CUTS International

STORY OF CHANGE

Elimination of Trans Fatty Acids by Hindustan Unilever Limited (HUL)

Evidence shows that both industrial and animal-derived Trans Fats (TFAs) adversely affect the blood cholesterol profile. The potential impact on coronary heart disease risk of equal intakes of animal-derived and industrial TFAs are considered similar. World Health Organisation (WHO) and the national public health authorities recommend limiting dietary intake of total TFAs to below one percent of total dietary energy because of their established adverse effects on heart health.

While one can reduce or avoid the consumption of natural TFAs, for the overall betterment of consumer health, industrially produced TFAs should be curtailed and eliminated. Artificial trans fats are created on purpose. Through hydrogenation, unsaturated fatty acid chains are saturated with hydrogen to make the liquid oils turn and stay solid for enhanced functionality and shelf-life stability. For better overall health, it is pertinent that consumers completely avoid consuming them.

The Objective of the Study

The Study was designed to assess the impact of trans fats elimination from the food products produced and its impact on performance in Hindustan Unilever Limited. Thus, it was planned to achieve two major objectives: assess the impact of trans fats elimination from the food products produced on overall performance and investigate the operational changes and challenges in implementing them. This case study also explains how Unilever implemented it without compromising its taste and texture and ensuring its consumers' safety.

Why Eliminate Trans-Fat from Food Products?

Scientific research in the 1990s showed that TFA potentially has adverse effects on health linked to increased heart disease risk. TFA raise 'bad' LDL cholesterol and lower 'good' HDL cholesterol. More recently, scientific publications have shown that TFA is worse than saturated fats (SAFA) on a gram-for-gram basis regarding their impact on the risk of heart disease. Unilever is recognised for a leading role in the drive to reduce dietary intake levels of TFA.

The Situation

The physiological impact of TFA has been a topic of particular attention for health authorities in recent years. WHO urges removal of TFA from food products so that individual consumers consume no more than one percent of their dietary energy from TFA.

Hence, WHO recommends focusing on Partially Hydrogenated Vegetable Oil (*PHVO*) and considers it as a tool for the virtual elimination of TFA from the human diet. Therefore, PHVO needs to be considered in the context of its applications in processed foods. PHVO used as ingredients in foods usually contributes significantly to the TFA content of the food. But TFA present in some minor ingredients (e.g., flavours or emulsifiers), which are widely used in the food industry in formulations at very low levels, do not contribute significantly to the TFA content of the final foods.

In response to the WHO recommendation to minimise TFA, Unilever's committed that no product will contain more than one percent trans fat originating from PHVO (one gram per 100 grams finished product), a level which is also being referred to as 'virtually trans free'. [1]

Since the discovery of TFAs adverse effects, a considerable decrease in TFAs intake has been made possible through technological developments that have led to the replacement of PHVO. The margarine industry has been at the forefront of this voluntary reformulation.

Taking Action on Trans fats

To promote transparency, Unilever published its definition and approach to removing trans fats from PHVOs. While achieving this goal, they worked towards minimising industrially-produced trans fats in their products. The International Food and Beverage Alliance (IFBA) member companies should align with the WHO recommendation that industrially-produced trans fat should not exceed 2 g per 100 g of total fat or oil in all foods. To achieve this limit worldwide by 2023 at the latest, the change that has been realised.

In 2010, Unilever committed to removing TFAs originating from PHVO from all their products as part of their Unilever Sustainable Living plan.

In September 2012, 100 percent of their portfolio by volume did not contain TFAs originating from PHVO. *This is true both in high-income countries but also in middle and low-income countries.

*They have published definitions and approaches to removing trans fats from partially hydrogenated vegetable oil. See Melnikov, S., & Zevenbergen, H. "Implementation of removing trans fatty acids originating from partially hydrogenated vegetable oils," New Food 2012; 5: 44-46. This approach focuses on the main ingredients in our recipes. It does not include traces of trans fats from partially hydrogenated vegetable oil that may be found in some flavours or emulsifiers.

In 2019, both globally and in India, 100 percent of Unilever's Foods and Refreshments portfolio was virtually free from trans fats originating from PHVO. They undertake regular reviews of their products to ensure quality.

Analysis and Challenges

In the absence of clear legal and regulatory definitions of PHVO, defining what sets apart a PHVO from fully hydrogenated vegetable oil (HVO) is important. There have been various attempts to define PHVO in the past; however, most of them were based on measurable parameters that are only indirectly linked to TFA content.

Bockisch suggested defining PHVO using iodine value (IV) and melting point (MP) intervals for these oils. However, nowadays, with the major progress made in reducing TFA levels, IV, in our opinion, has clear disadvantages, as it is a measure for the degree of unsaturation, which does not discriminate between cis and trans fats. MP values can be practical to indicate but cannot accurately predict the amount of TFA in the fat.

Another definition proposed by Deutsche Gesellschaft für Fettwissenschaft (DGF) classifies HVO as fats having a degree of hardening above 90 percent; consequently, hydrogenated fats containing less than 90 percent of SAFA and at least 10 percent of TFA are considered as PHVO.

The DGF approach is helping to focus on the intent to reduce TFA. Removing PHVO is a tool to reduce TFA, and its definition should be linked to the amount of TFA. A recent review by L'Abbe et al., a proposal of the Canadian Trans Fat Task Force, was highlighted. This proposal gives TFA limits for margarine foods, which align with Unilever's commitment to reduce TFA to less than one gram per 100 gram finished product.

The Canadian proposal also states that for vegetable fats and oils used as ingredients in the preparation of foods, a total TFA content of five percent maximum on fat should be allowed. Unilever has adopted this proposal, which is in line with TFA levels found in commercially available non-hydrogenated oils and fats. Therefore, for achieving their PHVO commitment, they will use as a definition: "PHVO ingredients are hydrogenated oils and fats containing more than five wt% of TFA."

Lessons and Recommendations

In many countries in Europe and elsewhere, intakes of animal-derived TFAs are higher than those of industrial TFAs due to significant industrial reformulation. Public health measures and programmes to further reduce TFAs intake should focus on further eliminating partial hydrogenation of vegetable fats and industrial TFAs and reducing the intake of saturated fats, which will also limit the intake of animal derived TFAs.[2]

Providing Good Fats: Unilever Eliminated Trans Fats and are Using Good Fats in their Products

Fat is an essential part of the diet as it helps the body absorb certain nutrients and provides us with energy and a source of essential fatty acids. According to the WHO, between 20 percent and 35 percent of our energy intake should come from fats. The majority should be unsaturated fat, with a minority being saturated.

Unilever Sustainable Living Plan: 3-year summary of progress 2017-2019

IMPROVING HEALTH AND WELL-BEING FOR MORE THAN 1 BILLION PEOPLE

Pillar	Commitment	Target date	Unit of measure	2017	2018	2019
Health and hygiene	By 2020, we will help more than a billion people to improve their health and hygiene. This will help reduce the incidence of life-threatening diseases like diarrhoea.	2020	The number of people reached on a cumulative basis by an intervention through our programmes on handwashing, self-esteem, oral health, sanitation and safe drinking water.	601m	1.24bn	1.3bn
	By 2020 our Lifebuoy brand aims to change the hygiene behaviour of 1 billion consumers across Asia, Africa and Latin America by promoting the benefits of handwashing with soap at key times.	2020	People reached through our initiatives which aim to improve handwashing behaviour (cumulative millions).	426m	1.0bn	1.07bn
	Through our range of water purifiers, we aim to provide 150 billion litres of safe drinking water by 2020.	2020	Litres of safe drinking water provided through the sales of Pureit devices [measured in millions of people since 2005 until end of 2013]	96bn	106bn	114bn
	By 2020 we will help 25 million people gain improved access to a toilet by promoting the benefits of using clean toilets and by making toilets accessible. [New target 2014]	2020	Cumulative number of people reached by Domestos funded programmes which help people gain improved access to a toilet since 2012 (millions). [Note: there is a one year lag in the reporting of performance for the following years: 2017 = 2012-2016; 2018 = 2012-2017)	>10m	16.5m	28m**∞
	We aim to reach 50 million people by 2020 with our toothpaste and toothbrush brands and oral health improvement programmes to encourage children and their parents to brush day and night.	2020	People reached through our initiatives which aim to improve oral health (millions).	78m	83.5m	102m
	We aim to help 15 million young people to build up positive body confidence and self-esteem through educational programmes (target extended to 40 million young people by 2020).	2020	Cumulative number of young people reached through the Dove Self-Esteem Project initiatives since 2005.	29m	35m	60m
	Though our Vaseline Healing Project, we aim to help heal the skin of 5 million people by 2020.	2020	People reached through product donations and healing missions (millions)	2.6m	4m	5m
Nutrition	By 2020, we will double the proportion of our portfolio that meets the highest nutritional standards, based on globally recognised dietary guidelines. This will help hundreds of millions of people to achieve a healthier diet.	2020	Percentage of sales volume of Unilever's food and refreshment products meeting the criteria for highest nutritional standards, based on globally recognised dietary guidelines.	39%◊	48%	56%†
	By 2020, 75% of our Foods portfolio will meet salt levels to enable intakes of 6g per day.§	2020	Percentage of our Foods portfolio compliant with the 5g target until 2015, and 6g from 2016	63%	66%	70%
	By 2012, our leading spreads will contain less than 33% saturated fat as a proportion of total fat.	2012	Percentage of leading spreads (by volume) containing less than 33% saturated fat as a proportion of total fat	Target expired	Target expired	Target expired
	A daily portion will provide at least 15% of the essential fatty acids recommended by international dietary guidelines.	2012	Percentage of leading spreads providing at least 15% of essential fatty acids recommended by international dietary guidelines.	Target expired	Target expired	Target expired
	By 2017, 90% of our complete global portfolio of soft vegetable oil spreads will contain no more than 33% fat as saturated fat and at least 67% as good unsaturated fat. In tropical areas, without chilled distribution, the maximum saturated fat content will be set at 38%, as a slightly higher saturated fat level is required to maintain stability of the spreads.	2017	Percentage of sales volume of Unilever's soft vegetable spreads global portfolio sold in tubs containing less than 33% saturated fats as a proportion of total fat.	80%	Target expired	Target expired
	By 2012, we will have removed from all our products any trans fats originating from partially hydrogenated vegetable oil.	2012	Percentage of portfolio free from trans fats originating from partially hydrogenated vegetable oil.	Target expired	Target expired	Target expired
	By 2020 we will remove an additional 25% sugar in ready-to-drink teas. In 2014 we extended this target to include our powdered ice tea and milk tea products.	2020	Percentage reduction of sugar content in sweetened tea beverages based on current sales volumes compared to sugar content in sweetened tea beverages based on 2010 sales volumes.	15%	20%	23%
	By 2014, 100% of our children's ice creams will contain 110 kilocalories or fewer per portion. 60% will meet this level by 2012.	2014	Percentage of children's ice cream products which have 110 kilocalories or fewer per portion.	Target expired	Target expired	Target expired
	By 2015, 80% of our packaged ice cream products will not exceed 250 kilocalories per portion [New target 2014]	2015	Percentage of packaged ice cream sales volumes which have 250 kilocalories or less per portion.	90%	92%	93%
	Our aim is to provide clear, simple labelling on our products to help consumers make choices for a nutritionally-balanced diet. All our products in Europe and North America provide full nutritional information. By 2015, this will be extended to cover all our products globally. We will include energy per portion on the front of pack plus eight key nutrients and % Guideline Daily Amounts (GDA) for five nutrients on the back of pack. Our targets will respect local or regional industry agreements as well as the law in each market.	2015	Percentage of sales volume of Unilever's food and refreshment products meeting Unilever's healthy eating information criteria.	94%	95%	98%

Source: Unilever Sustainable Living Plan: 3-year summary of progress 2017-2019. Accessible at <www.unilever.com/Images/uslp-3-year-performance-summary-2017-2019_tcm244-549781_en.pdf>

Fat is also an essential ingredient to add flavour and texture to the foods we eat. However, too much-saturated fat can increase the risk of developing heart disease. The Global Nutrition Report 2018 confirms that we should limit foods and beverages high in saturated fats to eat a healthy diet. Instead, people should opt for unsaturated fats or healthier oils, like those found in fish, avocado, nuts and seeds, sunflower, canola, and olives. At the same time, one should try to eliminate trans fats from diets altogether.

Using Polyunsaturated Fat from Plant-Based Oils

One of Unilever's Sustainable Living Plan targets was to reduce saturated fat in their Spreads products. They divested their Spreads business in 2018 and no longer track this target, but continue to use good oils. They use plant-based oils, like soybean, canola, rapeseed, avocado, sunflower, and olive oil, which contain monounsaturated and polyunsaturated fats.

They also continued to decrease saturated fat in their other products, such as in ice creams, as part of a calorie reduction programme. They are also reducing saturated fats in their products and are committed to encouraging people to make healthier choices through clear labelling and balanced portions.

They've been working on a solution that involves blending palm oil with other oils, such as sunflower oil, to lower the saturated fat content. They also lowered the salt and sugar content, making them even healthier. In early 2020, they introduced Knorr Quick Noodles containing this blend of oils, and they are currently available in four flavours (chicken, beef, curry, and hot tomato).

"The huge success of this project is that they've been able to develop Unilever's first Highest Nutritional Standards (HNS) compliant noodle, and able to claim that they are low in saturated fat on-pack," explains Sinem Gedik, R&D Technical Project Leader.[3]

Unilever's Highest Nutritional Standards (HNS) – is a benchmark based on globally recognised dietary recommendations – is a significant commitment. It involves reformulating Unilever products with limited amounts of sugar, salt, saturated fat, and calories to make great-tasting food and beverages that people enjoy. Unilever is working hard to deliver these nutritional improvements for the millions of people who consume their products every day.

Future Challenges

We think a 'bridge' from ITF (Industrial Trans Fatty Acids) towards Food Systems transformation is required. HUL has demonstrated it successfully by removing it and, at the same time, improving the nutritional quality of many of its products; however, much more is required. More importantly, we must emphasise the increase in micronutrients in the diet.

Another biggest challenge in the future will be to encourage people to make the dietary shift towards a more planet-friendly diet. For our food system to be sustainable, we need many more people to opt for plant-based foods.

Focusing on more plant-based options, products with lower salt, sugar, and fat, and foods containing essential micronutrients requires action from individual food companies. The industry's responsibility is to make sure that nutritious foods and refreshments taste great so that people will choose them rather than less healthy alternatives. We must also focus on increasing transparency in our labelling to help shift consumer preferences.[4]

However, to truly transform the food system, we need to encourage people to eat better and require increased collaboration between governments, NGOs, scientists, retailers and suppliers, and the food industry. The key challenge will be facilitating this multi-stakeholder approach towards collective action.

Endnotes

1 Implementation of removing trans fatty acids originating from PVHO, NewFood Magazine, 6 Nov 2012. Accessible at < www.newfoodmagazine.com/article/9162/implementation-of-removing-trans-fatty-acids-originating-from-pvho/>

2 Unilever's position on trans fats reduction. Accessible at <www.unilever.com/Images/tfa-position-october-2016_tcm244-423170_en.pdf >

3 Providing good fats. Accessible at < www.unilever.com/sustainable-living/improving-health-and-well-being/improving-nutrition/responsibly-delicious/providing-good-fats/>

4 Improving nutrition. Accessible at <www.unilever.com/sustainable-living/improving-health-and-well-being/improving-nutrition/#244-500>

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