

**U.S. Department of Health and Human Services (DHHS)
National Institutes of Health (NIH)
National Center on Minority Health and Health Disparities (NCMHD)
National Advisory Council on Minority Health and Health Disparities (NACMHD)**

**Bethesda Marriott Pooks Hill
5151 Pooks Hill
Bethesda, Maryland**

Tuesday, February 24, 2009

8:00 a.m. – 5:00 p.m.

Council Members Present

John Ruffin, Ph.D., Director, NCMHD; Chair, NACMHD
Jeffrey A. Henderson, M.D., M.P.H., Chair-Designee
Mario De La Rosa, Ph.D.
Steven R. Lopez, Ph.D.
Nilda Peragallo, Dr.P.H., R.N., F.A.A.N.
Brian Smedley, Ph.D.
Luther Williams, Ph.D.

Ex Officio Members

Christine A. Bachrach, Ph.D.
Michael Fine, M.D., M.Sc.

Ad Hoc Members

Mona Fouad, M.D., M.P.H.
Faye A. Gary, Ed.D., R.N., F.A.A.N.
Stephen A. Smith, M.B.A.
José Szapocznik, Ph.D.

Presenters

M. Christopher Gibbons, M.D., M.P.H.
Kathleen Yadrick, Ph.D., R.D.
William Z. Tan
Derrick Tabor, Ph.D.

Executive Secretary

Donna A. Brooks

CLOSED SESSION

The first portion of the meeting was closed to the public in accordance with the provisions set forth in Sections 552b(c)(4) and 552b(c)(6), Title 5, U.S.C., and Section 10(d) of the Federal Advisory Committee Act, as amended in U.S.C. Appendix 2.

Executive Secretary Donna Brooks called the meeting to order at 8:10 a.m. and turned the proceedings over to the NCMHD Director and NACMHD Chair Dr. John Ruffin. Dr. Ruffin presided, and Chair-Designee, Dr. Jeffrey A. Henderson, facilitated.

The Council considered 68 applications requesting an estimated \$22,713,581 in total costs. Those that were noncompetitive, unscored, or not recommended for future consideration by the Scientific Review Groups were not considered by the Council. Voting en bloc, the Council concurred with the first-level peer review of the 31 applications made for exploratory Centers of Excellence (P20s), the 31 applications for the Minority Health and Health Disparities International Research Training program (MHIRT), the four applications made for scientific conferences (R13s) and the two Small Business Innovation Research (SBIR) and Small Business Technology Transfer Research (SBTTR) program applications.

Ms. Brooks adjourned the Closed Session at 9:40 a.m.

OPEN SESSION

CALL TO ORDER AND WELCOME

Ms. Brooks called the Open Session to order at 10:00 a.m. She explained that Dr. Ruffin would preside over the session and Dr. Henderson would serve as facilitator.

OPENING REMARKS, DR. JOHN RUFFIN

Dr. Ruffin welcomed participants to the Open Session of the 20th NACMHD meeting. He made some brief remarks regarding the NIH Science of Eliminating Health Disparities summit. He thanked everyone for their contributions and participation in making the summit a success. Dr. Ruffin commended the staff and joined the Council in a standing ovation thanking them for their work putting together a comprehensive, diverse, and organized meeting.

Dr. Ruffin introduced the ad hoc members and noted that they should become full members in time for the June meeting once all the paperwork has been cleared. He also introduced a new NCMHD staff member Prabha Atreya, Ph.D., who joined NCMHD as the Chief, Office of Scientific Review, after extensive related experience at NIH, most recently at the National Institute of Biomedical Imaging and Bioengineering (NIBIB). Council members introduced themselves and provided updates on their work related to minority health and health disparities.

CONSIDERATION OF MINUTES

A motion to accept the minutes from the September 16, 2008 Council meeting was unanimously approved. A correction will be made to indicate that Dr. Henderson did not personally develop the data about cancer rates among Native Americans, but was conveying the information from another primary source.

Future Meeting Dates and Administrative Matters

- ***Future Meetings.*** All meetings are held on Tuesdays. The next three meetings will be held on June 23 and September 8, 2009, and February 23, 2010.
- ***Administrative Matters.*** Roster changes are to be sent to Ms. Brooks.

NCMHD DIRECTOR'S REPORT

Dr. Ruffin provided an overview of: (1) NCMHD management, (2) the NIH Summit: The Science of Eliminating Health Disparities, (3) NCMHD extramural research programs. He also updated the Council on the intramural research program and made brief remarks regarding the NIH implementation plans for the American Recovery and Reinvestment Act of 2009.

NCMHD Management

In fiscal year (FY) 2008, four positions were filled. In addition to hiring Dr. Atreya, NCMHD also hired Dr. Nathaniel Stinson to serve as Chief of the Office of Scientific Programs, Dr. Irene Dankwa-Mullan for the position of Medical Officer in the Office of Innovation and Program Coordination, and Mr. Long Nguyen, who is a Grants Management Specialist.

The NIH Summit: The Science of Eliminating Health Disparities

Dr. Ruffin added to his earlier comments about the Summit, noting the high caliber and diversity in terms of discipline and geography that the more than 275 speakers represented. Nearly 90 abstracts were presented orally, and more than 300 others were presented as poster sessions. A pre-Summit workshop on the grant process attracted an unprecedented 1,200 attendees, and the pre-Summit meeting of NCMHD program directors drew more than 300 participants. The summit was dedicated in memory of the late Honorable Paul Grant Rogers, and Maya Angelou set the stage and tone for the summit during the Opening Session. The Acting NIH Director, Raynard Kington, M.D., Ph.D. brought opening remarks and announced the creation of the NCMHD Intramural Research program. Dr. Ruffin noted that work related to the Summit is not yet completed: participant recommendations and feedback will be analyzed and used to help chart a new, transformative course for health disparities research. In addition, meeting proceedings will be published, and the *American Journal of Public Health* will issue a special supplement in December 2009 on the Science of Eliminating Health Disparities.

NCMHD Programs

NCMHD had a FY 2008 budget of \$200.2 million. More than 90 percent was spent on program support and almost 18 percent was spent on collaborations with other NIH

Institutes and Centers (ICs). The overall NCMHD emphasis continued to be on building collaborations and the capacity for minority health and health disparities research.

Centers of Excellence (COE): The largest expenditure, \$56.8 million, went to Centers of Excellence programs. New Requests for Applications (RFAs) were released in FY 2008 for the P20 and the P60 mechanisms to be funded in FY 2009. The Council reviewed the P20 applications in the Closed Session, and the P60s will be reviewed at the June Council meeting.

Research Endowment: The program received 13.5 percent of the NCMHD budget. Its mission is to build capacity for minority health and other health disparities research at institutions demonstrating a commitment to educate and train researchers from health disparity populations. This is a limited-competition program, restricted to Section 736 institutions with a Health Professions Center of Excellence Grant from the Health Resources and Services Administration (HRSA). Applications for FY 2009 funding will be considered by the Council at the September 2009 meeting.

Community-Based Participatory Research (CBPR): A total of \$23.1 million supported 40 CBPR grants, to support the research intervention phase. This key NCMHD program is designed to provide funding for up to 11 years. The program benefits the field by providing sufficient funding for longitudinal studies and by fostering sustainable efforts that will accelerate the translation of health disparities research at the community level.

Loan Repayment Program (LRP): This program is designed to increase the pool of extramural researchers who conduct health disparities research and a majority of the 307 health professionals who have received LRP resources are from health disparity populations, as required by Public Law 106-525. LRP accounted for \$14.4 million or 7.2 percent of the NCMHD budget.

Minority Health and Health Disparities International Research Training Program (MHIRT): This program was created in an effort to broaden the scientific research experience of students in the sciences. Students traveled to approximately 46 countries to conduct health disparities research in FY2008, and 23 continuation grants were funded for a total of \$4.7 million.

The Research Infrastructure in Minority Institutions Program (RIMI): This program provides resources to strengthen faculty initiated research programs and improve the capacity for training future research scientists. A core goal of the RIMI Program is building a cadre of scientists through faculty development and student preparation. Almost nine percent of the budget was used to fund 23 grants, including 3 new projects. Dr. Ruffin asked for the Council's guidance in renaming the program to ensure that potential applicants understand the purpose of the program and are not misled about the eligibility based on the program title.

R13 Conference Grants: NCMHD supported six scientific conference grants.

Small Business Innovation Research (SBIR) and Small Business Technology Transfer Research (SBTTR) Programs: Federal agencies including the NIH Institutes and Centers are required to reserve a portion of their research and development funds for small businesses and to partnerships between small businesses and nonprofit research institutions to bring innovative technologies to market.. A total of \$5.7 million was provided to support 14 SBIR and SBTTR awards. Eight of the awards were new. The Council reviewed 2 SBIR applications during the Closed Session for FY 2009 funding consideration. A joint SBIR RFA will be promulgated with NIBIB shortly to promote the use of cutting-edge technologies to reduce health disparities. The Council will be reviewing the resulting applications at upcoming meetings.

Administrative Supplements: In FY2008, NCMHD initiated its solicitation of administrative supplements for the Centers of Excellence and Community Based Participatory Research (CBPR) programs. Supplements were given for telemedicine, K-12 education, and regional health disparities seminar series.

R01 Grants: NCMHD released its first Request for Application for investigator-initiated awards on health disparities in 2008. The R01 grant is the keystone of the NIH biomedical research enterprise. The NCMHD use of this mechanism demonstrates the progress the NCMHD has made in supporting health disparities research. The application deadline is April 17, 2009. Awards will be made by September 2009.

Collaborations: NCMHD continued its collaborations with 17 NIH Institutes and Centers. In addition, it entered into a new collaboration with the Substance Abuse and Mental Health Services Administration (SAMHSA) to further develop the National Network to End Disparities. This online network brings together new configurations of partners to address health disparities. It also began collaborations with the Centers for Medicare and Medicaid Services on a chronic disease project. Other agency collaborations also continued with the Centers for Disease Control and Prevention for the REACH 2010 program and the Indian Health Service with the Tribal Epidemiology Centers.

Intramural Research

Disparities Research and Education Advancing Mission Program (DREAM): This program will be launched in FY2009. It will be the cornerstone recruitment and training program for Phase I of the NCMHD intramural research program. DREAM targets individuals who are completing the NCMHD Loan Repayment Program. The goal is to support the retention of young investigators in biomedical research with a focus on health disparities. Applications for the DREAM (K-22) Career Transition Award are due on March 13, 2009, and expected to be reviewed by the Advisory Council in June 2009.

American Recovery and Reinvestment Act of 2009 (ARRA)

Dr. Ruffin gave an overview of the NIH implementation plan for the \$10.4 billion provided to the NIH through the American Recovery and Reinvestment Act of 2009. He gave a breakdown of the \$10.4 billion and shared some general information on the types of mechanisms the NIH planned to use to spend its ARRA funds. The NIH plans to distribute the awards primarily through R01s, administrative supplements for existing grants, and challenge grants to support innovative research. The NCMHD will employ similar mechanisms. He noted that ARRA funds will come with strict reporting requirements, emphasizing transparency and accountability. He reminded the Council members of the intent of ARRA by citing the purpose as outlined in the law.

Discussion

Following the Director's Report, discussions ensued regarding geographic health disparities and the role of the NCMHD in studying the issues and intervening to look at the persistence of health disparities in some of the most underserved states in the country. Members encouraged the development or expansion of partnerships with other Federal agencies to systematically identify local and regional problems and solutions, by looking at various models to gather and study the data. The idea of a logic model was recommended. Others suggested using administrative supplements or competitive supplements.

Certifying Compliance with NIH Policy on Inclusion Guidelines

Presentation by Dr. Derrick Tabor

Dr. Derrick Tabor presented the NCMHD report to the Advisory Council on the NCMHD compliance with the NIH Policy on Inclusion of Women and Minorities in clinical research. Each NIH Institute and Center conducting or supporting research involving human subjects is required to implement these guidelines and submit an annual report certified by the Advisory Council for inclusion in an overall NIH report to Congress. The NCMHD report was included in each Council member's information packet and requires certification before submission to NIH.

Dr. Tabor highlighted key aspects of the inclusion policy based on Public Law 103-43 the Health Revitalization Act of 1993, which mandated that minorities and women be included in all aspects of clinical research, including behavioral research. All segments of the NIH research establishment are involved in ensuring compliance with the inclusion policy. This includes reviewers, researchers, and grants management officers at the sponsoring institutions as well as at NIH. Although many of the issues pertain to Phase III research, which NCMHD does not sponsor, the Center must provide certified data for the Phase I and II trials.

NCMHD monitors compliance with the regulations by evaluating and, as appropriate, approving the required population target and enrollment reports submitted by principal investigators (PIs). NIH has posted detailed guidelines and policies to help principal

investigators (PI) provide required information and to assist the Institutes and Centers in performing their monitoring responsibility.

Over time, NCMHD staff have identified the most common type of compliance errors made by PIs. In general, these are failures to meet deadlines or to provide full project identifiers or data about protocol status. Problems also arise when PIs do not fully complete the paperwork for exemptions or fail to justify the exclusions of women, children, or minorities. Additional issues arise when a PI either does not have IRB approval letters for modifications to the project or does not have mechanisms in place for reporting adverse events to NIH, even though mechanisms are in place for reporting them to the IRB.

Dr. Tabor also noted that the inclusion reports provide a great deal of data. However, their usefulness is limited to some degree because the report does not ask for Hispanic participants to be identified by race.

The motion to certify the NCMHD report was unanimously approved by the Council.

SCIENTIFIC PROGRAM PRESENTATIONS

A Community Partnership To Reduce Blood Pressure Among African American Adults

Presentation by Kathleen Yadrick Ph.D., R.D., Professor and Chair, Department of Nutrition and Food Systems, University of Southern Mississippi

Dr. Yadrick led the development of a community-based research program, FIT for Life Steps, to help African American adults in a small Mississippi Delta community reduce their blood pressure through increasing their walking. The program was created because traditional blood pressure reduction programs were not effective with this population. However, the FIT for Life Steps program was effective: participants succeeded in lowering their blood pressure, cholesterol levels, and weight. The program also had an 80 percent retention rate at the 6-month point.

Local residents were involved in planning and implementing the program. A community board was empowered to develop Fit for Life Steps and local volunteers recruited and led the walking groups. The volunteers also were actively involved in expanding the program to include a nutritional component. Through their high levels of engagement, the board and volunteers helped build the community's capacity to develop and sustain positive health activities.

Based on the positive outcomes of the original program, Dr. Yadrick applied for and was awarded an R24 grant to expand the program to the city of Hattiesburg, Mississippi. The new initiative's objectives include improving the health of city employees through a walking program and building community capabilities for planning and organizing positive projects. Hattiesburg's mayor is very supportive of the program: the city's recently built walking trails will be used for the exercise component, and any

improvements in employee health should translate into lower health care costs for the city.

The R24 program will provide comparative data about health improvements resulting from a community-based program to increase walking collected from demographically similar people randomized to either the project or control groups.

The R24 program, Healthy U Begins (HUB) with City Steps, is composed of three phases to be implemented over 18 months. The first phase, to be launched this fall, involves building community capability. This involves developing a systematic community capacity framework including conceptual supports and empirical measurements. Community committees, composed of neighborhood and other local leaders, are developed and volunteers are recruited to lead the project. During the second phase, the committees will tailor the intervention to ensure that it is effective with African American adults, especially males. This phase also includes testing and implementing the intervention. The third phase will focus on collecting and analyzing data and on introducing maintenance activities. The anticipated project benefits include improving the health of the African American community, developing community leadership capacity, creating networks of existing health resources, and increasing the number of resources.

This program is being complemented with an educational program to increase minority student interest in health research careers. A key part of the program is introducing undergraduate courses on community nutrition and health education. In addition, an administrative supplement is being used to fund four regional seminars to reduce health care disparities in the Delta area. The first seminar, “A Step Towards Health,” was held recently at Delta State University for a group of community leaders. Future seminars will include a “train-the-trainer” session for leaders of faith-based organizations and a research update for health care professionals. The final seminar will focus on developing positive community-university relationships to promote positive health activities.

LanguageMate: Developing and Evaluating a Medical Spanish Enhancement System for Physicians

Presentation by William Z. Tan, President, LanguageMate

NCMHD SBIR funding and other NIH grants are helping Mr. Tan realize his objective of creating an array of cross-cultural communication tools that will be technologically enabled, scientifically validated for effectiveness, and economically viable. At present, NCMHD is providing funds to develop an e-learning platform for physicians and nurses to improve their ability to speak medical Spanish and to gain the skills to interact with a culturally diverse patient population. Company researchers also are developing:

- A project to help the growing number of foreign-born nurses better communicate in English with patients and colleagues.
- Prerecorded telephone messages in Spanish and other languages to remind patients with limited or no English proficiency about appointments and tests, and to provide them with ways to improve their health, such as dietary tips for diabetics.

- An electronic library of standard health forms and educational materials in Spanish and Chinese that can be accessed and downloaded for patients by English-speaking staff.
- A touch-screen kiosk that Chinese-speaking patients can use to identify the types of traditional medicines they are using.
- A touch-screen tablet device that can be attached to the hospital bed to help non-English-speaking patients communicate common requests to their nurses.

The company also is creating a program to encourage young children from health disparity backgrounds to consider careers in the sciences. A multi-ethnic, multi-racial workforce is vital for ensuring that patients with limited or no English proficiency receive good health care.

Mr. Tan thanked NCMHD for its support of the e-learning platform being developed to help physicians and nurses communicate with patients whose primary language is Spanish. Many factors motivated Mr. Tan to develop this product. Patients with limited English proficiency often experience increased lengths of stay in health facilities and unnecessary readmissions and testing. They also are more likely to wait until their symptoms are severe to seek help, resulting in more emergency room visits. In addition, these patients often do not know how to get financial assistance to cover the care that they receive and do not understand prescribed medical regimens, leading to noncompliance. Improved communication can help reduce these medical problems and their costs. Furthermore, providers and institutions benefit from better communication: it helps build patient loyalty, and it enhances institutional compliance with DHHS requirements for bilingual services.

The product being developed by Mr. Tan and his researchers is a password-protected online e-learning system. The lessons are structured using a three-part context tutoring framework: the user is helped to acquire the initial language knowledge, the learning is reinforced through a series of exercises, and then the user demonstrates the ability to apply their learning. The first-phase product has been developed using a methodology that relies heavily on a video tutor who engages the user in role-playing and in learning to employ the language in a culturally competent manner by reviewing possible errors. The first phase was evaluated by 24 medical students and residents. Results included increases of about 80 percent in language comprehension and 3-week retention rates approaching 90 percent.

Phase two of product development will include supplementing the video tutor with online access to language experts. During this phase, a three-level Spanish course will be developed that progresses from conducting a health-history interview to a review of major biological systems and diseases and then to counseling patients about treating these diseases. Each level will require between 20 and 30 hours to complete, and will include optional materials to enhance comprehension. About 80 medical students and residents will test the second-phase product, and Mr. Tan is currently seeking funding for a large-scale national demonstration project.

Current Advances in Health Disparities Research

Presentation by Michael Gibbons, Ph.D., Associate Director, Johns Hopkins Urban Health Institute

Dr. Gibbons and his research team have focused their efforts on developing a theory that spans the “disconnect” between social and medical theories to explain the causation of community health challenges, especially disparities. Using an example drawn from current demographic trends, Dr. Gibbons illustrated the importance of including both social and medical determinants of health when developing plans to effectively address community health issues. As the number of senior citizens increases, the prevalence of chronic health problems will also increase. However, the current health care system was constructed to resolve acute health problems. In addition, many seniors have difficulties accessing care. Therefore, more elderly people will be seeking services for chronic health conditions from others in their community, often people without medical training. To fully address the resulting population issues, both the social and medical causative factors must be considered.

Dr. Gibbons also illustrated the need to consider the full range of micro- and macro-level determinants of health in explaining health issues, especially disparities. The medical causation of lung cancer, for example, involves molecular damage. However, both environmental and molecular factors must be considered to fully understand the incidence and prevalence of the disease in and across specific populations. Smoking is considered a leading cause of lung cancer. Nonetheless, only 25 percent, at most, of heavy smokers get lung cancer. A full and accurate explanation for why some heavy smokers get cancer, while most do not, will require analyzing relationships among community and individual factors.

In addition, Dr. Gibbons noted that both social and biomedical factors must be considered to truly understand why some prevention efforts succeed with various populations. By considering this full array of characteristics, scientists can more completely understand why things go right, as well as why they go wrong. This knowledge can, in turn, be translated into a carefully modulated set of policies and behaviors for preventing illnesses, protecting populations against disease, and successfully treating diseases when they occur.

Dr. Gibbons and his team have constructed a conceptual model that includes the array of critical factors related to health. They reviewed past models, such as the social and economic determinants of health framework developed by Berkman and Glass, and determined that although they represented steps in the right direction, these models were incomplete. The hypothalamic-pituitary axis (HPA) model provided the best conceptual understanding of medical stressors. However, this needed further elaboration, especially to fully explain and address health disparities.

Dr. Gibbons determined that the optimal model would include a biobehaviorally and mechanistically grounded conceptual framework with widely accepted terminology through which multilevel transdisciplinary research could be organized as needed. To

meet these criteria, he led his team in developing the Sociobiologic Integrative Model enhancing the integration of sociobehavioral, environmental, and biomolecular knowledge. This model conceives of the world as existing at least on the population, individual, and subindividual levels. These three levels were selected to ensure that the model did not become overly complex. However, researchers can modify the model to include additional levels ranging from the smaller-than-cellular to the family and community strata.

Dr. Gibbons demonstrated how the model would successfully identify social and medical disease factors and outcomes as well as encourage physical and social scientists to develop holistic collaborations. Returning to his lung cancer example, he explained that this model would provide a framework for looking at the development and treatment of the disease on the genetic through community levels. The range of factors at each level could be studied in combination to determine the causes and most effective responses to the illness for different populations.

The model has provided a framework for a new approach to health investigations that Dr. Gibbons calls “populomics” and defines as an emerging discipline focused on population-level, transdisciplinary, and integrative disease risk characterization, interdiction, and mitigation heavily reliant upon innovations and health information technologies.

At present, he and other researchers in the new field are gaining increasing support from the scientific establishment, including the NIH and the National Science Foundation. New research is being undertaken to develop population and individual level health interventions that employ populomics, which includes applying this new technology to bring health interventions to hard-to-reach populations.

Populomics applications promise to move e-medicine beyond electronic medical records and consultations. For example, a new technology called radio frequency identification (RFID) may be used to develop easy-to-use personal health interventions such as menus for diabetics that comply with nutritional guidelines and include foods already in the kitchen that are identified by waving the RFID sensors near the cabinets and refrigerator. More information is available in the book recently coauthored by Dr. Gibbons, *E-health Solutions for Healthcare Disparities*.

Public Comments

There were no comments from the public.

Concluding Comments from Dr. Ruffin

Dr. Ruffin thanked the speakers for their excellent presentations. He also thanked Council members for their involvement and thoughtful guidance and the NCMHD staff for their continued dedication and hard work.

Adjournment of the Open Session

Ms. Brooks adjourned the Open Session at 5:00.

**National Advisory Council on Minority Health and Health Disparities
National Center on Minority Health and Health Disparities
National Institutes of Health
U.S. Department of Health and Human Services**

Tuesday, February 24, 2009

Meeting Minutes

We hereby certify that, to the best of our knowledge, the foregoing minutes are accurate and complete.

/John Ruffin/

John Ruffin, Ph.D., Chair, National Advisory Council on Minority Health and Health Disparities; Director, National Center on Minority Health and Health Disparities, NIH

/Donna A. Brooks/

Donna A. Brooks, Executive Secretary, National Center on Minority Health and Health Disparities, NIH