

regarding whether naturally-occurring *trans* fat of ruminant origin would be regulated by the provisions of the proposed rule. One comment from a manufacturer agreed with FDA that the USDA *trans* fatty acid database contains relatively few foods. This comment recommended that a large database be developed of *trans* fat food values that have been analyzed using standardized methods, and that the database be used to establish reference or "normative" intake data on *trans* fat in the U.S. population. The comment stated that this information would be helpful in developing a Daily Value for *trans* fat intake. A comment from the dressings and sauces industry disagreed with FDA's statement that "some salad dressings contain substantial amounts of *trans* fatty acids" (64 FR 62746 at 62752). The comment stated that the oils used in dressing and sauce products contain less than one percent *trans* fatty acids. Additionally, according to the comment, the contribution of *trans* fat of ruminant origin is negligible in dressings and sauces that contain dairy products, as demonstrated in the reference cited by FDA regarding *trans* fat in salad dressings (Refs. 29 and 30).

FDA's original estimate that about 30 percent of margarine had been reformulated to remove *trans* fat was based on an informal market survey in the Washington, DC area (Ref. 80 and 64 FR 62746 at 62781). FDA accepts the comment's estimate that 15 percent of margarines currently on the market contain less than 0.5 g per serving. In its own estimate of total intake, FDA did include the contribution to average *trans* fat intake of other food groups containing partially hydrogenated fat, such as chips and French fried potatoes. These food groups were itemized in the RTI report (Ref. 73) but FDA summarized them under "All other" in the November 1999 proposal.

In response to the comments requesting clarification about whether

naturally-occurring *trans* fat of ruminant origin would be regulated by this rule, FDA reiterates that this final rule applies to all FDA-regulated foods and covers all fatty acids that meet the regulatory definition of "*trans* fatty acids," regardless of origin. Naturally occurring *trans* fat in dairy products and in ruminant meat (e.g., meat from cows and sheep) present in FDA-regulated food products will be subject to this rule. FDA did not include *trans* fat of ruminant origin in its original intake estimate in the November 1999 proposal because, in these products, *trans* fat is generally present at less than 0.5 g per serving and declaration of the amount of *trans* fat in these products would not have been required by the November 1999 proposal. As noted later in this section, we have revised our estimate of *trans* fat intake and extended our revised estimate to include *trans* fat of ruminant origin. Although FDA agrees with the comment stating that development of a large database of *trans* fat food values would be beneficial, database development is beyond the scope of the present rulemaking. FDA agrees with the comment regarding the *trans* fat content of dressing and sauces and acknowledges that FDA's earlier statement about *trans* fat in salad dressings (64 FR 62746 at 62752) was inaccurate. However FDA's earlier statement was part of a general summary of possible limitations of data regarding *trans* fat intake of the population, and was not incorporated into FDA's estimates of *trans* fat intake in the November 1999 proposal. As noted previously, FDA based its estimates of *trans* fat intake on the special 1995 USDA database of *trans* fat content of selected foods.

As described previously in this section, although there are uncertainties associated with each type of estimate, FDA chose estimation of *trans* fat intake based on a national food consumption survey as most suitable for use in this

economic analysis. In reevaluating its November 1999 *trans* fat intake estimate based on a national survey, CSFII 1994–96, FDA notes that the CSFII 1994–96 food group categories used to generate the estimate were very broad (Refs. 73 and 114) and the match between the broad CSFII food group categories and the SIC Codes was not always exact. Recently, USDA has published more detailed tables of food group intake for CSFII 1994–96 (Ref. 115). FDA has used the new tables to recalculate its estimate of average *trans* fat intake in the United States. For clarity, FDA now includes the itemized *trans* fat intake for the various food groups rather than creating a summary category for "All other." FDA has also extended its estimate to incorporate *trans* fat of ruminant origin. FDA has estimated the intake of *trans* fat from margarine from the USDA intake data, without assumptions regarding the percent of margarine that may have been reformulated to remove *trans* fat. We will describe our assumptions about current margarine reformulation in later sections of this document.

The revised estimate of average *trans* fat intake of adults in the United States for this economic analysis is shown in table 1 of this document. The revised estimate is slightly lower than that in the November 1999 proposal. Table 1 shows that average *trans* fat intake from partially hydrogenated vegetable oils is about 5.36 g/d for men and 3.89 g/d for women, or about 2.03 percent of energy. Adding the *trans* fat of ruminant origin gives an overall total *trans* fat intake of 6.86 g/d for men and 4.78 g/d for women, about 2.55 percent of energy. Major sources of *trans* fat intake as a percent of energy include margarine, 0.42 percent; cake and related products, 0.61 percent; cookies and crackers, 0.25 percent; fried potatoes, 0.21 percent; chips and snacks, 0.12 percent; and household shortening, 0.11 percent.

TABLE 1.—AVERAGE *Trans* FAT INTAKE OF U.S. ADULTS FROM FOOD GROUPS

CSFII 94–96 <sup>1</sup>	Men	Women	All	All
Mean daily energy intake, kcal <sup>2</sup>	2455	1646	2058	
Mean daily <i>trans</i> fat intake <sup>3,4</sup>				
Food group	Grams	Grams	Grams	% of energy
Hydrogenated products				
Total yeast bread	0.475	0.330	0.404	0.177%
Cakes, pies, doughnuts, sweet rolls, biscuits, muffins, quick breads, pancakes, waffles, tortillas	1.607	1.163	1.391	0.607%
Cookies, crackers	0.624	0.515	0.571	0.249%
Ready to eat breakfast cereal	0.093	0.074	0.084	0.037%
French-fried, home-fried potatoes	0.635	0.332	0.486	0.213%
Potato chips, corn chips, popcorn	0.345	0.215	0.281	0.123%