

**MINUTES OF THE NUTRITION COORDINATING COMMITTEE (NCC)
MEETING, NATIONAL INSTITUTES OF HEALTH (NIH)
Rockledge 2, Conference Room 9100-9004, Bethesda MD
July 7, 2005, 2:00-4:00 PM**

WELCOME

Dr. Van Hubbard, Director, Division of Nutrition Research Coordination (DNRC) convened the meeting at 2:00 PM and welcomed participants. Participating via phone were Dr. Deborah Galuska and Dr. Larry Grummer-Strawn, Centers for Disease Control and Prevention (CDC); Dr. Elizabeth Maull, National Institute of Environmental Health Sciences (NIEHS); and Ms. Terri Brown, Indian Health Services (IHS). The agenda for the meeting is provided as Appendix A, and the list of attendees is provided as Appendix B. Dr. Hubbard noted that there would be some adjustment of the agenda to meet the schedules of presenters.

APPROVAL OF MINUTES FROM THE MAY 5, 2005 NCC MEETING

Minutes from the May 5, 2005, NCC Meeting had previously been sent to NCC members via email. One correction (the addition of Dr. Elizabeth Maull, NIEHS, as an attendee) had been received via email. Dr. Hubbard asked if there were any additional corrections to the minutes. There were none. Dr. Paul Coates, Office of Dietary Supplements (ODS), made a motion to approve the minutes, and Dr. Deborah Olster, Office of Behavioral and Social Sciences Research (BSSR), seconded the motion. The minutes were thus approved and will be posted on the DNRC website, <http://www.dnrc.nih.gov> along with the minutes from previous NCC Meetings.

ACTIVITIES AND ALERTS FROM CDC

Dr. Deborah Galuska, CDC, discussed the results of work done by an expert scientific panel under contract with CDC and published in the *Journal of Pediatrics* (146:732-737, 2005) by Strong *et al.* entitled "Evidence based physical activity for school-age youth." This study included a systematic literature review, which identified 850 articles and additional papers identified the panel. The purpose of the expert panel was to review the effects of physical activity on health and behavior outcomes and to develop evidence-based recommendations for physical activity in youth. The expert panel consisted of 13 non-federal employees who had expertise in the areas of adiposity, cardiovascular health, type 2 diabetes, asthma, mental health, academic achievement, injury associated with physical activity, and muscular skeletal health. A systematic literature review was conducted for each topic; each expert panelist reviewed and abstracted information from the relevant articles. The panel then summarized the evidence for the relationships between physical activity and outcome of interest. The panel met for a two-day meeting in January of 2004. Attendees at the meeting also included representatives of major organizations and agencies with an interest in the topic of physical activity in children. Panel members gave presentations summarizing the evidence for each assigned outcome; each presentation was followed by open discussion. The expert panel then met

separately to develop the recommendation based on the strength of the evidence available on each topic. The recommendation was “School age youth should participate every day in 60 minutes or more of moderate to vigorous physical activity that is enjoyable and developmentally appropriate.” Additional details about the review and justification for the recommendations are found in the paper.

Dr. Larry Grummer-Strawn, CDC, discussed tentative plans for a United States (US) workshop related to new World Health Organization (WHO) growth curves. In 1993, WHO convened an Expert Committee on the Use and Interpretation of Anthropometry. Based on analyses of the growth of breastfed children from a variety of datasets, the Expert Committee concluded that the 1977 National Center for Health Statistics (NCHS) growth reference was inadequate for assessing the growth of infants due to various flaws in the construction of the 1977 reference as well as differences between the growth of breastfed and formula fed infants. They recommended development of a new growth *standard* that would describe how children *should* grow rather than simply a description of how children *do* grow in a specific setting and time.

A working group was established in 1995 to design the protocol for what became the Multicentre Growth Reference Study (MGRS). Study sites were selected in six countries based on a number of criteria: socio-economic status that would not constrain growth, low altitude, low population mobility, a willingness in the population to follow feeding recommendations of 12 months breastfeeding and 4 months exclusive breastfeeding, existence of a breastfeeding support system, presence of local collaborative institutions, high rate of hospital births, sufficient number of births accessible, feasibility of implementation, and fundability. Consideration was also given to mean birth weight in the target population, maternal height indicating completion of secular trends in height, accessibility to complementary foods, immunization rates, health care utilization, rate of diarrheal disease, and geographic distribution of sites. Sites were selected in Norway, Brazil, India, Ghana, Oman, and the US. CDC was a member of the 1993 WHO Expert Committee and has been on the Advisory Group for the MGRS since 1996.

The study design included a longitudinal study from birth to 24 months and a cross-section study from 18 to 71 months. To be included in the study, infants had to be term, singleton births, with no identified morbidity that would affect growth. Mothers had to be non-smokers and willing to follow the feeding recommendations. For the longitudinal study, the feeding recommendations entailed 4 months of exclusive or predominant breastfeeding, introduction of complementary foods by 6 months, and at least 12 months of continued breastfeeding. For the cross-sectional component, the children had to have been breastfed for at least 3 months. Only children who met these feeding recommendations were included in the actual growth reference. The sample size was approximately 1,700 children in the longitudinal study and 8,000 children in the cross-sectional study.

The initial growth standards developed from the MGRS, which are expected to be released in January 2006, include length/height-for-age, weight-for-age, weight-for-length/height, and BMI-for-age. Plans are to develop growth standards for mid-upper-arm circumference (MUAC)-for-age, head circumference-for-age, subscapular skinfold-for-age, and triceps skinfold-for-age, but these, also to be released in January. Development of growth velocity standards for the first 24 months of life is also underway.

WHO has clearly indicated that these new growth standards will become the new international reference. Many countries have already indicated their intentions to switch from the NCHS reference to the new WHO standards. CDC has proposed to convene an Expert Panel meeting in collaboration with NIH and the American Academy of Pediatrics (AAP) to develop recommendations on the role that the new MGRS growth standards should play in the US. Options would include using them only for research and international comparison purposes, using them only for breastfed infants, using them only up to a certain age (such as 12 or 24 months), or using them up to 5 years of age. Because the new standards only go up to 5 years, continued use of the CDC 2000 growth reference for school-age children and adolescents will be necessary. Details of the meeting are yet to be worked out, but it is hoped that such a meeting will be held in November or December 2005 (late enough that the WHO curves can be considered final and compared to the CDC 2000 curves, but early enough that some guidance can be given to clinicians when the WHO charts are released).

INTERNATIONAL NUTRITION RESEARCH AND HEALTH ACTIVITIES

Ms. Mary Lou Valdez, Department of Health and Human Services (DHHS) Office of Global Health Affairs, discussed international nutrition research and health activities related to infant feeding, HIV/AIDS, and the new WHO growth charts. She mentioned the World Health Assembly resolution (http://www.sho.int/gb/ebwha/pdf_files/WHA58/WHA58_30-en.pdf) and the WHO Millennium Declaration (http://www.who.int/gb/ebwha/pdf_files/EB115/B115_5-en.pdf), specifically they relate to infant and maternal mortality. She noted the critical importance of science as the cornerstone of international nutrition and health policy. Dr. Anne Venneman is the new Director General of UNICEF, and that UNICEF is now more focused on child survival rather than child rights. Dr. Raiten's PowerPoint presentation is available upon request.

Dr. Daniel Raiten, National Institute for Child Health and Development (NICHD) provided an overview of the Trans-NIH Subcommittee on International Nutrition Research (SCINR), its three-year history, and suggestions for future activities. This NCC subcommittee had its first meeting in March 2002. Its core membership consists of representatives from NIH Institutes, Centers, and Offices. Emerging priority areas of interest to this group are the role of diet with regard to infectious diseases including HIV infection, tuberculosis, and malaria; development of non-communicable diseases including fetal/childhood antecedents to adult diabetes, cardiovascular diseases, and certain cancers; the impact of exposure to environmental factors; and cognitive and behavioral development. Some of the goals of SCINR are to find opportunities for

collaboration with government and non-government agencies engaged in related research; encourage the expansion of opportunities for training scientists from the US and the international community; and to explore more effective ways of disseminating research findings, facilitate information exchange, and support the development of methods to translate research into application.

Dr. Natalie Tomitch, NIH Fogerty International Center (FIC), made a few remarks regarding the role for FIC in international nutrition research. She mentioned the rationale for supporting international research and the global burden of disease. She noted that the trend of international collaboration had increased ten-fold in recent years, and that direct awards by NIH had increased three-fold in the last ten years. FIC has 24 programs in low and middle income countries and is looking for more NIH collaboration for this work. Plans will be made for her to make a longer presentation at a subsequent meeting.

UPDATE FROM THE DHHS OFFICE OF DISEASE PREVENTION AND HEALTH PROMOTION (ODPHP)

[Note: At the last NCC meeting, it was noted that each of the Dietary Reference Intake (DRI) Reports developed by the National Academy of Sciences (NAS) Institute of Medicine (IOM) contained a section on research recommendations. The collection of these research recommendations (66 pages) was sent to NCC members as an action item. NCC members were asked to respond to the DNRC to indicate how they use the DRIs.]

Ms. Kathryn McMurry, ODPHP, discussed future activities related to the DRIs. Over the past several months, representatives of the Interagency Committee on Human Nutrition Research (ICHNR) Federal Steering Committee, with members from DHHS, the US Department of Agriculture (USDA), and the Department of Defense (DoD), have held several in-depth discussions on several aspects of the DRIs including review and response to DRI research recommendations, federal implementation of existing DRI recommendations and identification of federal needs, and identification of the criteria and process for further study of human nutrient recommendations. The Federal Steering Committee is preparing a Statement of Work to request a new task order for IOM to prepare a summary and evaluation of the research recommendations from the DRIs. This will be part of a larger process to identify where gaps exist, assess federal activities, and consider research priorities. An extensive inventory of federal program and policy activities has begun to illuminate the many programs for which DRI recommendations provide the primary basis. They include assessment, program delivery, food supply management, food regulations, policy, and research. To date, 24 activities have been identified.

Additional federal needs arising from the challenges of implementing the current DRIs in programs and policies are beginning to be identified. Some areas discussed were the needs for assessment of comparative health risks of inadequacy across nutrients, rating the strength of evidence for recommendations, more systematic review of criteria and endpoints, moving from Adequate Intakes (AIs) to Estimated Average Requirements (EARs) and to

Recommended Dietary Allowances (RDAs), and consideration of updates for certain nutrients. Ongoing discussions have been held to explore various approaches to assessing lessons learned from the current process and ways to enhance future evaluations. It is important to do this before embarking on any new studies. The Federal Steering Committee is preparing to discuss this aspect in further detail over the next few months.

Ms. McMurry also provided an update regarding Dietary Guidelines communication activities. ODPHP in collaboration with other agencies is developing Dietary Guidelines materials for both health professionals, providers of care, and specific consumer population groups. ODPHP is currently working on materials for older Americans in partnership with the DHHS Administration on Aging (AoA) and plans to address other specific populations in the future, funds permitting. The working group for the materials for older Americans includes representatives from the National Institute on Aging (NIA), Centers for Medicare and Medicaid Services (CMS), ODPHP, Indian Health Service (IHS), and CDC. Materials will be developed from a series of roundtable discussions and qualitative research with elderly congregate meal participants and providers. All materials will be tested with older Americans and will go through Dietary Guidance Review, in August or September 2005.

NIH OFFICE OF DIETARY SUPPLEMENTS (ODS)

Dr. Paul Coates, Director ODS, provided an update of the activities of that Office. ODS and DNRC staff collaborated to publish a paper that appears in the July 2005 issue of the *Journal of Nutrition* (Haggans *et al.* Computer Access to Research on Dietary Supplements: A database of federally funded dietary supplement research. *J Nutr* 135:1796-1799, 2005). This database, which is referred to as CARDS, tracks the federal investment in dietary supplement research. The National Cancer Institute (NCI), Food and Drug Administration (FDA), and ODS are jointly sponsoring a conference on July 12 and 13, 2005 at the Lister Hill Auditorium, NIH Campus, Bethesda MD on *Use and Misuse of Biomarkers as Indicators of Cancer Risk Reduction Following Dietary Manipulation*. Additional information is available at <http://www.scgcorp.com/biomarkers2005/>. The National Institute of Mental Health (NIMH) and ODS, along with NICHD, National Center for Complementary and Alternative Medicine (NCCAM), and NIEHS are planning a workshop to be held on October 6, 2005 at the NIH Neurosciences Center on *Dietary Supplements in Autism*. This workshop is intended to update NIH staff on the research needs and possible strategies for studying dietary supplement interventions in the spectrum of autism disorders.

UPDATE OF DNRC ACTIVITIES

Dr. Hubbard reported on the *WHO Expert Meeting on Childhood Obesity: A Contribution to the Implementation of the Global Strategy on Diet, Physical Activity and Health*, which was held June 20-24, 2005, at the WHO Centre for Health Development in Kobe, Japan and co-chaired by Dr. Shiriki Kumanyika

and Dr. Reynaldo Martorell. The meeting was the first step of a process that WHO is taking to address the issues related to childhood obesity, in particular the work on analysis and review related to upstream policy issues which influence a broader societal environment. The objectives of the meeting included:

- review of major contributing factors to the development of childhood overweight and obesity;
- review of the recommendations for selecting reference populations and approaches for the development of indicators and cut points for school-aged children and adolescents that can be utilized for monitoring childhood overweight and obesity;
- identification of further research needs related, in particular, to childhood obesity measurement; and
- review of the existing intervention programs and their impact on preventing childhood obesity, as part of the contribution to the implementation of the global strategy on diet, physical activity, and health.

The meeting expanded a multi-agency process to consolidate and harness the on-going efforts of all concerned agencies to move forward on the development of international growth standards for youth. In addition to several Cochrane systematic reviews on prevention of obesity and other scientific background reports, the overall process is anticipated to produce a WHO Technical Report Series on childhood obesity that will serve as a guide for countries to develop and implement strategies for addressing the increasing public health problem of childhood obesity.

Nutrition Education Subcommittee (NES). Dr. Jean Pennington, DNRC, provided an update of the activities of the NIH NCC NES. Since the beginning of 2005, 31 items have come in for review including 15 from NIH (five from NCI, one from the DNRC, two from NICHD, two from the National Heart, Lung, and Blood Institute (NHLBI), one from ODS, two from the Weight-control Information Network (WIN), and two from National Institute for Diabetes and Digestive and Kidney Diseases (NIDDK); five from DHHS, and eleven from USDA. Materials reviewed since the last NCC meeting include:

- *Comic Strip* (Food and Nutrition Service (FNS), USDA)
- *Dietary Guideline Fact Sheets* (ODPHD)
- *Take Charge* (WIN)
- *Your Health is Golden! Heart Health Community Activities for Vietnamese* (NHLBI)
- *MyPyramid Children's Game* (FNS, USDA)
- *Power Plan* (FNS, USDA)
- *MyPyramid Children's Poster* (FNS and CNPP, USDA)
- *DoD Shelf Talkers* (DoD)
- *Eat Healthy Foods* (NIDDK)
- *Lower Your Risk for Type 2 Diabetes* (NIDDK)
- *MyPyramid Classroom Lessons Plans I and II* (FNS and CNPP, USDA)
- *Dietary Guidelines Insert* (WIN)
- *Milk Matters for Your Child's Health* (NICHD)

- *MyPyramid Classroom Lesson Plan III* (FNS and CNPP, USDA)

Human Nutrition Research and Information Management (HNRIM) System Update. Ms. Karen Regan, DNRC, provided a status report of the HNRIM System. She noted that Fiscal Year (FY) 2004 HNRIM data collection was complete and that the data have been posted to the public website (<http://hnrnim.nih.gov/>). Ms. Regan distributed the final NIH FY04 Data Table (Appendix C) and noted that the total number of nutrition projects had increased by 220, but the total nutrition dollars decreased by about \$2 million. The FY04 Report should be completed and posted to the public website by the end of July 2005. Ms. Regan reported that the ODS review of HNRIM projects for FY04 has also been completed and that 963 projects have been identified as related to dietary supplements and downloaded to the CARDS database. Ms. Regan thanked the Instituted and Centers for their cooperation and quick responses to requests for re-consideration of project coding.

REPORTS FROM NCC MEMBERS AND LIAISONS

Dr. Ann Jerkins, Center for Scientific Review (CSR), introduced Dr. Nancy Sheard, who has recently joined the Endocrinology, Metabolism, Nutrition and Reproductive Sciences (EMNR)-IRG at CSR. She will serve as the Scientific Review Administrator (SRA) for one of the three study sections that review proposals dealing with diabetes and obesity, specifically, applications that involve patient-oriented research and those that examine the neuroendocrine regulation of energy balance.

Dr. Wendy Johnson-Taylor, DNRC reminded NCC members about the *Diet and Communication Workshop*, which is to be held at the Lister Hill Auditorium on NIH Campus (Building 38A), Bethesda, Maryland on July 14-15, 2005. This Workshop is sponsored by the Behavioral Research Program of NCI and by the DNRC. The Workshop will focus on media and policy issues, specific populations, and strategic campaigns. The website address is <http://www.scgcorp.com/dietcomm2005/>.

NEXT NCC MEETING

The next NCC Meeting is scheduled for September 1, 2005.

ADJOURNMENT

Dr. Hubbard adjourned the meeting at 4:00 PM.

LIST OF APPENDICES

Appendix A - NIH NCC Meeting Agenda for July 7, 2005

Appendix B - NCC Meeting Attendees for July 7, 2005

Appendix C – Actual Obligations for the NIH Program in Biomedical and Behavior Nutrition Research and Training.

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APPENDIX A. NIH NCC MEETING AGENDA FOR July 7, 2005

2:00-4:00 PM, Rockledge 2, Conference Room 9112-9116, Bethesda MD

1. **Welcome**.....Van Hubbard
2. **Approval of Minutes of the May 5, 2005 Meeting**.....Van Hubbard
3. **Activities and Alerts from CDC (NCCDPHP)**
Physical Activity Recommendations for School-Aged Youth.....Deb Galuska
Tentative Workshop Plans Related to WHO Growth Curves.....Larry
Grummer-Strawn
4. **Update from ODPHP**
Future Activities Related to the Dietary Reference Intakes...Kathryn McMurry
Dietary Guideline Communication Activities.....Kim Stitzel
5. **International Nutrition Research and Health Activities**....Natalie Tomitch,
NIH Fogarty International Center, Mary Lou Valdez, DHHS Office of Global
Health Affairs, and Daniel Raiten, NICHD
6. **Update from the Office of Dietary Supplements**.....Paul Coates
7. **DNRC Activities Update**
WHO Meeting on Childhood Obesity.....Van Hubbard
Nutrition Education Subcommittee.....Jean Pennington
HNRIMKaren Regan
8. **Reports from NCC Members and Liaisons**.....NCC Members
9. **Next Meeting: September 1, 2005**.....Van Hubbard
10. **Adjournment**.....Van Hubbard

APPENDIX B. NCC MEETING ATTENDEES FOR July 7, 2005

	Members Present	Members Absent	Alternates Present
<u>Chairperson:</u>	V Hubbard		P Starke-Reed

NIH Members:

NCI		J Milner	
NHLBI		D Danford	
NIDCR		R Nowjack-Rayner	
NIDDK	C Miles		
NINDS		M Mitler	
NIAID	M Plaut		
NIGMS		S Somers	
NICHD	G Grave		D Raiten
NEI		N Kurinij	
NIEHS	E Maull		
NIA	J Finkelstein		
NIAMS		J McGowan	
NIDCD		B Wong	
NIMH		P Muehrer	
NIDA		G Lin	
NIAAA		V Purohit	
NINR		Y Bryan	
NCCAM		M Klein	
NCCR		S Kayar	
FIC	N Tomitch		
NCHGR		K DeLeon	

NIH Liaison Members:

CC	N Sebring		
CIT		J Mahaffey	
CSR	S Kim		
NLM		S Phillips	
OBSSR	D Olster		
OC		M Stern	
ODS	P Coates		
OD/ODP	B Portnoy		
OLPA			
ORWH			
PRCC		M Vogel-Taylor	

Agency Liaison Representatives:

CDC/NCCDPHP	D Galuska		
CDC/NCHS		V Burt	
FDA		K Ellwood	
HRSA		M Lawler	
IHS	T Brown		
ODPHP	K McMurry		
USDA		M Kretsch	
DoD		K Friedl	

DNRC: W Johnson-Taylor, C McDade-Ngutter, J Pennington, K Regan, L Somuah

Guests: J Dwyer (ODS), A Ershow (NHLBI), L Grummer-Strawn (CDC), A Jerkins (CSR), YS Kim (NCI), M Miller (NIDDK), MF Picciano (ODS), N Sheard (CSR), P Trumbo (FDA), ML Valdez (DHHS), B Yetley (ODS)

APPENDIX C. ACTUAL OBLIGATIONS FOR THE NIH PROGRAM IN BIOMEDICAL AND BEHAVIORAL NUTRITION RESEARCH AND TRAINING (FY 2004, FINAL)

Institute/Center	No of Nutrition Projects	\$ (in thousands)
NCI	937	226,990
NHLBI	570	194,222
NIDCR	56	9,367
NIDDK	991	230,750
NINDS	41	10,587
NIAID	85	19,972
NIGMS	27	3,623
NICHD	226	50,738
NEI	78	20,253
NIEHS	108	23,962
NIA	160	61,453
NIAMS	25	4,262
NIDCD	35	3,316
NIMH	118	20,015
NIDA	22	3,318
NIAAA	49	14,074
NINR	45	5,187
NHGRI	2	226
NIBIB	2	340
NCRR	146	49,568
NCCAM	211	54,550
NCMHD	54	8,661
FIC	53	2,264
OD/OBSSR	20	1,483
OD/ODS	97	14,123
Totals	4,158	1,033,304