

**PAHO /WHO TASK FORCE
TRANS FATS FREE AMERICAS
CONCLUSIONS AND RECOMMENDATIONS
April 26-27 2007, Washington DC**

Summary

Industrially-produced trans fatty acids (TFA), commonly known as trans fats, are defined by the Codex Alimentarius Commission as “unsaturated fatty acids that contain one or more isolated (non-conjugated) double bonds in a trans configuration.” TFA are formed during the partial hydrogenation of liquid vegetable oils resulting in semi-solid fats used in margarines, cooking oils and many processed foods, which are attractive to industry because of their long shelf life; better stability during frying; and increased solidity and malleability for use in baked goods and sweets. TFA are also formed naturally in small amounts by the action of microorganisms present in the ruminant (e.g. cows, sheep, goat) stomach, however, this form of TFA accounts for a small amount (<0.5 % of total energy intake) of total trans fats consumed. Although data for all countries is still incomplete, it is estimated that consumption of TFA may be approximately from 2-3% (4.5-7.2 grams/day) of total calories consumed in the U.S., 3% (7.2 g/d) in Argentina, 2% (4.5 g/d) in Chile, and 1.1% (2.6 g/d) in Costa Rica.

There is conclusive evidence indicating that consumption of TFA increases the risk of coronary heart disease and possibly raises the risk of sudden cardiac death and diabetes. This evidence has prompted global concern given the large burden of disease and disability posed by cardiovascular diseases. The 2002 WHO/FAO Expert Consultation on Diet, Nutrition and the Prevention of Chronic Diseases (WHO Technical Report Series, TRS, 916) concluded that there was convincing evidence that intake of TFA increased the risk for developing cardiovascular diseases. Furthermore, the TRS 916 Expert Consultation recommended that TFA consumption should not exceed 1% of daily dietary energy intake, and proposed efforts to increase mono- and poly-unsaturated fats in the food supply and human diets. Consequently, Member States adopted the World Health Assembly (WHA) resolution in 2004 endorsing the Global Strategy on Diet, Physical Activity and Health, which placed the elimination of TFA as a key point for action by governments.

Several governments have taken or are considering a wide range of actions to eliminate industrially-produced trans fats. The most notable was Denmark’s legislation in January 2006 that limited TFA to 2% of total fat in all foods in the marketplace, including imported and restaurant foods, effectively eliminating industrial TFA from their food supply. Canada, in 2005, became the first country to regulate mandatory nutritional labeling of trans fat. In 2006, a Canadian Task Force proposed the reduction of TFA consumption to

the “lowest level possible” and recommended that trans fats should not exceed 2% of total fat content for vegetable oils and soft, spreadable margarines and 5% for all other foods. In the U.S., a detailed cost-benefit analysis on the health benefits of TFA reduction compared to the expense of labeling led to the mandated inclusion of TFA content on food labels and the recommendation that individuals keep trans fatty acid consumption as low as possible. A multisectoral Committee on Fats and Oils of Costa Rica has issued a proposal for the reduction of TFA intake in Central American countries and the Dominican Republic and has recommended the inclusion of TFA in nutrition labels. In January 2006, Chile followed suit and was joined in August of that same year by countries of the MERCOSUR pact agreement (Argentina, Brazil, Paraguay and Uruguay). Finally, in Brazil, a new proposal to regulate marketing of foods with high levels of saturated fat and trans fat, among other nutrients, is currently under public consultation. Thus, government action on TFA is feasible and can produce significant benefits, but such efforts are not yet widespread or coordinated.

The Food industry has taken some steps towards eliminating TFA. Mc Donald’s has eliminated TFA in some countries (Denmark, France, Russia and Argentina) and substantially reduced TFA in Brazil. Global corporations such as Unilever and Kraft Foods have declared goals to eliminate TFA in all their products and have started the process of elimination. In Argentina and Brazil, some food industries, induced by Public Health action, have begun to switch from partially hydrogenated oils to non-hydrogenated unsaturated oils at no additional cost to consumers; for example, TFA-free bread and other baking products have been introduced at similar cost to the previously TFA-laden products. In Costa Rica, the largest local vegetable oil and margarine industry voluntarily phased-out TFA, resulting in a dramatic fall in TFA consumption and in population biomarkers of TFA intake. In Uruguay, high oleic sunflower oil is being produced and marketed as a substitute to partially hydrogenated oils used in fried food. These actions demonstrate that significant reduction in TFA use is both feasible and practical; unfortunately, many food industries, manufacturers, and restaurants have not taken action to eliminate TFA.

The health impact of removing industrially-produced trans fatty acids from the food supply was estimated by Task Force investigators from the School of Public Health, Harvard University. The calculated risk reduction associated with a potential TFA reduction of either 4.5 grams (2% of daily energy) or 9 grams (4% of energy) per day was estimated. Effects on coronary heart disease (CHD) risk were based on (1) only the effects of TFA on total and HDL cholesterol levels (determined from randomized controlled trials; and (2) the relationship of TFA intake with clinical CHD events in prospective longitudinal studies. The first model is considered conservative because it does not account for the full range of health effects of TFA on other risk factors such as endothelial cell function, inflammation or insulin sensitivity. The results demonstrate that sizeable reductions in CHD events (nonfatal myocardial infarctions or CHD deaths) would be achieved by eliminating industrial TFA. In the Americas, excluding U.S. and Canada, a 4.5g/d reduction in TFA consumption would translate into between 30,000 to 130,000 thousand CHD events prevented; while 9 g/d reduction would prevent 62,000 to 225,000 CHD events.

Conclusions and Recommendations of PAHO/WHO Task Force:

1. Industrial TFA in the food supply should be eliminated in the Americas and unsaturated fats should be the preferred alternative, including the n-3 polyunsaturated fatty acids, given their cardiovascular protective effect. As a substitute, saturated fats should only be used when indispensable to the specific applications; this should be uncommon considering advances in food technology.
2. Whilst voluntary actions from industry are welcome, regulatory action is needed to most rapidly and effectively protect population health in the Region. Furthermore, a regulatory framework would “level the playing field” for all industry, local and international, small and large, and provide equal benefits to all sectors of society (particularly rural and poor populations.) Based on the evidence on cost, technical advances and supply issues, the elimination of industrial TFA is feasible and achievable; the implementation of this goal over time should be based on the local conditions.
3. The key recommended regulatory measure is to adopt, by legislative action, a threshold limit of <2% of total fat as TFA in vegetable oils and soft spreadable margarines and <5% for all other foods, as proposed by the Canadian Task Force on TFA. In addition, other potential regulatory measures include: (i) food labeling to disclose the TFA content of foods throughout the Region; (ii) the establishment of standards for product health claims; and (iii) disclosure of types of dietary fats and oils including TFA, in foods served in restaurants, food-aid programs, school feeding programs and other food service providers.
4. The Task Force is committed to working with industry leaders to identify common ground for action and to expedite the process of phasing-out TFA and promote the adoption of healthier oils and dietary fats in the food supply of the Hemisphere. To that end, the Task Force will propose a plan of action to stakeholders, governments and industry; to be implemented after consultation with these various sectors.
5. National governments are particularly encouraged to support the efforts of small food industries and services in their attempt to eliminate TFA and adopt healthier oils and fat alternatives.
6. The Task Force recommends that PAHO/WHO (i) lead the effort in phasing-out TFA; (ii) assist Member States in developing policy and nutrition public health capabilities, as well as laboratory and human resources to adequately measure progress and impact; (iii) in the medium term, place the Trans Fat Free Americas policy and strategy as a priority in its Regional health agenda; (iv) provide technical assistance to governments in the development of regulations and legislation to eliminate TFA; and (v) encourage Member States to bring to the attention of the Codex Alimentarius Commission relevant recommendations made by this Task Force.

7. A number of issues require investigation to refine some of the actions suggested, but such efforts should not delay action to eliminate industrial TFA. Suggested research topics include (i) defining the optimal combination of n-3 and n-6 PUFAs and MUFAs to replace TFA depending on available sources of fats and oils; (ii) improving the characterization of sources and amounts of TFA consumed by different populations in the Americas; and (iii) developing appropriate sampling methods and specific biomarkers for surveys of exposure to, and the biological effects of TFA.

The **Task Force on Trans Fat Free Americas** proposes that the PAHO Executive Committee consider this Report and submit it for consideration at PAHO's Pan American Sanitary Conference Meeting in October 2007.

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