

Overview

DIETARY REFERENCE INTAKES RESEARCH SYNTHESIS WORKSHOP

What information is available to inform the planning of a nutrition research agenda for the United States and Canada? This question provided the backdrop for the Dietary Reference Intakes Research Synthesis project undertaken by the Food and Nutrition Board of the Institute of Medicine (IOM) of the National Academies. The Dietary Reference Intakes (DRIs) are quantitative reference values for recommended intakes and tolerable upper intake levels for a range of nutrients. They are used widely by dietitians in individual counseling, by federal nutrition officials in program and policy development, and by the nutrition research and education communities in government, academia, and industry.

Between 1997 and 2004, the IOM issued a series of six DRI reports covering a total of 45 nutrients, energy, and other food components. The IOM also issued two reports describing ways to apply the DRIs in assessment and planning. Together, these eight reports contain more than 450 research recommendations and thus a wealth of information pertinent to a nutrition research agenda. To make the recommendations more accessible, the Food and Nutrition Board undertook a project with two major elements: (1) the development of a searchable database of all the DRI research recommendations, and (2) the Dietary Reference Intakes Research Synthesis Workshop, held June 7–8, 2006, which was designed to provide a venue for hearing and discussing experts' perspectives on the research recommendations identified in the DRI reports. Appendix A contains the agenda for the workshop, and Appendix B lists the names and affiliations of meeting presenters and other participants, including

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members of the Federal DRI Research Synthesis Subcommittee, which supported the workshop and provided useful substantive input.

The project was sponsored by the U.S. and Canadian governments, specifically:

- U.S. Department of Health and Human Services
National Institutes of Health, Division of Nutrition Research
Coordination
National Institutes of Health, Office of Dietary Supplements
Office of Disease Prevention and Health Promotion
- U.S. Department of Agriculture, Agricultural Research Service
- Health Canada
Canadian Institutes of Health Research, Institute of Nutrition,
Metabolism and Diabetes
Food Directorate, Bureau of Nutritional Sciences

THE WORKSHOP

Two members of the workshop planning group—Drs. John W. Suttie and Susan J. Whiting—moderated the DRI Research Synthesis Workshop. After an overview and demonstration of the DRI Research Synthesis Database, panels of experts addressed DRI research recommendations related to each of the six DRI nutrient reports, the two DRI applications reports, and three cross-cutting topics: (1) setting DRIs for children, (2) Tolerable Upper Intake Levels, and (3) relevant new and underutilized research techniques. Periodically, presenters and other attendees took part in lively discussions. During the wrap-up session, moderator John Suttie and four other individuals—from U.S. and Canadian agencies, industry, and academia—provided their perspectives on the workshop.

This report is a summary of the workshop presentations and discussions. Meeting transcripts and slides used during presentations served as the basis for the summary. Topics frequently mentioned by individual participants as continuing knowledge gaps include the following:

- Requirements of children, pregnant and lactating women, and the elderly
- Individual variation of requirements caused by genetics and epigenetics, lifestyle, environment, and/or geography

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- The need for biomarkers that are able to predict functional outcomes and chronic diseases
- The need to improve dietary assessments and planning methods
- Bioavailability
- Interactions among nutrients

Although many presenters and discussants expressed strong viewpoints and made research recommendations, their viewpoints and recommendations should not be viewed as workshop conclusions or recommendations. For the convenience of users of the Dietary Reference Intake Research Database, Appendix C lists all the research recommendations made in the eight DRI reports, Appendix D provides an overview of the DRI Research Synthesis Database, Appendix E lists research progress as reported by presenters, Appendix F lists possible topics for research identified during the workshop, and Appendix G provides the meaning of abbreviations.

