Trans Fat Free by 2023

A building block of the COVID-19 response

NCD Alliance

Acknowledgments

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Key messages

- COVID-19 is deeply linked to noncommunicable diseases (NCDs), such as heart disease. One in five people worldwide are at increased risk of severe COVID-19 should they become infected, mostly due to NCDs.
- NCDs and COVID-19 share many risk factors, including obesity and hypertension. Both the NCD burden and vulnerability to infectious diseases could be reduced by policy measures encouraging a shift to healthier diets.
- One of the most straight-forward nutrition policies is the elimination of industrially produced trans fats, or trans fatty acids (iTFA), from the global food supply. If all countries removed this harmful compound which causes heart disease, 17 million lives could be saved by 2040.
- Preventing death and disease attributable to iTFA will lessen the burden on health systems overwhelmed by the COVID-19 response and rising numbers of people living with NCDs.
- Integrating iTFA elimination and other nutrition policies into the COVID-19 response presents a historic opportunity to tackle NCDs, support economic recovery from the pandemic, and increase health security by making future generations healthier and more resilient to infectious disease.

Calls to Action

Governments

- Adopt, implement and enforce mandatory best practice regulation: iTFA limit of 2g per 100g fat/oil in all foods or a ban of partially hydrogenated oils (PHO).
- Work with food manufacturers to ensure iTFA is replaced with healthier fats – ideally polyunsaturated (healthiest) or monounsaturated fats and oils.
- Embed iTFA elimination into a broader policy approach addressing CVD and other NCDs by adopting complementary nutrition and health policy measures.

Civil society

- Raise awareness of the negative effects of iTFA consumption and advocate for iTFA elimination.
- Call out, challenge and counter food industry opposition to iTFA regulation and other cost-effective nutrition policy measures.
- Support governments in the development and adoption of iTFA regulation, and once enacted, hold governments to account for effective implementation, monitoring and enforcement.

COVID-19 has brought to centre stage the most important health issue of our era, largely ignored by policymakers and the public to date: noncommunicable diseases (NCDs), the cause of 71% of global deaths per year. People living with NCDs, and particularly those living with cardiovascular disease (CVD)*, are at higher risk of severe symptoms and death from COVID-19. As a result, the urgent need for policy measures to protect cardiovascular health is more apparent than ever. One example of 'low-hanging fruit' in the prevention of CVD is the elimination of industrially produced trans fatty acids (iTFA) – their removal from the global food supply could prevent up to 17 million deaths by 2040 and would be the first time an NCD risk factor has ever been eliminated.

* A group of disorders including heart attacks, stroke, and high blood pressure (hypertension).

COVID-19 has illustrated the importance of public health and disease prevention measures, not only for infectious diseases, but also for NCD prevention and care. It is now recognised that COVID-19 and NCDs, often referred to as "underlying conditions", are deeply linked. **It is estimated that 1.7 billion people worldwide (about one in five) are at an increased risk of severe COVID-19 should they become infected, mostly as a result of NCDs, including preventable diet-related NCDs such as CVD and diabetes.[1] The deadly interplay of NCDs, inequities and COVID-19 has illuminated the need to respond to the current crisis by breaking down silos and addressing interlinkages as a syndemic† (see box 1).**

This interlinkage between infectious diseases, health emergencies and NCDs has brought about an unprecedented acknowledgment and visibility of the urgent need to address the ever-growing NCD burden, which currently causes 41 million deaths per year, of which 32 million occur in low- and middle-income countries (LMICs).[2] Unchecked, NCDs cause social and economic harm that far exceeds the damage caused by COVID-19. **COVID-19 presents a historic imperative to prioritise and invest in public health by adopting health-promoting policy measures, including iTFA elimination. These measures must also address modifiable risk factors – including nutrition, hypertension and obesity – that drive both COVID-19 and the NCD burden.**

Currently, almost all countries are off-track to achieve the World Health Organization's target of reducing overall mortality from the four main NCDs – CVD, cancers, diabetes, and chronic respiratory diseases – by 25% by 2025[3], and Sustainable Development Goal 3.4 to reduce premature mortality from NCDs by a third by 2030[4,5]. **Implementing strong nutrition policies will not only accelerate progress towards these global NCD targets, but is essential to build healthier and more resilient populations that are better prepared to deal with future health emergencies.**

Policy interventions such as iTFA elimination are one of the reasons high-income countries have managed to reduce CVD deaths by more than 25% since 2000.[6] Conversely, LMICs bear up to 90% of the global CVD burden,[7] underscoring the need to extend iTFA elimination strategies globally. This is particularly relevant in countries where Universal Health Coverage does not yet exist or is weak and where primary prevention strategies such as nutrition policies can support the feasibility and sustainability of Universal Health Coverage.

> "In a time when the whole world is fighting the COVID-19 pandemic, we must make every effort to protect people's health. That must include taking all steps possible to prevent noncommunicable diseases that can make them more susceptible to the coronavirus and cause premature death. Our goal of eliminating trans fats by 2023 must not be delayed."
>
> **Dr Tedros Adhanom Ghebreyesus,** Director-General, World Health Organization[8]

Regulations such as mandatory iTFA limits link political will to health policy and demonstrate government commitment to addressing population health. Their adoption signals that a government is prepared to invest appropriately, creates a level playing field for industry, and is a strong signal to society that a healthy diet and diet-related NCDs must be taken seriously.

† Formed from "syn-" = together and (epi)demic.

The benefit of iTFA elimination

It is estimated that iTFA elimination in all countries around the world could save 17 million lives by 2040.[9]

Countries that have already eliminated iTFA from their food supply have seen substantial health benefits.

ARGENTINA

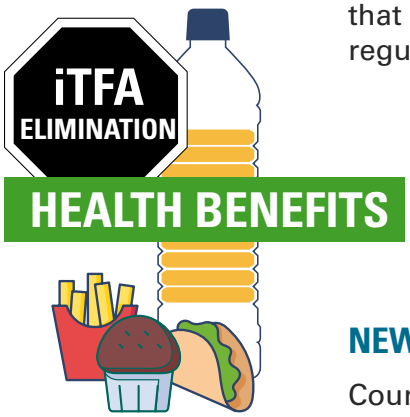
iTFA ELIMINATION is associated with an estimated annual

1.3-6.3%
REDUCTION IN CORONARY HEART DISEASE EVENTS.[10]

DENMARK

In the three years following the **IMPLEMENTATION of an iTFA** limit in 2004, **CVD MORTALITY DECREASED**

3.2%
in relation to comparable countries that had not introduced iTFA regulation.[11]



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 year.[12]

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 restrictions.[13]

BOX 1
The syndemic of COVID-19 and NCDs

COVID-19 and NCDs interact to form a syndemic – parallel epidemics of health problems which interact synergistically, have intertwined risk factors and mutually enhance each other against a background of shared social and economic inequalities.[14] The COVID-19 pandemic is occurring against the backdrop of an NCD burden that has been steadily rising over the past decades. Today, NCDs are the leading cause of mortality worldwide with 41 million deaths a year, of which almost half (18 million) are due to CVD.[2] NCDs and COVID-19 share factors which influence health-seeking behaviour, access to healthcare and other services, health decision-making, and exposure to risk: poverty, discrimination, cultural norms and gender.[15]

NCDs and infectious diseases to date have often been addressed in silos, yet their interlinkages have been known for a long time.[16] Infectious diseases can be a risk factor for several NCDs, such as human papilloma virus (HPV) for cervical cancer, and HIV, chlamydia and Lyme disease for CVD.[17] At the same time, NCDs increase the susceptibility to and disease severity of infectious diseases. Given these links, the 2018 High-Level Political Declaration on NCDs[18] called for the integration of responses to NCDs and infectious diseases.

NCDs were already a predictor of disease severity for Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).[19,20] Yet only during the current COVID-19 pandemic has the convergence of NCDs and infectious diseases been widely recognised by policymakers and the public.

> “Limiting the harm caused by SARS-CoV-2 will demand far greater attention to NCDs and socioeconomic inequality than has hitherto been admitted. A syndemic is not merely a comorbidity. […] In the case of COVID-19, attacking NCDs will be a prerequisite for successful containment. […] Paying greater attention to NCDs is not an agenda only for richer nations. NCDs are a neglected cause of ill-health in poorer countries too.”
>
> Dr Richard Horton, Editor-in-chief, The Lancet[21]

Countries of all income strata have experienced the syndemic. For example, 43% of patients with severe COVID-19 in Spain had pre-existing CVD.[22] In Italy, 96.2% of patients who died in hospital from COVID-19 had an underlying condition, 69.2% of which lived with hypertension and 28.2% with ischaemic heart disease.[23] In India, 73% of people dying from COVID-19 had been living with an NCD,[24] while in the United States, obesity seems to shift severe COVID-19 to younger patients.[25]

Recognising the link between NCDs and COVID-19, the WHO COVID-19 resolution[26] and UN General Assembly omnibus resolution[27] call for particular attention to the protection of those living with pre-existing conditions. Many countries have included patients living with morbid obesity or NCDs, especially those with CVD, in their high-risk group lists for COVID-19.[28]

In addition, evidence is emerging that COVID-19 and its treatment may be adding to the existing NCD burden by causing long-lasting illness. A percentage of COVID-19 patients seem to suffer from a post-viral syndrome similar to chronic fatigue syndrome.[29] Complications from COVID-19 include stroke[30], cardiac injury[31], neurological malfunction[32] and acute kidney disease[33]. There is also concern that obesity may impact the effectiveness of any potential COVID-19 vaccine due to a weakened immune response.[34]

Furthermore, the disruptions caused by the COVID-19 response have exacerbated the NCD burden and are likely to have a long-term impact on NCD incidence and mortality. Before the pandemic, investment in prevention and control of NCDs was already insufficient, and health systems struggled to meet the needs of people living with or affected by NCDs. During the pandemic, health systems' focus on the COVID-19 response led to major disruptions in healthcare services for NCD patients, compounded by patients' reluctance to visit their local healthcare providers for fear of contracting COVID-19.[22]

Economic stressors resulting from COVID-19 will likely exacerbate health disparities and increase NCD mortality. Marginalised population groups and countries with high levels of poverty and weak health systems will be particularly affected.

COVID-19 has also worsened the obesogenic environment by limiting opportunities for physical activity and decreasing the food quality for many, thus negatively impacting two of the main risk factors for NCDs.[35,36] Access to fresh food has become more limited for many. Lockdown measures and a decline in purchasing power increase reliance on cheap foods and foods with a long shelf life, both of which are often unhealthy. In many countries, consumers have been targeted with new, unhealthy offerings by the food industry, with marketing messages tailored to the pandemic context.[37] The decreased nutritional quality of diets may continue once COVID-19 is under control due to economic pressures in the pandemic's aftermath.[23,38]

> "SARS-CoV-2 unmasked other equal or graver pandemics than the virus itself, such as overweight, obesity, diabetes and arterial hypertension, all being preventable determinants that reduce the quality and life expectancy of our communities. We cannot and should not return to normal, we need to turn to the past and rethink our habits and lifestyles. There hasn't been a better opportunity in history to increase our efforts to ensure good nutrition and assume environmental health as an indivisible determinant of human health and place it permanently on our agendas under the commitments of the Sustainable Development Agenda."
>
> Remarks on COVID-19 to the World Health Assembly on 18 May 2020 by **Dr Jorge Alcocer Varela**, Minister of Health, Mexico[39]

Because a healthy diet and good nutritional status are so critical for a strong immune system and to prevent NCDs, WHO issued nutrition guidance recommending a healthy, balanced diet that avoids iTFA, particularly for people vulnerable to COVID-19.[40] Moreover, WHO called for a rapid transition to healthy, nutritious and sustainable diets in the COVID-19 response to reduce disease risk and save millions of lives.[41]

The prevention of death and disease attributable to iTFA consumption lessens the burden on health systems, which is particularly important for health facilities overwhelmed by the COVID-19 response and where treatment services for CVD and other NCDs have been disrupted. Importantly, iTFA elimination policies reduce health inequalities, as population groups of lower socio-economic status tend to consume higher amounts of iTFA.[12,42,43]

To facilitate the removal of iTFA from the global food supply by 2023, WHO launched the REPLACE initiative in May 2018. The REPLACE action package[44] provides governments with evidence-based tools across six strategic areas to eliminate this harmful compound from their national food supply.

REPLACE is the first global initiative that aims to eliminate an NCD risk factor. In September 2020, WHO announced a certification scheme to recognise countries that achieve the elimination of iTFA, similar to their certification schemes for polio and smallpox eradication.[45]

iTFA elimination is also a priority target of WHO's Strategic Plan 2019-2023[46] and is deemed by WHO to be a cost-effective and feasible intervention (a so-called 'best buy')[47], recommended for implementation in all countries to prevent NCDs.

REPLACE

REVIEW	PROMOTE	LEGISLATE	ASSESS	CREATE	ENFORCE
dietary sources of industrially-produced trans fat and the landscape for required policy change	the replacement of industrially-produced trans fat with healthier fats and oils	or enact regulatory actions to eliminate industrially -produced trans fat	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 trans fat among policy-makers, producers, suppliers, and the public	compliance with policies and regulations

https://apps.who.int/iris/bitstream/handle/10665/331303/WHO-NMH-NHD-18.6-eng.pdf

BOX 2

What are trans fats?

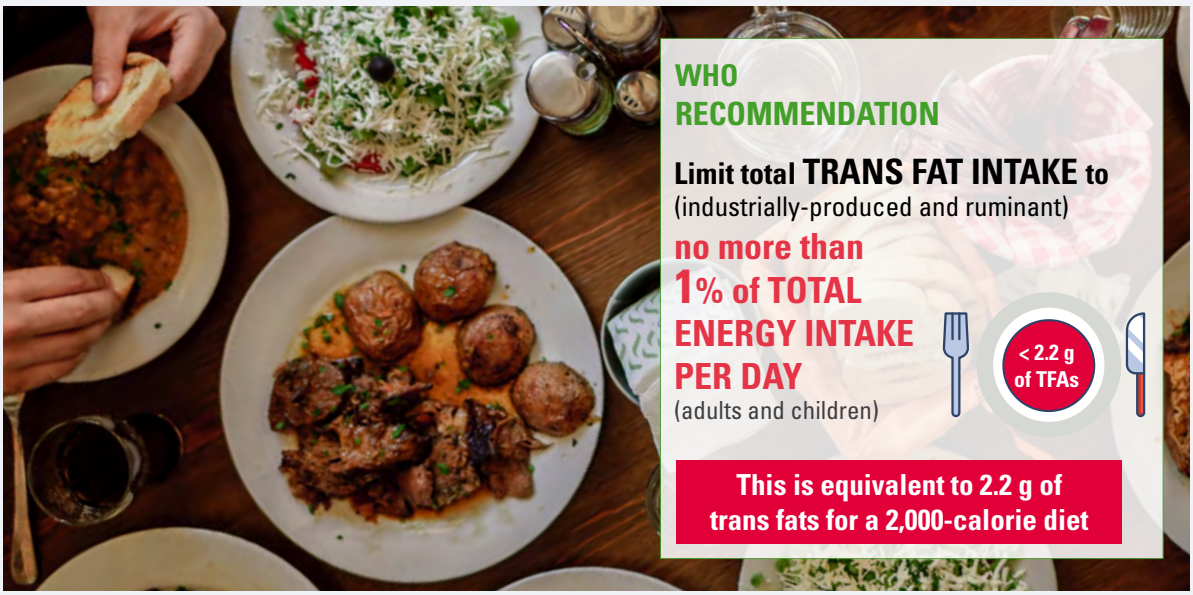
Trans fatty acids, or trans fats, are a type of fat of either natural or artificial origin. Naturally occurring trans fats are produced by bacteria in the gut of ruminants (cattle, goats, sheep), and dairy and meat products derived from them contain small amounts of trans fats. iTFA, on the other hand, is created in an industrial process that adds hydrogen to vegetable oil (hydrogenation) to produce partially hydrogenated oils (PHO), which are solid or semi-solid fats.

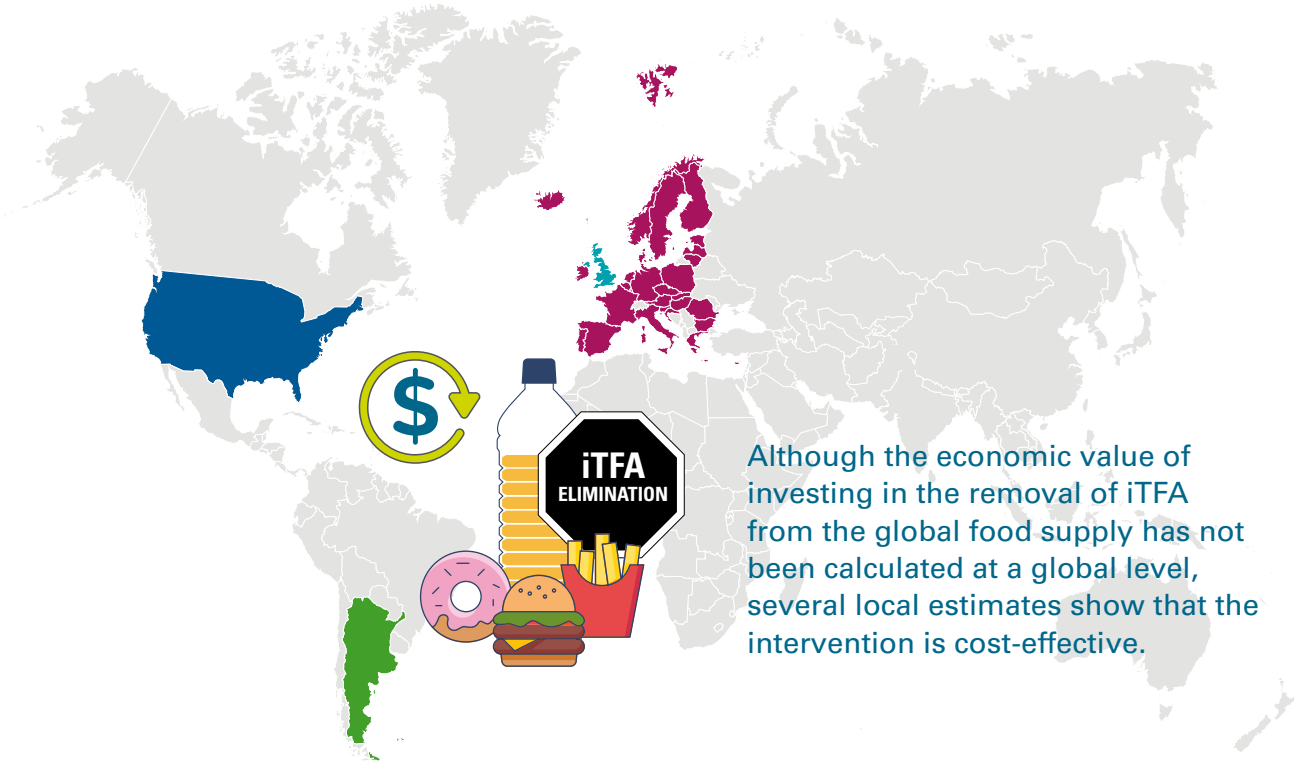
The use of PHO has increased since the 1950s because of their desirable commercial properties: they are cheap and have a long shelf life; they can withstand repeated heating and don't easily become rancid; and they are easy to use in baked goods due to being semi-solid at room temperature. PHO use has further increased since the 1960s when the food industry began replacing animal fats with PHO following public health recommendations to reduce the intake of saturated fats found in animal fats (such as butter).[48]

Globally, most iTFA is consumed through PHO which are common in baked goods, pre-packaged foods and some cooking oils. iTFA has no known health benefits and is a major contributor to CVD worldwide, estimated to cause around 540,000 deaths every year. High intake of iTFA increases the risk of death from any cause by 34% and from coronary heart disease by 28%.[49] For every 1% increase in daily energy obtained from trans fats , coronary heart disease mortality raises by 12%.[12] iTFA intake has also been associated with an increased risk for other NCDs and related conditions such as ovarian cancer[50], infertility, endometriosis, Alzheimer's disease, diabetes and obesity.[51,52]

Although no safe levels of trans fat consumption has been determined, WHO recommends that total trans fat intake does not exceed 1% of total energy intake, which translates to less than 2.2g per day for a 2,000-calorie diet.[53]

iTFA can be replaced in foods without impacting their consistency, taste and cost, making iTFA elimination economically, politically, and technically feasible.[54]





Although the economic value of investing in the removal of iTFA from the global food supply has not been calculated at a global level, several local estimates show that the intervention is cost-effective.

Argentina

iTFA elimination would save between US$17 million and US$87 million per year in costs associated with the management of coronary heart disease complications and follow-up. These cost savings include implementation costs of the policy incurred by the Ministry of Health, but do not consider other economic costs, such as lost productivity due to heart disease.[10]

European Union

Prior to adopting a mandatory 2% iTFA limit, the European Union estimated that phasing out iTFA would result in direct and indirect cost savings of €58-304 billion (US$68-358 billion) over 85 years.[43]

United Kingdom

One study found that iTFA regulation in England would result in cost savings of around £297 million (US$379 million), consisting of £42 million (US$54 million) in direct healthcare costs, £196 million (US$250 million) in informal care costs, and £59 million (US$75 million) in averted productivity loss over five years. If implementation costs to government and industry are considered, cost savings would range from £64-264 million (US$82-337 million).[42] Another study calculated that mandatory iTFA elimination in England and Wales over a ten-year period would bring cost savings of between £755 million to £1.54 billion (US$965 million to US$1.97 billion), comprising £95-201 million (US$121-257 million) in direct healthcare costs, £368-727 million (US$470-929 million) in informal care costs, and £292-613 million (US$373-783 million) in averted productivity loss.[12]

United States

The US Department of Health and Human Services conducted a cost-benefit analysis of the removal of PHO over a 20-year time interval and estimated that the net benefits (benefits minus cost) amounted to US$130 billion. The analysis included lives saved and non-fatal illnesses prevented as benefits, together with the following costs: product reformulation and relabelling, increased costs of substitute ingredients, costs to consumers from changing recipes, reduced product acceptances and shorter product shelf life, and restaurants and bakeries learning how to operate without PHO.[55]

3.2 billion people to be protected by iTFA policies but over 100 countries have yet to act

Substantial progress has been made in the last ten years to remove iTFA from the global food supply. To date, 32 countries have enacted laws and regulations that protect 2.4 billion people from this harmful substance. Another 26 countries have passed laws and regulations that will come into effect in the next two years, covering a further 815 million people. Encouragingly, an increasing number of countries are introducing best practice policies, which include setting a compulsory limit of 2g of iTFA per 100g of total fat/oil in all foods and/or banning PHO (the main source of iTFA). While in 2010 only two countries had a best practice policy in effect, this number has risen to 14 in 2020 and will reach 40 by 2022.[56] These developments show that adopting legal instruments to limit iTFA or ban PHO is politically and practically feasible.

> “
>
> Some might think we need to slow action [on iTFA elimination] because of the terrible COVID-19 pandemic. But in truth, prevention is more important than ever. Eliminating artificial trans fats is a way to save lives and prevent heart attacks, and at the same time free up healthcare facilities.”
>
> **Dr Tom Frieden,** President and CEO, Resolve to Save Lives[57]

Regional approaches to iTFA elimination have also progressed. Member States of the Pan American Health Organization (PAHO, WHO’s Americas region) unanimously approved a Regional Plan of Action to Eliminate Industrially Produced Trans-Fatty Acids 2020-2025[58], the first of its kind globally. Regional regulations include a European Union directive adopting a 2% iTFA limit for all foods in 2019,[59] a Gulf Cooperation Council standard limiting iTFA to 2% for fats and oils and 5% for other foods in 2015,[60] and the Eurasian Economic Union’s 2% iTFA limit for oils and fats adopted in 2015[61]. Such regulatory approaches have the added benefit of spill-over effects, forcing countries surrounding these regions to consider iTFA elimination policies to allow for continued trade in foods.

Despite these efforts, much remains to be done. Over 100 countries still have to act, and of the 15 countries with the highest burden of death linked to iTFA intake, only four (Canada, Latvia, Slovenia, USA) have introduced regulations to remove iTFA from their food supply. Ten countries (Azerbaijan, Bangladesh, Bhutan, Ecuador, Egypt, Iran, Mexico, Nepal, Pakistan, Republic of Korea) have yet to do so, while India is on track for a best practice policy (see box 3).[56]

Countries with comparatively low iTFA intake and associated mortality also stand to gain from introducing regulation limiting iTFA in foods. Introducing regulation is a preventive measure to avoid higher intakes of iTFA and associated health risks in the future, and to guard against food manufacturers increasing sales of iTFA-containing foods in unregulated markets. Additionally, average iTFA intake levels at national level may disguise high iTFA exposure levels in pockets of the population – regulation can ensure that health disparities due to iTFA intake are minimised. And implementation of iTFA regulation is easier and cheaper when national levels of iTFA are low, also presenting an opportunity to strengthen regulatory capacity and systems in food safety.[62]

Disparities in protection from iTFA also persist. Most laws and regulations have been adopted in high-income or upper-middle-income countries in Europe and the Americas. No low- or lower-middle-income country has implemented a best practice policy to date, resulting in geographic and socio-economic inequalities.[56] This is particularly worrying given that CVD associated mortality is higher in LMICs than high-income countries.[63]

BOX 3

India and Mexico: using food regulation to limit iTFA intake in response to COVID-19

The Food Safety and Standards Authority of India (FSSAI) expedited the finalisation of a best practice regulation introducing a limit of 2g of iTFA per 100g fat/oil in all foods as a step to decrease the NCD burden and thus the impact of COVID-19 (currently, India only limits iTFA content to 5% in fats and oils).[64]

> "Higher content of trans fats in food is a potential cause of heart ailments and stroke. Comorbid medical conditions such as of the heart are a major risk factor for COVID-19. The majority of patients who have died due to COVID-19 in India had comorbid conditions. We have decided to expedite a proposed trans fat limiting regulation as this is need of the hour during the pandemic."
>
> **Arun Singhal,** CEO, Food Safety and Standards Authority of India (FSSAI)[64]

Two Mexican states, Oaxaca and Tabasco, adopted regulation to ban the sale of junk food – a common source of iTFA and high in other fats, salt, sugar and calories – to children under 18 to address the underlying health conditions increasing the severity of COVID-19.[65] In another 25 states (of 32) and on the federal level, similar measures were introduced.[66] The bans coincided with the entry into force of new national labelling regulations on 1 October 2020, which include requirements to declare trans fat content in the nutrient panel and use a front-of-pack trans fat warning label‡ if 1% or more of the product's total energy derives from trans fats.[67]

Trans fats have no benefit at all, to the contrary, they increase the risk of heart disease. They are the most health harming fats; it is not necessary to consume them in any quantity. #LabellingForHealth

Social media campaign of the Government of Mexico, the Ministry of Health, the National Public Health Institute and the Intersectoral Group of Health, Nutrition, Environment and Competition (GISAMAC)

‡ Warning labels are also required for foods high in calories, sugars, saturated fat and sodium, based on PAHO's nutrient profile model. The junk food bans in Tabasco and Oaxaca apply to foods bearing warning labels, i.e. are linked to the new labelling regulations.

Mandatory regulation is preferable to voluntary commitments to phase out iTFA

In 2019, member organisations of the International Food & Beverage Alliance (IFBA) publicly committed to limit iTFA to 2g per 100g fat/oil in their food products worldwide by 2023 to align with the respective WHO target of iTFA elimination by 2023. IFBA members also pledged to reformulate their products without increasing the content of saturated fat.[68] It will be important that the delivery on and impact of these commitments is independently and transparently monitored and evaluated.

In the 2008 Trans Fat Free Americas Declaration[69], backed by PAHO, representatives of Latin America's major food companies (including some IFBA members), cooking oil companies and industry associations, together with delegates of national public health authorities, committed to a 2% iTFA limit in oils and margarines and a 5% limit in other foods.

These voluntary efforts only cover a small percentage of packaged foods worldwide,[56] and the food industry and suppliers of oils and fats have generally been slow to voluntarily phase out iTFA. Many large food producers have replaced iTFA with healthier fats in products sold to high-income countries – many of which have regulated iTFA – while resisting the replacement of iTFA in LMICs.[56,70]

Food industry and suppliers of oils and fats may be reluctant to phase out iTFA for fear of competitors moving into the market if regulation is absent to create a level playing field. In addition, compliance with voluntary commitments cannot be enforced by governments. Research shows that voluntary approaches are less effective than mandatory regulation in reducing iTFA content in foods.[52,71] Therefore, compulsory regulation combined with strong enforcement mechanisms is recommended over voluntary schemes.

iTFA elimination should be embedded in a comprehensive policy approach

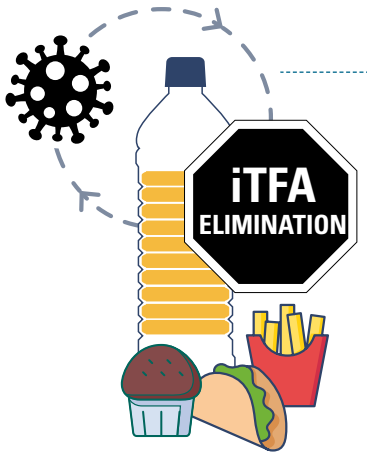
Diet is one of the key modifiable risk factors to address underlying conditions of severe COVID-19. Therefore, including iTFA elimination in a comprehensive policy approach to improve the food environment will address both NCDs and the ongoing pandemic. It will also improve preparedness for and resilience to future pandemics, as a healthier population with a lower prevalence of NCDs is less susceptible to infections and better equipped to fight them.

In addition to iTFA regulation, a comprehensive policy package to prevent diet-related NCDs such as CVD should comprise mandatory food labelling (nutrient lists that include trans fats, interpretative front-of-pack labelling and rules on nutrient and health claims), restrictions on food marketing aimed at children and adolescents, mandatory standards for healthy school food, limits on salt/sodium content, and nutrition standards for public procurement. These policy measures can be accompanied by public awareness campaigns to educate the public on healthy nutrition.

At the healthcare level, policy actions should include preventative measures such as blood pressure checks and hypertension control (e.g., by implementing the WHO HEARTS package[72]), overweight reduction programmes and nutrition counselling.

In addition, taxing unhealthy foods and beverages alongside alcohol and tobacco would reduce their intake and, in some cases, incentivise reformulation while mobilising domestic revenue, which could be invested in health system strengthening and Universal Health Coverage. Such investments would not only contribute to future health, but also pandemic preparedness and health systems resilience. Notably, if used progressively, such revenue would benefit poorer households and help tackle poverty and inequality. For example, it is estimated that raising the price of sugar-sweetened beverages, alcohol, and tobacco by 50% could raise around US$24.7 billion in 54 LMICs by 2030.[73]

Including iTFA elimination alongside these proven strategies – many of them WHO 'best buys' – in recovery packages will allow global health systems to "build back better". Using these population-wide primary prevention strategies in the COVID-19 response will serve as a stepping stone to tackle the world's biggest killer, CVD; support economic recovery from the pandemic; and increase health security by making future generations more resilient to infectious diseases.



References

All links verified on 13 October 2020.

1 Clark A et al. Global, regional, and national estimates of the population at increased risk of severe COVID-19 due to underlying health conditions in 2020: a modelling study. The Lancet. 2020;8(8);e1003-17. doi: 10.1016/S2214-109X(20)30264-3.

2 World Health Organization [Internet]. Geneva. 2018. Noncommunicable diseases: key facts. Available at https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases.

3 World Health Organization [Internet]. Geneva. 2013. NCD Global Monitoring Framework. Available at https://www.who.int/nmh/global_monitoring_framework/en/.

4 Sustainable Development Solutions Network [Internet]. New York. Indicators and a Monitoring Framework. Available at https://indicators.report/targets/3-4/.

5 NCD Countdown 2030 collaborators. NCD Countdown 2030: pathways to achieving Sustainable Development Goal target 3.4. The Lancet. 2020;396:918–34. doi: 10.1016/S0140-6736(20)31761-X.

6 Agyemang C and van den Born BJ. Limited access to CVD medicines in low-income and middle-income countries: poverty is at the heart of the matter. The Lancet Global Health. 2018;6(3):234-5. doi: 10.1016/S2214-109X(18)30048-2.

7 Owolabi M et al. Controlling cardiovascular diseases in low and middle income countries by placing proof in pragmatism. BMJ Global Health. 2016;1:e000105. doi: 10.1136/bmjgh-2016-000105.

8 World Health Organization [Internet]. Geneva. 2020. More than 3 billion people protected from harmful trans fat in their food. Available at https://www.who.int/news-room/detail/09-09-2020-more-than-3-billion-people-protected-from-harmful-trans-fat-in-their-food.

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.

10 Rubinstein A et al. Eliminating artificial trans fatty acids in Argentina: estimated effects on the burden of coronary heart disease and costs. Bull World Health Organ. 2015;93:614–622. doi: 10.2471/BLT.14.150516.

11 Restrepo BJ, Rieger M. Denmark's Policy on Artificial Trans Fat and Cardiovascular Disease. AJPM. 2016 ;15(1):P69-76. doi: 10.1016/j.amepre.2015.06.018.

12 Pearson-Stuttard J et al. Cost-effectiveness analysis of eliminating industrial and all trans fats in England and Wales: modelling study. J Pub Health. 2017;39(3):574-582. doi: 10.1093/pubmed/fdw095.

13 Brandt EJ et al. Hospital Admissions for Myocardial Infarction and Stroke Before and After the Trans-Fatty Acid Restrictions in New York. JAMA Cardiol. 2017;2(6);627–634. doi: 10.1001/jamacardio.2017.0491.

14 Bambra C et al. The COVID-19 pandemic and health inequalities. J Epidemiol Community Health. 2020;74:964-968. doi: 10.1136/jech-2020-214401.

15 United Nations Development Programme [Internet]. World Health Organization and the United Nations Development Programme. Responding to non-communicable diseases during and beyond the COVID-19 pandemic. 2020. Available at https://www.undp.org/content/undp/en/home/librarypage/hiv-aids/responding-to-non-communicable-diseases-during-and-beyond-the-co.html.

16 NCD Alliance [Internet]. Briefing Note: Impacts of COVID-19 on people living with NCDs. 2020. Available at https://ncdalliance.org/sites/default/files/resource_files/COVID-19_%26_NCDs_BriefingNote_27April_FinalVersion_0.pdf.

17 Ogoina D, Onyemelukwe GC. The role of infections in the emergence of non-communicable diseases (NCDs): Compelling needs for novel strategies in the developing world. J Infect Public Health. 2009;2(1):14-29. doi: 10.1016/j.jiph.2009.02.001.

18 United Nations Digital Library. Resolution A/RES/73/2. Political declaration of the 3rd High-Level Meeting of the General Assembly on the Prevention and Control of Non-Communicable Diseases. 2018. Available at https://digitallibrary.un.org/record/1648984?ln=en.

19 Centers for Disease Control and Prevention. About MERS: Symptoms & Complications. 2019. Available at https://www.cdc.gov/coronavirus/mers/about/index.html.

20 Lu L et al. A comparison of mortality-related risk factors of COVID-19, SARS, and MERS: A systematic review and meta-analysis. J Infect. 2020;81:e18-e25. doi: 10.1016/j.jinf.2020.07.002.

21 Horton R. Offline: COVID-19 is not a pandemic. The Lancet. 2020;396;874. doi: 10.1016/S0140-6736(20)32000-6.

22 World Health Organization [Internet]. Rapid assessment of service delivery for NCDs during the COVID-19 pandemic. 2020. Available at https://www.who.int/publications/m/item/rapid-assessment-of-service-delivery-for-ncds-during-the-covid-19-pandemic.

23 Kluge HHP et al. Prevention and control of non-communicable diseases in the COVID-19 response. The Lancet. 2020;395(10238);1678-80. doi: 10.1016/S0140-6736(20)31067-9.

24 Ministry of Health and Family Welfare, Government of India [Internet]. Updates on COVID-19. 2020. Available at https://pib.gov.in/PressReleaseIframePage.aspx?PRID=1628696.

25 Kass D et al. Obesity could shift severe COVID-19 disease to younger ages. The Lancet. 2020;395(10236);1544-45. doi: 10.1016/S0140-6736(20)31024-2.

26 World Health Assembly. Resolution WHA73.1 on COVID-19 response. 2020. Available at https://apps.who.int/gb/ebwha/pdf_files/WHA73/A73_R1-en.pdf.

27 UN General Assembly. Omnibus Resolution A/74/L.92 on Comprehensive and Coordinated Response to the COVID-19 Pandemic. 2020. Available at https://www.un.org/pga/74/wp-content/uploads/sites/99/2020/09/Omnibus_Final-clean.pdf.

28 World Obesity Federation [Internet]. Government guidelines and recommendations of Austria, Cyprus, Iceland, Luxemburg, Mexico, Russia and Switzerland. Available at https://www.worldobesity.org/resources/policy-dossiers/obesity-covid-19/government-guidelines-recommendations.

29 Davido B et al. Post-COVID-19 chronic symptoms: a postinfectious entity? Clin Microbiol Infect (epub ahead of print). 2020;doi: 10.1016/j.cmi.2020.07.028.

30 Fifi JT, Mocco J. COVID-19 related stroke in young individuals. The Lancet. 2020;19(9):713-715. doi: 10.1016/S1474-4422(20)30272-6.

31 Li JW et al. The impact of 2019 novel coronavirus on heart injury: A Systemic review and Meta-analysis. Prog Cardiovasc Dis. 2020;63(4):518-524. doi: 10.1016/j.pcad.2020.04.008.

32 Ellul MA. Neurological associations of COVID-19. Lancet Neurol. 2020;19:767–83. doi: 10.1016/S1474-4422(20)30221-0.

33 Naicker S et al. The Novel Coronavirus 2019 epidemic and kidneys. Kidney Int. 2020;97(5):824-28. doi: 10.1016/j.kint.2020.03.001

34 Popkin BM et al. Individuals with obesity and COVID- 19: A global perspective on the epidemiology and biological relationships. Obes Rev. 2020;21(11):e13128. doi: 10.1111/obr.13128.

35 Ammar A et al. Effects of COVID-19 Home Confinement on Eating Behaviour and Physical Activity: Results of the ECLB-COVID19 International Online Survey. Nutrients. 2020;12(6):1583. doi: 10.3390/nu12061583.

36 Mattioli AV et al. Quarantine during COVID-19 outbreak: Changes in diet and physical activity increase the risk of cardiovascular disease. Nutrition, Metabolism and Cardiovascular Diseases. 2020;30(9):1409-1417. doi: 10.1016/j.numecd.2020.05.020.

37 NCD Alliance [Internet]. Collin J et al. Signalling Virtue, Promoting Harm: Unhealthy commodity industries and COVID-19. NCD Alliance, SPECTRUM. 2020. Available at https://ncdalliance.org/resources/signalling-virtue-promoting-harm.

38 Brenner H. Will There Be an Epidemic of Corollary Illnesses Linked to a COVID-19–Related Recession? AJPH. 2020;110(7):974-75. doi: 10.2105/AJPH.2020.305724.

39 World Health Organization [Internet]. Words of the Minister of Health, Dr Jorge Alcocer Varela, at the 73rd World Health Assembly of the WHO. 2020. Available at https://apps.who.int/gb/statements/WHA73/PDF/Mexico.pdf.

40 World Health Organization [Internet]. #HealthyAtHome: Healthy Diet. 2020. Available at https://www.who.int/campaigns/connecting-the-world-to-combat-coronavirus/healthyathome/healthyathome---healthy-diet.

41 World Health Organization [Internet]. WHO Manifesto for a healthy recovery from COVID-19. 2020. Available at https://www.who.int/news-room/feature-stories/detail/who-manifesto-for-a-healthy-recovery-from-covid-19.

42 Allen K et al. Potential of trans fats policies to reduce socioeconomic inequalities in mortality from coronary heart disease in England: cost effectiveness modelling study. BMJ. 2015;351:h4583. doi: 10.1136/bmj.h4583.

43 European Commission [Internet]. Commission staff working document. Impact assessment accompanying the document Commission Regulation (EU) amending Annex III to Regulation (EC) No 1925/2006 of the European Parliament and of the Council as regards trans fat, other than trans fat naturally occurring in animal fat, in foods intended for the final consumer. 2019. Available at https://ec.europa.eu/food/sites/food/files/safety/docs/fs_labelling-nutrition_transfats_swd_ia-pt01.pdf.

44 World Health Organization [Internet]. REPLACE: Trans Fat Free by 2023. 2020. Available at https://www.who.int/teams/nutrition-and-food-safety/replace-transfat.

45 World Health Organization [Internet]. WHO Director-General's opening remarks at the launch of Countdown to 2023: WHO Report on Global Trans Fat Elimination 2020. 2020. Available at https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-launch-of-countdown-to-2023-who-report-on-global-trans-fat-elimination-2020.

46 World Health Organization[Internet]. Thirteenth General Programme of Work 2019-2023. 2019. Available at https://apps.who.int/iris/bitstream/handle/10665/324775/WHO-PRP-18.1-eng.pdf?ua=1.

47 World Health Organization [Internet]. Tackling NCDs. 'Best buys' and other recommended interventions for the prevention and control of noncommunicable diseases. 2017. Available at https://apps.who.int/iris/handle/10665/259232.

48 Mozzaffarian D. Removing industrial trans fat from foods. BMJ. 2010;340:c1826. doi: 10.1136/bmj.c1826.

49 World Health Organization [Internet]. REPLACE: Frequently Asked Questions. 2018. Available at https://apps.who.int/iris/bitstream/handle/10665/331304/WHO-NMH-NHD-18.7-eng.pdf.

50 Yammine S et al. Dietary and circulating fatty acids and ovarian cancer risk in the European Prospective Investigation into Cancer and Nutrition. Cancer Epidemiol Biomarkers Prev. 2020;29:1739-49. doi: 10.1158/1055-9965.EPI-19-1477.

51 Micha R, Mozzaffarian D. Trans Fatty Acids: Effects on Cardiometabolic Health and Implications for Policy. Prostag Leukotr Ess. 2008;79(3-5):147-152. doi: 10.1016/j.plefa.2008.09.008.

52 Downs SM et al. The effectiveness of policies for reducing dietary trans fat: a systematic review of the evidence. Bull World Health Organ. 2013;91(4):262–269H. doi: 10.2471/BLT.12.111468.

53 World Health Organization [Internet]. Guidelines: Saturated fatty acid and trans-fatty acid intake for adults and children. 2018 (draft issued for public consultation). Available at https://extranet.who.int/dataform/upload/surveys/666752/files/Draft%20WHO%20SFA-TFA%20guidelines_04052018%20Public%20Consultation.pdf.

54 Adhanom Ghebreyesus T, Frieden TR. REPLACE: a roadmap to make the world trans fat free by 2023. The Lancet. 2018;391;1978-80. doi: 10.1016/S0140-6736(18)31083-3.

55 Department of Health and Human Services, Food and Drug Administration [Internet]. Washington D.C. Burns, R. Estimate of Costs and Benefits of Removing Partially Hydrogenated Oils (PHOs) from the US Food Supply. Memorandum from the Office of the Commissioner to the Office of Food Additive Safety. 2015. Available at https://www.who.int/docs/default-source/documents/replace-transfats/l-elements-of-economic-analysis.pdf?sfvrsn=be3a5f02_2.

56 World Health Organization [Internet]. Countdown to 2023: WHO Report on Global Trans Fat Elimination 2020. 2020. Available at https://apps.who.int/iris/bitstream/handle/10665/334170/9789240010178-eng.pdf.

57 Speech of Dr Tom Frieden at the virtual launch event of the WHO Report on Global Trans Fat Elimination 2020. 2020. Event recording available at https://www.youtube.com/watch?v=VN_cCTLFKhY&feature=youtu.be.

58 Pan American Health Organization [Internet]. Plan of Action for the Elimination of Industrially Produced Trans-Fatty Acids 2020-2025. 2020. Available at https://iris.paho.org/handle/10665.2/51965?locale-attribute=es.

59 European Commission [Internet]. Commission Regulation (EU) 2019/649 of 24 April 2019 amending Annex III to Regulation (EC) No 1925/2006 of the European Parliament and of the Council as regards trans fat, other than trans fat naturally occurring in fat of animal origin. https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0649&from=EN.

60 GCC Standardization Organization (GSO). Gulf Technical Regulation: Trans Fatty Acids. 2015;GSO 2483:2015.

61 Demin A et al. Trans fatty acid elimination policy in member states of the Eurasian Economic Union: Implementation challenges and capacity for enforcement. J Clin Hypertens 2020;22(8):1328-1337. doi: 10.1111/jch.13945.

62 Resolve to Save Lives [Internet]. Regulate Trans Fat. Even if the Burden is Low. 2019. Available at https://linkscommunity.org/assets/PDFs/trans-fat-advocacy-brief_-low-burden-regulations.pdf.

63 Tzoulaki I et al. Worldwide Exposures to Cardiovascular Risk Factors and Associated Health Effects. Circulation. 2016;133:2314-2333. doi: 10.1161/CIRCULATIONAHA.115.008718.

64 Chandra SN. Government to finalize regulation to limit trans fats during covid-19 pandemic. Mint. 2020. Available at https://www.livemint.com/news/india/government-to-finalize-regulation-to-limit-trans-fats-during-covid-19-pandemic-11597930616865.html.

65 Reiley L. The Washington Post [Internet]. Mexico moves to ban junk food sales to children, citing obesity as coronavirus risk factor. 2020. Available at https://www.washingtonpost.com/business/2020/08/19/mexico-kids-junk-food-ban/.

66 Internal document of Salud Crítica, based on public information posted on websites of local congresses.

67 Diario Oficial [Internet]. Modificación a la Norma Oficial MexicanaNOM-051-SCFI/SSA1-2010. Especificaciones generales de etiquetado para alimentos y bebidas no alcohólicas preenvasados-Información comercial y sanitaria, publicada el 5 de abril de 2010. 2020. Available at https://www.dof.gob.mx/2020/SEECO/NOM_051.pdf.

68 IFBA press release. Enhanced Commitment to Phase out Industrially Produced Trans-Fatty Acids. 2019. Available at https://ifballiance.org/uploads/press/pdf/5ccc4b8061475_IFBA%20iTFA%20Enhanced%20Commitment%2002.05.2019.pdf.

69 Pan American Health Organization [Internet]. Trans fat free Americas: Declaration of Rio de Janeiro. 2008. Available at https://www.paho.org/hq/dmdocuments/2009/transfat-declaration-rio%5B1%5D.pdf.

70 Stuckler D et al. Manufacturing Epidemics: The Role of Global Producers in Increased Consumption of Unhealthy Commodities Including Processed Foods, Alcohol, and Tobacco. PLoS Med. 2012;9(6):e1001235. doi: 10.1371/journal.pmed.1001235.

71 Monge-Rojas R et al. Voluntary reduction of trans-fatty acids in Latin America and the Caribbean: current situation. Rev Panam Salud Publica. 2011;29(2):126-9. doi: 10.1590/s1020-49892011000200008.

72 World Health Organization [Internet]. Hearts: technical package for cardiovascular disease management in primary health care. 2016. Available at https://www.who.int/cardiovascular_diseases/hearts/en/.

73 Marquez PV, Dutta S. Taxes on tobacco, alcohol, and sugar-sweetened beverages reduce health risks and expand fiscal space for Universal Health Coverage post-COVID 19. World Bank Blogs. 2020. Available at https://blogs.worldbank.org/health/taxes-tobacco-alcohol-and-sugar-sweetened-beverages-reduce-health-risks-and-expand-fiscal.

COVID-19 has brought to centre stage the most important health issue of our era, largely ignored by policymakers and the public to date: noncommunicable diseases (NCDs), the cause of 71% of global deaths per year. People living with NCDs, and particularly those living with cardiovascular disease, are at higher risk of severe symptoms and death from COVID-19.

As a result, the urgent need for policy measures to protect cardiovascular health is more apparent than ever. One example of 'low-hanging fruit' in the prevention of cardiovascular disease is the elimination of industrially produced trans fatty acids (iTFA) – their removal from the global food supply could prevent up to 17 million deaths by 2040 and would be the first time an NCD risk factor has ever been eliminated.

NCDAlliance

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