

POLICY BRIEF

iTFA Reduction Strategies: From Policy to Enforcement

January, 2025

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1. Introduction

The policy context: There is a strong correlation between iTFAs (industrially produced trans fatty acids) as dietary risk factor for noncommunicable diseases (NCDs), increase in disease burden, and persistence of poverty and/or economic losses. This correlation is mediated through our systems of governance and public policies. Poverty leads to bad food choices, and unhealthy food via NCDs, increases healthcare costs, depletes human capital, and makes people and their economies worse off thereby perpetuating poverty and/or economic losses.

It means that if we get our public policies and governance right such as enforcement of iTFA reduction strategies, primordial prevention, better health, productivity gains, and good quality socio-economic outcomes are possible. Therefore, a robust campaign for enforcement is warranted to help eliminate one of the most harmful commercial determinants of health i.e., iTFA in food supply.

iTFA reduction enforcement costs are less than the burden of disease costs: A large number of studies reveal that high intake of trans fatty acids is a recognised risk factor for ischaemic heart disease. Such studies have informed policy makers and implementors leading to policy developments across the world to eliminate industrial trans fats. Such studies provide a variety of estimates and showcase convincing evidence about cost-effectiveness and potential impact of iTFA reduction enforcement, indicating it can prevent thousands of ischaemic heart disease related deaths.

With healthcare cost-savings, the studies estimate that iTFA reduction benefits to health and economy outweighs implementation and enforcement costs. Such studies¹ conducted in low- and middle-income countries, alongside other analyses in high-income nations, also suggest that eliminating industrial trans fats can be a cost-effective or even cost-saving strategy for reducing NCDs specially the ischaemic heart disease.

Let us have a little detailed deep-down reading into the issue of iTFAs in *ghee*, and the need to move from policy to enforcement.

2. iTFAs: A Dietary Risk Factor called “Silent Killer”

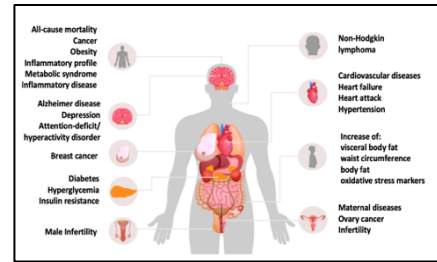
Empirical evidence from scientific research and credible institutions such as World Health Organization (WHO)², suggests that dietary risk factors and practices such as oils and fats (specially with higher than 2% of industrially produced trans fatty acids), consumption of higher levels of added sugars, and sodium are responsible for increasing rates of many non-communicable diseases (NCDs).

These diseases include, but not limited to diabetes, hypertension, cardiovascular diseases (CVDs), cancers, and other chronic diseases in Pakistani population. Pakistan’s trans-fat intake is estimated to be the 2nd highest in the WHO-EMRO region at nearly six percent of daily energy intake leading to higher vulnerability risk of coronary heart disease. Recent

¹Marklund M, Aminde LN, Wanjau MN, et al. Estimated health benefits, costs and cost-effectiveness of eliminating industrial trans- fatty acids in Nigeria: cost-- effectiveness analysis. *BMJ Glob Health* 2024;9:e014294. doi:10.1136/ bmjgh-2023-014294

² https://iris.who.int/bitstream/handle/10665/259519/emropub_2017_20141.pdf?sequence=1

research studies have highlighted that the consumption of industrially produced trans fatty acids (iTfAs) causes detrimental effects on human health. Higher consumption of trans fats (>1% of total energy intake) is associated with increased risk of diet related Non communicable Diseases (NCDs). Pakistan's high TFA consumption is directly linked to high rate of mortality due to heart disease (29.1% of deaths)³.



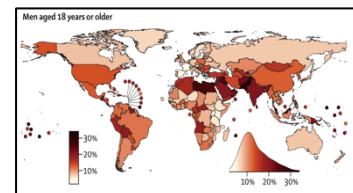
It must be mentioned that a review of research on TFA content in industrially produced foods in Pakistan, conducted by the Ministry of National Health Services, Regulations and Coordination (MoNHSR&C) and WHO Pakistan demonstrates that the major contributors to trans fats' consumption in Pakistan are *vanaspati ghee* 14.2% - 34.3%, margarine and fat spreads 11.5% - 34.8% and bakery shortening 7.3% - 31.7%⁴.

Shifting disease burden: It is also being said that in the next 25 years, there will be a continued shift in disease burden from communicable, maternal, neonatal, and nutritional diseases to non-communicable diseases⁵. Pakistan will not be an exception, and it is the most opportune time to understand the gravity of the situation, and a well-coordinated multi-institutional response is generated to provide health security to the citizens of the country. Let us have a look at the NCDs situation in the country.

As a matter of fact, the overweight, obesity and diet related NCDs are on the rise in Pakistan.

Obesity: The National Nutrition Survey 2018 confirmed the prevalence of overweight among children under five has almost doubled from 2011 to 2018. Similarly, obesity and overweight increased in women of reproductive age from 28% to 38% from 2011 to 2018. According to the NCDs STEPS Survey 2014-2015, more than four out of ten adults (41.3%) were obese or overweight.

Diabetes: According to the 10th edition of International Diabetes Federation⁶ (IDF) 2021 Diabetes Atlas, Pakistan has the 3rd highest burden of type 2 diabetes worldwide with more than 36 million cases with additional 11 million termed as pre-diabetic. With 30% prevalence amongst the adult population, every third adult Pakistani is diabetic.



Disabilities and deaths: Apart from various behavioural influences on productivity and increases in the number of sick days, lower limb amputation is one of the disabilities which can strike diabetics. In Pakistan, the amputation is increasing at an alarming rate and more than 35 people go through this amputation and nearly 600,000 people might have lost their lower limbs⁷. These unhealthy conditions of the Pakistani population are manifested in causes of mostly premature deaths. It is estimated that around 6/10 deaths are contributed by NCDs (WHO, 2016), and 3/10 deaths are contributed by CVDs (WHO, 2016). With 37% adults having hypertension, the cardiovascular diseases stand among the top killers of Pakistanis with 29% contribution in the total NCDs related deaths in the country (WHO, 2016).

³ Pakistan Health Data, 2017. <http://www.healthdata.org/pakistan>

⁴https://www.researchgate.net/publication/343084875_Understanding_the_complexities_of_prevalence_of_trans_fat_and_its_control_in_food_supply_in_Pakistan

⁵ [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(24\)00685-8/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(24)00685-8/fulltext)

⁶ <https://diabetesatlas.org/data/en/country/150/pk.html>

⁷ <https://tribune.com.pk/story/2337382/diabetic-amputations-rising-at-alarming-rate>

Economic cost of the rising disease burden: Such high prevalence rates of these conditions and the heavy burden of disease, disability and deaths they can cause threaten to generate a devastating financial burden for the country, overwhelming health services and undermining its economic and social well-being. Urgent action is, therefore, needed to tackle this alarming and escalating problem. If no immediate policy action taken, number of people living with diabetes will reach to 62 million by 2045. The IDF estimated \$2640 million as expenditure of diabetes in 2021 in Pakistan. In 2015, the annual cost of obesity was estimated to be PKRs 428 billion by Pakistan Institute of Development Economics. It must be noted that NCDs are usually co-morbidities and the cost of treating a diabetic is way higher than a non-diabetic.

3. Perpetuating Poverty/Economic Losses Vs. the Job Creation Argument

NCDs and poverty and/or economic losses nexus is central to understand the problem. Many recent research studies⁸ reveal, “the concentration of the burden of diseases among households is in lower socioeconomic strata”. “As a result, (the poor) are forced to borrow and sell out assets to meet healthcare needs. Furthermore, the financial strain not only adversely affects the quality of life of ailing persons but also make their caretakers face the brunt of the reallocation of time and spending, often pushing families under debt burden and impoverishment”, the authors add. One of the conclusions of the aforementioned study is that “ever-increasing out-of-pocket expenditures are one of the crucial determinants of poverty”.

Such researches and evidence from across the globe reveal that the job creation argument of iTFA producing industry is not convincing since iTFAs in food supply add enormously to the burden of disease, and it outweighs the benefits of job creation. Moreover, with iTFA elimination, even better jobs and healthy workforce can be developed. This will make people and the economies better off as a result on iTFA reduction campaign.

4. The Case of iTFA Reduction for Better Health Outcomes is Strong

Countries that have already eliminated iTFA from their food supply have seen substantial health benefits. It is estimated that iTFA elimination in all countries around the world could save 17 million lives by 2040⁹.

Argentina: iTFA elimination is associated with an estimated annual 1.3-6.3% reduction in coronary heart disease events¹.

Denmark: In the three years following the implementation of an iTFA limit in 2004, cardio-vascular disease (CVD) mortality decreased 3.2% in relation to comparable countries that had not introduced iTFA regulation¹.

England and Wales: iTFA elimination across the two countries is estimated to result in around 1,600 fewer deaths and 4,000 fewer hospital admissions per year¹.

New York: Counties in the state of New York with restrictions on iTFA saw 7.8% fewer hospital admissions for heart attacks between 2007 and 2013 than counties without restrictions¹.

⁸ <https://bmcpublihealth.biomedcentral.com/articles/10.1186/s12889-024-18320-4>

⁹ Kontis V et al. Three Public Health Interventions Could Save 94 Million Lives in 25 Years. *Circulation*. 2019;140(9):715-25. doi: 10.1161/ CIRCULATIONAHA.118.038160.

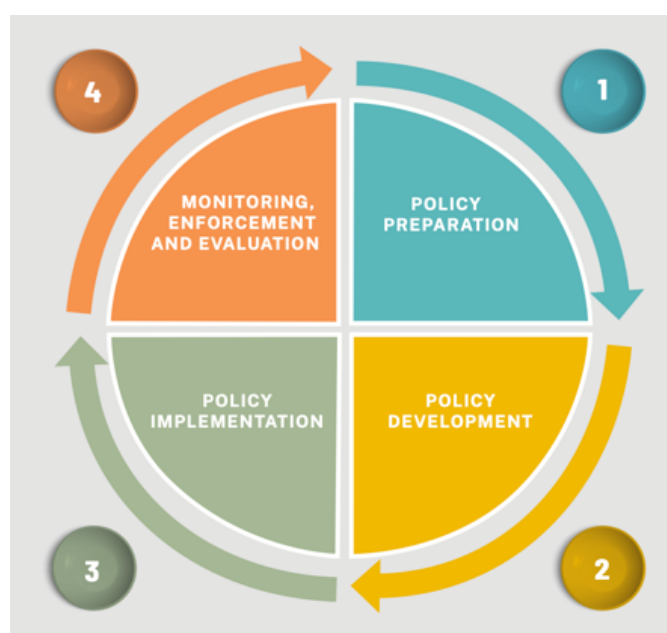
5. Where Does Pakistan Stand? Moving From Policy to Enforcement

Pakistan Standards and Quality Control Authority (PSQCA) has adopted 2% iTFA limit to six items during the 43rd National Standards Committee (NSC) meeting (dated: June 23, 2023) and subsequent notification No. PSQCA/SDC-2/NSCAF/2023 (dated: 26th July 2023). Its adoption is a step in the right direction. The above-referred standard sets less than 2% iTFA limit for various products (i.e., for *Vanaspati ghee*, margarines, bakery fats, bakery wares, bread rusk, and biscuits).

This is the time to undertake a strong enforcement action because iTFA reduction enforcement costs are lower than the burden of disease costs, and:

1. The PSQCA notification and PS: 221-2023 must be enforced using the REPLACE framework of the World Health Organization (WHO);
2. Food authorities and PSQCA must develop monitoring plans, and start a campaign for enforcement;
3. Pakistan must try to be enlisted in the top six countries which have iTFAs reduction policies, and also strong plans to implement and monitor it. It requires validation from WHO.

There is a need to complete and keep alive the below given policy cycle:



Let us improve [#foodgovernance](#) to [#preventNCDs](#) in Pakistan, and thereby contribute in better socio-economic outcomes!

[END]

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