

Evolution of Trans-fatty acid consumption in Thailand and strategies for its reduction

Elimination of trans-fatty acids (TFAs) is one of the World Health Organization's (WHO) main targets in tackling the burden of non-communicable diseases (NCD). TFAs have many adverse health effects through their altering effect in cholesterol balance within the body. WHO recommends that TFA intake should not exceed 1% of total energy intake. Many countries globally are introducing interventions to reduce TFA consumption.

In Thailand, cardiovascular disease (CVD) death rates have doubled in the past 50 years. Thailand has increased dietary CVD risk rates through high levels of saturated fatty acids (SFAs) and TFA consumption. As a result of this, the reduction of TFAs in food was set as a primary goal in Thailand's aim to achieve the United Nations' Sustainable Development Goals target for NCD control. In 2017, a situation analysis was conducted by The Institute of Nutrition, Mahidol University, jointly with the Thai Food and Drug Administration to develop strategies and implement measures to eliminate industrial TFAs in Thailand. Thailand achieved best practice status for TFA elimination policy as per the 2019 WHO rating. This review paper aims to describe the current TFA climate within Thailand and to highlight TFA elimination measures which have been successful within the country.

Results of the review included the fact that Thailand has been successful in eliminating TFAs from food by banning the production and importation of PHOs and its products. Post-marketing monitoring of TFA content in food has also been successful. The review also elucidated the fact that, a main factor in the achievement of TFA elimination of foods was *"the partnership between public and private sectors, professional associations, and consumers, taking into account the strong scientific evidence about the negative impact of TFAs intake on health"*.

The review identifies that one notable limitation of reformulation of products to reduce TFAs is that this may result in an increased reliance on products which are high in SFAs, and that monitoring of both forms of fatty acids is necessary to successfully reduce CVD risk.

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