



BACKGROUND

Contact: **Judy Blatman**, (202) 204-7962
VP, Communications

Guiding Principles for Nutrition Labeling: *New IOM Report Misses the Mark*

Prepared by John Hathcock, Ph.D.

December 2003

On December 11, 2003, the Institute of Medicine (IOM) released a report titled **Dietary Reference Intakes: Guiding Principles for Nutrition Labeling and Fortification**¹. This report resulted from an IOM project intended to assess the best use of the Dietary Reference Intakes (DRIs) in food labeling, and also to suggest rational approaches to discretionary fortification. The report was developed under contract with the U.S. Food and Drug Administration (FDA), the U.S. Department of Agriculture, and Health Canada to provide the agencies with advice on these issues.

CRN's Position

CRN recognizes the need for updating the scientific basis of Daily Values (DV) to make them commensurate with the current scientific knowledge of nutrition, but strongly asserts that the IOM report, if implemented by FDA through rulemaking, would have major adverse effects on the public health. The recommendations issued by the IOM inappropriately rely on changing the basis of the Daily Values from use of the Recommended Dietary Allowance (RDA) to the Estimated Average Requirement (EAR), and from targeting the highest age-gender group to a population-weighted average. In effect, these changes would dramatically lower the Daily Values for many important nutrients by establishing target intake values that meet the needs of only 50 percent of the population. These recommendations could have detrimental effects on the nutritional health of the population.

Background

Currently in the U.S., the amounts of nutrients in foods are shown on the label as percentages of the Daily Values, which are developed through the rulemaking procedures required by law; once established in regulations, these values are the legally required basis for labeling. The current Daily Values were derived from the 1968 RDAs. It is anticipated that FDA will initiate rulemaking to update the Daily Values, based on the new DRI reports, which have not yet been completed.

Because current Daily Values do not take into account the newer scientific data on nutrients there is strong justification for undertaking rulemaking to update the scientific basis for the values. Correspondingly, it is appropriate for the IOM to develop a report that gives FDA advice on this issue.

¹ Available online at www.nap.edu/catalog/10872.html.

CRN Backgrounder: Guiding Principles for Nutrition Labeling

CRN is concerned, however, that the IOM recommendations have misinterpreted the newer scientific evidence in a manner that does not provide the best advice to the public. The IOM report suggests changing the basis of the Daily Values in ways that are not scientifically sound for the purpose of food labeling, and are not supportive of the nutritional health of the majority of the population.

Briefly, the IOM report recommends that Daily Values should be set on a new basis, with two aspects being fundamentally different from the current basis, namely:

1. Base the Daily Values on the Estimated Average Requirement (EAR), rather than the Recommended Dietary Allowance (RDA).
2. Use a population-weighted average, rather than the highest value among the different age-gender groups.

These changes, although seemingly just technical, have very important implications for the nutritional health of consumers. The impacts are very conspicuous and alarming for certain nutrients, as the [following table](#) shows in a three-way comparison between: 1) the current Daily Values; 2) what comparable new values would be on the basis of current science; and 3) values identified by the IOM on the basis of the new approach they recommend.

For all nutrients, the new recommendations based on population-weighted EARs are much lower than they would have been if they had been based on the highest RDA (or the Acceptable Intake for those nutrients that do not have an RDA). The latest science suggests somewhat lower Daily Values for some nutrients, but not nearly as low as the IOM has recommended.

The two changes suggested by the IOM lead to dramatically lower values for certain nutrients that are critically important for the public health: vitamin A, folic acid, vitamin B-12, iron, zinc, selenium, and chromium. For example, use of the population-weighted average EAR instead of the highest RDA as the basis for labeling would be especially egregious for iron. By averaging in the iron values for children above 4 years of age, adult men and older men and women with those of premenopausal women, and using the EAR rather than the RDA, the Daily Value for iron would be decreased from its current value of 18 mg to 6.1 mg, an amount far below the needs of premenopausal women.

Next Steps

The IOM recommendations are not only counterproductive to the public health, but are especially dangerous for particularly vulnerable population groups (i.e., the elderly and women of child-bearing age). Therefore, CRN is calling on academics with an expertise in nutrition to join us in a major analysis of the report and in formulation of alternative recommendations.

Comparison of Daily Values (DVs)			
VITAMIN	Current DVs*	Comparable DVs** (Based on new science)	Suggested DVs*** (Based on IOM recommendations)
Vitamin A	5000 IU	900 mcg (3000 IU)	529 mcg (1800 IU)
Vitamin C	60 mg	90 mg	63 mg
Vitamin D	400 IU (10 mcg)	15 mcg (600 IU)	7 mcg (280 IU)
Vitamin E	30 IU (20 mg)	15 mg	12 mg
Vitamin K	80 mcg	120 mcg	95 mcg
Thiamin	1.5 mg	1.2 mg	0.9 mg
Riboflavin	1.7 mg	1.3 mg	1.0 mg
Niacin	20 mg	16 mg	11 mg
Vitamin B-6	2 mg	1.7 mg	1.1 mg
Folate	400 mcg (0.4 mg)	400 mcg from food 200 mcg synthetic	314 mcg from food 157 mcg synthetic
Vitamin B-12	6 mcg	2.4 mcg	2 mcg
Biotin	300 mcg	30 mcg	28 mcg
Pantothenic acid	10 mg	5 mg	5 mg
Choline	Not established	550 mg	460 mg

*The current DVs are the values established by the Food and Drug Administration (FDA) for use in nutrition labeling. They were based initially on the highest 1968 Recommended Dietary Allowance (RDA) for each nutrient, to assure that needs were met for all population groups.

**The comparable DVs are the values that would be set if FDA incorporated the updated science but used the same approach of selecting the highest value to assure that needs are met for all population groups.

***The suggested DVs are the values that would apply based on the IOM recommendations in a December 2003 report to incorporate updated science, but base the values on a population-weighted Estimated Average Requirement (EAR), rather than the highest RDA, thus dramatically lowering the DVs and setting up targets that miss the mark for 50% of the population.

Comparison of Daily Values (DVs)

MINERAL	Current DVs*	Comparable DVs** (Based on new science)	Suggested DVs*** (Based on IOM recommendations)
Calcium	1000 mg	1300 mg	1091 mg
Iron	18 mg	18 mg	6.1 mg
Phosphorus	1000 mg	1250 mg	588 mg
Iodine	150 mcg	150 mcg	93 mcg
Magnesium	400 mg	420 mg	286 mg
Zinc	15 mg	11 mg	7.5 mg
Selenium	70 mcg	55 mcg	44 mcg
Copper	2 mg	0.9 mg	0.7 mg
Manganese	2 mg	2.3 mg	2 mg
Chromium	120 mcg	35 mcg	27 mcg
Molybdenum	75 mcg	45 mcg	33 mcg

*The current DVs are the values established by the Food and Drug Administration (FDA) for use in nutrition labeling. They were based initially on the highest 1968 Recommended Dietary Allowance (RDA) for each nutrient, to assure that needs were met for all population groups.

**The comparable DVs are the values that would be set if FDA incorporated the updated science but used the same approach of selecting the highest value to assure that needs are met for all population groups.

***The suggested DVs are the values that would apply based on the IOM recommendations in a December 2003 report to incorporate updated science, but base the values on a population-weighted Estimated Average Requirement (EAR), rather than the highest RDA, thus dramatically lowering the DVs and setting up targets that miss the mark for 50% of the population.