MOVING TOWARDS TRANS FAT FREE BAKERY PRODUCTS

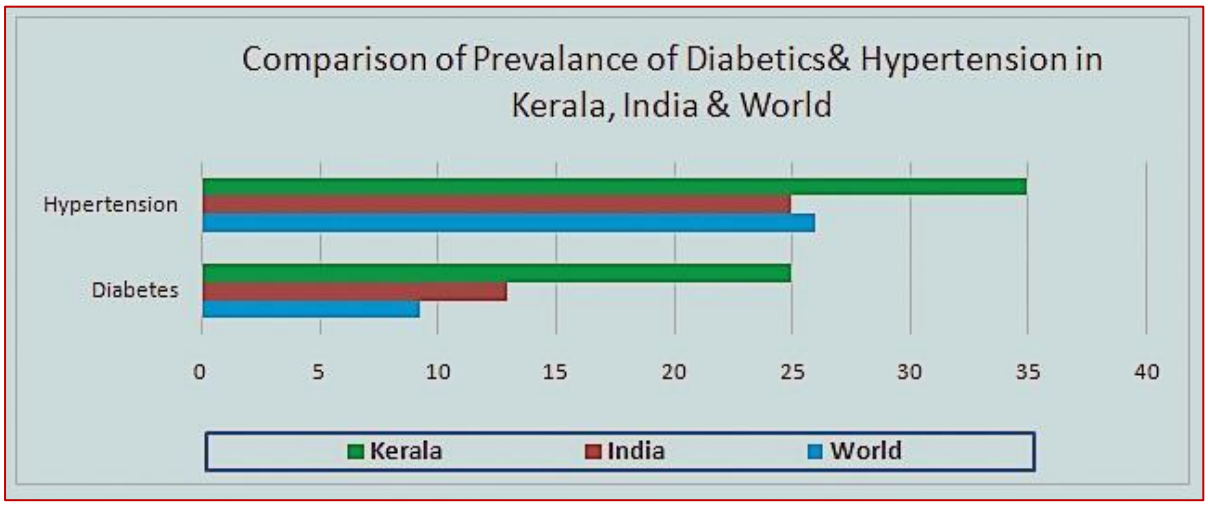
A CASE STUDY OF KERALA

India has made a commitment to eliminate trans fat from all foods by 2022, ahead of WHO deadline of 2023. But, at the national level, the respective regulations were stuck at FSSAI/Ministry of Health level for years and are now waiting to be notified anytime. Even none of the states has achieved any substantial progress so far in meeting this target. However, Kerala has made some substantial progress and is moving towards trans fat free bakery products. CUTS did a research and documented the initiatives. So, this can be a model for the entire country, a model which can be replicated in other states as well. This case study describes Kerala's initiative to combat trans fats, aiming to lower the prevalence of NCDs among the state's residents by curbing the use of trans-fatty acids in the preparation of food in the food outlets and bakeries across the state.

BACKGROUND

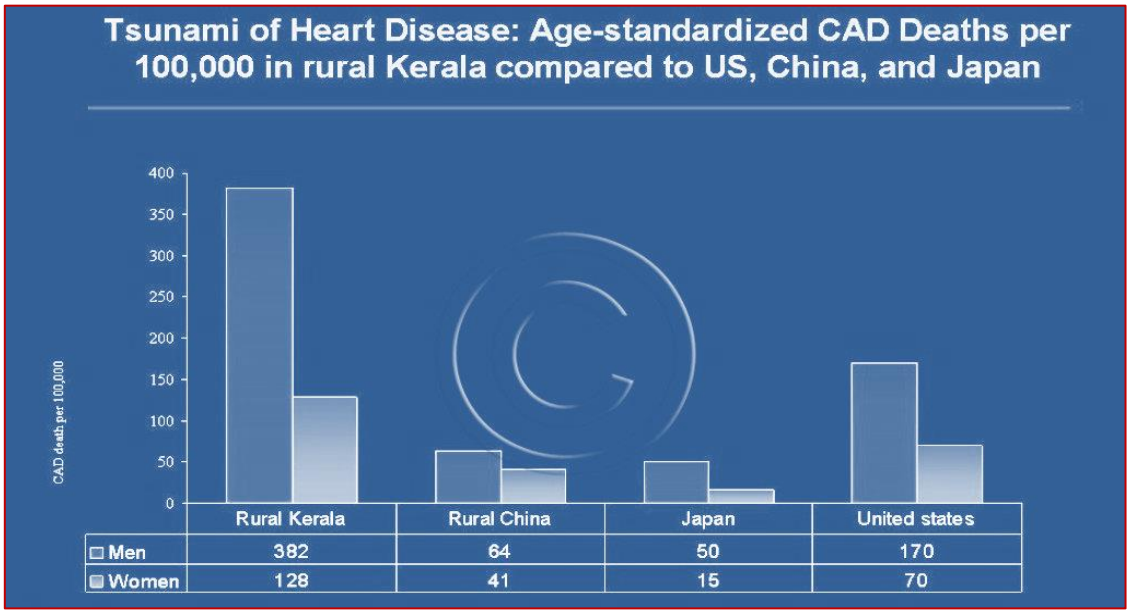
Kerala has the highest overall life expectancy at birth, at 74.9 years – 72 for men and 77.8 for women, when compared to other Indian states, according to the Sample Registration System (SRS). General improvement in overall health care facilities across the state is one of the main reasons for the continuing increase in the proportion of the population of senior citizens. However, at the same time, Kerala is positioned at the topmost in epidemiologic transitions that reflect changes in the causes of death from infectious diseases to non-communicable and has exerted drastic effects on the morbidity and mortality tables of the state. The rapid urbanisation and transformation have penetrated even to the grassroot levels of the state, irrespective of the region and economic strata, drastically influencing the lifestyle of the population and making the state fertile for non-communicable diseases (NCDs) to flourish.

As per government data, the mortality and morbidity due to lifestyle diseases began to exceed than those due to communicable diseases and reproductive and child health issues combined. It is estimated that 52 percent of the total deaths in Kerala are between the productive age group of 30 and 59 and are due to one or the other NCDs. This makes NCD an emerging health challenge within the State.[1] A study conducted by Achuthamenon Centre for Health Science Studies in 2017 revealed that one in five people in Kerala is diabetic and one in three is hypertensive.[2]



Source: http://arogyakeralam.gov.in/2020/03/23/ncd-non-communicable-diseases-control-programme/

To make matter worse, coronary artery disease (CAD) mortality rates in Kerala are higher than those of industrialized countries and 3 to 6 times higher than Japanese and rural Chinese. Approximately 60 percent of CAD deaths in men and 40 percent of CAD deaths in women occur before the age of 65 years in Kerala.[3] This, along with the poor control rates and high out of pocket expenditure for the management of this diseases, makes Kerala the hub of NCDs in the country.



Source: https://cadiresearch.org/topic/asian-indian-heart-disease/cadi-kerala/kerala-cadi

According to the recent Lancet Commission report, NCDs are causing more deaths and disability among the world's poorest billion people. NCDs result in seven out of every 10 deaths globally and people with NCDs show increased susceptibility to severe Covid-19 infection, which can lead to death.[4] These findings are a cause of alarm.

ARTIFICIAL TRANS FATS & NCDs

One significant diet-related risk factor for NCDs is excessive intake of artificial trans-fatty acids. These trans fats can have harmful health effects when consumed even in small amounts. According to Harvard School of Public Health for each extra 2 percent of calories from trans fat consumed daily, the risk of coronary heart disease increases by 23 percent. Such artificial trans fats are usually present in partially hydrogenated vegetable oils that are commonly found in baked and deep-fried food products. Various other studies too have shown that increased artificial trans-fat intake is causally associated with an increased risk of heart disease and the medical and scientific studies have proved that any reduction in consumption, if not complete elimination of artificial trans fat, therefore. will lead to lower risks of developing heart disease.

Trans fats can be fully eliminated and swapped with healthier oils and fats without even altering the taste or cost of food. Its elimination is feasible, cost-effective and life-saving and a number of countries have already taken action to ban them completely and protect their people. In 2011, India passed regulations that set a trans fat limit of ten percent in oils and fats, which was further reduced to five percent in 2015. In December 2018, the Food Safety and Standards Authority of India (FSSAI) proposed reducing this limit to two percent and eliminating industrially-produced trans fat in the food supply by 2022, a year ahead of the global target. In August 2019, the FSSAI proposed aligning India's regulations with global best practice and notified for public comment draft regulations that apply the two-percent trans fat limit to all food products by January 2022. The draft is finalised based on comments and is cleared by the scientific panel and the same will be notified soon.

ARTIFICIAL TRANS FATS IN KERALA

Artificial trans fats are used extensively in Kerala by the food industries, like any other state in India, because it promises a longer shelf-life and is very cost effective. They are largely present in vanaspati ghee, margarine and bakery shortenings and were once widely present in Kerala like elsewhere in food products produced in the local eateries in popular brands of cakes, bakery products, cookies and ice creams. Due to the lack of mandatory trans fat labelling on food items in the country, it is difficult for anyone to know if a particular food product is trans fat free or not.

Reheating and repeated use of trans fat oils is another concern. Such reckless practice is commonly seen in roadside food outlets, hotels, restaurants and even in our kitchens. The potential adverse effects that are associated with such practice are quite insidious as repeated high temperature of oils while preparing food items leads to a further increase in consumption of trans fats. Moreover, it is estimated that there are over 22,000 bakery product manufacturing units in the small state of Kerala and this proves how much the bakeries influence a consumers eating habit in Kerala.

EFFORTS OF KERALA COMMISSIONERATE OF FOOD SAFETY TO COMBAT TRANS FAT

Kerala adopted a three-pronged strategy to combat the menace of trans fat. This strategy includes a random sampling of food items, creating awareness among stakeholders and enforcement. The Food Safety Department along with Health Department launched an initiative to enforce dietary guidelines involving the reduction of trans fat, salt and sugar in commercially available foods in the State. The department also launched a 'Healthy Shelf' programme as part of its effort to cut down trans fat consumption in the state. The department for implementing the same identified few bakeries for the pilot programme. The healthy shelf displays interesting items made of locally available healthy raw materials. The plan is to introduce products with low salt, low sugar, low-fat treats to the consumers.

'Healthy Shelf' at St Michels Bread Store, Trivandrum

A small but famous bakery in the State capital prominently displays a special shelf dedicated to trans fat free healthy sweet treats. This healthy shelf displays interesting items mostly steamed products such as Ela Ada, Kozhukatta (traditional Kerala delicacy made with rice flour, jaggery and coconut, steamed in banana leaves), or even going for steamed puffs. However, the price of the same is a little high, Rs 2 to Rs 4, as compared with the easily available vada or banana fries on the road side.

The Commissionerate of Food Safety had also prepared an action plan that was finalised after consultation with all relevant stakeholders and experts from the World Bank (WB) and World Health Organisation (WHO). To coordinate several activities being planned and for enforcement, the Commissionerate has also appointed an officer at the state-level. In fact, Kerala is the first state to come up with an action plan to generate public awareness of the harmful effects of trans-fatty acids in commercially available food items and to encourage the local food industry to meet the current statutory limits set for trans fats.[5]

Also, regular sensitisation and training workshops by the state FSSAI have begun to bear fruits and many bakeries within the state are coming forward to accept the change. They have begun to realise that their initial perception that producing trans fat free food items is considerably more expensive than regular TFA containing food is just a misconception. In bakery products, one of the main requirements is that the fat should have some structure and solidity. Most bakery owners are now convinced that this can be achieved by using oils such as palm oil, palm kernel oil and coconut oil, thus allowing manufacturers to swap expensive bakery blends for commodity-based ingredients.[6]

CHALLENGES ENCOUNTERED

According to the Food Safety Officer in-charge of trans fats in Kerala, there are many barriers to promoting trans fat free food products among manufacturers and consumers. Finding a suitable trans fat substitute that is both healthy and cost-effective, when compared to trans-fat loaded vanaspati ghee, margarine and bakery shortenings, is a major hurdle to promoting it among the manufacturers.

Currently, small and mid-size bakery manufacturers find it be more challenging to implement than larger manufacturers and may need more targeted technical assistance. For a manufacturer, lack of demand from the consumers, finding suitable healthy alternative to TFAs and fear of lesser shelf life of food products act as hindrances.[7] However, there are a few initial problems associated with production of such bakery products. For instance, there arises a need to re-engineer cake's blend and overall cake formulation. Any carelessness while mixing and identifying the exact proportion would result in weak structure and lesser shelf life. But, that can be easily addressed with a bit of training. Besides, low availability of healthier alternatives for TFAs within the country, in contrast to abundance of cheaper trans fat supplies, acts as a hindrance.

Even when such manufacturing challenges are slowly getting addressed, the greatest challenge within the state is poor consumer awareness. Factors such as too little information and education about the trans fats, non-availability and failure to recognise trans fat free food products and inadequate/no food labelling on the packaged food items still act as major hurdles. Even an informed consumer is, therefore, left in the lurch as the food products and oils they purchase often do not contain nutrition labels, making it impossible for them to make informed purchasing decisions based on the quality of the fat.

Likewise, comparatively though food regulators in Kerala is much ahead and has displayed noted improvement in food safety, most of the food laboratories not just within the state but across the country still lack the capacity to measure industrially-produced trans fats. Especially when 90-percent of products like the vanaspati is coming from other states, the food regulators in Kerala are forced to remain silent as they do not have the equipment to check the level of trans fat in the mobile lab at check posts. Inadequate staff, shortage of finance and deficiencies in the laboratory infrastructure are acting as a challenges in the fast-changing landscape of the food processing industry.

DISCUSSION AND RECOMMENDATIONS

This case study of Kerala's efforts to combat the menace of trans fat illustrates successful implementation of nutrition guidelines and action plans to achieve public health benefits. The strengths of Kerala Commissionerate of Food Safety include having clear objectives, setting realistic requirements in consultation with Department of Health and following targeted approach with food outlets and bakers, doing detailed background research, reducing barriers to implementing the switch to alternatives, and maintaining the momentum among the

stakeholders. Kerala's experience can serve as a useful model for other states in the country and thereby encourage the reduction of usage of trans fats.

It needs to be realised that what the market produces is presumably what consumers demand. Food producers play only a secondary role in the determination of consumer's food choices. They just manufacture and sell foods with price, taste and health attributes that consumers find most desirable. Therefore, the strategy largely lies in raising consumer awareness and generating market demand. Labelling requirements and public awareness campaigns, therefore, seem eminently reasonable. Apart from such interventions, the government can also play a positive role in other ways. They need to encourage research that should be focused on the discovery and application of more innovative TFA substitute.

It is still too early to notice or claim any positive changes in health outcomes or risk factors arising from the trans fat guidelines and action plans in the state. It remains to be seen if these positive changes will indeed effectively prevent NCDs and particularly heart disease and lower mortality among the people in Kerala.

ENDNOTES

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