

Of Professional Interest

Postponement of the 10th edition of the RDAs¹

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After exhaustive deliberation over the last 6 months, I have concluded that the National Research Council will be unable to issue the 10th edition of the *Recommended Dietary Allowances* at this time. My decision, as Research Council Chairman, is based on the recommendations of our Food and Nutrition Board and its parent body, the Commission on Life Sciences.

Beginning in 1941, committees of the National Research Council's Food and Nutrition Board have periodically reevaluated the Recommended Dietary Allowances (RDAs). The allowances have traditionally been defined as "the levels of intake of essential nutrients considered, in the judgment of the Committee on Dietary Allowances of the Food and Nutrition Board on the basis of available scientific knowledge, to be adequate to meet the known nutritional needs of practically all healthy persons."

The RDAs are based on a comprehensive analysis of scientific evidence. They represent the best scientific judgment derived from examination of results of experimental studies in animals and humans, including nutrient balance studies and biochemical measurements, as well as food consumption patterns and epidemiological observations. Yet the RDAs are themselves *estimates* of nutrient allowances based on certain assumptions and may change as the underlying science progresses. Over the last four decades, successive editions of the RDAs have incorporated new knowledge and expanded from recommendations on 9 nutrients and energy in 1941 to include 17 nutrients, energy, and "safe and adequate dietary intakes" for 12 additional vitamins and minerals in 1980.

It is not uncommon for scientists to disagree over certain issues, such as the association between nutrient intake and health, for which new data are constantly emerging, and the data set is never complete. Our decision not to issue a report of the RDAs at this time stems primarily from an impasse that resulted from such scientific differences of

opinion between the committee, scientific reviewers appointed by the Research Council, and additional reviewers from the Food and Nutrition Board. Indeed, competent scientists may use different, equally defensible assumptions and physiological indexes of good health and arrive at divergent conclusions and recommendations.

The resolution of such differences of opinion necessitates the involvement of an impartial, authoritative group of scientists whose opinion is highly regarded and whose judgment the public views with confidence. Since its establishment in 1863, the National Academy of Sciences and, later, the National Research Council have, through their committees, been able to meet this need very successfully in a multitude of studies of national importance. The institution's commitment to impartiality and scientific excellence is reflected in our recent reports on nutrition, such as those on the association between diet, nutrition, and cancer; the public health implications of the nation's meat and poultry inspection program; the importance of nutrition in medical education; and the carcinogenic potential of cyclamate.

The National Research Council works by establishing a panel of experts specifically to examine an issue and to prepare a report based on analysis of all data relevant to that issue. Although the Research Council gives serious consideration to the judgment of its expert committees, a key element in the completion of reports is review by scientific experts outside the study group. This review proceeds under the auspices of the Research Council's Report Review Committee in conjunction with a scientific unit that oversees the work of the expert committee. This process ensures that all scientifically valid interpretations of the data are considered and that the conclusions and recommendations follow clearly from the evidence presented. This process of checks and balances and judgments at multiple levels was designed to guard against the promulgation of the view of one group of scientists that may be unwarranted in the considered judgment of another group of equally capable scientists. Thus, the review process enables the National Research Council to minimize errors and to enhance the credibility of its reports by achieving a broader consensus than may be derived by a single group of experts.

The present committee began work on the 10th edition

¹Dr. Press sent this letter, dated October 7, 1985, to Dr. James B. Wyngaarden, Director, National Institutes of Health, Bethesda, MD.

of the RDAs in 1980. When the draft report was subjected to the Research Council's rigorous process of review, many of the committee's conclusions and recommendations did not gain the full support of the reviewers. Despite months of discussion and deliberation, the committee and the reviewers were unable to agree on the interpretation of scientific data on several of the nutrients and consequently on RDAs for those nutrients.

The committee had proposed modifications of the RDAs for many nutrients, whereas reviewers, including members of the Food and Nutrition Board—the unit responsible for oversight of the committee—in general concluded that changes in existing RDAs are warranted or only a few of these nutrients. Differences of opinion among committee members and reviewers extended to such issues as the appropriate data base for developing the RDAs, the adequate size of body stores for specific nutrients, and the advisability of modifying the definition of the RDAs. All these points of contention led to different conclusions about the allowance levels, which were reflected in a succession of drafts prepared in an unsuccessful attempt to reach consensus. One of these drafts unfortunately found its way to the media and has clouded the issue in the public's eye because of the tentative numbers that were quoted.

Many of the reviewers and committee members used somewhat different scientific approaches to the task. In general, the committee believed it sufficient to base its conclusions on a reexamination of previously considered evidence and some new data using criteria and assumptions it considered to be the most valid. Most reviewers[^] believed, however, that modifications to the RDAs are justified only in the face of compelling new evidence—not merely as a result of a reinterpretation of existing data based on assumptions that may be no more valid than those applied previously. The reviewers concluded that the evidence presented did not fully justify the committee's conclusions for several of the nutrients.

Some of the reviewers' concerns about adequate justification for change derived from their recognition of the RDAs' potentially vast impact on public health. Originally designed to serve as a guide for planning and procuring food supplies for the nation, the RDAs have acquired multiple uses. They have been voluntarily adopted as the cornerstone for a variety of nutrition-related activities undertaken by government agencies, industry, academia, and the health services sector. For example, the RDAs are used by government agencies as guides for planning and procuring food supplies related to federal food assistance and other programs, as a basis for meal planning for population subgroups, as a reference point for evaluating dietary intake from national food consumption surveys, as a component of food and nutrition education programs, and, more recently, as a basis for nutrition labeling of foods and dietary supplements. In the private sector, the uses of the RDAs extend to food fortification, the formulation of food products, and competitive marketing. These wide applications suggest that modifications to the RDAs must be based on a strong rationale and a comprehensive analysis of scientifically corroborated, persuasive evi-

dence; they should reflect concurrence of scientific opinion.

Other events contributing to our decision not to issue a report now include the deepening understanding of the interplay between nutritional factors and health, especially the importance of these factors in the aging process and in susceptibility to chronic diseases. Neither the present committee nor the committee responsible for the previous edition was specifically asked to consider these issues. Nonetheless, the reviews of the report strongly suggest that the scientific developments in the past 5 years relating nutrition to health should be considered and that a more comprehensive approach is now warranted for assessing nutrient intake to satisfy "the known nutritional needs of practically all healthy persons" in the United States. Furthermore, reviewers suggested that unless scientific evidence indicates otherwise, the recommendations for *nutrient intakes*—the RDAs—must be consistent with recommended *dietary guidelines* for the maintenance of good health. Thus, although the committee followed the charge given to it in 1980, it became apparent that its primary focus on the avoidance of nutritional deficiencies may be neither sufficient nor appropriate.

A recent workshop sponsored by the Food and Nutrition Board to discuss future editions of the RDAs reinforced the importance of the RDAs, the need to broaden their scope, and the need to enhance their utility by considering new methodological approaches and multiple applications. The Food and Nutrition Board intends to pursue these recommendations. The Board believes that both the scientific community and the public would be served better by guidelines that are broadly based on diverse but pertinent scientific evidence, including that on diet-related chronic diseases, and that incorporate new methods that permit the characterization of health risks associated with different levels of nutrient intake.

For all these interrelated reasons, the National Research Council has concluded that the publication of the next edition of the RDAs warrants a more encompassing analysis of data pertaining to nutrients and health by a new committee specially constituted to address these issues. In the weeks to come, our Food and Nutrition Board, in consultation with the National Institutes of Health, will consider various options and will make recommendations to the Research Council accordingly.

Whatever course of action is taken, the next report concerning the RDAs will, like all our reports, be prepared, reviewed, and published in accordance with Research Council's highest standards. We are confident that it will represent the best scientific judgment on matters of nutrient intake and health—issues that have an enormous impact on public health.

Until a new report is issued, the only National Research Council recommendations in effect are those contained in the ninth edition of the RDAs, which was published in 1980. The public and the scientific community at large should rest assured that there is no cause for concern and that they may continue to place confidence in the RDAs that have been in effect for the past 5 years.