

**Case study: Brief**

# IMPLEMENTING AND ENFORCING TRANS FAT (TFA) ELIMINATION POLICY IN DENMARK

**TYPE OF POLICY:** 2% iTFA limit**DATE PASSED:** 2003**IN EFFECT:** 2004**TOTAL COVERAGE:** 5.9 million people**ENFORCEMENT APPROACH:** Risk-based monitoring and enforcement**LIVES SAVED PER YEAR:** 462<sup>1</sup>

## Context and background

Between 1994 and 2003, the Danish Nutrition Council published several reports on the health risks of iTFA and urged the press to pressure the food industry and politicians to act on elimination. Consequently, Denmark became the first country to introduce a 2% iTFA limit for oils and fats in both domestic and imported foods — effectively banning TFA in 2003. A transitional 5% iTFA limit was instated for the remainder of 2003, and the 2% limit came into full effect on January 1, 2004. Products manufactured before the effective date could be placed on the market until the shelf life expired. In 2021, the European Union (EU) enacted an iTFA limit of 2%, which replaced the Danish regulation.

## Implementation

Implementation in Denmark was facilitated by broad consensus and cooperation between academia, government, industry and civil society. The Danish Veterinary and Food Administration (DVFA) began dialogues with food industry very early to encourage cooperation, while academia shared their expertise and consulted on technical issues. Thanks to these efforts, the food industry had already achieved a degree of compliance by the time the limit was adopted. By 1999, all of Denmark's margarine producers had eliminated iTFA in a competition to increase their market share. While some companies producing shortening or fats for deep-frying faced challenges during 9-month transition period, they still managed to comply by the effective date. A few small confectionary companies struggling to reformulate were granted an exception to extend their transition period for compliance by around one year.

### ✓ Key takeaways

- Early dialogue with industry limits surprises and facilitates cooperation and compliance with regulations.
- Partnership between government and academia facilitates implementation and enforcement.
- Monitoring is most important in the first years of implementation, when risk of non-compliance is highest.

## Enforcement

Food inspection units check for compliance with all food legislation in Denmark, including the iTFA limit. Initially, control campaigns (sampling and analyzing food products) were conducted regularly, but since compliance was consistently high, only intermittent risk-based controls have been conducted since 2013.

<sup>1</sup> Wang, Q., Afshin, A., Yakoob, M. Y., Singh, G. M., Rehm, C. D., Khatibzadeh, S., ... & Mozaffarian, D. (2016). Impact of nonoptimal intakes of saturated, polyunsaturated, and trans fat on global burdens of coronary heart disease. *Journal of the American Heart Association*, 5(1), e002891



Prior to enactment of the regulation, the DVFA laboratory introduced new methods to ensure accurate testing, which have been improved and standardized over time. Over the years, DVFA identified high-risk products (e.g., margarine, frying fat and baked goods which are targeted for testing.

## Outcomes

In 2005, 89% of sampled products were compliant, increasing to 94% in 2013. Average iTFA intake decreased in all age groups and genders; most of the population now consumes less than 2.2 grams of TFA per day, the maximum recommended by WHO. Studies on the Danish iTFA limit

found that it was successful at lowering mortality attributable to cardiovascular diseases by 10%. One study found that iTFA content was generally reduced in margarines, shortenings, French fries and frozen potato products by increasing monounsaturated fats, resulting in significantly healthier products.

## Strong science, free press

Mounting pressure from scientists and the media throughout the late 1990's enabled Denmark become the first country in the world to adopt a best practice TFA elimination policy. The press gave extensive positive coverage to the new regulation, and as a result, no media outreach or public campaigns were required to spark industry change. Once the regulation was adopted, laboratory support from the National Food Institute at the Technical University of Denmark (DTU) was essential for Denmark's success in enforcing the iTFA limit, and DTU's ongoing scientific research continues to generate convincing evidence on the harmfulness of iTFA.

## Why eliminate trans fat?

- ✓ Industrially produced *trans*-fatty acids (iTFA) are man-made compounds still used in some countries as a substitute for butter or lard in fried food, deep-fried food, baked goods and spreads estimated to cause 500,000 deaths per year.<sup>2</sup>
- ✓ iTFA can be eliminated and replaced with healthier alternatives, and many governments have already successfully protected their people.
- ✓ Countries that do not ban iTFA are at risk of having products containing iTFA dumped on their market.
- ✓ Since all people in all countries must be protected from the risks of iTFA consumption, the World Health Organization has called for the global elimination of iTFA with the REPLACE initiative.



**Read the full report:** [Implementing and Enforcing Trans Fat Elimination Policies](#), with case studies including Thailand, Chile, Singapore, Denmark, Saudi Arabia and the European Union

<sup>2</sup> Wang, Q., Afshin, A., Yakoob, M. Y., Singh, G. M., Rehm, C. D., Khatibzadeh, S., ... & Mozaffarian, D. (2016). Impact of nonoptimal intakes of saturated, polyunsaturated, and trans fat on global burdens of coronary heart disease. *Journal of the American Heart Association*, 5(1), e002891.