

Abstract

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Trans fatty acid in the New Zealand Food Supply: A targeted survey to inform policy in New Zealand

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The World Health Organization (WHO) has a global initiative to eliminate industrially produced trans fatty acids (iTFA) from the food supply⁽¹⁾. Formed via the partial hydrogenation of vegetable oils to create hardened vegetable fat, iTFAs can be found in processed foods including fried foods and baked goods. Even small amounts of iTFAs can increase the risk of coronary heart disease. These can be successfully eliminated from the food supply with the WHO recommending a ban on partially hydrogenated oils or to limit iTFA in food to a maximum of 2% of total fat⁽¹⁾. As of June 2024, over 50 countries had one of these regulatory measures in place. The trans-Tasman Food Regulation System is considering policy options to ensure iTFAs are eliminated or reduced as much as possible from the food supply in Australia and New Zealand. Up to date data on the presence of iTFAs in the New Zealand food supply is needed to inform this work as this was last measured in New Zealand in 2007/09 for packaged food and 2013 for fast food. The aim of this survey was to determine the presence and levels of iTFAs in the New Zealand food supply. Since it is not possible to analytically quantify iTFA separately from trans-fats that occur naturally in food products of ruminant origin, such as dairy, beef and lamb products, the sampling plan was designed to target products likely to contain predominately iTFA and adapted from the WHO global protocol for measuring trans fatty acid profiles of foods⁽²⁾ to the New Zealand context. The survey analysed the trans-fat content of 627 products across national supermarkets (275 products), international supermarkets specialising in imported foods (149 products) and ready-to-eat food outlets (203 products from three regions). One hundred and six products (16.9%) contained trans-fat that exceeded 2% of total fat. Twenty-five (4%) of these products were likely to contain predominately iTFA. The 25 products predominately containing iTFA included eight products from national supermarkets (mostly bakery products), nine products from international supermarkets (mostly curry pastes and biscuits) and eight products from ready-to-eat food outlets (all fried foods). The median trans-fat content of these 25 products was 3.2% of total fat (assumed to be all iTFA). Over a third of these products contained more than double the recommended WHO limit, with five products containing over four times the limit and one product containing more than 16 times the WHO limit. The remaining 81 products may contain some iTFA, but we were unable to quantify the amount. The results from this survey will be used by New Zealand Food Safety to inform the consideration of regulatory options for reducing iTFAs in foods in New Zealand.

Keywords: Industrially produced trans fatty acid; New Zealand Food Supply; monitoring; analytical survey

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