minority Health, Jackson State University. The title of his presentation was: "Jackson Heart Study: A Response to CVD Disparity." Dr. Sarpong updated the audience on some of the preliminary find-



Dr. Daniel Sarpong, JHS CC Director, during presentation

ings from a review of Jackson Heart Study data from the recently concluded Exam 1.

The goal of Dr. Sarpong's presentation was to inform the cardiovascular research community about the potential to collaborate with Jackson Heart Study investigators in manuscript development and ancillary studies.

An Ancillary Study is an investigation which is not part of the Jackson Heart Study

(JHS) protocol, but uses all or a subgroup of the JHS cohort, samples, or data collected by JHS. Ancillary Studies are subject to the same policies, reviews and approvals as are required by the core JHS protocol.

The main purpose of Dr. Sarpong's presentation was to:

- Articulate the specific aims of the Jackson Heart Study
- Identify areas of research where non-JHS investigators can collaborate with Jackson Heart Study Investigators
- Describe the process for participating in JHS ancillary studies
- Describe the design and methodology employed in the Jackson Heart Study.

Dr. Sarpong summarized important facts about cardiovascular disease mortality. He provided comparisons of heart disease and death rates between African Americans in Mississippi and the United States, as well as a comparison of the heart mortality rates of African Americans and whites in Mississippi. All of this data and information supported the argument that there is a great deal of disparity in the prevalence of cardiovascular disease and the accessibility to healthcare in Mississippi.

In offering information on risk factors for disparities in healthcare, Dr. Sarpong quoted a statement from Dr. Martin L. King, Jr. that said: "Of all the forms of inequality, injustice in health care is the most shocking and the most inhumane." The message here

is that all people should become active participants in the struggle to eliminate health disparities and in the desperate need for changes to improve the quality of life for everyone.

Anyone interested in participating in manuscript development and ancillary studies should use the contact information listed below:

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- **Web site**
http://ccaix.jsums.edu/~jhs/publication_guidelines.html
- Ancillary Application can be found on the Jackson Heart Study Web site (<http://www.jsums.edu/~jhs>), or can be obtained by contacting the JHS Coordinating Center at (601) 368-4650.
- Submission is electronic and should be submitted to Ms. Brenda W. Campbell-Jenkins, Research Associate at brenda.w.campbell@jsums.edu

Disparities in CHD in the Jackson Heart Study

Dr. Mario Sims, a Social Epidemiologist, is an Assistant Professor of Medicine and Dentistry at the University of Mississippi Medical Center, Special Assistant to the Director, and Co-investigator with the Jackson Heart Study (JHS) in the Exam Center.

Dr. Sims recently submitted a five year Mentored Career Development Award to Promote Faculty Diversity in Biomedical Research (KO1) to the National Heart Lung and Blood Institute (NHLBI). He received a priority score of 134 on his first submission, and started his career development grant in April 2006.

A primary aim of the JHS, to develop young talented black investigators in the field of cardiovascular disease (CVD) research, will be accomplished through this KO1 award. This award will allow Dr. Sims to gain the skills, knowledge and experience required to become an independent investigator in health disparities research. Using data from the Jackson Heart Study (JHS), Dr. Sims will examine the extent to which neighborhood socioeconomic status (SES) and key psychosocial factors (racial discrimination, stress, and social support) impact coronary heart disease (CHD) in blacks in Mississippi.

CHD is the leading cause of CVD mortality in America, and Mississippi has the highest overall CVD mortality rate in the nation. Moreover, the cardiovascular health disparity between blacks and whites is widening. Mississippi's CHD mortality rate is higher than the U.S. rate. Blacks have higher CHD prevalence and mortality rates than whites, and they also have a higher prevalence of risk factors associated with CHD such as hypertension, diabetes mellitus, and obesity, which clearly might influence the higher prevalence of CHD mortality.

To achieve his research and career development goals, Dr. Sims will follow a

career development plan at the University of Mississippi Medical Center, designed to provide knowledge, skills, and experience in 6 core competencies required to be a successful independent investigator in health disparities research: 1) research excellence in the area of CHD disparities, 2) advanced statistics and study design, 3) research ethics, 4) leadership and management, 5) presentation and teaching, and 6) scientific writing. This will be accomplished through the implementation of a systematic learning plan that includes: 1) academic coursework to develop cardiovascular disease disparity research skills; 2) mentorship and consultation with nationally and internationally recognized experts in cardiovascular disease epidemiology and health disparities research; 3) mentorship by faculty sensitive to the unique needs and issues facing minority academic faculty; and 4) innovative research using a multi-dimensional framework for examining how CHD prevalence among African Americans is influenced by neighborhood environments, perceived discrimination, stress, and social support.

The proposed mentored research has three specific aims: 1) to examine the extent to which neighborhood SES is associated with CHD among blacks; 2) to determine the degree to which perceived racial discrimination, stress and social support are associated with CHD among blacks; and 3) to analyze the extent to which the association of neighborhood SES and CHD is impacted by psychosocial factors among blacks. This is the first study of its kind to examine multiple pathways by which neighborhood environments and key psychosocial factors impact CHD risk in blacks in Mississippi.

This research will enable health-care providers to adequately serve their patients with CHD knowing that where they live and their exposure to discrimination, stress, and social

support (or a lack thereof) influence CHD. Further, it will reveal which factors health policy makers need to focus on to address and eliminate CHD disparities.

To supplement formal training, Dr. Sims will benefit from advice and guidance provided by a mentor committee (Drs. Herman Taylor (UMMC), David Williams (University of Michigan), Ana Diez-Roux (University of Michigan), Sharon Wyatt (UMMC), and Daniel Sarpong (JSU)). These outstanding clinicians, researchers, and scientists, with different perspectives and areas of expertise, are committed to Dr. Sims' overall success. His mentorship committee will assure his successful transition into an effective, independent social epidemiologist who examines how neighborhood environments and psychosocial factors are associated with CHD disparities among blacks.

This KO1 award will allow Dr. Sims to dedicate 75% of his time to research and career development activities that will help him achieve his overall goal of becoming an independent investigator and recognized expert in the area of social epidemiology and CVD disparities research. His long-term goals are to become a tenured professor in the Department of Medicine; a leader in social epidemiologic research; and a productive researcher as evidenced by continued peer-reviewed grant funding, regular dissemination of his scientific work via publications and presentations, and interaction with local and national colleagues. Over the five years of this award, Dr. Sims will acquire the additional skills, knowledge, and practical experience required to become an independent investigator capable of leading his own successful research program, focused on providing research findings that will help to eliminate CVD disparities.

Canton CHAN Remembers Dr. Martin Luther King, Jr.

The Canton Mississippi Chan Chapter celebrated the birthday of Dr. Martin Luther King, Jr. by holding a "Walk in the Park" in January 2006. This event was sponsored by the Partnership Office of the Jackson Heart Study, headed by Ms. Donna Antoine-LaVigne, Ms. Cynthia Dorsey Smith and Ms. Darcel Thigpen.

The event was very well attended by Canton Chan members and other interested area residents, and the participants were addressed by the Mayor of the city of Canton, the Honorable Fred Esco, who participated in the Walk, showing his commitment to encouraging healthy practices among residents in the city of Canton. In his address to the Walk participants, the Mayor urged all Canton residents to continue Dr. King's dream for longevity (a long, healthy



Some of the participants pose with Mayor Fred Esco after the Walk

life), warning them that a long, healthy life cannot be achieved without strict and continuous efforts to maintain healthy lifestyle practices in order to improve the quality of life.



Canton's Mayor, Mr. Fred Esco, chats with Ms. Shirley Simmons

Let's Get HHIP (Sonja R. Fuqua, Ph.D., RN)

Heart health: is it a choice or destiny? Yes, it's true that heart disease is one of the major killers of African Americans, particularly in Mississippi. But, does that have to be YOUR truth? Or, do we as individuals have the power to influence the destiny of our health?

The staff of Heart Health Intervention Pilot (HHIP) believes that risk factors for cardiovascular disease (CVD) and CVD-related complications can be modified by engaging in positive lifestyle changes over a lifetime. The key to making these changes is empowerment through health education and support. HHIP is a program funded through an Excellence in Partnerships for Community Outreach on Health Reporting and Training (EXPORT) grant and initiated in light of the tremendous results of the LifeStyle Challenge for a Healthy Heart 2005 program (JHS Fall Newsletter).

The aims of HHIP are to document an increase in knowledge, change in exercise behaviors, perception of health-related quality of life, and decreases in five key indicators of CVD following participation in a heart health intervention. The five key indicators are blood sugar, blood pressure, body mass index, waist circumference and cholesterol. The intervention is a six-week program that includes health education messages delivered in a culturally sensitive manner by African Americans to and for African Americans.

During recruitment of the Jackson Heart Study cohort, there was a volunteer pool of persons interested in participating. Of course, not all volunteers were selected. HHIP participants are randomly selected from

the aforementioned volunteer pool. This is an opportunity for those persons to still reap some benefits from their interest in the JHS. Dr. Sonja R. Fuqua, the principal investigator, recruited 20–25 persons for each of three series of sessions. Dr. Fuqua also calls the participants weekly to offer support and encourage them to stay the course of the program. Other program perks include medals highlighting individual achievement and a graduation ceremony.

Study participants are empowered to make positive lifestyle changes so that they can be in charge of the quality of their lives. Being in charge of one's life has a positive impact on preventing and managing chronic illnesses and has the potential to prevent or minimize the complications of CVD...to influence the destiny of one's health.



Dr. Fuqua, Dr. Taylor, Dr. Henderson & Ms. Jeraline Sims of JHS in a session with HHIP participants

JHS on the Move (Herman A. Taylor, Jr., M.D., F.A.C.C.)

When I last communicated with you we were completing the protocols, systems, procedures and staffing required for the implementation of the Exam 2 clinic visits. I am happy to report that despite a roller coaster fall 2005, Exam 2 is well on the way. We saw our first participants during late fall 2005 and as is customary, with the Christmas holiday season, we experienced a slowdown in clinic visits. Since the beginning of the year we have been seeing an average of five participants per day and hope to eventually bring the number up to seven to reach our projected target.

Separate and apart from clinic visits we have proceeded full speed ahead with other activities designed to make the JHS the nationally recognized landmark study we and other African Americans expect it to be. On February 15, 2006, as a satellite event of the American Heart Association (AHA) meeting in Florida, we convened a meeting of eight of the nations' leading experts on Stroke. This meeting, part of our Emerging Science Expert Group series, helped us identify cutting edge research issues and techniques in the diagnosis and treatment of Stroke. Ultimately, through the JHS, African American people throughout the nation will benefit from the most up-to-date diagnostic and technological advances in Stroke research.

In our funding proposal to NHLBI/NCMHD, as part of our 2005–2014 proposals, we obtained a much smaller allocation than requested to bring together experts in the various areas related to cardiovascular diseases through the Emerging Science Expert Group to help with new directions in various areas of cardiovascular research. The original idea was to bring these experts to Jackson to meet with us at the JHS for the purposes mentioned. But given the funding constraints and the logistical problems involved in bringing these experts to Jackson, we decided that if "the mountain could not come to Mohammed then Mohammed must go to the mountain." Therefore since these experts were already attending meetings of the American Heart Association (AHA), the likelihood of getting them together during these meetings would be much greater. So we planned the Emerging Science Expert panels to coincide with the various AHA specialist meetings. The Expert Group on Stroke was the first in a series, funding permitting, of Emerging Science meetings with experts in various fields of cardiovascular research.

Since we are exploring cutting edge research directions, we are pioneering a piece of decision software technology developed by NASA and brought to Mississippi by the Associate Vice Chancellor for Administration at UMC to record the decisions made at the meeting.

The technical support for this was provided by UMC. It should be noted that the first Emerging Science Expert Group, which has been meeting via conference calls since October 2005, focuses on Genetics. We will do whatever it takes to get the best brains in the various areas of interest to share their insights with us by the most practical and economical means available.

We are happy to inform you that after discussions with NHLBI and a new partner the NIH's Imaging Institute funding has been procured for blood draws and urine collection in Exam 2. Exam 2 also offers new areas not done before such as CT scanning for coronary calcium and abdominal fat and MRI. These will provide our investigators with data which was not available in Exam 1. We hope to add these new components to the study in early 2007.

In addition to the above and since one of the goals of the Jackson Heart Study is the development of minority scientists and researchers I am very happy to report many successes here. Dr. Ervin Fox, a cardiologist at UMC and a prolific researcher has been recognized by the UMC faculty in their 50th anniversary annual report. Dr. Fox has also been awarded a grant from the American Heart Association to pursue his research on the role of inflammation in cardiovascular diseases. Dr. Mario Sims, an advisor to Dr. Herman A. Taylor, Jr., the JHS/PI, has received one of the highest scores ever for a first time applicant for a KO1 award of the NHLBI and has thus won a grant (called a KO1 Award) for pursuing his research interest in the role of environmental factors in cardiovascular diseases. Dr. Karen Winters of the School of Nursing at UMC, another of our investigators, has been awarded a minority grant to pursue her JHS related research, and Abiola Dele-Michael, a graduate student of the University of Rochester who has been with us for the last two summers, has also received a minority grant to work under Dr. Taylor on left Ventricular Hypertrophy remodeling.

With guaranteed funding to 2013 and because of the developments mentioned above the future looks very bright for the JHS. Additionally, we have had numerous requests from some of the major medical research institutions for collaboration either via the preparation of ancillary studies (funded independently) and/or use of JHS data for the preparation of manuscripts. We are most excited by the interest of young minority researchers and by Historically Black College and University (HBCU) investigators in the JHS.

We believe that 2006 will continue to be a landmark year in the life of the JHS.

The Benefits and Joys of Walking (Patricia M. Dubbert, Ph.D.)

For many years, the potential benefits of walking were overlooked as health experts—and most other people—focused on more vigorous forms of physical activity, such as running and higher intensity sports. Many people did not think of walking as “exercise”. Now, a growing number of health experts are recognizing the benefits of walking. As concerns intensify about the epidemic of obesity in children and adults, interest in physical activity that is accessible to most people and can increase energy expenditure has increased. Walking is also earning new respect as we learn that this simple and relatively safe form of physical activity is associated with important benefits including reduced risk of diabetes, hip fracture, coronary heart disease, stroke, and premature death.

A recently published study described the relationship of walking and mortality in U.S. adults who have diabetes (Gregg, Gerzoff, Caspersen, Williamson, & Narayan, 2003). Diabetes affects more than 16 million U.S. adults, and is associated with many health complications, so any intervention that can help reduce these risks has great public health significance. In the study, almost 3000 adult diabetics were followed during an 8-year period. The diabetics who walked at least 2 hours per week had a 39% lower death rate compared with those who said they did not walk for exercise. The mortality rates were lowest in those who reported walking 3 to 4 hours per week. The investigators were careful to exclude individuals who were physically disabled and controlled for other factors such as age and weight.

Most deaths in the United States are associated with cardiovascular diseases. Several recently published studies addressed the possible protection that walking offers against coronary heart disease in men and women. A group of more than 44,000 male U.S. health professionals who started the study without coronary heart disease were questioned about their physical activity every 2 years from 1986 to 1996 (Tanasescu, Leitzmann, & Hu, 2003). The analyses found that walking at least a half hour per day was associated with an 18% lower risk of a new diagnosis of coronary heart disease, and a faster walking pace was associated with lower risk independent of the number of walking hours.

For women who walk for exercise, the news is looking even better. Researchers looked at physical activity in relation to new diagnosis of coronary heart disease among almost 74,000 ethnically diverse

U.S. women during more than 5 years of follow-up (Manson et al., 2002). Women who walked for at least 2.5 hours per week had a 30% lower risk of coronary disease. As in men, faster walking pace was associated with reduced risk independent of the total time walked. These researchers concluded that both walking and vigorous activity reduce risks of cardiovascular events, regardless of race or ethnic group and body mass index.

The results of other studies indicate that walking and other moderate level exercise can lower blood pressure, help prevent diabetes, prevent weight gain over time, prevent hip fractures, maintain physical function in patients with osteoarthritis, and promote emotional well being. Some studies have found benefits for as little as one hour of walking per week compared with no walking for exercise. Brisk walking for just 10 minutes can improve mood and regular walking may help prevent depression.

How can we help more people enjoy the benefits of walking for exercise? Although walking is the most popular form of exercise, particularly among women and older Americans, less than 25% of the U.S. population walks at least 30 minutes a day, the amount recommended based on the research. One way is to help more people learn about what walking can do for them. Health care providers can ask their physically able patients about their walking, and encourage them to add more walking into their lifestyles. We recently studied the effects of nurse counseling for elderly primary care patients, and found that about 40% of the patients adopted a program of walking at least 20 minutes 3 days a week and maintained this for a year (Dubbert, Cooper, Kirchner, Meydrech, & Bilbrey, 2002).

A reasonable goal for many relatively healthy adults is to start by adding 2,000 steps or about 1 mile, or 15–20 minutes of walking per day. Smaller goals, like adding 10 minutes of walking once or twice a day may be appropriate for patients with greater health impairments. Since we know from the research that walking pace is also important, walkers should strive to walk at a pace that increases heart rate and breathing and produces some sweating, but not so fast that they are too breathless to carry on a conversation. Compared to other forms of physical activity, walking is very safe, but a small percent (around 1.5% in one survey) of walkers do report injuries (Powell, Heath, Kresnow, Sacks, & Branche, 1998). Taking good care of feet, wearing good shoes, sun

protection, and choosing a safe place to walk can all help keep walking safe and enjoyable. To enhance mental health benefits, we tell our patients not to worry while they walk—instead use walking as a time to relax.

Having a walking partner can help many people enjoy walking and stick to a program over time. The ideal companion can walk at a similar pace and distance so one is not holding the other back. People who enjoy the encouragement and structure of some kind of program should check around, as programs are becoming increasingly available in communities and on the Internet. For example, anyone with internet access can join a new web-based program called America on the Move to track progress and get discounts on step counters (www.americaonthemove.org) (Hellmich, 2003).

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Article Submissions

JHS Heartbeat is published quarterly to enhance health awareness and understanding of cardiovascular disease among the community by presenting research findings, articles, book reviews on cardiovascular disease, diabetes, hypertension, strokes, cholesterol, physical activity and nutrition. Additionally, the newsletter facilitates communication among Jackson Heart Study staff, investigators, cohort members, contractors and the extended JHS family.

Articles are being selected for the following upcoming issues:

| <i>Submission Date</i> | <i>Newsletter Publication</i> |
|------------------------|-------------------------------|
| December 15 | Spring Edition |
| March 15 | Summer Edition |
| June 15 | Fall Edition |
| September 15 | Winter Edition |

Submissions should be about 800 words or less. Relevant pictures, illustrations and/or charts may be submitted with the articles. Information regarding forthcoming educational conferences and/or meetings is also requested. All material is subject to copyediting. Please include the author's full name and credentials, the agency's full name, street and web address and the author's contact information, including telephone, fax and e-mail. Information should be e-mailed or mailed to **Ms. Brenda Jenkins**, at:

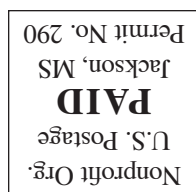
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