REPLACE:
Trans Fatty Acids Program in Mexico
CONSUMPTION OF TRANS FATTY ACIDS IN MEXICO
Bélén Sáenz de Miera Juárez.

1. Available data to estimate trans fatty acids consumption

To estimate the consumption of trans fatty acids we need detailed registries of population consumption, as well as records of the content of trans fatty acids for foods consumed in the country. The first can be obtained from the National Health and Nutrition Survey (ENSANUT) 2006 and 2012, while the second can be obtained from tables of food contents.

The ENSANUT is a representative survey for the country that includes a module on frequency of food consumption. This module compiles detailed information on the food consumed in the last 7 days. For each food, the number of days consumed, the times a day, the number of servings, and the size of the portions are registered. Therefore, it is possible to estimate daily consumption in grams of each food for 2006 and 2012.¹

The tables of fatty acid composition of foods frequent in the diet of the Mexican population are available since 2007 (Villalpando et al. 2007). To build these tables, samples of food purchased in self-service stores, street vendors, supermarkets and fast food restaurants in Cuernavaca were analyzed. In total, the foods selected accounted for 80% of the fat intake of the population. In the case of trans fatty acids, the content of 261 foods of various brands were analyzed. The products with the highest content, that is, those with contents between 2 and 8 grams per 100 grams of foods are shown in Figure 1.

![Figure 1. Foods with high contents of trans fatty acids.](Image)

Mexico 2006 (grams per 100 grams of product)

<table>
<thead>
<tr>
<th>Product</th>
<th>Content 2006</th>
<th>Content 2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Margarina sin sal, Great Value</td>
<td></td>
<td>8.47</td>
</tr>
<tr>
<td>Sazonador, Knorr Suiza</td>
<td>4.5</td>
<td>6.05</td>
</tr>
<tr>
<td>Papas a la francesa, Kentucky Fried Chicken</td>
<td>3.8</td>
<td>6.01</td>
</tr>
<tr>
<td>Queso doble crema, La Esmeralda</td>
<td></td>
<td>4.46</td>
</tr>
<tr>
<td>Papas a la francesa, establecimiento informal</td>
<td>3.01</td>
<td></td>
</tr>
<tr>
<td>Papas a la francesa, McDonald’s</td>
<td></td>
<td>3.2</td>
</tr>
<tr>
<td>Barra de cereal, Nutridia-linaza Kellogg’s</td>
<td>2.95</td>
<td></td>
</tr>
<tr>
<td>Mantequilla, La Gloria</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>Galletas, Chokis Gamesa</td>
<td></td>
<td>2.05</td>
</tr>
</tbody>
</table>

Source: Villalpando et al. (2007).

¹ A shorter version of the ENSANUT was conducted in 2016 but the data on frequency of food consumption is not publicly available. The ENSANUT was also conducted in 2018 but the data has not been released.
To verify whether the contents of trans fatty acids have remained at similar levels, a visual examination of products was carried out during the past month in the main supermarkets in La Paz (March 2019). Only nutritional labels of the main food groups in which a greater presence of trans fatty acids had been found, were revised. In total, information of 167 products was collected, of which 29 (or 17.4%) did not report information on trans fatty acid contents and therefore it is assumed that the content is zero. On the other hand, only 3 out of the 138 products that do report information on trans fatty acids had contents greater than zero. In these cases, the content of trans fatty acids is higher than recommended (0.1% or 0.1 grams per 100 grams of product), although it is well below the contents observed in the past decade. It is important to note that many of the products for which information was recently collected can be found in Villalpando et al. (2017). Therefore, if the information reported by manufacturers in nutrition labels is reliable, we could conclude that the content of trans fatty acids was voluntarily eliminated over the course of these 13 years in several products, including some of those with the highest content.

2. Estimates of trans fatty acids consumption

Combining information from the ENSANUT 2006 and the tables of contents, Ramírez Silva et al. (2011) found that the consumption of trans fatty acids both in adolescents and adults was 0.5 grams per day on average and accounted for 0.4% of total energy. In addition, 2.6% and 4% of adolescents and adults, respectively, exceeded the WHO recommendation of maximum intake of 1% of energy.

More recently, based on data from the ENSANUT 2012, Mendoza et al. (2018) found that the median intake of trans fatty acids in adults was 0.25 grams. This also indicates that the majority of the Mexican adult population has an intake of less than 1 gram per day, which complies with WHO recommendations. However, they also found that if foods with a higher content of trans fatty acids were replaced by other foods with contents within recommendations, the median intake could be reduced by 20%.

3. Conclusions

Overall, consumption of trans fatty acids is relatively low in Mexico and is, for the majority of the population, within the limit recommended by the WHO. It also seems that voluntary replacement of trans fatty acids have continued over the past years. However, simulation models indicate that there is still room to further reduce trans fatty acids intake.
LEGAL ANALYSIS OF TRANS FATS IN MEXICO
Javier Zúñiga Ramiro.

Abstract

In the last 15 years, PAHO-WHO have been to regulate and eliminate the use of trans fatty acids (TFA) throughout the Latin-American region. This effort includes both international-technical recommendations (such as the Rio of Janeiro recommendations) and support to national regulations. In 2018, PAHO-WHO presented a technical regulation package called REPLACE (REVIEW, ASSESS, CREATE, ENFORCE) which suggested several recommendations so as to encourage governments to change from trans fats to healthier fats. These suggestions focused on four main points:

- Identify TFA in the food elaboration processes and regulate their use (even forbidden it)
- Provide information to consumers through front labeling
- Regulation of what does it means a healthy product
- Formal declaration of use and content of FTA to consumers in restaurants, food programs and food distributions in schools.

In Mexico, the legal framework that regulates trans fatty acids is limited. First, health law is shared subject between the federations and the local regulations. That means that both, local and federal, authorities have the faculty to regulate some aspects of FTA. For instance, federal and local regulations of food selling regarding FTA can be found. Therefore, there is not a single or unified regulation regarding FTA.

Regarding federal regulations, there are few documents that talk about FTA. Firstly, the main regulations that observed FTA are included in a legal instrument called “Mexican official regulations”, NOM (for their name in Spanish: normas oficiales mexicanas), which are legal tool that regulates technical specifications. In the case of FTA, at least 3 NOM were found:

- NOM-043-SSA2-2005: it regulates the food policy orientation and define the FTA
- NOM-051-SCFI/SSA1-2010: it regulates the food front labelling which does not includes FTA
- NOM-037-SSA2-2012: it regulates dyslipidemias
These NOM are the main regulations of FTA in the Mexican legal system. In addition, general guidelines regarding food distribution in schools recommend a 0.5 g limit of FTA in the elaboration of food that will be sold within the schools. Lastly, and that will complete the federal regulation of FTA, there are some commercial agreements that benefit the international trade of fats or products elaborated with FTA. Despite these “international benefits” exist, it must exist a formal petition to obtain the benefit, and so far there has been none.

Besides the federal regulations, there are at least 10 States that regulates the use of FTA or the selling of products with a high content of it in specific places, such as schools. The three policies that must of these regulations focused on were:

1. The disclosure of information mentioning the damage caused by the consumption of foods with high trans fat contents.

2. Prohibition and elimination of the use of trans fats in the elaboration of products or awareness of food processors and preparers to stop the use of trans fats.

3. Regulation of food outlets in educational centers, mainly in public centers.

Lastly, the study mentions some international regulations that had followed PAHO-WHO regulations. Mostly, some regional experiences that applied the main recommendation of this entity: limit the content of FTA to a 2g or less. This examples includes experiences in countries such as Uruguay, Chili, Argentina and Peru.
Executive Summary

The objective of this document is to analyze the strategies, actions, programs and initiatives that exist in Mexico around Trans Fatty Acids (TFA) as an important element in the situation of overweight and obesity the country is facing.

In Mexico, the 2016 National Health and Nutrition Survey indicated that the combined percentage of overweight and obesity, considering the population over 20 years old, was 75.6% in women and 69.4% in men. The immediate cause of obesity is the positive energy balance, which results from a greater intake than spending. Low consumption of natural foods and high levels of processed or ultra-processed foods characterize the diet of the Mexican population. These foods often have high contents of sugars, sodium and various types of fats, including TFA.

Trans fats have been attributed toxic effects so the World Health Organization (WHO) recommends that the total intake be limited to less than 1% of energy intake. To achieve this goal, it has proposed a package of actions called REPLACE, with the aim of helping countries to eliminate industrialized TFA by 2030.

Given the public health crisis that overweight and obesity represent, the Executive and Legislative branches have made some efforts in the past, although not all have been effective. This document gives an overview of the efforts of the Executive and the Congress, academic documents, and existing regulations in the country, in the last 10 years. As the new administration began in December 2018, the document also analyzes the initiatives and programs that are in force and the areas of opportunity in terms of public policy.

In January 2010, the Federal Government published the National Agreement for Food Health as a strategy with 10 objectives to address the epidemic of overweight and obesity. The objective 8 specifically established the reduction of daily consumption of saturated fats in the diet and minimizing TFA of industrial origin. This agreement, together with the academic position published in the book Obesity in Mexico: recommendations for a State policy, served as the basis for the publication of the National Strategy for the Prevention and Control of Overweight, Obesity and Diabetes published in 2013, as well as the update and adjustment of various regulations. The expected results were not entirely encouraging and initially had a specific consideration on trans-fats, and as the objectives were more general, they left aside the specific attention to TFA.
Currently, the Federal Government has 4 particular programs to attend overweight and obesity. Although there are considerations and goals on changing eating habits, none of them specifically addresses the consumption or content on trans fatty acids, and much less the processing of raw materials or food.

In the Congress, the evolution is similar. During the LX and the LXIII Legislatures, only a few of the presented initiatives considered measures to reduce the consumption of trans fatty acids. At the beginning of the LXIV Legislature, in 2018, they discarded the pending initiatives so none of the initiatives submitted the past years were longer available for discussion. Among the current projects, none of them is specific on TFA; however, there are proposals that present areas of opportunity for the implementation of the REPLACE program.

In Mexico there are no specific laws or regulations that limit the use of trans fatty acids in processed and ultra-processed foods. The provisions give the Ministry of Health the power to regulate the nutritional value of foods and it also sets the obligation that the labeling of foods and non-alcoholic beverages include the data of nutritional value considering the energy content. Even that the labeling has to include the total energy content and its sources, on TFA is optional. There is also no existing regulations regarding the refining and / or hydrogenation process. The NMX-F-089-SCFI-2008 is the only standard in the country specific on TFA limits. This is the Mexican Standard reference for vegetable oils with respect to trans fatty acids and establishes a maximum allowed limit of 3.5%.

The approach that the academic community has taken on the consumption of fats is consistent with the most effective international practices and coincides with some points of the REPLACE program. Although, there is nothing on the need for monitor compliance with standards, competent authorities or mechanisms to do so.

The conclusions of this analysis can be summarized in the following points that at the same time are public policy recommendations:

- Establishing a limit on TFA content in products is not enough. It is also necessary to control the production process.
- Efforts to implement measures to reduce the consumption of TFA are focused only on advertising the consumer giving people all the responsibility but not all he information.
- It is necessary to implement a comprehensive policy on TFA that includes production of source materials, supplies quality and manufacture process of processed and ultra-processed foods.
This document is an essential tool for the proper operation of the project, since it aims to know in depth the situation of the key actors in Mexico. These actors play an important role, as they may become Mexico Salud Hable’s allies to increase the awareness on TFA and cardiovascular diseases in our country. By gathering a strong and diverse group that contributes to the mobilization of the REPLACE action package, mainly among members of academia, civil society organizations, media and decision makers, we will be able to advocate for a strong legislative or legal strategy in this matter.

For an easy and quick identification of the actors, the Monitoring Database (3) separates them into the following categories:

- **3.1. Executive**: This includes representatives of government agencies related to health, economics, commerce, finance, regulatory affairs, etc.

- **3.2. Legislative**: This will include members of key commissions within both chambers (Senate and Chamber of Deputies), among them of course are the health commissions. Members who show an interest in topics related to cardiovascular health or directly to regulatory measures in trans fat, regardless of their party or commission will also be included. This requires constant monitoring being done by the parliamentary gazette and the media.

- **3.3. Civil society organizations**: We looked for possible ally organizations, as well as a brief of their main functions and objectives, (mainly in Mexico City for easy contact), however, organizations from other states whose work can be easily aligned to the objectives of this project are also considered. The preferred areas when looking for these organizations were: health, human rights, child rights or support for children, access to water and basic welfare supplies, healthy eating, food and environment, parent associations, consumer associations, and some think tanks specialized in social impact research.

- **3.4. Private sector**: Within the private sector actors that could represent a threat at some point of the project, the main coercialization chambers of ultraprocessed products, fat and oil refining chambers, and some brands that could offer products with some trans fat content were monitored. We also included the chambers of restaurateurs and cooks, recognizing that they latter could be sensitized on the subject.

2 Nutritionist and member of the Mexico SaludHable Coalition as the Coordinator for the Nutrition and Health Chapter.
• **3.5. Researchers and opinion leaders**: It is important to have a favorable opinion in the media to promote advocacy strategies, therefore not only actors who have demonstrated a commitment to seriously report health news were mapped, but we also proposed a pull of academics and other visible actors that can help legitimize the need to replace trans fats.

• **3.6. Relevant pronouncements (HLM on NCDs)**: Finally, a review was made of the most recent participation of the Mexican delegation in the HLM on NCDs (2018). This did not produce results in terms of trans fats, but paints a picture of the government’s position at the time, which serves as a stepping stone to contrast with current and future positions.

Another characteristic of this Monitoring Database is that it was made with the objective of identifying the actors in a very simple and clear way according to their degree of affinity with the project based on previous experiences, public information or media. Therefore, a graphic system (icons with striking colors) to indicate whether the person or organization is a possible ally, or a possible opponent, was added.

It is also important to remember that this database will be in constant change, since throughout the process of contact with some actors, or as the legislative period progresses, more data will be included in accordance with relevant events that may transcend.

We now have a diagnosis of the actors situation in México and we start, however, from a precarious reality, since the presence and consumption of TFA are a public health problem at a global level. We also know that our country is one of the main consumers of industrialized foods and beverages in the Americas, so the specific proposals of the project, would have a positive impact in our population.

Among the relevant findings, it is encouraging to find such a broad spectrum of civil society organizations in Mexico. We also note with optimism an important change in the discourse of the current administration in contrast to the previous ones; we now have an Undersecretary of Health with a very clear notion of the needed actions to improve public health with a very pronounced emphasis on the obesity and NCDs (Dr. Hugo Lopez Gatell). We can say that the application of regulatory measures as a public health strategy are a priority of this secretariat and this opens a window of opportunity to act from the executive level that we should not miss.

In conclusion, this mapping is a fundamental step to generate alliances that allow us to position the recommendations of the REPLACE Action Package as part of a solid strategy to prevent deaths from cardiovascular diseases (CVD). Through the design of this detailed monitoring of key actors related to the consumption and production of TFA, as well as a map of the key moments to act on this problem and the possible barriers to
meet the goal of Eliminate trans fats, proposed by the World Health Organization in the REPLACE action package, we attempt to influence on the National Development Plan 2019-2024 and particularly in the Sectorial Health Program 2019 - 2024. Some important findings include:

- Mexico is facing a significant change in the discourse of relevant actors at the Ministry of Health (executive level) in comparison with the previous administration, who left unattended the prevention of conflicts of interest.
- The academic sector is united and there is consensus on the need to implement measures such as clear front of pack labeling system on foods and beverages.
- The political moment and strength of these science based statements must be seized. There is a great plurality CSOs, however TFA have not been addressed from this sector. A large number of health and patient organizations have an attention or educational approach as a solution to the public health problems that affect mexicanos. The challenge will be to position regulatory measures as part of the solution to generate new alliances with them.
- Congress is dominated by MORENA, (political party in power). However, there is a plurality of actors and opinions within the party that make it difficult to read how will they will act in the future.
- The fats and oils industry in Mexico has not made any public statements about the elimination of TFA.

This is presented as a first step to reach the subsequent coordination between the actors of different detected branches and to launch a solid strategy of incidence in the national health policies in relation to the presence of TFA in the ultraprocessed products that are offered in the country, but also within food production chains.