

Policy Primer: **Regulating & Eliminating Trans-Fatty Acids from Dietary Sources in Pakistan**



1 **What are trans-fatty acids?**

Trans-fatty acids (TFA) are considered as the unhealthiest types of fats. They have a unique chemical structure that includes one or more double bonds in trans configuration and a straight structure. They can be naturally occurring in small amounts in certain animal products, but the majority of TFAs are industrially produced (i.e., iTFAs) through the process of partial hydrogenation of vegetable oils (PHOs).

TFAs are commonly found in processed foods, especially those made with PHOs, and are used to enhance taste, texture, and shelf life. Unlike other types of fatty acids, TFAs have no known nutritional benefits and are associated with numerous health risks.

2 **High-risk food sources containing TFAs**

The main food items in Pakistan that contain high levels of TFAs include vanaspati ghee, margarine, bakery shortenings, and refined cooking oils. These items are extensively used in preparing a wide variety of foods, such as cookies, chocolates, breakfast cereals, biscuits, bakery wares, restaurant foods, deep fried street foods, samosas, pakoras, pastas, salty snacks, desserts, ice-creams and several other ultra-processed products prepared at home or marketed by commercial setups. The primary industries contributing to iTFAs in Pakistan are partially hydrogenated vanaspati ghee, refined edible oil, margarine, and the bakery and confectionary industries. Notably, 98% of the iTFAs consumed in Pakistan are locally produced.

3 **Health risks associated with TFAs**

Higher consumption of trans fats (>1% of total energy intake) is associated with increased risk of diet-related non-communicable diseases (NCDs) including coronary heart disease, Alzheimer's, diabetes, cancers, obesity and male infertility. TFAs raise low-density lipoprotein (LDL) cholesterol levels while reducing high-density lipoprotein (HDL) cholesterol levels, leading to an increased risk of coronary heart disease. Additionally, TFAs promote inflammation and oxidative stress in the body, contributing to other chronic diseases.

4 Current situation in Pakistan regarding TFA consumption

Pakistan's trans fat intake is estimated to be the 2nd highest in the WHO-EMRO region at nearly 6% of daily energy intake.

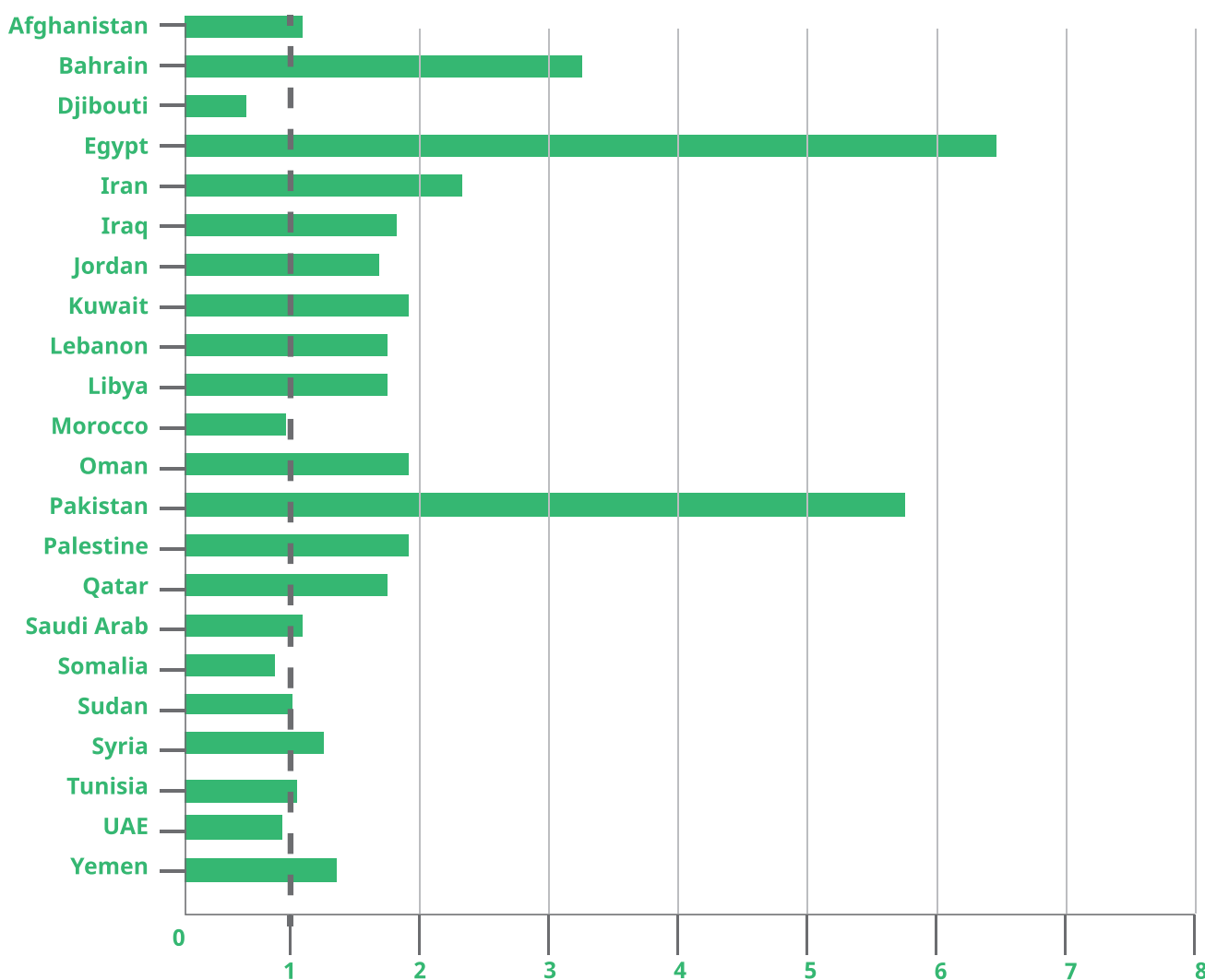


Figure 1: TFA intake in Pakistan

Pakistan faces significant challenges in regulating and eliminating TFAs from dietary sources. The progress in introducing necessary measures to regulate TFAs in dietary sources has been subpar. Consequently, the incidence of NCDs continues to burden the nation's health and economic indicators. As per the 2019 global burden of disease data, ischemic heart diseases and stroke were among the top killers of Pakistanis. As per International Diabetes Federation (IDF), in 2021, over 33 million people were living with diabetes and the number is set to reach 62 million by 2045 if no immediate policy actions are taken. The IDF estimated USD 2,640 million as the cost of diabetes management in Pakistan in 2021.

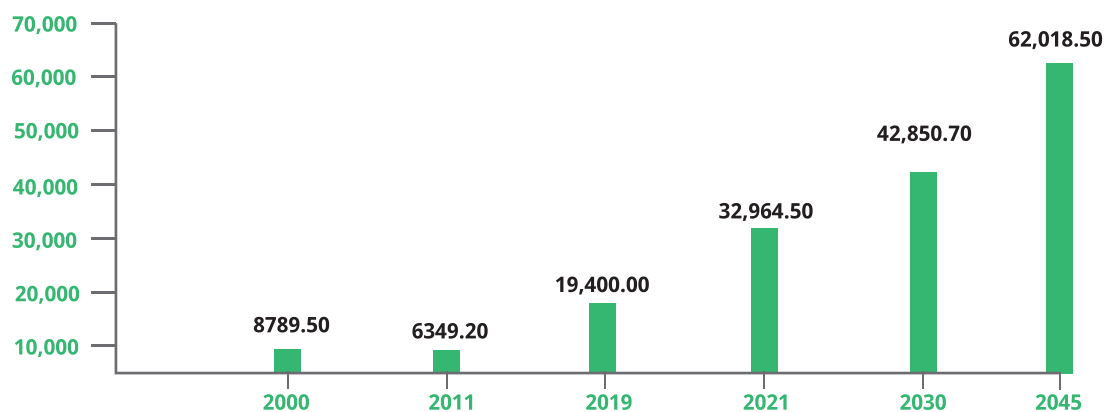


Figure 2: Diabetes in Pakistan

Pakistan has made limited progress in eliminating trans fatty acids from the diet. In 2020, Pakistan Standards and Quality Control Authority (PSQCA) set 5% limit of TFAs in vanaspati ghee only. In July 2023, a 2% limit was set by PSQCA for vanaspati, margarine, bakery fats, biscuits, rusks and bakery wares. This is an important step in the right direction, however, several products that are potential sources of iTFAs remain uncovered under the mandatory limits. These include deep fried street foods, salty snacks, ultra-processed products, restaurant foods, chocolates, ice-creams and desserts. Food cooked at home using partially hydrogenated vanaspati ghee could also be a high source of TFAs in the diet.

5 Key policy recommendations

a. Adoption of best policy practices

The WHO recommends the adoption of one or more of the following policy actions as desired practices:

1. Ban partially hydrogenated oils
2. Limit iTFAs to 2g per 100g of total fat in all foods
3. Combination of the two policies, i.e., PHO ban and 2% iTFA limit

Any of these best-practice options will eliminate the vast majority of products that contain iTFAs. Nevertheless, on the margins, there might be both advantages and disadvantages to choosing any one particular approach. In the specific context of Pakistan, a hybrid approach, starting with limiting iTFAs to 2% in all food items followed by a ban on PHOs is advisable.

b. Capacity strengthening of regulatory bodies

Strengthening the enforcement capacity of regulatory bodies is crucial to eliminating iTFAs from the food supply. The government should allocate sufficient resources, and invest in training, equipment and the inspection capacity of regulatory bodies to enforce iTFA regulations and ensure compliance.

c. Promote healthier alternatives

The ideal solution would be to replace trans fats with unsaturated fats where saturated fats do not exceed 10% of the total energy requirement. However, this might not be possible immediately as there are more producers of saturated fat (e.g., palm/coconut oil) compared to unsaturated fat. Accordingly, until unsaturated fats do not become a viable replacement option, consumers should be categorically informed through appropriate measures such as a front-of-package warning labels (FOPWL) policy.

d. Trans-fats-free claims

The food industry should not be allowed to make claims of providing trans-fats-free food items unless the product actually has 0% TFAs. It is also important to point out here that a trans-fats-free claim does not automatically mean that a food is healthy. Such foods can still be high in sugar, salt or saturated fats. Accordingly, the product messaging ought to be aligned with the promotion of food that is safe for consumption beyond a specific nutrient regulation.

e. Public awareness and education

A concerted communications effort is needed to raise awareness among the masses, health professionals, media, youth, civil society, retailers, and both governmental and non-governmental stakeholders about the health risks of TFAs and the benefits of its elimination to mobilize policy support.

Regulating and eliminating iTFAs from dietary sources is essential to combat the rising burden of NCDs in Pakistan. Governmental efforts, in collaboration with civil society, are vital in eliminating TFAs from the food supply. By taking comprehensive actions, Pakistan can protect its population's health and well-being and reduce the economic burden of NCDs associated with TFA consumption.

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