

# ELIMINATING INDUSTRIAL TRANS FATS FROM PAKISTAN'S FOOD SUPPLY

## INTRODUCTION

Industrially produced trans-fatty acids (iTFAs) are significant contributors to the global burden of non-communicable diseases (NCDs), 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<sup>1</sup> 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, stroke, obesity, diabetes, Alzheimer's disease, and various types of cancer.

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

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

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

Following the WHO recommendation, Pakistan has made encouraging progress in regulating iTFAs by setting a national limit of 2% iTFAs per 100 grams of total fats in all food categories. However, PHOs, the primary raw material used in the production of iTFAs continue to be produced, imported, and sold across Pakistan, posing a serious public health risk. To achieve the complete elimination of iTFAs from the Pakistani food supply, a legislative ban on PHOs must be enacted at the national level through the National Assembly, Senate and the respective provincial legislatures.

## DIET-RELATED DISEASE BURDEN IN PAKISTAN



Second-highest intake of trans fats in the WHO-EMRO region<sup>2</sup>



52% of all deaths caused by non-communicable diseases<sup>3</sup>



200,000 deaths caused by cardiovascular diseases annually<sup>4</sup>



35 million adults living with diabetes — the fourth-highest in the world<sup>5</sup>

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

### 1. WHO-RECOMMENDED BEST POLICY PRACTICE

The WHO's "REPLACE" action package provides a roadmap for eliminating industrial 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 primary source of iTFAs, as a preventive measure.

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

### Case Studies

- **Denmark<sup>6</sup> (2003):** 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<sup>7</sup> (2019):** Thailand imposed a nationwide PHO ban in 2019. Early assessments suggest that this has the potential to prevent over 10,000 premature deaths by 2030.
- **Egypt<sup>8</sup> (2020):** 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 iTFAs in packaged foods within the first two years of implementation.
- **Saudi Arabia<sup>9</sup> (2020):** Saudi Arabia first introduced iTFA limits (2 grams per 100 grams of fat) before banning PHOs altogether. This hybrid approach is likely to reduce cardiovascular disease-related deaths.

## **2. 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 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.

## **3. 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 a 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-pronged 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 industrial trans fats, which was directly linked to a decline in heart disease-related mortality rates. Pakistan, with one of the highest trans fats consumption rates in the region, stands to benefit immensely from such a comprehensive policy.

## **4. ECONOMIC BENEFITS**

The slow progress in comprehensively regulating iTFA presence in dietary sources has significantly increased the burden of non-communicable diseases and related health conditions in Pakistan. For example, the International Diabetes Federation estimated the annual cost of diabetes management in Pakistan to be \$2,640 million in 2021,<sup>10</sup> while the Pakistan Institute of Development Economics (PIDE) estimated the annual cost of obesity at PKR 428 billion in 2015.<sup>11</sup>

Countries that have adopted the hybrid 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.<sup>12</sup> 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.

## **5. 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.

## PROGRESS ON THE HYBRID APPROACH TO ELIMINATE INDUSTRIALLY PRODUCED TRANS FATS



61 countries have adopted the best practice policy



In 2025, all food items in Pakistan were covered by a single national iTFA regulation passed by the Pakistan Standards and Quality Control Authority (PSQCA)



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

**FOR BETTER PUBLIC HEALTH AND ECONOMIC INDICATORS, PAKISTAN NEEDS A COMPREHENSIVE LEGISLATIVE BAN ON PHOS TO FULLY ELIMINATE INDUSTRIAL TRANS FATS FROM THE FOOD SUPPLY.**

### ENDNOTES

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