

# Evaluating progress and addressing actions to eliminate industrially produced trans-fatty acids in the Americas

Sofía Rincón-Gallardo Patiño<sup>1</sup>, Steven Constantinou<sup>1</sup>, Carmen Gorlick<sup>1</sup>, Fabio da Silva Gomes<sup>1</sup>

**Suggested citation** Rincón-Gallardo PS, Constantinou S, Gorlick C, Gomes FS. Evaluating progress and addressing actions to eliminate industrially produced trans-fatty acids in the Americas. *Rev Panam Salud Publica*. 2022;46:e130. <https://doi.org/10.26633/RPSP.2022.130>

## ABSTRACT

**Objective.** To evaluate the progress toward the 2023 target for the elimination of industrially produced trans-fatty acids (IP-TFA) in the Region of the Americas and to highlight the achievements of the four strategic lines of action from the Plan of Action for the Elimination of IP-TFA 2020-2025.

**Methods.** A survey based on the World Health Organization (WHO) REPLACE package was used to collect data. The REPLACE package outlines six strategic action areas (*Review, Promote, Legislate, Assess, Create, Enforce*) to support the prompt, complete, and sustained elimination of IP-TFA from the food supply. Information was cross-checked and updated until December 2021.

**Results.** Thirty countries in the Region responded to the survey between November 2019 and July 2020, an 85.7% response rate. As of December 2021, 21 additional indicators of the Regional Plan of Action were met, out of which, four consisted of new enactments of PAHO/WHO best practice policies for the elimination of IP-TFA by countries since baseline data was collected in 2018. This has resulted in a 63.0% increase in the proportion of the population in the Americas protected from consuming IP-TFA in 2021, compared to the baseline in 2018.

**Conclusion.** Despite results showing progress in the Region, actions are needed to strengthen country capacity building and strategies to eliminate IP-TFA and fully achieve the 2023 goal.

## Keywords

Legislation, food; trans fatty acids; food policy; cardiovascular diseases; Americas.

Trans-fatty acid (TFA) intake is associated with risk of heart disease events. It has been estimated that TFA intake is responsible for more than 500 000 deaths per year globally, 160 000 of which occur in the Region of the Americas (1). Patterns of fat consumption play a major role in coronary heart disease and represent a modifiable risk factor (1). Global elimination of industrially produced TFAs (IP-TFA) is predicted to save 17.5 million lives by 2040 and prevent avoidable suffering (2).

IP-TFA are used in the preparation of many common foods consumed daily across the globe. They can be found in margarines, crackers, cookies, snacks, cakes, noodles, icings,

ice-cream, chocolates, and microwave popcorn, among other industrialized products. Elimination of IP-TFA is technologically feasible (3). This intervention is considered one of the most straightforward and economically efficient measures to upgrade the nutritional quality of the food supply. According to the World Health Organization (WHO), use of regulation to eliminate IP-TFA content in food is the most effective option to reduce TFA intake and associated risks (4).

The 57<sup>th</sup> World Health Assembly endorsed the Global Strategy on Diet, Physical Activity and Health, committing to act toward eliminating IP-TFA (5); and the 13<sup>th</sup> General Programme

<sup>1</sup> Pan American Health Organization, Washington, DC, United States of America  
✉ Fabio Gomes, [gomesfabio@paho.org](mailto:gomesfabio@paho.org)

of Work of the WHO commits to and prioritizes supporting Member States in eliminating IP-TFA (6). In May 2018, the WHO launched “REPLACE” (*Review, Promote, Legislate, Assess, Create, Enforce*), a global initiative to eliminate IP-TFA from the global food chain by 2023 (4). In 2019, during the Pan American Health Organization’s (PAHO) 57<sup>th</sup> Directing Council, a new plan to reduce cardiovascular disease through robust action to eliminate IP-TFA by 2025 was agreed upon by countries in the Americas. The *Plan of Action for the Elimination of Industrially Produced Trans Fatty Acids 2020-2025* proposes to disseminate the adoption and enforcement of IP-TFA elimination policies and finish the task of removing IP-TFAs from food products available to and consumed by the population of the Region (7).

We aimed to evaluate the progress toward the 2023 target for global elimination of IP-TFA in the Region of the Americas by 2021, and highlight achievements of the four strategic lines of action from the Regional Plan of Action: 1) Enact regulatory policies to eliminate partially hydrogenated oils (PHO) from the food supply and/or to limit IP-TFA content to no more than 2% of total fat in all food products; 2) Implement IP-TFA elimination policies by means of clearly defined regulatory enforcement systems; 3) Assess progress of IP-TFA elimination policies and their impact on the food supply and on human consumption; and 4) Create awareness, through outreach and educational campaigns, of the negative health impacts of IP-TFA and the health benefits to be gained from the elimination of IP-TFA among policymakers, producers, suppliers, and the public.

## METHODS

To measure progress of the Plan of Action, a baseline survey was undertaken between November 2019 and July 2020 in the Region of the Americas. The survey sought to assess the situation of IP-TFA regulation, labeling, enforcement, education, and evaluation covered by the indicators (Figure 1). The survey also sought to identify priorities and opportunities for technical assistance and cooperation between PAHO and its Member States on this issue. The survey used the SmartSurvey (<https://www.smartsurvey.co.uk/>) software.

The survey document was sent to PAHO offices, that at the time, worked with each Member State’s government officials to identify a focal point as a respondent. These focal points were individuals with knowledge of national food regulation, including ongoing country regulatory initiatives related to TFAs and/or non-communicable disease control.

The survey included 44 closed- and open-ended questions and was developed using the WHO REPLACE framework (4). It was distributed in nine blocks, which included the name of the country; the respondent identification and affiliation; information on the existence or the enforcement of trans fat laws or regulations; information on food labeling laws and their enforcement; and an assessment of trans fats in food products and compliance of manufacturers, importers, and retailers. Blocks also included information on educational and communication activities by countries and country capacity for cooperation and technical assistance needs. Links to or files on laws or other reports were requested. The survey was available for completion in English, Spanish and Portuguese. The information reported was cross-checked with

documentation such as the legislation of the country on the matter.

Responses on policy questions were considered as fulfilling PAHO key indicators 1.1.1, 1.1.2 and 1.1.3 if a policy had been passed which, when fully implemented, met the criteria of all foods either not exceeding a level of IP-TFAs greater than 2% of total fats, not allowing any use of partially hydrogenated oils (PHOs) in food, or both. Information was cross-checked and updated until 2021 from the WHO Global Database on the Implementation of Nutrition Action (GINA) and the Countdown to 2023: WHO report on global trans fat elimination 2021 (8, 9).

Population data was acquired from the United Nations’ Population Division website (<https://population.un.org/wpp>) to estimate the proportion of the population protected in the Americas from implemented best practice policies for the elimination of IP-TFAs. The proportion was calculated as the total population of countries with best practices policies in the Region divided by the total population of the entire Region. The population data corresponding to the years those policies were in effect were used.

## RESULTS

Thirty countries in the Region responded to the survey, between November 2019 and July 2020, for an 85.7% response rate. The countries and territories that returned a completed version of the survey questionnaire, including information on respondent affiliation, included all PAHO Member States except for five countries: Belize, El Salvador, Guatemala, Honduras, and Trinidad and Tobago. Anguilla also provided a response that is not included in the calculations. In the five cases where official country responses were not available, the analysis was complemented by information from published laws and regulations, responses from consultation participants, and knowledge of PAHO staff.

As shown in Figure 1, 21 additional indicators have been implemented or are being implemented by countries since baseline data was collected in 2018. Four more countries have enacted (Paraguay and Uruguay) and/or have started implementing (Brazil and Peru) PAHO/WHO best practice policies for the elimination of IP-TFA, compared to the baseline (Canada, Chile and the United States). This has resulted in a 63.0% increase in the proportion of the population in the Americas protected from consuming this harmful substance in 2021, compared to the baseline in 2018. Sustained efforts by PAHO to support such progress covers the entire policy cycle—including landscape analysis, policy discussion and design, implementation, enforcement, and monitoring and evaluation—as well as making technical and financial resources available for countries and territories to achieve the agreed commitments under the Plan of Action.

Some Member States have advanced the enactment of regulatory policies to eliminate PHO from the food supply and/or to limit IP-TFA content to no more than 2% of total fat in all food products. In addition to Canada, Chile and the United States, which had already implemented best practice policies for the elimination of IP-TFA prior to the adoption of the Plan of Action, Brazil and Peru have enacted and started implementing PAHO/WHO best practice policies. Uruguay and Paraguay have also enacted regulations to implement best practices in line

**FIGURE 1. PAHO Member States that have fully, partially or have not achieved each of the five objectives to eliminate IP-TFA in 2021, and baseline status in 2018**

Progress achieved on the PAHO's Action Plan to Eliminate IP-TFA by year					
Objectives <sup>e</sup>	1.1 Law Limiting IP-TFA	1.2 Labeling	2.1 Enforcement	3.1 Evaluation	4.1 Education
Baseline (2018) <sup>f</sup>	2	15	8	9	10
Progress (2021) <sup>g</sup>	7	20	9	15	14
Progress achieved on the PAHO's Action Plan to Eliminate IP-TFA by Member States, 2021					
Antigua and Barbuda	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>
Argentina	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Fully achieved <sup>a</sup>
Bahamas	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>
Barbados	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Belize	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Bolivia	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>
Brazil	Fully achieved <sup>a</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>
Canada	Fully achieved <sup>a</sup>	Not achieved <sup>c</sup>	Fully achieved <sup>a</sup>	Fully achieved <sup>a</sup>	Partially achieved <sup>b</sup>
Chile	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Colombia	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Fully achieved <sup>a</sup>	Partially achieved <sup>b</sup>	Fully achieved <sup>a</sup>
Costa Rica	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>
Cuba	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Fully achieved <sup>a</sup>	Partially achieved <sup>b</sup>
Dominica	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Fully achieved <sup>a</sup>	Partially achieved <sup>b</sup>
Dominican Republic	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Ecuador	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>
El Salvador	Missing (response inferred) <sup>d</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Grenada	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Guatemala	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Guyana	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Haiti	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Honduras	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Jamaica	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>
Mexico	Not achieved <sup>c</sup>	Fully achieved <sup>a</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Nicaragua	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Panama	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Paraguay	Partially achieved <sup>b</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>
Peru	Fully achieved <sup>a</sup>	Fully achieved <sup>a</sup>	Partially achieved <sup>b</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>
Saint Kitts and Nevis	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Saint Lucia	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>
Saint Vincent and the Grenadines	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Suriname	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Trinidad and Tobago	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
United States of America	Fully achieved <sup>a</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Fully achieved <sup>a</sup>
Uruguay	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>	Not achieved <sup>c</sup>
Venezuela	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>	Partially achieved <sup>b</sup>	Not achieved <sup>c</sup>

PAHO, Pan American Health Organization; IP-TFA, industrially produced trans fatty acids

<sup>a</sup> Fully achieved: countries that have implemented all indicators within an objective, as of 31 December 2021. However, for Objective 1.1-Law Limiting IP-TFA, a country is considered to have fully achieved this objective if either PHOs for human consumption are prohibited from the food supply and/or if any food product with IP-TFA content in excess of 2% total fat is prohibited.

<sup>b</sup> Partially achieved: countries that have enacted an indicator within an objective but have not started the implementation yet, as of 31 December 2021 and if less than all of the indicators within an objective are fully implemented, as of 31 December 2021.

<sup>c</sup> Not achieved: countries that have no indicators within an objective achieved, as of 31 December 2021.

<sup>d</sup> Missing (response inferred): countries that did not respond to the survey; data were inferred from other sources.

<sup>e</sup> Each of the objectives have different indicators to determine if countries have achieved the objective. The indicators for objective 1.1 are: **1.1.1** Countries and territories that prohibit the production, importation, distribution, sale, and use of PHO in foods for human consumption; **1.1.2** Countries and territories that prohibit the production, importation, distribution, sale, and use of any food product with IP-TFA content in excess of 2% of total fat; and **1.1.3** Countries and territories that prohibit the production, importation, distribution, sale, and use of PHO in foods for human consumption and prohibit the production, importation, distribution, sale, and use of any food product with IP-TFA content in excess of 2% of total fat. Indicators for objective 1.2 are: **1.2.1** Countries and territories that require standardized labeling of PHO in ingredient lists; **1.2.2** Countries and territories that require standardized quantitative declaration of TFA content; **1.2.3** Countries and territories that require front-of-package labeling that allows for quick and easy interpretation of saturated fat content; **1.2.4** Countries and territories that require front-of-package labeling that allows for quick and easy interpretation of TFA content; and **1.2.5** Countries and territories that establish requirements for the use of claims such as "trans fat free" or "reduced trans fat." Indicators for objective 2.1 are: **2.1.1** Countries and territories that have defined a plan to ensure compliance consistent with their adopted policy; **2.1.2** Countries and territories that have data on enforcement actions; **2.1.3** Countries and territories that define and implement practices to ensure compliance of imported foods; and **2.1.4** Countries and territories with assessment data on compliance levels for PHO or IP-TFA content. Indicators for objective 3.1 are: **3.1.1** Countries and territories with at least one publicly available pre-regulation national assessment of foods that are sources of IP-TFA, and if possible, the quantity of IP-TFA in these products; **3.1.2** Countries and territories with at least one post-regulation national assessment of saturated fat levels in products identified as significant sources of IP-TFA, and if possible, the quantity of IP-TFA in these products; **3.1.3** Countries and territories with at least one pre-regulation national assessment of saturated fat levels in products identified as significant sources of IP-TFA; and **3.1.4** Countries and territories with at least one post-regulation national assessment of saturated fat levels in products identified as significant sources of IP-TFA intake prior to regulation. Indicators for objective 4.1 are: **4.1.1** Countries and territories that implement education and communication strategies for the general public on the negative health impacts of TFA and benefits of the elimination policies and **4.1.2** Countries and territories that implement education and communication strategies for food producers, importers, and retailers on the new policies and how to comply.

<sup>f</sup> Baseline: countries that have fully achieved or partially achieved the objective.

<sup>g</sup> Progress: countries that have fully achieved or partially achieved the objective.

**Source:** Prepared by the authors from the study results.

with the Plan of Action, which are due to become fully effective by 2022 and 2024, respectively. The Mexican senate has also approved a bill to eliminate IP-TFA from the food supply using PAHO/WHO best practices, which is pending final approval and enactment. Furthermore, Member States, including Brazil, Mexico and Uruguay, have enacted and/or implemented new labeling laws and regulations that support the enforcement of the elimination of IP-TFA. Results are provided by the four strategic lines of action and the accompanying objectives and indicators (Figure 1).

There has been minimal progress in implementing IP-TFA elimination policies by means of clearly defined regulatory enforcement systems. Since the 2018 baseline data was obtained, only one additional country has plans or mechanisms in place to ensure compliance is consistent with the IP-TFA elimination policy they adopted or intend to adopt. Nine countries and territories have these mechanisms or plans in place compared to eight that already had such mechanisms and plans in place prior to the adoption of the Plan of Action.

There has been some progress when assessing the IP-TFA elimination policies and their impact on the food supply and on human consumption, with six new countries and territories having implemented at least one of the best practice policies within the evaluation objective.

There has also been progress in creating awareness of the negative health impacts of IP-TFA and the health benefits to be gained from the elimination of IP-TFA, with 14 countries and territories implementing education and communication strategies for the general public, compared to 10 countries and territories in the baseline.

Figure 1 provides information on whether Member States have fully, partially or have not achieved each of the five objectives aimed at eliminating IP-TFA: 1.1 Law Limiting IP-TFA, 1.2 Labeling, 2.1 Enforcement, 3.1 Evaluation and 4.1 Education. Brazil, Canada, Uruguay and the United States have taken action to eliminate IP-TFA in all five objective areas and Argentina, Chile, Colombia and Peru have policies addressing four of the five objectives. However, countries such as Barbados, Grenada, Guyana, Haiti, Saint Kitts and Nevis and Suriname have yet to enact or start implementing PAHO/WHO strategic lines of action for the elimination of IP-TFA.

## DISCUSSION

While the results represent important progress amongst the countries of the Region of the Americas, much action remains to be done. The adoption and amendment of laws and regulations needs to be accelerated so that the implementation of IP-TFA elimination can meet the timeline committed under the Plan of Action. Member States should enact IP-TFA elimination policies so that they are approved and fully in effect for compliance by the end of 2023, and for enforcement and post-policy assessment activities to be in place by 2025. Civil society can play an important role in advancing legislative proposals and other key actions to address IP-TFA elimination (9). The engagement of civil society organizations helps mobilize and prioritize the issue, increasing advocacy efforts, and holding regulatory authorities and regulated actors accountable.

IP-TFA elimination policies gained momentum after 2018, when WHO set IP-TFA elimination as a global priority, released recommended policies and strategies, and called on countries

to act. This Plan of Action sustained and strengthened such momentum in the Region of the Americas. The synthesis of best practices and the call to action, based on experiences and successes in several pioneering countries, has helped provide the evidence underpinning policy action in the Region of the Americas.

Many countries are constantly facing challenges, reflecting differences in political will, political agendas, and limitations in human and technical resources. For example, COVID-19 has changed priorities in political agendas, and could have shifted agendas, placing IP-TFA as a non-urgent topic. However, it is important to highlight to policymakers that people with cardiovascular diseases are at a higher risk of severe symptoms and death from COVID-19 (10). Therefore, there is an urgent need for governments to implement cost-effective policy measures that tackle cardiovascular diseases such as the elimination of IP-TFA.

As individual countries move forward, their efforts can inform and accelerate regional harmonization. However, the desire for regional action cannot replace the commitment required to put in place timely national policies to meet the objectives accepted by Member States in the Plan of Action. The Codex program may provide an opportunity to raise standards that could serve as the international basis for technical regulations to reach all countries. Therefore, the incorporation of the elimination of IP-TFA and PHO ban into the Codex standards could help leverage the achievement of the elimination of IP-TFA globally. Currently, the Codex Committee on Food Labeling and the Codex Committee on Fats and Oils are working to amend guidelines and standards that have the potential to mitigate the public health issues related to IP-TFA that will be discussed in the upcoming meetings of these committees.

## Limitations and strengths

Although the response rates to the survey questionnaires was high (85.7%), a limitation of the study is that the data obtained from the surveys was self-reported, increasing the chance that response bias occurred. Focal points may have provided inaccurate information or intentionally misrepresented their country's current policy situation to make it appear as though they are progressing at a faster rate than they actually are with the implementation of the IP-TFA elimination policies. To minimize that from occurring, when possible, the information reported was cross-checked with documentation, such as the legislation of the country on the matter.

A strength of the study is that the survey used a systematic method to collect information in a repeatable way across countries. Moreover, to the best of our knowledge, this is the first communication that provides a 2021 progress update on PAHO/WHO's Plan of Action for the Elimination of IP-TFA that have been fully or partially implemented in the Region of the Americas. This is important because acknowledging countries that have implemented IP-TFA best-practice policies helps motivate and support other countries to take the necessary steps to begin the implementation process. Additionally, this communication is timely given the quickly approaching deadline to eliminate IP-TFA from the Region of the Americas by 2023.



## Recommendations to address actions to achieve elimination of IP-TFA from the food supply in the Americas by 2023

To meet the goal of the Plan of Action, PAHO should continue to facilitate concerted efforts to promote IP-TFA elimination and provide needed technical assistance or exchange of experience across the Region. Specific actions are needed to strengthen Member States capacity to improve the current situation:

- a) Strengthen and expand technical and financial support to Member States to adopt the Plan of Action for developing landscape analyses, policy design, legal drafting, improving laboratory capacity, and monitoring and evaluating policy compliance and enforcement.
- b) Disseminate guidance and capacity-building tools for designing and implementing the policies and actions proposed in the Plan of Action by means of publications, webinars, and online courses.
- c) Support Member States in protecting the policy cycle from interference by industry and other actors whose products, practices, or policies conflict with the implementation of the Plan of Action. This can be done by hosting interactive workshops to present the roadmap for the Prevention and Management of Conflicts of Interest in the Policy Development, creating online courses, and developing other technical resources based on scientific evidence to protect policy-making from opposing interests.
- d) Disseminate country experiences, success stories, and best practices to help Member States learn from each other, by means of webinars and publications.

- e) Strengthen advocacy efforts targeted at focal points at ministries of health, policy-makers, civil society, and PAHO country and sub-regional officers, by disseminating and encouraging increased uptake of the online course on the elimination of IP-TFA.

**Author contributions.** SRGP and FSG conceived the original idea; SC collected the data; SRGP, CG, and SC analyzed the data and interpreted the results; SRGP and CG wrote the first draft of the manuscript. All the authors reviewed the work critically for important intellectual content and approved the final version of the manuscript.

**Acknowledgements.** We would like to gratefully acknowledge and thank Lynn Silver, Rosângela Caetano, Claudia Osorio-de-Castro, Lindsay Steel, Chizuru Nishida, and Rain Yamamoto for their valuable insight.

**Conflict of interest.** None declared.

**Funding.** This work was developed with support from Resolve to Save Lives, an initiative of Vital Strategies. The sponsors did not influence the design, the data collection, the analysis, the writing, and the decision to publish these results in any way.

**Disclaimer.** Authors hold sole responsibility for the views expressed in the manuscript, which may not necessarily reflect the opinion or policy of the *RPSP/PAJPH* or the Pan American Health Organization (PAHO).

## REFERENCES

1. Wang Q, Afshin A, Yakoob MY, Singh GM, Rehm CD, Khatibzadeh S, et al. Global Burden of Diseases Nutrition and Chronic Diseases Expert Group (NutriCoDE). Impact of nonoptimal intakes of saturated, polyunsaturated, and trans-fat on global burdens of coronary heart disease. *J Am Heart Assoc.* 2016;5(1):e002891.
2. Kontis V, Cobb LK, Mathers CD, Frieden TR, Ezzati M, Danaei G. Three public health interventions could save 94 million lives in 25 years. *Circulation.* 2019;140(9):715-25.
3. Li C, Cobb LK, Vesper HW, Asma S. Global surveillance of trans-fatty acids. *Prev Chronic Dis* 2019;16:e147.
4. World Health Organization. An action package to eliminate industrially produced trans-fatty acids. WHO/NMH/NHD/18.4; 2018. Available from: <https://www.who.int/docs/default-source/documents/replace-transfats/replace-action-package.pdf> Accessed on 25 June 2022.
5. World Health Organization. Global strategy on diet, physical activity and health. (Resolution WHA57.9). Geneva: WHO; 2004. Available from: [https://apps.who.int/gb/archive/pdf\\_files/WHA57/A57\\_9-en.pdf](https://apps.who.int/gb/archive/pdf_files/WHA57/A57_9-en.pdf) Accessed on 25 June 2022.
6. World Health Organization. Thirteenth general programme of work, 2019-2023. (WHA71.1). Geneva: WHO; 2018. Available from: [https://apps.who.int/gb/ebwha/pdf\\_files/WHA71-REC1/A71\\_2018\\_REC1-en.pdf#page=25](https://apps.who.int/gb/ebwha/pdf_files/WHA71-REC1/A71_2018_REC1-en.pdf#page=25) Accessed on 25 June 2022.
7. Pan American Health Organization. Plan of action for the elimination of industrially produced trans-fatty acids 2020-2025. (Document CD57/8). Washington, DC: PAHO; 2019. Available from: [https://www3.paho.org/hq/index.php?option=com\\_docman&view=download&alias=49612-cd57-8-e-poa-trans-fatty&category\\_slug=cd57-en&Itemid=270&lang=en](https://www3.paho.org/hq/index.php?option=com_docman&view=download&alias=49612-cd57-8-e-poa-trans-fatty&category_slug=cd57-en&Itemid=270&lang=en) Accessed on 25 June 2022.
8. World Health Organization. Global database on the implementation of nutrition action (GINA). Geneva: WHO; 2012. Available from: <https://extranet.who.int/nutrition/gina/en/home> Accessed on 25 June 2022.
9. World Health Organization. Countdown to 2023: WHO report on global trans fat Elimination 2021. Geneva: WHO; 2021. Available from: <https://apps.who.int/iris/bitstream/handle/10665/348388/9789240031876-eng.pdf> Accessed on 25 June 2022.
10. Motaib I, Zbiri S, Elamari S, Haoudar A, Chadli A, El Kettani C. Cardiovascular risk factors and the severity of COVID-19 disease. *Cureus.* 2021;13(6):e15486.

---

Manuscript submitted on 28 March 2022. Revised version accepted for publication on 29 June 2022.

---

## Evaluar el progreso y abordar las medidas para eliminar los ácidos grasos trans de producción industrial en la Región de las Américas

### RESUMEN

**Objetivo.** Evaluar el progreso hacia el logro de la meta prevista para el 2023 para la eliminación de los ácidos grasos trans de producción industrial (AGT-PI) en la Región de las Américas y destacar los logros en las cuatro líneas estratégicas de acción del *Plan de acción para la eliminación de los ácidos grasos trans de producción industrial 2020-2025*.

**Métodos.** Para recopilar datos se empleó una encuesta basada en el conjunto de medidas REPLACE de la Organización Mundial de la Salud (OMS). En el conjunto de medidas REPLACE se describen seis áreas de acción estratégica (*revisar, promover, legislar, analizar, concientizar, exigir el cumplimiento*) para apoyar la eliminación rápida, completa y sostenida de los AGT-PI del suministro de alimentos. Se verificó y se actualizó la información hasta diciembre del 2021.

**Resultados.** Treinta países de la Región respondieron a la encuesta entre noviembre del 2019 y julio del 2020, una tasa de respuesta del 85,7%. Para diciembre del 2021, se habían cumplido 21 indicadores adicionales del plan de acción regional, cuatro de los cuales consistieron en políticas nuevas relativas a mejores prácticas de la OPS/OMS para la eliminación de los AGT-PI promulgadas por los países desde que se recopilaron los datos de las líneas de base en el año 2018. Esto implica un aumento del 63,0% de la proporción de la población de la Región protegida del consumo de AGT-PI en el 2021, en comparación con la línea de base del 2018.

**Conclusiones.** A pesar de que los resultados muestran progreso en la Región, se necesitan medidas para fortalecer la capacidad y las estrategias de los países a fin de eliminar los AGT-PI y lograr plenamente el objetivo para el 2023.

**Palabras clave** Legislación alimentaria; ácidos grasos trans; política nutricional; enfermedades cardiovasculares; Américas.

---

---

## Avaliar o progresso e abordar as ações para eliminar os ácidos graxos trans de produção industrial nas Américas

### RESUMO

**Objetivo.** Avaliar o progresso rumo à meta de 2023 para a eliminação dos ácidos graxos trans de produção industrial (AGT-PI) na Região das Américas e destacar as conquistas já obtidas nas quatro linhas estratégicas de ação do Plano de Ação para Eliminar os AGT-PI 2020-2025.

**Métodos.** Um levantamento com base no pacote REPLACE da Organização Mundial da Saúde (OMS) foi usado para coletar dados. O pacote REPLACE delineia seis áreas estratégicas de ação (Revisar, Promover, Legislar, Avaliar, Conscientizar, Estimular) para apoiar a eliminação rápida, completa e sustentada dos AGT-PI da cadeia produtiva de alimentos. As informações foram cruzadas e atualizadas até dezembro de 2021.

**Resultados.** Trinta países da Região responderam à pesquisa entre novembro de 2019 e julho de 2020, o que corresponde a uma taxa de resposta de 85,7%. Até dezembro de 2021, 21 indicadores adicionais do Plano de Ação Regional haviam sido atingidos, quatro dos quais consistiam em novas promulgações de políticas consideradas boas práticas pela OPAS/OMS para a eliminação de AGT-PI pelos países em relação à linha de base de 2018. Isso resultou em um aumento de 63,0% na proporção da população nas Américas protegida do consumo de AGT-PI em 2021, em comparação com a linha de base de 2018.

**Conclusão.** Apesar dos resultados demonstrarem progresso na Região, são necessárias ações para fortalecer a capacitação dos países e as estratégias para eliminar os AGT-PI e alcançar plenamente a meta para 2023.

**Palavras-chave** Legislação sobre alimentos; ácidos graxos trans; política nutricional; doenças cardiovasculares; América.

---