

**MINUTES OF THE NUTRITION COORDINATING COMMITTEE (NCC)
MEETING, NATIONAL INSTITUTES OF HEALTH (NIH)
Rockledge 2, Conference Room 9100-9104, Bethesda MD
January 5, 2006 2:00-4:00 PM**

WELCOME

Dr. Pam Starke-Reed, Deputy Director, Division of Nutrition Research Coordination (DNRC) convened the meeting at 2:01 PM and welcomed participants. Participating via phone were Ms. Karen Donato, NIH NHLBI; Dr. Deb Galuska, CDC/NCCDPHP; Dr. Elizabeth Maull, NIH NIEHS; Dr. Molly Kretsch, USDA; Dr. Suzana Petanceska, NIH NIA; Dr. Judy Finkelstein, NIH NIA; Ms. Tammy Brown, IHS; Ms. Wendy Sandoval, IHS; Dr. Dan Raiten, NIH NICHD; Dr. Laura Kettel-Kahn, CDC; Dr. Susan Yanovski, NIH NIDDK; Dr. Virginia Hartmuller, NIH NCI; Dr. Shirley Blakely, FDA; Ms. Martina Vogel-Taylor NIH, Prevention Research Coordinating Committee; Dr. Deborah Olster, NIH, OBSSR; Dr. Susan Welsh, CSREES, USDA; Dr. Natalie Kurinij, NIH NEI; Ms. Laura McNally, HRSA; Dr. Susanne Strickland, NIH NICHD; Ms. Kim Thomsen, DOD; and Ms. Mary K Holohan, NIH NHGRI. The agenda for the meeting is provided as Appendix A, and the list of attendees is provided as Appendix B.

APPROVAL OF MINUTES FROM THE NOVEMBER 3, 2005 NCC MEETING

Minutes from the November 3, 2005 NCC Meeting had previously been sent to NCC members via email. Dr. Starke-Reed asked if there were any other corrections to the minutes. There were none. Dr. John Milner, National Cancer Institute (NCI), made a motion to approve the minutes, and Dr. Paul Coates, Office of Dietary Supplements (ODS), 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.

USING HEIGHT AND WEIGHT INFORMATION TO SELECT MYPYRAMID FOOD INTAKE PATTERNS

Dr. Trish Britten, from the USDA, presented background information pertaining to the issue of how MyPyramid should relay health messages and advice to adults who are over or under the healthy weight range. The USDA has received an enormous amount of feedback that heights and weights need to be included in the MyPyramid Plan input in order to provide a more appropriate food intake pattern for each individual. Some professionals have indicated that they will not use MyPyramid or refer consumers to it because it fails to account for height and weight. Dr. Britten explained that given the comments received, providing no advice related to height and weight is not an option. CNPP proposes to add height and weight as part of the entry data for adults, but adding this information raises issues for those who are above or below a healthy weight.

The MyPyramid Plan now assigns a food intake pattern to an individual based on their age, sex, and activity level (one of three options). The calorie level for the intake pattern is calculated based on EER equations, using an IOM reference

person for the height and weight variables. The height is a median height for the gender (and age if <19), the weight is a weight that results in a BMI of 21.5 for women, 22.5 for men, and a median weight for children up to age 18.

Twelve MyPyramid food intake patterns were developed at 200-calorie increments from 1000 to 3200 calories. Each was designed to meet the nutrient needs of the age/sex group(s) whose energy needs fell close to the pattern's energy level, assuming a reference size person who was sedentary. The actual pattern assigned to an individual who identifies themselves as active will provide more calories, and will still meet their nutrient needs.

It is recognized that some individuals with BMI > 25 or BMI <18.5 may wish to maintain their current weight, and in some cases, this may be appropriate. Options for maintaining weight or losing weight are already provided by MyPyramid Tracker for those who have a BMI >25 and <35. The Tracker uses TEE rather than EER equations to accommodate these individuals.

CNPP did not propose using heights and weights for children up to the age of 18 to set energy levels. The variability in energy need due to growth spurts makes it extremely difficult to estimate an appropriate energy level using body size. Dr. Britten sought guidance from HHS on the possibility of using height and weight specific guidance for children.

Dr. Britten shared a proposal that CNPP has drafted to select the most appropriate food intake pattern and incorporate guidance for adults who are above or below the healthy weight range. HHS's advice on these options was requested, and the NCC members were asked to participate in a discussion. Dr. Britten explained that CNPP's intentions are to provide general dietary advice and not a therapeutic diet to any individual, and to direct all individuals who may be at risk for weight-related health issues to seek medical care. The options are intended to be for adults only. If the age entered is under 19, then a food intake pattern would be assigned as it is now, based on median height and weight for age. The entry fields for height and weight would not appear.

Dr. Britten requested that individuals interested in participating in a working group to address the questions posed below email Dr. Pamela Starke-Reed to provide their contact information. CNPP hopes to proceed with discussions in the next few weeks.

The following questions were posed to the NCC members by USDA staff:

1. How can appropriate general advice be provided for those with a BMI >25 who want to gradually lose weight? Our (USDA) proposal is to assign a food intake pattern that provides for their approximate energy needs at a BMI of 25, and that is at least 200 calories less than a pattern for their current TEE.

2. What is the appropriate BMI cutoff for an option to “maintain current weight” for those with a BMI of >25? We (USDA) recognize that some individuals may have additional muscle mass that they do not want to lose, and do not need to lose weight for health reasons. The proposed cutoff is at a BMI of 35.
3. For individuals with a BMI of less than 18.5, how can options and advice be structured? For example, is an option for some close to the cutoff level to “maintain current weight” appropriate?
4. How can advice best be provided for those with a BMI substantially <18.5? We (USDA) recognize that some of these individuals may have serious weight-related medical problems, and want to steer them to seek medical advice.
5. What disclaimers are needed for each of the options? Throughout the MyPyramid website, we (USDA) plan to make more prominent the statement that the MyPyramid food patterns are not therapeutic diets. We (USDA) also plan to add additional links to NIH sites that may provide consumer advice for those at various BMIs.
6. Is there any way in which height and/or weight information could be used in determining the appropriate food intake pattern for children?
7. We (USDA) would like to add links from the MyPyramid.gov website to NIH websites that have specific tips and information for consumers who have health conditions such as type 2 diabetes, hypertension, high cholesterol, and osteoporosis. What NIH sites would you recommend USDA link to?

WHO CALCIUM AND MAGNESIUM EXPERT MEETING

Dr. Bill Weglicki, GWU, discussed an upcoming symposium “**Health Aspects of Calcium and Magnesium in Drinking Water**” The possible health and nutrition benefits of hard water consumption (possible reduced cardiovascular disease, hypertension, osteoporosis, diabetes) will be addressed in the symposium produced by the NSF Int. WHO Collaborating Centre and International Life Sciences Institute. All aspects of drinking water provision are at issue, including Public Water Systems, Desalination, Home Water Softening and other Home Treatment, Bottled Water and Beverages. The Symposium will be in Baltimore, MD, USA on April 24-26, 2006. Posters and Registration and Sponsors are invited. There will also be a WHO Expert Meeting to follow and recommendations will be provided and could be reflected in the Desalination Guidance (2006) and the GDWQ 4th edition (2008). Check the web site at www.CaMgWater.org for more details. A draft outline of the symposium is attached in Appendix C.

IOM NUTRIGENOMICS WORKSHOP

Dr. Ann Yaktine, Senior Program Officer at the Food and Nutrition Board of the Institute of Medicine, described a new project that is based on the need to integrate incoming genetic and genomic research information into traditional, basic, clinical, and epidemiological nutrition research to gain the maximal advantage this new field of research has to offer to solve complex issues in

nutrition and disease. The Institute of Medicine's Food and Nutrition Board is planning a two-day workshop to explore ways that genomics technology can inform nutrition research and to assess the potential for genomics-based research to expand knowledge and understanding in nutrition science and the relationships between nutrients, diet, and the prevention and control of chronic disease. DNRC members were invited to join in as sponsors.

Information about the IOM Food and Nutrition Board can be found in Appendix D

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

Ms. Kathryn McMurry provided several updates pertaining to DRI Research Recommendations, HealthyPeople 2010, Dietary Guidelines 2010, and OPHS activities.

DRI Research Recommendations:

Ms. McMurry announced that a Task Order was awarded to IOM to prepare a synthesis of the research recommendations from the DRI reports. The major deliverables will include a searchable database that will identify research areas and a public workshop to gain input on the database and on the recommendations. A subcommittee of the Federal DRI Steering Committee, co-chaired by Dr. Paul Coates and Dr. Molly Kretsch, is coordinating with IOM on this project. A consultant group is being identified to work on preparing the database and a planning group is being selected to hold a workshop in June. A preliminary electronic database should be available to review and public comment in March.

Over the past year, the Steering Committee has held extensive discussions to explore various issues and approaches to assessing lessons learned from the current process to identifying ways to enhance future evaluations, which they feel is very important to do before embarking on any new studies. The Steering Committee met with the Food and Nutrition Board in December to discuss scientific and applications issues; there was general agreement to move forward with a review of the DRI model using an open, public process. The Steering Committee will meet this month to decide on a mechanism for conducting the review.

HP2010 Midcourse Review:

All focus area draft chapters have been reviewed and edited for consistency in organization and style and returned to the Work Group Coordinators. The work groups were asked to review the changes, address comments, and obtain initial institute/ office clearance within 6 weeks. Over the next few months there will be a final editorial review and Departmental clearance.

Dietary Guidelines, 2010:

Soon the MOU will be prepared for partnering with USDA on the development of the 2010 Dietary Guidelines. USDA's Center for Nutrition Policy and Promotion has begun laying the groundwork for the systematic scientific review by initiating a contract with the American Dietetic Association.

Dietary Guidance Review:

Ms. McMurry congratulated the HHS Committee on Dietary Guidance and the USDA Dietary Guidance Working Group for their dedication, patience, and commitment to accurate, clear guidance to consumers. Since the release of the 2005 Dietary Guidelines in January, the committee reviewed 41 sets of consumer materials. Many of these included multiple-component sets of materials.

OPHS Update: Ms. McMurry announced that Dr. John Agwunobi was sworn in this week as Assistant Secretary for Health and is the Secretary's primary advisor on the Nation's public health matters. He will also serve as Admiral of the Public Health Service Commissioned Corps, a uniformed service of more than 6,000 health professionals who serve at HHS and other federal agencies. Dr. Agwunobi joins HHS from Florida's Department of Health, where he held the position of Secretary of Health and State Health Officer for the past four years. There, he directly advised Governor Jeb Bush on all public health matters in the state, was lead executive for 16,000 employees, and oversaw a \$2.2 billion annual budget. His work with the Florida Department of Health began in 2000, when he began as the deputy secretary and deputy health officer. Prior to that position, he worked in children's health for more than seven years in the Washington, DC area.

Dr. Cristina Beato returned to her position as Principal Deputy Assistant Secretary for Health.

Ms. McMurry also announced that ODPHP posted a job announcement last week for a Nutrition Advisor, GS-14. The closing date for applications is February 9.

NIH WOMEN'S HEALTH INITIATIVE

Dr. Joan McGowan announced that results of two major clinical trials, the WHI Calcium and Vitamin D Trial and the WHI Dietary Modification Trial, will be published in mid to late February. Three papers with results from the Dietary Trial will be published in JAMA and two papers with results from the Calcium and Vitamin D trial will be published in the New England Journal of Medicine. A completed summary of WHI Projects can be found at the following web address: <http://www.nhlbi.nih.gov/whi/mediakit12-14-05.pdf>.

Dr. McGowan also announced an upcoming conference, hosted by NIH, on February 28-March 1, 2006. The conference is titled, "The WHI Legacy to Future Generations of Women". It will be held in the Natcher Auditorium on the NIH

Campus. To view the agenda or to register online, visit the following website:
<http://www.nhlbi.nih.gov/whi/references.htm>

NIH OFFICE OF DIETARY SUPPLEMENTS (ODS)

Dr. Paul Coates reminded everyone that the ODS-sponsored monthly seminar series began this week. The seminars are generally held on Wednesdays from 11:00 to 12:00 in the EPN conference room H. The schedule for the period January-May 2006 is attached in Appendix E.

Dr. Coates also announced that, under the auspices of the NIH Office of Medical Applications of Research, ODS and several other ICs and other Federal agencies are sponsoring an NIH State-of-the-Science Conference on Multivitamin/Mineral Supplements and Chronic Disease Prevention. It will be held from May 15-17 in the Natcher Conference Center. Registration is required; this can be done online at <http://consensus.nih.gov/>.

UPDATE OF DNRC ACTIVITIES

Dr. Pamela Starke-Reed announced that the DNRC has created a new mission statement that will be available shortly. To accompany the release of this statement, the DNRC will be setting up meetings with Institute Reps to discuss the purpose of the DNRC.

Dr. Starke-Reed also mentioned that a workshop pertaining to probiotics is currently in the beginning planning stages. Dr. Crystal McDade-Ngutter will give a short presentation at the February NCC meeting on the preliminary research.

Nutrition Education Subcommittee (NES).

Dr. Jean Pennington, DNRC, has provided an update of the activities of the NIH NCC NES. For the calendar year 2005, the NES has reviewed 56 documents, which included 21 from NIH (five from NCI, two from the DNRC, two from the NICHD, four from NHLBI, three from ODS, two from the Weight-control Information Network (WIN), and three from NIDDK); 15 from DHHS; 19 from USDA; and one from the Department of Defense (DoD). Materials reviewed since the last NCC meeting include:

- *Youth Obesity Campaign* (DHHS)
- *Choose Smart. Choose Healthy.* (CDC)
- *Eat Smart. Play Hard. Activity and Sticker Book* (FNS, USDA)
- *2006 National Nutrition Month Flyer* (DNRC)
- *Small Step Challenge Questions* (DHHS)
- *Three FNS Posters* (FNS, USDA)
- *Parent Page Layout* (FNS, USDA)
- *Heart Guardian Script* (NHLBI)
- *Eat Smart. Play Hard. Comic Strip* (FNS, USDA)

A listing of IC nutrition education materials is provided on the DNRC website; any needed updates should be communicated to the DNRC.

International Nutrition Congress:

Dr. Dan Raiten (NICHD) provided an update on WHO Nutrition and HIV- related activities, which included an NIH-sponsored workshop on the development of nutrition guidelines for HIV-infected infants and children. Dr. Raiten also provided an update on a workshop that NICHD is co-sponsoring with ODS and the USDA Pediatric Nutrition Research Center/Baylor entitled "Maternal Nutrition and optimal infant feeding practices. The workshop is by invitation only and will be held in Houston, February 23-24.

In addition, Dr. Raiten requested a consideration of the status of the International sub-committee either as an agenda item at the next meeting or in discussion with Dr. Van Hubbard (DNRC).

Human Nutrition Research and Information Management (HNRIM) System Update.

Mr. Jim Krebs-Smith, DNRC, provided a status report of the HNRIM System. He issued the annual request for NIH Institutes and Centers to submit their FY 2005 data for HNRIM, and asked for IC data to be provided no later than Monday, February 6. The formal request will be sent by email within the next few days. NCC members were again encouraged to carefully review their IC's complete research portfolio --including contracts, intramural research and interagency agreements -- to identify all relevant nutrition research, based on the ICHNR Definition of Human Nutrition Research:

(<http://hnrnim.nih.gov/pdf/codesdefins.pdf>). Any questions regarding data preparation, coding, or submission should be directed to Mr. Krebs-Smith or Ms. Karen Regan via e-mail or phone. In follow-up to previous announcements on website modifications, links to PubMed searches based on Principal Investigator (PI) Name as well as on Project Number have been fully implemented. When conducting a search (<http://hnrnim.nih.gov/query/Qrymain.asp?Caller=Query>), these links can be accessed from the "Matching Records" hitlist by clicking on the small book icons next to the PI or project number of interest. PubMed results will appear in a new browser window.

REPORTS FROM NCC MEMBERS AND LIAISONS

Dr. John Milner (NCI) noted that there will be a conference pertaining to pre and probiotics in March, 2006 at Harvard University.

Dr. Amy Yaroch (NCI) announced that a program announcement will soon be developed that pertains to nutrition and communication. Previously, the National Cancer Institute and the Division of Nutrition Research Coordination held a workshop around the topic of nutrition and communication. A brainstorming meeting is being held on Friday January 6, 2005 at EPN and so far representatives from NCI, NHLBI, NIDDK, DNRC, and CDC will be in attendance. If you are aware of others who might be interested please give Dr. Yaroch a call.

NEXT NCC MEETING

The next NCC Meeting is scheduled for February 2, 2006.

ADJOURNMENT

The meeting was adjourned at 3:58 PM.

LIST OF APPENDICES

Appendix A - NIH NCC Meeting Agenda for January 5, 2006

Appendix B - NCC Meeting Attendees for January 5, 2006

Appendix C – Draft Outline of WHO Calcium and Magnesium Symposium

Appendix D – IOM Food and Nutrition Board

Appendix E – ODS Monthly Seminar Schedule

06Jan/final

APPENDIX A. NIH NCC MEETING AGENDA FOR January 5, 2006

2:00-4:00 PM, Rockledge 2, Conference Room 9100-9104, Bethesda MD

1. **Welcome**.....Pam Starke-Reed
2. **Approval of Minutes of November 3, 2005 Meeting**.....Pam Starke-Reed
3. **Using Height and weight Information to Select MyPyramid Food Intake Patterns**.....Trish Britten, USDA
4. **IOM Nutrigenomics Workshop**.....Linda Meyers & Ann Yaktine,
FNB, IOM
5. **WHO Calcium and Magnesium Expert Meeting**.....Bill Weglicki,
GWU
6. **ODPHP Update**.....Kathryn McMurry,
ODPHP/OS/HHS
7. **NIH Women's Health Initiative**.....Joan McGowan, NIAMS
8. **ODS Update**.....Paul Coates, ODS/OD/NIH
9. **Current DNRC Update of Activities**.....DNRC Staff
 - HNRIM Update.....Jim Krebs-Smith
 - Nutrition Education Subcommittee Update.....Jean Pennington*
 - International Committee Information.....Pam Starke-Reed/Dan Raiten *
10. **Reports from NCC Members and Liaisons**.....NCC Members
11. **Next Meeting:** February 2, 2006
12. **Old Business**

* Updates will be included in the minutes of the meeting only

APPENDIX B. NCC MEETING ATTENDEES FOR JANUARY 5, 2006

	Members Present	Members Absent	Alternates Present
Chairperson:		V Hubbard	P Starke-Reed

NIH Members:

NCI	J Milner		
NHLBI		D Danford	K Donato
NIDCR		R Nowjack-Rayner	
NIDDK		C Miles	
NINDS		M Mitler	
NIAID	M Plaut		
NIGMS		S Somers	
NICHHD		G Grave	D Raiten
NEI	N Kurinij		
NIEHS	E Maull		
NIA	J Finkelstein		S Petanceska
NIAMS	J McGowan		
NIDCD		B Wong	
NIMH		P Muehrer	
NIDA		G Lin	
NIAAA	R Breslow		
NINR		Y Bryan	
NCCAM		M Klein	
NCCR		L Yager	
FIC		N Tomitch	
NHGRI		M Holohan	P Frosst

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		S Blakely
HRSA		M Lawler	
IHS	T Brown		
ODPHP	K McMurry		
USDA	M Kretsch		D Klurfeld
DOD		K Friedl	

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

Guests: R Ballard-Barbash (NCI), T Britten (CNPP, USDA), C Davis (NCI), C Davis (CNPP, USDA), A Ershow (NHLBI), V Hartmuller (NCI), J Haven (CNPP, USDA), E Hentges (CNPP, USDA), W Kessel (ODPHP), L Kettel-Kahn (CDC), S Krebs-Smith (NCI), L McNally (HRSA), L Meyers (IOM), K Nehleton, W Sandoval (IHS), S Strickland (NICHD), K Thomsen (DOD), P Vodick (HRSA), B Weglicki (GWU), S Welsh (CREES, USDA), A Yaktine (IOM), S Yanovski (NIDDK), A Yaroch (NCI)

Appendix C

December 14, 2005

Draft Symposium Outline/ Draft Speakers

Health Aspects of Calcium and Magnesium in Drinking Water

Symposium produced by NSF International WHO Collaborating Centre,
International Life Sciences Institute

April 24-26, 2006

Baltimore, MD, USA

Monday, April 24

9:00 - 10:30 Session I Opening Session (MC?)

- Welcomes from ILSI/NSF/WHO
- Introductory: Rome Meeting Summary and Purpose of the Symposium and focus on Calcium and Magnesium
- Keynote speaker in international health and nutrition **Mirta Roses, Dir. General Pan American Health Organization, invited**
- Charge to the technical sessions

10:30 -11:00 Break

11:00 -12:30 Session II Dietary Minerals Consumption and Health
Manuel Olivares, Inst. of Nutrition and Food Technology, Univ. of Chile

- Basis for worldwide Recommended Daily Allowances etc. for Calcium and Magnesium **Manuel Olivares**
- Estimated average requirements for calcium and magnesium – Data from human balance studies - **Mamoru Nishimuta, Japan NIPH**
- Dietary intakes of calcium and magnesium: A comparison with dietary guidelines. **Joyce Donohue, USEPA**

12:30 - 2:00 Lunch

2:00 - 3:30 Session III Water as a Source of Dietary Minerals in World Regions
Choon Nam Ong, Dept. of Community, Occupational and Family Medicine, National University of Singapore

- Water mineral composition characteristics (tap water, bottled, mineral, spring, desalinated) in the world regions **Choon Nam Ong**

- Water/fluid consumption patterns among the general populations and subpopulations including high-risk segments
Ann Grandjean (U Nebraska, Nutrition Institute)
- Dietary Magnesium Intake and Risk of Cardiovascular Disease Among Women, **Y. Song**
- Contribution of Drinking Water to Ca and Mg in Europe **M.M. Nederlof**

3:30 - 4:00 Break

4:00 – 5:30 Session IV Basis for Linking Magnesium, Calcium and Health

Outcomes I

William Weglicki, George Washington Univ. Medical Center

Rebecca Costello, NIH Office of Dietary Supplements

Cardiovascular Effects of Magnesium Deficiency **William Weglicki, MD**

Magnesium and Hypertension **R.M. Touyz, MD, Ottawa Health Res. Inst.**

Measurement of Magnesium Status in Humans **R. J. Elin, MD, Univ. Louisville**

5:30 Adjourn

6:00 – 7:30 Posters Session and Reception

Tuesday, April 25

8:30 -10:00 Session V Controlled Human Exposure Studies of Magnesium and/or Calcium in Diet/Drinking Water

Gerald Combs, USDA Human Nutrition Research Laboratory

Indications of Magnesium and Calcium Deficiency in Populations **Gerald Combs,**
Calcium Studies **Constance Weaver-Purdue Univ.**

Ca and Mg Biochemical Balance **Forreest Nielsen -USDA**

Interactions of Mg and K with other nutrients (e.g. K and Na) **Heikki Karpanen (or IX)?**

10:00 – 10: 30 Break

10:30 - 12:00 Session VI Biochemical Basis for Linking Magnesium, Calcium and

Health Outcomes II

Hirotoishi Morii, MD

-Magnesium, Calcium and Osteoporosis **Hirotoishi Morii, MD**

-Magnesium and Bone Mineral Density, Hypertension, Diabetes

Shouzou Yoshida?

-Magnesium and the immune system (**Terez Shea-Donohue, U MD**)

12:00 - 1:30 Lunch

**1:30 - 3:00 Session VII Epidemiological Evidence Linking Drinking Water
Components and Health-Cardiovascular and Other Diseases**
Paul Hunter, Univ of East Anglia
Rebecca Calderon, USEPA, Health Research Laboratory

- Overview of epidemiologic methods strengths and weaknesses **Rebecca Calderon**
- Findings from UK systematic review on water hardness and cardiovascular mortality **Paul Hunter**
- Findings from UK systematic review on water hardness and diseases other than cardiovascular disease **Louise Catling**

3:00 - 3:30 Break

**3:30 - 5:00 Session VIII Epidemiological Evidence Linking Drinking Water
Components and Health-Cardiovascular and Other Diseases**
Paul Hunter and Rebecca Calderon

Studies in Eastern Europe non English Papers **Franticek Kozisek**
Detailed analysis of studies in Taiwan **C.Y. Yang**
A critique of the evidence **Robert Morris**

5:00 Adjourn

Wednesday, April 26

8:30 -10:00 Session IX Alternative Hypotheses and Knowledge Gaps
**Shailendra Vajpeyee, Gov't Med. College, Surat, Gujarat,
India**

- Alternative Health Effects Interpretations **Shailendra Vajpeyee, MD**
- Alternative interpretations of reported health effects **Martha Sinclair?**
- Toxic metals including those leached from pipe by corrosive water -
Are there health consequences from long term consumption of low or
high TDS water? **John Fawell, UK**
- Studies needed to improve the database and interpretations
- Interactions of Ca/Mg with other minerals esp. K and Na.
Heikki Karppanen, Finland (or V)?

10:00 - 10:30 Break

10:30 - 12:00 Session X Water Production, Technical Issues and Economics
P. Regunathan

- Business impacts of the ‘hard water benefits’ hypothesis. **P. Regunathan**
- Are there differences between soft water and softened water?
- Stabilizing methods and costs for natural and desalinated waters
- Technology of adding Calcium and/or Magnesium to public supplies, costs and feasibility **Tom Pankratz, CH2M Hill**
- Feasibility/costs of mineral supplementation of bottled water and beverages **Gustavo Duran ?**
- Benefits of Water Softening – **J.P. van der Hoek?**
- Mons---Carbonate equilibrium and water balance ?

12:00 - 1:00 Lunch

**1:00 - 3:30 Session XI Roundtable/Summaries/Conclusions/Discussions
Jamie Bartram, WHO WSH and Session Chairs**

- Do the epidemiology and controlled dietary studies provide a basis to hypothesize benefits from calcium and/or magnesium in drinking water?
- Does the mechanistic biological information provide support for the
- What is the Dose/Response for effects on high-risk individuals in low exposure range?
- Will measurable health benefits accrue from incremental increased intakes from water or other dietary sources? For whom? Who are the at risk population?
- If benefits for small incremental intakes are not quantifiable are they sufficiently likely to occur at a level to provide reasonable support for recommendations?
- What is the health significance of lifetime hard water intake as a continuous incremental contributor to total magnesium and calcium?
- What is the optimal total dietary intake balance of magnesium and calcium?
- Is there a desirable optimum level of magnesium and calcium in drinking water in world regions from a health and nutrition perspective?
- What questions need to be resolved before a decision can be made on the value of a water contribution of magnesium and calcium to total diet and what studies are necessary to do so?
- Does supplementation for food or water in whole populations make sense vs. advice or treatment for high risk individuals?
- How would this affect water softening, blending or remineralization practice?
- What would be the magnitude of benefits (if any) for water’s contribution?
- How does mineral composition of cooking water affect the mineral composition of cooked foods?

3:30 Adjourn

Appendix D – IOM Food and Nutrition Board Information



INSTITUTE OF MEDICINE

OF THE NATIONAL ACADEMIES

Food and Nutrition Board

The Food and Nutrition Board serves as adviser to the nation to improve human nutrition and food safety and to prevent diet-related diseases. It seeks to provide visionary leadership and to apply scientific knowledge to advise on policies and approaches to prevent diet-related deficiencies and chronic diseases and to eliminate, reduce or control the natural, inadvertent, or intentional contamination of the food supply. **Organized: 1940**

2004 and 2005 Reports

- *Food Marketing to Children and Youth: Threat or Opportunity*
- *Progress in Preventing Childhood Obesity: Focus on Schools - Brief Summary: Institute of Medicine Regional Symposium*
- *Integrating Employee Health: A Model Program for NASA*
- *Nutrient Composition of Rations for Short-Term, High-Intensity Combat Operations*
- *WIC Food Packages: Time for a Change*
- *Preventing Childhood Obesity: Health in the Balance* (with Board on Population Health and Public Health Practice)
- *Proposed Criteria for Selecting the WIC Food Packages*
- *Safety of Genetically Engineered Foods: Approaches to Assessing Unintended Health Effects* (with Division on Earth and Life Studies, NRC)
- *Monitoring Metabolic Status: Predicting Decrements in Physiological and Cognitive Performance*
- *Dietary Supplements: A Framework for Evaluating Safety* (with the Division on Earth and Life Studies, NRC)
- *Dietary Reference Intakes: Water, Potassium, Sodium, Chloride, and Sulfate*
- *Infant Formula: Evaluating the Safety of New Ingredients*

Projects in Progress

- Food Marketing and the Diets of Children and Youth (with the Board on Children, Youth and Families)
- Committee on Military Nutrition Research
- Food Chemicals Codex
- Food Forum
- Impact of Pregnancy Weight on Child and Maternal Health (with Board on Children, Youth, and Families)
- Mineral Requirements for Military Performance
- Nutrient Relationships in Seafood: Selections to Balance Benefits and Risks
- Nutrition Standards for Foods In Schools
- Progress in Preventing Childhood Obesity
- U.S. National Committee to the IUNS
- U.S.-Mexico Workshop on Prevention of Childhood Obesity
- Summary Volume of the Dietary Reference Intakes for Health Professionals (dissemination activity)
- Dietary Reference Intakes: What's Next? (planning activity)

Membership

Robert M. Russell, M.D. (Chair), Tufts University, Boston, MA
Larry R. Beuchat, Ph.D. Center for Food Safety, University of Georgia, Griffin
Michael P. Doyle, Ph.D. Center for Food Safety, University of Georgia, Griffin
Susan Ferenc, D.V.M., Ph.D. SAF*Risk, Madison, WI
Nancy F. Krebs, M.D. University of Colorado Health Sciences Center, Denver
Reynaldo Martorell, Ph.D. Rollins School of Public Health, Emory University, Atlanta, GA
J. Glenn Morris, M.D., M.P.H. & T.M. University of Maryland, School of Medicine, Baltimore
Suzanne P. Murphy, Ph.D., R.D. Cancer Center of Hawaii, University of Hawaii, Honolulu
Jose M. Ordoas, Ph.D. Tufts University, Boston, MA
Lynn Parker, M.S. Food Research and Action Center, Washington, DC
Nicholas J. Schork, Ph.D. University of California, San Diego
Rebecca J. Stoltzfus, Ph.D. Cornell University, Ithaca, NY
John W. Suttie, Ph.D. University of Wisconsin, Madison
Walter C. Willett, M.D., Dr.P.H. Harvard School of Public Health, Harvard University, Cambridge, MA
Barry L. Zoumas, Ph.D. Pennsylvania State University, University Park
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Appendix E: ODS Seminar Schedule



Office of Dietary Supplements 2006 Spring Seminar Schedule

January 4, 2006

Marge Leahy, Ph.D.

Senior Manager, Health & Nutrition
Ocean Spray Cranberries, Inc., Lakeville, MA

Topic: "Bioactive Components of Cranberries and Research to Support Their Potential Health Benefits"

Location: Room H, 6130 Executive Blvd. (EPN)

Time: 11:00 am – 12:00 pm

February 1, 2006

Young-In J. Kim, Ph.D.

Associate Professor, Departments of Medicine & Nutritional Sciences, University of Toronto, Canada
Staff Gastroenterologist, St. Michael's Hospital, Toronto

Topic: "Folate and Carcinogenesis: The Double-Edge Sword"

Location: Room H, 6130 Executive Blvd. (EPN)

Time: 11:00 am – 12:00 pm

March 16, 2006

Ross Prentice, Ph.D.

Member, Public Health Sciences Division, Fred Hutchinson Cancer Research Center, Seattle, WA
Professor of Biostatistics, University of Washington

Topic: "Research Issues and Strategies in the Study of Diet and Chronic Disease"

Location: Room H, 6130 Executive Blvd. (EPN)

Time: 3:00 pm – 4:00 pm

April 19, 2006

William G. Hefnerich, Ph.D.

Professor of Nutrition, Department of Food Science and Human Nutrition
University of Illinois at Urbana-Champaign

Topic: "Soy and Breast Cancer: A Balance of Risks and Benefits"

Location: Room H, 6130 Executive Blvd. (EPN)

Time: 11:00 am – 12:00 pm

May 3, 2006

Fran Thompson, MPH, Ph.D.

Epidemiologist, National Cancer Institute, Div of Cancer Control and Population Sciences,
Bethesda, MD

Gordon Willis, Ph.D.

Cognitive Psychologist, Applied Research Program, National Cancer Institute, Div of Cancer
Control and Population Sciences; Adjunct Investigator, Clinical Genetics Branch, Bethesda, MD

Topic: “Attaining Cross-Culture Comparability: Questionnaire Design for the Hispanic Health
Study”

Location: Room H, 6130 Executive Blvd. (EPN)

Time: 11:00 am – 12:00 pm