Tanzania Women Lawyers Association

TAWLA

Partially hydrogenated oils and trans fats

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Prepared in Collaboration of Tanzania Women Lawyers Association (TAWLA) and Muhimbili University of Health and Allied Sciences (MUHAS)

Why Tanzania needs to adopt good-practice policies to regulate and eliminate trans fatty acids from the country's food supply: A policy brief.

Prepared by *Tanzania Women Lawyers Association* **(TAWLA)** in collaboration with *Muhimbili University of Health and Allied Sciences* **(MUHAS)**.

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Preface

The following policy brief on trans-fatty acids (TFA) in Tanzania has been prepared based on two recent studies coordinated by researchers from Muhimbili University of Health and Allied Sciences (MUHAS). The first study titled ***"Assessment of Levels of Trans Fatty Acids in Edible Oils and Foods to Spur Policy Action towards the Elimination of Industrially Produced Trans Fatty Acids in Tanzania"*** primarily measured TFA levels in popular edible oils, fried street foods, and fast foods in Tanzania. The second study, "Mapping the Partially Hydrogenated Oils (PHO) Market in selected countries within the East African Community and Ethiopia," examined the flow of PHO and related products in the East African market.

This policy brief summarizes the findings of both studies, which provide evidence for the presence of products in Tanzania's food supply with more than the recommended TFA content. The brief also summarizes the key findings from a landscape analysis done by TAWLA, which identified available policy gaps in the regulation framework for PHO and TFA in Tanzania. This policy brief aims to provide justification and a roadmap for policymakers, regulators, and civil society to consider in the context of TFA elimination in Tanzania.

Introduction

Cardiovascular disease is the leading cause of death globally, claiming around 18 million lives annually, 70% of which occurring in middle and low income countries1. To reduce the burden of cardiovascular disease worldwide, the World Health Organization (WHO) recommends limiting total trans-fatty acid (TFA) intake to less than 1% of total energy intake (2% TFA per 100g of total fat)2. The reduction of TFA consumption has the potential to reduce the global burden of cardiovascular disease, especially in countries with high TFA consumption levels (>1% of total energy). Unfortunately, despite progress made in many countries worldwide, high levels of TFA remain in foods, particularly in low- and middle-income countries, where the majority of deaths from coronary heart disease related to TFA intake occur3.

Nevertheless, removing industrially produced TFA from the global food supply is feasible and cost-effective, and has been identified as one of the most straightforward public health interventions to improve population health4. Technically and economically, replacing industrially produced TFA in foods is achievable, and healthier alternatives that do not compromise taste or cost already exist and are being used in many products. Therefore, there is no need for industrially produced TFA in the food supply. Despite these facts, two-thirds of the global population are still not covered by mandatory TFA limits5.
Over time, the food industry has made progress towards replacing Trans Fatty Acids (TFA) in their products with healthier oils and fats5. However, there are still high levels of TFA in many countries' foods supply, including Tanzania. This highlights the need for regulatory approaches to eliminate TFA. Currently, mandatory TFA limits have been implemented in 46 countries, mostly high-income countries, covering around 31% (2.4 billion) of the global population. Nevertheless, over two-thirds of the global population, including a significant proportion of sub-Saharan African countries, still do not have mandatory TFA limits5.

What are trans fatty acids?

Trans-fatty acids (TFAs) are a type of unsaturated fat present in dairy products and meat from ruminants, as well as in partially hydrogenated oils (PHOs) that are industrially produced6. The basic component of these fats, which are known as fatty acids are chemically modified hence different from the ones present in naturally occurring vegetable oils7. In most populations, the main source of dietary TFAs is from industrially produced PHOs. Research conducted in recent decades has confirmed that consuming high amounts of industrially produced TFAs (above 0.5% of total energy intake) is linked to non-communicable diseases (NCDs) such as coronary heart disease (CHD), infertility, endometriosis, gallstones, Alzheimer's disease, diabetes, and various cancers. In 2010, it was estimated that 537,000 deaths globally were attributed to increased TFA intake, including 7.7% of coronary heart disease mortality8. TFA consumption leads to elevated levels of LDL (unhealthy) cholesterol and decreased levels of HDL (healthy) cholesterol. Although data on TFA consumption in Tanzania is limited, the increasing urbanization that is characterized by a rise in consumption of

street foods, fast foods, and highly processed foods suggests that TFA consumption is likely to be high in Tanzania.

Justification

Eliminating TFAs from the diet is a simple public health intervention that can effectively reduce the risk of non-communicable diseases (NCDs). The World Health Organization (WHO) has emphasized the importance of removing trans-fats from the food supply and implementing national policies that eliminate partially hydrogenated oils (PHOs) and replace them with polyunsaturated fatty acids. The elimination of TFAs can reduce the risk of coronary heart disease (CHD) events and mortality, which is in line with Goal 3.4 of the United Nations Sustainable Development Goals (SDGs) to reduce premature deaths from NCDs. It can also promote a healthy food environment that encourages a nutritious diet, contributing to the achievement of diet-related targets.

It is highly feasible to eliminate industrially produced TFAs, and significant reductions in trans-fat intake at the population level have been achieved in middle and high-income countries through a combination of policy measures. These include mandatory limits on TFA levels in food products through regulation or legislation, local and national bans on PHOs, mandating trans-fat labeling on food products, agricultural policies and research promoting the use of healthier oils, public education campaigns, and cooperation among industry, government, and academia to reformulate products with high TFA levels.

AVAILABLE LOCAL EVIDENCE

Products exceeding the recommended 2% TFA limit are present in Tanzanian food supply.

	Product type	TFA levels	Remarks
01	A brand of animal butter	5.22	High
02	A brand of animal butter	3.76	High
03	A brand of animal butter	3.70	High
04	A brand of animal butter	3.63	High
05	A brand of peanut butter	2.04	High
06	A brand of Margarine	2.71	High
07	Fast food sausage	2.45	High
08	Street food samosa meat/beef	2.07	High
09	A brand of sunflower oil	3.45	High
10	A brand of sunflower oil	2.18	High

A study by researchers from Muhimbili University of Health and Allied Sciences (MUHAS) found that some food products in Tanzania have more than the recommended 2% TFA limit (Table 1). The researchers assessed popular brands of edible oils and fried foods from street food vendors and fast-food joints in Dar es salaam. Results from the study showed that 21% of the 57 edible oils products exceeded the 2% TFA limit recommended by the WHO (Figure 1). High levels of TFA were found in margarines, which are produced through a process called hydrogenation, resulting in the formation of trans fatty acids. These are the primary sources of industrially produced trans fatty acids (iTFA) and the main cause of high consumption of unhealthy levels of TFA. Other products such as animal butter, peanut butter, industrial refined sunflower oils, fast food sausages, and street food samosa meat also contained high levels of TFA. While sunflower oil is not expected to have large quantities of TFA, high levels of TFA were found in some brands due to refinery processes that involve hard heating. This highlights the need to standardize edible oil refinery processes to prevent the introduction of unhealthy compounds like TFA.

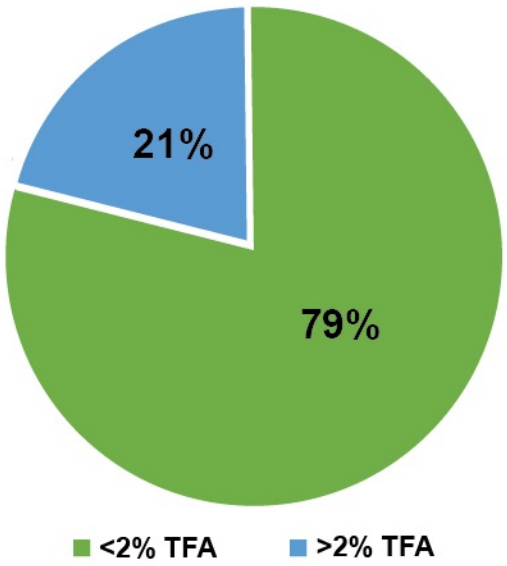


Figure 1. Proportion of popular edible oil products exceeding the WHO recommended 2% TFA limit.

TFA nutrition fact labeling is not a common practice, and discrepancies do exist between the TFA levels labeled on the product packs and the TFA values obtained from laboratory results.

The study conducted by Mashili et al also looked into the labeling practices of pre-packaged edible oils to assess compliance with Tanzania's mandatory food labeling standards and explore whether TFA is included in nutrition labeling. The researchers found that out of the 38 brands of edible oils evaluated, 27 (71%) had nutrition fact labeling, but only 6 of them (22%) specified the TFA levels. Interestingly, the TFA levels indicated on the labeling were found to be lower than the values obtained from laboratory results in all the 6 products that had TFA information (Figure 2). Moreover, products that exceeded the 2% TFA limit had a wider gap between the stated TFA levels and actual laboratory results.

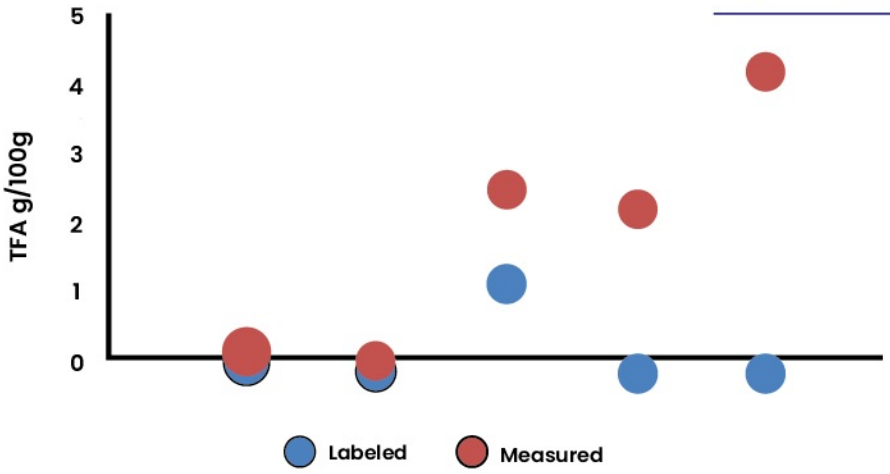


Figure 2. Differences between laboratory measured TFA levels and TFA levels labelled on 5 different

Tanzania shares a common PHO market with Kenya and Uganda and the bureaus of standards within the 3 countries are trusted and have the mandate to regulate the standards of all food products within their respective countries and collectively within the region.

In a study that aimed at understanding the partially hydrogenated oils market in selected countries within the East African Community (EAC), researchers from Tanzania, Kenya and Uganda conducted a comprehensive desk review and interviewed key informants from regulatory authorities, governments, edible oil producers and distributors as well as civil society organizations. The researchers found that Kenya, Uganda and Tanzania have a common market for PHO and related products, with Kenya being the largest producer of stand-alone PHO (margarines and cooking fats) within the region. The researchers further found that bureaus of standard within these countries, have the power and mandate to regulate all the products, and they do cross talk across the region-*brands and types of popular edible oils from selected food stores in Dar es salaam.*

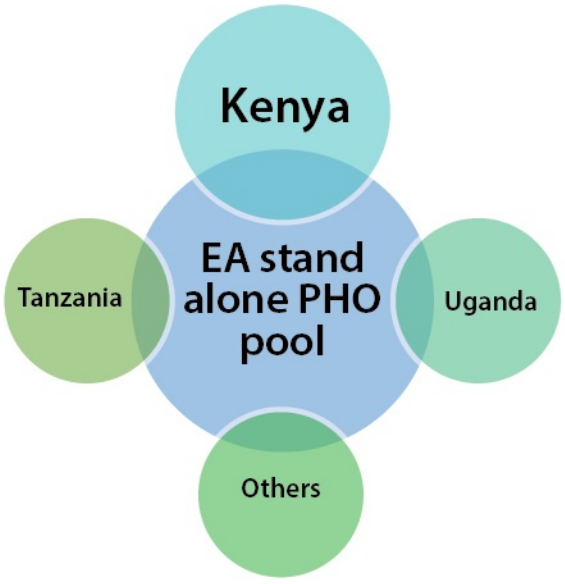


Figure 3. A common market for stand alone PHO (Margarines and cooking fat) across Kenya, Uganda, and Tanzania with relative production/manufacturing contribution of each country.

Despite the availability of legislations that regulate food products standards in Tanzania, none of the legislations (policy, guideline, or regulation) explicitly and directly mention trans fatty acids.
Tanzania has a plethora of laws, policies, regulations, guidelines, and strategies that directly and indirectly govern issues related to Non-Communicable Diseases including Health diets, however, the existing framework does not regulate the levels of trans fatty acids (TFA) in food products, including edible oils and pre-packaged foods.
Existing legal and policy frameworks do not set standards to limit the level of TFA to 2% in food contents as recommended by WHO.
Also, the existing framework does not have provisions that impose a mandatory requirement for TFA labeling on edible oils and pre-packaged foods by producers.

DISCUSSIONS

The findings suggest that some food products in Tanzania, including some brands of margarine, animal butter, peanut butter, and fast-food sausages and samosas, contain more than the recommended limit of trans-fatty acids (TFA) as set by the World Health Organization (WHO). Surprisingly, two brands of industrial refined sunflower oils were also found to have high levels of TFA, even though sunflower oil is generally considered to be healthy. This was likely due to the physical refinery process used in their production, which may introduce TFA into an otherwise healthy product.

In addition, the study found that Tanzania does not have direct regulations addressing TFA in food products, despite having laws and regulations to protect the health of its citizens. This highlights the need for Tanzania to adopt policies and regulations to limit TFA intake and promote healthier alternatives.

It is also important to note that Kenya, Uganda, and Tanzania share a common market for partially hydrogenated oils (PHO), which are known to contain high levels of TFA. The bureaus of standards in these countries are responsible for regulating food product standards and should work together to ensure that PHO and other products do not exceed recommended TFA limits.

In summary, the findings suggest that Tanzania and other countries in the region need to do more to regulate TFA levels in food products, to protect the health of their populations. This may involveestablishing clear standards for food production and refining processes, as well as implementing effective monitoring and enforcement mechanisms to ensure compliance with these standards.

KEY RECOMMENDATIONS

Policy makers, government officials, and lawyers should consider the following recommendations:

1. Develop policies to control and regulate the levels of trans fatty acids (TFA) in food products, including edible oils and pre-packaged foods. These policies should establish a limit on the levels of TFA in all food products, with a maximum of 2g of TFA per 100g of total fat.
2. Implement and enforce mandatory TFA labeling on edible oils and pre-packaged foods.
3. Impose penalties for non-compliance with TFA regulations to ensure that companies adhere to the established limits and labeling requirements.

Regulatory authorities such as bureaus of standards can play a significant role in reducing the levels of trans fatty acids (TFA) in food products. They should consider taking the following actions:

1. Set and enforce standards for TFA levels in food products, including edible oils and pre-packaged foods.
2. Conduct regular inspections and testing of food products to ensure compliance with TFA regulations.
3. Collaborate with industry stakeholders to develop and implement strategies to reduce TFA levels in food products, such as promoting the use of healthier oils in food production.
4. Raise public awareness about the risks of consuming high levels of TFA and the importance of consuming a balanced and healthy diet.
5. Provide technical support and guidance to food businesses to help them comply with TFA regulations and standards.
6. Monitor the effectiveness of TFA regulations and standards and make necessary adjustments to ensure that they remain relevant and effective over time.

Academics can contribute to reducing the levels of trans fatty acids (TFA) in food products through the following ways:

1. Conduct research to provide evidence-based information on the health risks associated with high levels of TFA consumption and the effectiveness of different policy interventions to reduce TFA levels in food products.
2. Collaborate with industry stakeholders, policymakers, and regulatory authorities to develop and implement strategies to reduce TFA levels in food products.
3. Provide technical support and guidance to policymakers and regulatory authorities to develop and implement evidence-based policies and regulations to control TFA levels in food products.
4. Educate the public on the risks associated with consuming high levels of TFA and the importance of consuming a balanced and healthy diet.
5. Train future generations of food scientists and policymakers on the latest research findings

and policy developments related to TFA and other nutrition-related issues.

Civil society organizations can play a crucial role in reducing the levels of trans fatty acids (TFA) in food products by:

1. Advocating for policies and regulations to control TFA levels in food products, including edible oils and pre-packaged foods.
2. Raising public awareness about the health risks associated with consuming high levels of TFA and the importance of consuming a balanced and healthy diet.
3. Monitoring compliance with TFA regulations and standards and reporting non-compliance to regulatory authorities.
4. Collaborating with industry stakeholders, policymakers, and regulatory authorities to develop and implement strategies to reduce TFA levels in food products.
5. Mobilizing and empowering communities to demand healthier food options and to hold food businesses and policymakers accountable for reducing TFA levels in food products.
6. Conducting research and advocacy to ensure that policies and regulations related to TFA are evidence-based, transparent, and inclusive of diverse perspectives and stakeholder interests.

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