

# ELIMINATING INDUSTRIAL TRANSFATS FROM PAKISTAN'S FOOD SUPPLY

## 1. INTRODUCTION

Industrially produced trans-fatty acids (iTfAs) are significant contributors to the global burden of non-communicable diseases, particularly cardiovascular disease. The World Health Organization (WHO) identifies the elimination of iTfAs as a critical public health intervention, as trans fats are responsible for over 500,000 premature deaths worldwide each year.

Partially Hydrogenated Oils (PHOs), the primary source of iTfAs, are used in many processed foods due to their longer shelf life and lower cost compared to natural oils. However, they significantly increase the risk of heart disease, and stroke, diabetes, Alzheimer's Disease, obesity, and various types of cancers.

In response to the growing body of evidence linking iTfAs to negative health outcomes, the WHO recommends eliminating these harmful substances from the food supply. This involves setting a regulatory limit of 2 grams of iTfAs per 100 grams of fat in all foods, and/or enacting a ban on the production and distribution of PHOs.

**2% TFA limit:**  
limiting TFA to 2g per 100g of total fat in all fats, oils, and foods

**Hybrid:**  
combining a 2% TFA limit with a PHO ban

**PHO ban:**  
banning the import, production, and use of PHO, the main source of iTfAs

Pakistan currently has the highest consumption of iTfAs in the WHO-EMRO region. By adopting this best practice policy, Pakistan can address both the presence of trans fats in foods and their sources, providing an effective mechanism to protect public health, reduce healthcare costs, and achieve long-term health gains. The country's like Pakistan having high rate of cardiovascular deaths are encouraged to adopt more stringent regulatory and legislative measures including enacting iTFA limits and banning PHOs.

## 2. DIET-RELATED DISEASE BURDEN IN PAKISTAN



Second-highest intake of trans fats in the WHO-EMRO region



58% of all deaths caused by non-communicable diseases<sup>i</sup>



200,000 deaths caused by cardiovascular diseases annually<sup>ii</sup>



33 million adults living with diabetes - the highest in the world<sup>iii</sup>

### 3. RATIONALE FOR A HYBRID APPROACH: LIMITING ITFAS AND BANNING PHOS

#### i. WHO-RECOMMENDED BEST POLICY PRACTICE

The WHO's "REPLACE" action package provides a roadmap for eliminating trans fats from the global food supply. It advocates for a regulatory limit of 2 grams of iTFAs per 100 grams of fat/oil across all foods and strongly recommends the elimination of PHOs, the major source of iTFAs, as a preventive measure.

By combining these strategies—regulating iTFAs and enacting ban on PHOs—many countries have already ensured that both direct and indirect sources of harmful trans fats are addressed. This two prong approach is essential for the complete eradication of iTFAs from the food chain and for protecting public health in Pakistan.

#### Case Studies

- **Denmark (2003):**<sup>iv</sup> One of the first countries to impose a legal limit on iTFAs, Denmark saw a 14% reduction in cardiovascular disease-related deaths within a decade. This pioneering regulation was later followed by a ban on PHOs, setting a global precedent.
- **Thailand (2019):**<sup>v</sup> Thailand also combined an iTFA limit with a PHO ban. Early assessments suggest that this has the potential to prevent over 10,000 premature deaths by 2030.
- **Egypt (2020):**<sup>vi</sup> With the highest iTFA intake in the WHO-EMRO region, Egypt introduced a national iTFA limit followed by a ban on PHOs. According to government estimates, the hybrid policy is expected to reduce the incidence of trans-fat-related cardiovascular diseases by up to 20% over the next decade. The government also reported a significant decrease in the use of trans fats in packaged foods within the first two years of implementation.

#### ii. STRENGTHENING REGULATION WITH POLITICAL SUPPORT

Simply regulating iTFA levels, though important, can lead to loopholes, particularly when manufacturers use alternative fats that may not be strictly regulated. Partially Hydrogenated Oils can still enter the food supply, particularly through unregulated sectors, such as small-scale bakeries, street vendors, and imported goods. A legislative ban on PHOs eliminates the risk of such loopholes by directly targeting the source of iTFAs. With the availability of alternative oils and fats, the ban is both feasible and essential to achieving full compliance with health standards. It will provide political support for the policy, ensuring a sustainable impact and reducing the risk of reversal due to vested interests.

#### iii. PUBLIC HEALTH IMPACT

Studies have shown that even small reductions in trans-fat consumption can lead to substantial public health benefits, particularly in reducing heart disease. By eliminating iTFAs through regulation and enacting ban on PHOs through legislation, Pakistan can prevent a significant number of premature deaths, reduce the incidence of heart disease, and improve overall life expectancy.

The two prong approach has proven effective in improving health outcomes in both high- and middle-income countries. For example, Denmark's iTFA regulation combined with a PHO ban led to a 90%

reduction in the consumption of trans fats, which was directly linked to a decline in heart disease mortality rates. In India, the adoption of this hybrid policy is expected to prevent 175,000 deaths from cardiovascular disease over the next decade. Pakistan, with one of the highest iTFAs consumer in the region, stands to benefit immensely from such a comprehensive policy.

#### **iv. ECONOMIC BENEFITS**

The slow progress in comprehensively regulating iTFA presence in dietary sources has significantly increased the burden of non-communicable diseases in Pakistan. For example, the International Diabetes Federation estimated the annual cost of diabetes management in Pakistan to be \$2,640 million in 2021, while the Pakistan Institute of Development Economics (PIDE) estimated the annual cost of obesity at PKR 428 billion in 2015.

Countries that have adopted a two prong approach have reported substantial long-term savings in healthcare expenditures. In the U.S., the FDA estimated that the elimination of PHOs would save up to \$140 billion in healthcare costs over 20 years. While the specific economic impact on Pakistan requires further study, the potential savings are likely to be substantial given the country's high cost of NCD management.

#### **v. ALIGNMENT WITH PAKISTAN'S DEVELOPMENT GOALS**

The hybrid approach of iTFA regulation and PHO prohibition aligns with Pakistan's national and international commitments to improve public health. This includes meeting Sustainable Development Goal (SDG) 3, which aims to reduce premature mortality from non-communicable diseases by one-third by 2030. Moreover, by implementing policies consistent with global best practices, Pakistan can demonstrate leadership in public health and align itself with countries at the forefront of food safety and NCD prevention.

### **4. PROGRESS ON THE HYBRID APPROACH TO ELIMINATE INDUSTRIALLY PRODUCED TRANSFATS**

#### **GLOBAL PROGRESS**



82 countries have passed legislation or regulatory measures or both



63 countries have adopted the best practice policy, i.e., the hybrid approach

#### **PAKISTAN'S PROGRESS**



In 2023, Pakistan regulated 6 food categories. Several notable dietary streams including, dairy products, ultra-processed and street foods remain unregulated



Partially Hydrogenated Oils continue to be produced, imported and distributed across Pakistan

**PAKISTAN IS STILL IN THE LESS RESTRICT CATEGORY IN THE WHO SCORE CARD AND MISSED 2023 DEADLINE.**

## 5. RECOMMENDATIONS

### 1. Enact a Legislative Ban on PHOs through the Ministry of National Health Services, Regulation, and Coordination

A legislative ban on the production, import, and distribution of PHOs is essential for eliminating the primary source of iTFAs from the Pakistani food supply. By enacting this ban, Pakistan can align itself with global best practices and close regulatory gaps, especially in unregulated sectors such as small-scale bakeries, street vendors, and certain imported goods. Such a measure will also offer political support to the policy, ensuring long-term sustainability and reducing the risk of policy reversal due to vested interests.

### 2. Set Regulatory Limits on iTFAs through the Pakistan Standards and Quality Control Authority

The PSQCA should establish a regulatory limit of 2 grams of iTFAs per 100 grams of total fats in all foods. This aligns with the WHO's best-practice guidelines and addresses the high intake of iTFAs in Pakistan. Comprehensive regulation will allow Pakistan to meet international standards for public health protection, reduce the burden of non-communicable diseases, and promote healthier food production practices.

### 3. Strengthen Provincial Food Authorities to Enforce iTFA Regulations and Legislative Bans on PHOs

To ensure effective enforcement of iTFA regulations and the PHO ban, it is crucial to bolster the capacity of provincial food authorities (e.g., Islamabad, Punjab, Sindh, Balochistan, and Khyber Pakhtunkhwa Food Authorities). This includes increasing resources for inspection, compliance monitoring, and lab testing capabilities, as only one public sector lab is currently equipped to test iTFAs. Enhanced capacity at the provincial level will lead to consistent enforcement, especially in local markets and among small-scale producers, ensuring compliance with national food safety standards and supporting public health.

## ENDNOTES

<sup>i</sup> Kazmi, T., M. L. F. Nagi, S. Razzaq, S. Hussnain, N. Shahid, and U. Athar. "Burden of Noncommunicable Diseases in Pakistan." *Eastern Mediterranean Health Journal* 28, no. 11 (2022): 798–804. <https://doi.org/10.26719/emhj.22.083>.

<sup>ii</sup> Bhatti, Mohammad Waqas. "Pakistan Sees 10PC Rise in Heart-Related Deaths in Last Seven Years: Experts." *The News International*, October 1, 2023. <https://www.thenews.com.pk/print/1114930-pakistan-sees-10pc-rise-in-heart-related-deaths-in-last-seven-years-experts>.

<sup>iii</sup> Azeem, Syed, Umar Khan, and Amna Liaquat. "The Increasing Rate of Diabetes in Pakistan: A Silent Killer." *Annals of Medicine and Surgery* 79 (2022): 103901. <https://doi.org/10.1016/j.amsu.2022.103901>.

<sup>iv</sup> Bjoernsbo, Kristine S., Anne M. Joensen, Torben Joergensen, Steen Lundbye-Christensen, Anette Bysted, Tue Christensen, Sisse Fagt, and Simon Capewell. "Quantifying Benefits of the Danish Transfat Ban for Coronary Heart Disease Mortality 1991–2007: Socioeconomic Analysis Using the IMPACTsec Model." *PLOS ONE* 17, no. 8 (2022): e0272744. <https://doi.org/10.1371/journal.pone.0272744>.

<sup>v</sup> Wang, Q., Afshin, A., Yakoob, M. Y., Singh, G. M., Rehm, C. D., Khatibzadeh, S., et al. "Impact of Nonoptimal Intakes of Saturated, Polyunsaturated, and Trans Fat on Global Burdens of Coronary Heart Disease." *Journal of the American Heart Association* 5, no. 1 (2016): e002891.

<sup>vi</sup> Home - resolve to save lives. Accessed November 13, 2024. <https://resolvetosavelives.org/wp-content/uploads/2023/05/Trans-fat-elimination-policy-Saudi-Arabia-1.pdf>.