

# The WHO REPLACE Trans Fat Action Package – From Policy to Practice

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In May 2018, the World Health Organisation (WHO) introduced an action package for the elimination of industrially-produced trans fats globally by 2023. The action package, called REPLACE Trans Fat, is in keeping with the Sustainable Development Goal (SDG) 3.4, which aims to reduce non-communicable diseases (NCDs).

Here, we consider the action package and some of the potential challenges to its practical implementation.

## Trans fats in brief

Trans fats are [produced](#) through the addition of hydrogen to unsaturated vegetable oils via the partial-hydrogenation process. This increases the stability of the oils and prevents ‘rancidity’; thus extending their shelf-life. It also modifies the oils into (semi-)solid fats at room temperature, which are used widely in processed and baked foods.

Small quantities of trans fats can be found naturally in meat and dairy, but most trans fats in human consumption come from industrially-produced fat and oil goods e.g margarine, shortening etc.

Trans fats, however, do not have any nutritional benefit. In fact, trans fats have been majorly [implicated](#) in causing cardiovascular diseases; especially as they decrease HDL (good) cholesterol whilst increasing LDL (bad) cholesterol in the body.

Further, about 540,000 deaths annually have been ascribed to the

consumption of trans fats; with high intake raising the [risk of death](#) generally by 34% and specifically deaths from coronary heart disease, by 28%.

The WHO [recommends](#) that trans fatty acids (TFAs) constitute below 1% of total energy intake; in other words, for a 2000 Calorie diet, TFA intake should be below 2.2g/day.

There is a dearth of evidence on TFA intake globally. However, available [research](#), shows that the TFA content of diverse street and processed foods considerably exceeds the recommended levels.

The aforementioned evidence necessitated this WHO policy to ban trans fats globally. Trans fat bans/mandatory limits are not entirely novel as up to 20 countries - mainly in the upper middle and high income bracket - have instituted policies regulating the trans fat content of foods. They include: Denmark, Canada, Argentina, South Africa and Iran, amongst others. As most countries without such regulations are Low and Middle Income Countries (LMICs), [health equity](#) concerns also formed part of the rationale for the WHO REPLACE Trans Fat policy, discussed below.

**REPLACE Trans Fat**



**AN ACTION PACKAGE TO ELIMINATE INDUSTRIALLY-PRODUCED TRANS-FATTY ACIDS**

<b>REPLACE</b>					
<b>REVIEW</b>	<b>PROMOTE</b>	<b>LEGISLATE</b>	<b>ASSESS</b>	<b>CREATE</b>	<b>ENFORCE</b>
dietary sources of industrially-produced trans fats and the landscape for required policy change	the replacement of industrially-produced trans fats with healthier fats and oils	or enact regulatory actions to eliminate industrially-produced trans fats	and monitor trans fat content in the food supply and changes in trans fat consumption in the population	awareness of the negative health impact of TFA among policy-makers, producers, suppliers, and the public	compliance with policies and regulations

The WHO REPLACE Trans Fat [action package](#) serves as a guide for all countries to follow and has an ambitious timeline of just five (5) years. It comprises six steps: **RE**viewing the current trans fat landscape; **P**romoting healthful replacement fats and oils; **L**egislating to institute a ban/mandatory limits; **A**ssessing trans fat content of foods; **C**reating awareness about the dangers of trans fat consumption and **E**nforcing the law/regulations.

This comprehensive guide draws upon the experiences of countries that have successfully regulated industrially-produced trans fat.

For instance, it favours legislation/regulation over voluntary approaches because the latter failed in places such as New York City – which then enacted regulation that proved very effective.

Noteworthy is the flexible proposal of either legislation or regulation. In the USA, for example, the Food and Drug Administration (FDA) only [declassified](#) partially-hydrogenated oils (PHOs) – the major source of trans fats - from the list of items safe for human consumption. This effectively banned industrially-produced trans fats whilst sidestepping the intrigues of enacting legislation - which can involve political considerations sometimes incongruent with public health interventions.

The policy also encourages the engagement of all stakeholders across sectors and industries; a strategy adopted by all countries with similar policies. Case in point, the [South African](#) government cooperated with the academia, edible oil industry and civil society organisations in order to devise their regulation. In all, the REPLACE Trans Fat policy is robust but challenges to its implementation remain, particularly in LMICs; some of these are highlighted below.

## Hurdles, Pitfalls and Barriers

### Political Will

„Health is a political choice“, therefore, political will is essential for this strategy to succeed. The WHO would need to collaborate with other international organisations and NGOs in order to push governments to act on this policy. This is especially true as there might be fat and oil-industry players with vested interests in keeping the status quo. Applying its „Create“ recommendation at the governmental level, will be key to starting the *cascade of concern* needed to generate the political will to act. Also, framing this programme within the context of SDG 3 – target 4, which focuses on combatting NCDs, could serve to present it as an avenue for governments to fulfil their SDG commitments.

### Money

As with every programme, funding is a major factor. Although the fulcrum of this action package is the enactment of legislation and/or regulation, enforcement of compliance with laws requires funding of enforcement agencies.

The „Assess“ charge recommends monitoring of trans fats on two levels; individual consumption - through population-level surveys and laboratory testing – and also trans fat food content – via product testing and label analysis.

In addition, the „Promote“ charge requires supporting the production of alternative oils. Depending on the country’s circumstances, this might entail the building of the whole supply chain for the desired oils.

Both of these require tasking specific government institutions with oversight/empowerment functions and providing the technical capacity in addition to adequate funding, for the exercise of their duties.

Governments, particularly in LMICs, often have limited budgets, so the question remains about where the funds will come from.

Innovative revenue generation schemes e.g. taxation of targeted undesirable oils and industry levies, coupled with international aid and in-country philanthropy could augment governmental funding to this end.

### Healthful Alternatives

Another major consideration is the availability of healthful and affordable alternative oils in sufficient quantities to supplant trans fat-containing oils. The WHO recommends that the replacement oils be rich in polyunsaturated fatty acids (PUFAs) – e.g. sunflower oil - or at least monounsaturated fatty acids (MUFAs) – e.g. canola oil.

Care must be taken to ensure that oils with large quantities of saturated fatty acids (SFAs), such as palm oil - given their link to cardiovascular diseases - do not end up as the replacement. This would require a comprehensive review of the existing supply chain of desired replacement oils and the incentivisation of their production via fiscal, trade and agricultural policies.

To this end, the [WHO advocates](#) for such strategies and that governments encourage innovation to aid producers of unsaturated fatty acids (UFA)-rich oils. Examples of success in this regard abound, which can be emulated.

[Iran](#) incentivised the innovative process of fractionation to produce suitable replacement oils; whereas, [Argentina](#) focused on increased production of sunflower oil.

To provide a picture of the effort needed, let us suppose a government wants to increase the production of canola oil. In practical terms, building the supply chain could entail the government providing quality rapeseeds, farm inputs or equipment to farmers and training agricultural extension workers to support them. The government might also need to incentivise the establishment of canola oil processing plants or even waive the customs duties and other taxes on imported canola oil. These processes take time and resources.

### Prevailing Conditions

Depending on the prevailing circumstances, such as availability of replacement oils, it might not be feasible for TFAs to be banned abruptly.

Hence, the elimination from the food supply might be better done in a phased manner.

[Iran](#) introduced its mandatory limits on TFAs with such an approach. From a high of 20% of fats and oils as at 2005, TFA limits were set for 10%, 5% and ultimately 2% in 2005, 2011 and 2013 respectively; with a compliance deadline for the 2013 regulation of 2016. This approach can be adopted by other countries in the implementation of this WHO policy.

As the situation might be less favourable in some countries, it might have an impact on their ability to meet the target of 2023 for the elimination of trans fats.

## Essentials for Implementation

Needless to say, the execution of this strategy will involve funding, bureaucratic and political considerations. Therefore, the WHO must devise a system to ensure that the political will and technical assistance, which are of ineffable importance, are sustained/available over the duration needed for UFAs to completely supplant TFAs in the food chain.

Given the multifaceted nature of this policy, the importance of stakeholder involvement cannot be overemphasized. The roll out of this action package will involve different government departments such as Ministries of Health, Agriculture, Trade, Finance, Education etc., besides non-governmental parties.

Moreover, as food is an expression of culture, important stakeholders who should not be ignored are the cultural leaders, such as women's groups and traditional rulers. Their buy in will be useful in gaining popular support particularly for switching to more healthful oils and not the perhaps more familiar SFA-rich ones. Hence, the implementation of this policy must involve all relevant players ab initio.

In summation, each country will have to find unique solutions to challenges they encounter in actioning this plan. Although there is no „one size fits all“ solution, countries can learn from the successes and failures of others as regards this policy. Also, given the ambitious deadline of 2023, all stakeholders must work swiftly to execute this strategy.

The hurdles notwithstanding, the public health benefits more than justify the effort needed to ensure that trans fats are eliminated from the food supply. One hopes this strategy is a complete success, but time will tell and 2023 is not far off.

## DISCLAIMER

This blog post reflects the views and opinions of the author(s) based on their research and experience in their respective fields. The content does not represent the official position of the TUM CGH.

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