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Legislation: Trans fats

The case for a global ban



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Key points



Three sources of trans fats: ready-made pizzas; baked goods like cookies (biscuits) and donuts; and French fries (chips): mostly, branded products

Here are some of the consequences of populations and people consuming artificial industrially-generated *trans*-fatty acids (*trans* fats) in food products:

Risk of disease and death

Consumption of *trans* fats as contained in partially hydrogenated vegetable oils is associated with an increased risk of heart diseases, including myocardial infarction and death from coronary artery disease.

Consumption of *trans* fats is associated with a substantially higher risk per calorie consumed than for any other dietary component,including total fat, saturated fat and salt.

Reasons for a global ban

A ban will cover the full range of food products in any country or region.

A ban will benefit people who do not read food labels or who live in countries where *trans* fats are not labelled on food products.

A ban will apply equally to all food products, whether domestic or imported from other countries.

Now is the time

A coherent strategy is needed to ban *trans* fats from food environments.

Trans fat elimination is currently not included either among the World Health Organization's 'best buys' or among the nine voluntary targets to reach the '25 by 25' goal. However, the reduction of partially hydrogenated vegetable oils from food supplies was suggested as one of 25 indicators for countries to measure progress to reduce premature chronic non-communicable disease mortality.

Public health advocates, together with UN member states, have an unprecedented opportunity to respond to the WHO's consultation to develop a Global Action Plan to Prevent Non-Communicable Diseases for 2013-2020. Now is the time to advocate a ban on *trans* fats from food environments, and to work toward a *trans* fat free world by 2025.

Background



Three sources of trans fats: pre-prepared candies (confectionery) and also packaged cakes; ready-made fried fatty products: mostly, branded products

In 2009, a World Health Organization (WHO) scientific committee recommended the 'virtual elimination' of *trans* fats from all food supplies (1). This recommendation replaced the 2003 joint WHO and Food and UN Agriculture Organization (FAO) report recommendation that advised countries worldwide to limit their population intakes of industrially produced *trans*-fatty acids (hereafter, *trans* fats) to less than 1 per cent of total calories a person a day (2). (For the sources of *trans* fats, and the harmful effects of these type of fats on human health, see Boxes 1 and 2).

Many countries, including Denmark, Australia, Austria, Costa Rica, France, Germany, the United Kingdom (UK) and the United States (US) have made good progress to reduce *trans* fats in their national food supplies in order to approach a mean population intake target of less than 1 per cent of total daily calories. Certain regions have made promising progress.

In 2007, the Pan American Health Organization (PAHO)/WHO) convened a task force for the '*Trans*-Fat Free Americas Initiative'. Its purpose was to evaluate the impact of *trans* fats on human nutrition and health; to find practical ways to phase out *trans* fats from the food supplies of Latin American and Caribbean countries using regulatory and voluntary actions; and to examine the feasibility of using healthier alternative fats.

But there is still much more to accomplish. There is limited information about the extent of *trans* fat consumption worldwide, and a lack of systematic information about national and regional work to eliminate it. There is a pressing need to collect

this information to inform policies and actions, given the rapid rise in diet-related chronic non-communicable diseases, especially in low- and middle-income countries (3). It is estimated that a decrease of 4.5 grams of *trans* fats a person a day could prevent approximately 30,000 to 130,000 coronary heart disease events annually in the US alone (4).

Over the course of 2012, WHO has requested input from countries to inform a global monitoring framework and indicators to prevent chronic non-communicable diseases. This will be finalised in 2013 (5). Surprisingly, a global ban on *trans* fats was not recommended as one of five 'best buys', which are defined as cost-effective, affordable, and feasible to implement in low- and middle-income countries (6). Nor was reduction of *trans* fats specified as one of the nine voluntary targets proposed to combat premature mortality. These were action on harmful use of alcohol, tobacco use, physical inactivity, salt/sodium intake, raised blood pressure, type 2 diabetes, promoting drug therapy and counselling, and medicines and technology (7). The targets are set so as to reach the WHO goal of reducing chronic non-communicable disease mortality by 25 percent by 2025 ('25 by 25').

The best buy

Fortunately, the reduction of partially hydrogenated vegetable oils, the main generator of *trans* fats, was suggested as one of the 25 indicators that countries should use to measure progress to reduce premature non-communicable disease mortality (7).

In our view, the evidence shows that if there ever was a 'best buy' for the public health community to unite around, it is a global ban on *trans* fats (8, 9).
This commentary explores several challenges associated with the WHO recommendation that countries achieve a 'virtual elimination' of *trans* fats from their food supplies. These include policy, operational, strategic and logistical challenges that must be addressed in order to eliminate *trans* fats, so as to help reach the '25 by 25' goal.

Here we build a case for public health and nutrition professionals and practitioners to play an active role to address these challenges. This we can do by working with governments, the food industry sector, private funders, other professionals and scientists, public interest non-governmental organisations and consumer advocates. Their purpose should be to support a global ban on *trans* fats, in order to remove this harmful substance from food and eating environments.

Box 1

The 5Ws of *Trans* Fats: What, when, who, why, where



A hydrogenation machine (left). Early use included for hard margarines and for shortenings (centre). Very many fatty food products (right) still contain trans fats

What are trans fats?

Trans-fatty acids (hereafter *trans* fats) are generated by the process of partial hydrogenation used to convert liquid oils to more solid spreads or used to lengthen their shelf-life.

Typical commercial hydrogenation is partial, in order to obtain a mixture of fats that are solid at room temperature, but melt when baking or consumed.

This process destroys beneficial fats including omega-3 fatty acids. *Trans* fats derived from partial hydrogenation are associated with increased risk of various chronic non-communicable diseases.

Frying foods, in restaurants or at home, to temperatures 180 °C for extended periods of time, also generate *trans* fats when the oils used are polyunsaturated.

Naturally occurring *trans* fats (about 5 per cent of fatty acids) are present in dairy and meat products from cows, sheep, and goats. These do not affect human health when consumed in low amounts.

When were trans fats introduced?

More than a century ago, food manufacturers started to process liquid vegetable oils so as to turn them into margarines or shortenings.

During the 1950s, industry increased the use of partially hydrogenated vegetable oils in an increasing number of packaged and pre-prepared food products
During the 1960s, industry continued to use *trans* fats because public health

recommendations encouraged replacing saturated fats (such as those contained in butter and lard) with unsaturated fats

The harmful effects of *trans* fats on human health were not fully known and well understood until the early 1990s.

Who uses them?

After the adverse effects of *trans* fats were confirmed, some multinational manufacturing and catering corporations reduced or removed *trans* fats from specific brands and food categories and product lines, margarines being an important example. However, there is great variation in food industry practices within and across regions and countries, and a lack of pledges by transnational corporations to voluntarily eliminate *trans* fats at global levels.

Manufacturers and caterers, including national and smaller businesses, commonly use *trans* fats in countries where there are no clear guidelines, technical training, mandatory legislation or incentives to replace *trans* fats with healthier fats.

Why are they used?

Food manufacturers, caterers, restaurants and street vendors use partially hydrogenated oils containing a lot of *trans* fats because they are inexpensive compared to animal fats; because they have physical and chemical properties that make fried, baked and snack foods highly palatable; and because they reduce rancidity and increase shelf-life of processed products.

Where are they found?

In a vast number of fatty processed products, in particular those with longer shelf-lives. Any product with a label listing 'partially hydrogenated oil' (or 'fat') contains trans fats. In regulated and some other countries, the amounts of *trans* fats in food supplies have dropped in recent years, but there is still plenty left.

In North America and Europe, common sources include pastries and products like donuts; baked goods such as cookies (biscuits); many types of baked and fried products; a vast variety of packaged snacks; and many margarines as well as shortenings.

In Latin America, common sources also notably include baked goods, pre-packaged confectionary as well as fatty snacks, and some oils used for industrial and also domestic cooking.

In South Asia, common sources also include sweet fatty foods as well as those cooked in partially hydrogenated vegetable oils. In India, as well as the products above, a common source *is vanaspati*, an alternative to vegetable ghee.

Sources (1, 4, 12, 15, 16)

Box 2

How industrial *trans* fats harm human health



Three sources of trans fats: products fried especially when the oil is re-used; very many fatty snacks including ice-cream: all, mostly branded products

Consumption of *trans* fats from partially hydrogenated vegetable oils are associated with a substantial increased risk of heart diseases, including myocardial infarction and death from coronary artery disease.

The risks related to *trans* fat consumption is significantly higher per calorie consumed than for any other dietary constituent, including total fat, saturated fat, and salt.

Trans fats also increase blood lipids, promote systemic inflammation and endothelial dysfunction, and contribute to weight gain and type 2 diabetes.

Sources (1, 4, 16)

The rest of this commentary proposes that we in the nutrition, public health and associated professions are now faced with challenges which we, the authors, believe need to be faced now. The scale of the issue is vast, and the prospect of success is real. The challenges specified below are addressed to us all in relevant professions and also to us as citizens and community and family members.

Challenge 1
Definition

We must engage with our professional societies, regulatory agencies and the UN Codex Alimentarius system, to develop and disseminate an inclusive, comprehensive and uniform definition for industrially produced trans fats

The first major challenge, is that countries do not have a standardised and comprehensive definition for industrially produced *trans* fats to help them achieve

'virtual elimination'. In some countries, the definition includes both industrial and ruminant *trans* fats. Within Latin American countries, the definitions used for *trans* fats are very diverse. In Denmark, the definition excludes the naturally occurring form in products.

The US and Canadian regulatory agencies define *trans* fats as 'isomers of monounsaturated and polyunsaturated fats that contain one or more isolated or non-conjugated…double bonds in the trans configuration.' In other words, the hydrogen atoms linked to the carbon atoms on both sides of the double bond have an opposite position with respect to the double bond. This definition is consistent with the UN Codex Alimentarius definition of *trans* fats.

For the purpose of the Codex *Guidelines on Nutrition Labelling* and other related Codex standards and guidelines, *trans* fats are defined as 'all the geometrical isomers of monounsaturated and polyunsaturated fatty acids having non-conjugated, interrupted by at least one methylene group, carbon-carbon double bonds in the trans configuration.' In all these definitions, conjugated linoleic acid (CLA) is not included in the *trans* fat definition.

However, very remarkably the *Codex Guidelines on Nutrition Labelling* (CAC/GL 2-1985; adopted in 1985 and most recently amended in 2012) still does not include *trans* fats in the list of mandatory nutrients that must be declared in nutrition labelling. Instead, the guidelines state that 'countries where the level of intake of *trans* fats is a public health concern should consider the declaration of *trans* fats in nutrition labelling.' Such a voluntary recommendation for the labelling of *trans* fats does little to support *trans* fat reduction efforts if only because many countries do not have *trans* fat intake data.

The use of partially hydrogenated oil in food production and preparation still remains on the US Food and Drug Administration (FDA) Generally Recognized as Safe (GRAS) list (10) despite requests that petitioned the FDA to remove it in 2010 (11). The Centers for Disease Control and Prevention has requested the food industry voluntarily to eliminate partially hydrogenated oils in all food production and preparation (12). This may stimulate FDA action to re-evaluate the *trans* fat definition and its inclusion on the GRAS list.

In the US and some Latin American and Caribbean countries, a product labelled 'zero *trans* fat' or '*trans* fat free' should provide consumers with truthful and non-misleading information. However, these countries use the FDA definition whereby 'zero *trans* fat' allows anything for less than 0.5 grams *trans* fats per portion or serving to be labelled 'zero'. The reasoning for this decision is described below.

In 2010, the FDA acknowledged that *trans* fats occur naturally in animal-source food such as dairy products and meat from ruminants. Although data are limited, naturally

occurring *trans* fats do not appear to have adverse human health effects. Because it is difficult to distinguish between ruminant sources and industrial sources produced by partially hydrogenated oils, and it would be impossible and undesirable to eliminate ruminant sources from the US food supply, the FDA concluded that 'consuming zero *trans* fats would require substantial adjustments to the diet that may have undesirable effects' (11). Based on this reasoning, the FDA set an industrially produced *trans* fat threshold at less than 0.5 grams per serving as being equivalent to zero for labelling purposes. In contrast, in the Canadian food regulatory system, food products can only be declared '*trans* fat free' if the content is less than 0.2 grams a portion or serving, and the saturated fat content is less than 2.0 grams per reference amount or serving size.

To translate these food limits into reduced population intakes of *trans* fat, the Task Force for a *Trans* Fat Free America Initiative recommended that countries adopt a limit of less than 2 percent of total fat as *trans* fat in vegetable oils, soft margarines and spreads, and less than 5 percent for all other foods, as well as to encourage complementary measures such as nutrition labelling.

Finalising a uniform definition for *trans* fat is crucial to advise countries on product labelling, to ensure that consumers understand nutrition labels across international borders, to accelerate healthy product reformulation by industry, and ultimately to eliminate *trans* fats from the global food system.

This is a timely issue that the Codex Alimentarius Commission should address when it convenes in Germany this month, early December 2012. Its purpose is to develop a more comprehensive definition for countries to standardise food product labelling within and across international borders, while harmonising these issues with existing free trade agreements (13, 14). Until Codex approves a more comprehensive definition, regulatory agencies such as the FDA cannot assure consumers that this type of fat will be removed from products labelled 'zero *trans* fat' or '*trans* fat free.' Other countries may encounter a similar situation because they must work through their national regulatory agencies. Therefore, it is essential that Codex standardises analytical methods to identify and quantify *trans* fats, and provides an inclusive definition for *trans* fats and *trans* fat free, to enable consistent labelling and monitoring across countries.

Challenge 2
Priority

We must work with governments to prioritise *trans* fat elimination on policy agendas.

The second challenge is political. Specifically, it requires bold leadership and a political commitment by national governments to prioritise *trans* fats elimination on their national policy agendas, and to use all possible policy tools to eliminate *trans* fats from their food environments. These tools include 'hard' policy approaches (meaning, enacting comprehensive mandatory legislation, empowering regulatory agencies, institutionalising a monitoring system, litigating to protect public health). They also can be combined with 'soft' policy approaches (such as investment in education awareness and behavioural change campaigns and supporting voluntary partnerships that produce specific outcomes) (15, 16, 17).

Mandatory food labelling is important legislation for governments to enact, because this raises consumers' awareness about the health risks of significant t*rans* fats consumption, and may speed food industry-wide product reformulation and product disclosures faster than would occur through voluntary-only measures.

National governments should lead the effort to phase out *trans* fats in the global food supply. As public health, nutrition or allied professionals, we must work with governments to facilitate this goal. It requires that governments promote a phased plan for food sector businesses of all sizes to eliminate *trans* fats and substitute healthier oils and fat alternatives in their products. A global ban on *trans* fats may be financially painful for transnational corporations and national and small companies alike. Changes must be coordinated among all industry sub-sectors including suppliers, manufacturers, caterers and retailers, for all product categories.

Industry has reformulated products in countries where regulations have been established. The costs of labelling changes, surveillance of population intakes, and monitoring changes in food environments, should be shared by government and industry, to ensure that reformulated products meet healthy dietary guidelines.

Heightened consumer and citizen awareness about the risks and harmful effects of *trans* fats can help to facilitate the removal of *trans* in food products (8). Therefore, designing comprehensive public health communications campaigns must be a priority for governments and for public health professionals expert in such areas. Campaigns will need to be adequately planned with multi-level strategies (for example, raising awareness at hospitals, conveying messages to children in schools, influencing food preparation in schools and in government facilities). These campaigns and programmes will need to be sustained for several years to change purchasing and eating behaviours. As said, such campaigns can be funded with public as well as private funds, and educational activities will require joint planning between many relevant actors.

Finally, the mass media plays a key role in framing issues and alerting citizens about the various roles that the government, food industry, civil society organisations and consumers have in responding to the problem (18).

Governments and civil society groups need to build public support for a global ban on *trans* fats, which may include sensitising consumers to the rationale for the ban, anticipating societal responses, and preparing for resistance and regulatory backlash (19). Government agencies and institutions can show leadership by establishing institutional policies that support *trans*-fat elimination, providing clear criteria and a timeline for food vendors and caterers to eliminate *trans* fats, and communicating with and educating staff about their expectations (20).

Challenge 3
Knowledge

We must encourage and support governments to monitor the *trans*-fat intake in populations

Governments must monitor the *trans* fat intakes of the general population, as well as of at-risk sub-groups who over-consume highly processed fatty fried foods and fast food meals (1, 12). Some countries have conducted cross-sectional studies or have monitored the *trans* fat consumption trends for populations. *Trans* fat intake can vary widely, ranging from 0.1-0.6 grams a person a day in Korea and Japan (21), to 12.3 grams a person a day in Iran (22), and 2.6 grams a person a day in Costa Rica (23).

However, there is still limited information about the extent of *trans* fat consumption worldwide such as in South Asian countries (for example, Sri Lanka, Malaysia, Indonesia and the Philippines) where the use of hydrogenated and partially hydrogenated vegetable oils for cooking traditional dishes is common (24). There have been efforts to understand barriers, such as a lack of intersectoral collaboration, to monitor population intakes and *trans* fats changes in the food supply in middle-income countries such as Mexico (25) and Costa Rica (26).

While there is awareness about the importance of monitoring more than the mean population's *trans* fat intake, many countries do not have adequate resources or the expertise to conduct rigorous and systematic surveillance (1, 15, 16).Our role as relevant health professionals, working with allies in associated fields, should be to find creative and sustainable ways to help governments monitor *trans* fats consumption.

The WHO regional offices for Africa, Southeast Asia, the Americas, Europe, Eastern Mediterranean, and the Western Pacific should compile the mean *trans* fat intakes of populations in countries where data exist, and identify countries where information is needed. This effort has already started in the PAHO regional office of the Americas.

Challenge 4
Manufacturers

We must call for all food industry sectors to eliminate *trans* fats, and reduce total fat by replacing unhealthy fats with healthy fats

While sources of *trans* fats vary by region and country, one of the most common contributors of *trans* fats is partially hydrogenated oils as used in margarines, spreads and shortenings and in highly processed products such as fried and baked pre-prepared products, and also the partially hydrogenated oils used to fry foods at home and by street vendors, most of all when the oils are re-used (15, 16, 27).

So this fourth challenge is for all industry sectors to configure the appropriate amounts of zero-*trans* replacement fats in processed foods, while at the same time reducing total and saturated fat, and also increasing *cis*-unsaturated fats (including monounsaturated fats) in reformulated products. Unsaturated fats may not be currently available for all food manufacturers and retailers, as the way to replace partially hydrogenated vegetable oils with these healthier oils (27). However, farmers and oil processors appear to be responding to the increased demand for healthier fats and oils (16).

These product changes must be complemented with a strong advocacy push and communication campaign for consumers also to reduce their overall consumption of processed foods that contain high amounts of saturated fat, added sugars and salt. These actions will accelerate the pace at which companies reformulate entire product categories, rather than making changes based on a food category-by-category basis. It will also stimulate governments to work across borders rather than to make progress on a country-by-country basis. Reliance on primarily voluntary approaches to change food environments would likely take several decades.

Challenge 5
Accountability

We must hold governments accountable for coordinating and monitoring the effects of *trans* fat elimination policies on food and eating environments

National governments must enact legislation and allocate adequate funds to support regulatory actions affecting all relevant food industry sectors. A systematic and random monitoring of food and eating environments over time is needed to ensure that highly saturated animal fats and tropical oils are not used to replace inexpensive partially hydrogenated vegetable oils, after legislation has been implemented (1, 27).

Available evidence for how governments have dealt with these challenges varies between countries. In Eastern Europe (for example, Hungary, Poland and the Czech Republic) where voluntary-only labelling or limited reformulation has occurred, *trans* fats remain very high in many processed products and quick-serve restaurant meals, compared with acceptable levels in Denmark and Austria where *trans* fat bans and regulations have been implemented (28). Other western European Union countries (for example, France, Germany, the Netherlands, and the UK) have succeeded in getting *trans* fats reduced in many processed products and in the overall food supply, by implemented more assertive industry-wide measures, and raising consumer awareness (28).

In 2011, the South African Department of Health enacted legislation to limit the industrial *trans* fat content of all oils or fats in foods to a maximum of 2 percent of total calories (29). In Costa Rica (26), the majority of *trans* fats in processed products were replaced by a healthier oil (palm olein) that appears to have a better fatty acid profile than highly saturated palm oil. In Brazil (30) and Canada (31), *trans* fats have been replaced with unhealthy saturated fats in some products, and reductions have been claimed for specific brands and food categories.

Progress needs to be checked

The Canadian government passed mandatory product labelling in 2002, which included mandatory labelling of *trans* fat levels, followed by a *Trans* Fat Task Force report in 2006, which recommended regulatory limits on *trans* fats (31). However, instead of regulating the food industry, the Canadian government requested food manufacturers voluntarily to reduce *trans* fats and instituted a *trans*-fat monitoring program that was subsequently cancelled in 2009. Results of voluntary efforts are mixed. While reductions have occurred within many food categories, there is a need to further reduce *trans* fats in commonly consumed processed products, notably fried and baked goods and tub margarines (32). Another Canadian study conducted after the labelling regulations, but before the *Trans* Fat Task Force report, found that only higher-priced margarines rather than the entire product category benefited from these voluntary labelling changes, which would disadvantage low-income Canadian consumers already anyway at higher risk of coronary heart disease (33).

Voluntary-only policy measures have made limited progress in several Latin American and Caribbean countries. Requests have been made through the PAHO/WHO TransFat Free America Initiative (34), to obtain data from industry sectors (notably manufacturers and restaurants) for reformulated product categories following calls for voluntary *trans*-fat reductions. Some companies did not provide the requested data to researchers so that their claims could be verified (34). Evaluations so far show that voluntary reduction of *trans* fats in selected Latin American countries, independent of mandatory labelling, has not lead to substantial reductions in *trans* fats in the food supply (34).

US food supply monitoring has suggested that several combined interventions, including mandatory labelling, has increased consumer education and awareness, and voluntary industry product reformulation may have led to a reduction in *trans* fat intake from a mean of 4.6 grams a person a day to 1.3 grams a person a day by 2009. These data assume that consumption of the same products remained steady from 2003-2006 until 2009. (35). While these findings are encouraging, regular monitoring of trends in various food industry sub-sectors, while essential, are not happening in most countries.

Evaluations have shown that some US-headquartered snack food manufacturers have substituted healthy fats for *trans* fats in chips (crisps) but not all types of cookies (biscuits) (36).The pre- and post-monitoring of *trans* fats in restaurant chain meals in New York City, where *trans* fats were banned to less than 0.5 grams a serving in 2006, showed substantial declines (37, 38) compared with other cities where no bans or legislation were enacted. Many national fast food and meal chains did not even report *trans* fats for adult and child meals before the mandatory US restaurant labelling law was passed in 2010 (39). Additionally, *trans* fat labelling will remain voluntary despite mandatory calorie reporting starting in 2013.

Coordinating and monitoring the effects of *trans* fat elimination will require a discussion of what has worked effectively elsewhere. As public health professionals, it is our role to facilitate these discussions.

Challenge 6
Action

We must learn from advocacy work, and apply insights from successful social and public health movements.

Placing a *trans* fat ban onto the WHO agenda is an important first step in making progress. WHO has initiated a consultation to develop a Global Action Plan to

Prevent Non-Communicable Diseases for 2013-2020 (40) and has requested public input to identify 'best buys' to reduce mortality 25 percent by 2025 (the '25 by 25' goal).

So, many groups, including the public health and nutrition communities, have an extraordinary window of opportunity to develop and implement a coherent strategy (harmonised with other relevant strategies and monitoring frameworks) to work toward a *trans* fat free world. The revised first draft to the WHO 'Zero Draft Action Plan' (40) will be submitted to the WHO Executive Board next month, in January 2013, and there will be an informal online consultation during 2013.

Once the issue is on the global agenda, there needs to be a strong organisation to advocate for and coordinate efforts of many groups within and across countries. This is a issue that the World Public Health Nutrition Association could spearhead, to engage and mobilise its members, and its networks, to implement successful strategies to eliminate *trans* fats by adopting or adapting approaches such as those used in Denmark (28) and New York City (37, 38, 41).

The process of persuading decision-takers and policy-makers to support a course of action for specific policies and actions will involve strategic organising, raising funding and in-kind resources, building a power base, and applying a range of skills to support concerted actions. A strong public health movement that encourages many groups working in a coordinated and systematic way is needed to support a global ban on *trans* fats on national and regional policy agendas.

Five components are essential for civil society groups and public health advocates to build a successful movement. These are (42):

- Organise an authentic support base
- Cultivate strong leadership
- Develop a clear vision
- Build and support strategic alliances and social networks
- Develop and sustain an advocacy infrastructure

It will also be important to assess the national and global advocacy capacity and the potential policy impact of a movement that is specifically focused on a global ban on *trans* fats, and to evaluate the impact of advocacy. There is also a need to apply insights from other movements that have banned substances harmful to human health, such as national and international agreements and treaties that have been used to support bans on tobacco (43) and pesticides (44).

Conclusion

We recommend that governments in concert, enact *trans* fats bans rather than accepting voluntary approaches, in order effectively to eliminate *trans* fats in all processed foods. As stated in the key points above, the rationale for this approach is that a ban will:

- Cover the full range of food products in a country or region;
- Benefit people who do not read food labels or who live in countries where *trans* fats are not labelled on food products.
- Apply equally to all food products, whether domestic or imported from other countries.

Importantly, some food products with higher *trans* fat content are likely to remain unchanged in the absence of a regulated limit. Examples are low-cost products; highly palatable, indulgent foods consumed for reasons other than nutritional value, such as cakes and pastries, and foods for which nutrient information is not accessible, such as generally in poorly regulated countries, and everywhere for food sold in restaurants or by street vendors.

Planning and implementing a coordinated strategy must include a uniform definition for *trans* fats and clear language articulating the elimination of *trans* fat in the WHO's global monitoring framework and indicators. These steps will help all relevant sectors within countries to establish an elimination goal and a strategy to achieve it, as well as governments across regions to prioritise *trans*-fat elimination as part of the WHO's '25 by 25' to reduce chronic non-communicable disease mortality 25 percent by 2025.

Needed: vision and determination

With vision and focused determination, it is possible to mobilise available resources to coalesce around a global ban on *trans* fats. The public health and nutrition communities throughout the world can address the challenges associated with the WHO and PAHO *Trans*-Fat Free Americas Initiative that countries achieve a 'virtual elimination' of *trans* fats from their food supplies.

This commentary presents a case for public health professionals, practitioners, academics, industry and government representatives, funders, public-interest non-governmental organisations and consumer advocates, to collaborate to support a global *trans*-fat ban. Coordinated actions to remove this harmful substance from our

food and eating environments will be able to contribute to reducing chronic non-communicable disease mortality by 2025.

Deliberation about a global ban will take time. But we must still address the following challenges and play an active role in the resolution of each one of them. Here is how we can make progress:

Prominent nutrition and public health organisations should petition their own countries' regulatory agencies, and the FAO/WHO Codex Alimentarius Commission, to develop and disseminate an updated, inclusive and comprehensive definition of *trans* fats that clearly identifies partially hydrogenated vegetable oils and includes *trans* fat in the list of mandatory nutrients for nutrition labelling.

Bottom lines

We in the public health and nutrition communities also need to press for the following policies and actions:

- Governments must prioritise *trans* fat elimination on national policy agendas.
- Governments should coordinate the monitoring and reporting of the *trans*-fat intake in populations, with the assistance of research institutions, the food industry, and public-interest non-government organisations.
- All food industry sectors must work toward reducing total fat across many product categories, while also replacing unhealthy fats (saturated, partially hydrogenated, *trans*), with healthy fats (monounsaturated and polyunsaturated).
- Governments must coordinate and monitor the effects of *trans*-fat elimination policies and actions on food and eating environments, and support actions that should include the monitoring of *trans* fats, into the forthcoming Global Action Plan to Prevent Non-Communicable Disease for 2013-2020.
- Advocacy efforts need to apply insights from other successful social and public health movements.

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