Can reformulating everyday processed foods help to combat chronic disease?

Written by

Mathilde Gressier

Published

22 March 2021

Category

Health

Key topics

Health

Changing the nutrient profile of processed foods could improve the health of entire populations, but it must be part of a broader strategy to be effective

Across Europe, poor diet is a factor in one in four deaths from chronic diseases such as diabetes, heart disease and cancer. Millions of people are eating the wrong sorts of food for good health. Indeed, almost half (46 per cent) of all the food bought in Europe is now processed and over a quarter (26 per cent) is classified as ultra-processed: made with cheap ingredients such as starches, oils, saturated fats and sugars, with additives like colours, flavours, and emulsifiers. They make us more likely to overeat, but there is nothing nutritious about them. Think packaged snacks, industrial-made bread and desserts, ready meals and breakfast cereals.

They are convenient, extremely tasty, cheap, aggressively marketed, and available everywhere. But they are terrible for our health. Recent studies have implicated ultra-processed foods in obesity, as well as a range of non-communicable diseases

including cancer, heart disease and even premature death.

To address these worrying trends, we need to acknowledge the way we eat is heavily influenced by the environment in which we make our food choices. Whether it's the array of fast-food outlets on our high streets, the in-store promotions of our favourite biscuits, or the junk food adverts on social media, we are constantly being "nudged" to consume unhealthy foods.

> Major reductions in calories are not possible without changing the taste and texture of products

To produce long-term improvements in diets, we need to go beyond changing individual behaviour and create a food environment that makes it easier to choose the healthy option. And since processed foods are largely a response to consumer demands for convenience, taste and affordability that are here to stay, then reformulation (changing the nutrient content to make them healthier), guided by targets and supported by incentives, must be part of the solution.

Since the early 1980s, the idea of reformulation has gained traction. It aims to improve the composition of foods by including less salt, sugar, unhealthy fats and overall calories, or adding beneficial ingredients like fibre and protein. Reformulation efforts targeting single nutrients have had some success in many countries. For example, the UK's salt reduction programme led to a 15 per cent reduction in the population salt intake between 2000 and 2011. But what works and what doesn't? What are the lessons learned? Until recently, there has been no systematic review of strategies used across the world.

The effect of reformulation strategies

Our recent research examined the impact of food reformulation on consumer choice, dietary intake, and health in 16 high- and upper-middle-income countries. Our analysis of 59 studies found reformulated products were generally accepted, with most studies (73 per cent) reporting an improvement in diet.

Taken together, reformulation strategies led to average declines in population salt intakes of 0.57g per day and decreases in trans-fatty acids of 40–80 per cent. Importantly, bans on trans-fatty acids were linked with a decline in cardiovascular disease death rates of 4.3–6.2 per cent.

However, despite its promise, it seems reformulation is not the silver bullet for tackling obesity. Part of the problem is nutrients are often substituted with others of the same energy density, and major reductions in calories are not possible without changing the taste and texture of products.

Nevertheless, what is clear is that reformulation could have a large impact on public health if it has adequate scope and intensity – targeting everyday foods (to limit switching to less healthy options) and is complimented by wider education initiatives such as public health campaigns and warning labels.

Taxes, labels and incentives

The challenge is to work with industry to deliver a healthier food supply. A competitive and productive food industry is vital, but it must not be at the expense of population health.

There is a strong rationale for using taxes (e.g. on sugary drinks and snacks), mandatory nutritional labelling, and other strong incentives to encourage industry to reformulate and create an environment in which people are presented with healthier options. We also know that stronger restrictions on unhealthy food advertising, with a focus on digital technologies that are used to target children, will encourage compliance from manufacturers. The growing interest of consumers in the healthiness of foods and how they are sourced may be the best motivator for companies to change.

> Processed foods are largely a response to consumer demands for convenience, taste and affordability

But the technological challenges should not be underestimated. Simply reducing or removing salt or sugar while maintaining product taste, texture and shelf life, as well as consumer liking, is no easy task. We've seen some quick wins with the success of the UK's Soft Drinks Industry Levy in turbo-charging reformulation in sugary drinks (reducing sugar levels and sales by 44 per cent between 2015 and 2019). But voluntary efforts in other categories have been slow. Ministers wanted to see 20 per cent less sugar in food products by 2020, but industry delivered a drop of only three per cent. Governments must provide incentives to foster innovative solutions to these challenges.

Ultimately, however, reformulation is only part of the solution. Public health policies and marketing incentives, such as subsidies for fruits and vegetables and tax breaks for local food growers, are needed to make fresh and minimally processed foods more valued, available and affordable. At the end of the day, we need to change our eating culture so people have the support and time to cook fresh meals, and children learn to like healthy foods.

Amid the COVID-19 pandemic, changes in work practices, and the threat of a global food crisis, a holistic strategy to improve nutrition and health has never been more important.

This article draws on findings from "What is the Impact of Food Reformulation on Individuals' Behaviour, Nutrient Intakes and Health Status? A Systematic Review of Empirical Evidence" by Mathilde Gressier (Imperial London), Boyd Swinburn (University of Auckland), Gary Frost (Imperial London), Alexa B. Segal (Imperial London) and Franco Sassi (Imperial London).

Written by

Mathilde Gressier

Published

22 March 2021

Category

Health

Key topics

Health

Main image: nadia_bormotova / iStock / Getty Images Plus via Getty Images.

Receive the latest insights from Imperial Business School

Sign up now

Coronavirus and obesity: two pandemics have met

Obesity is the second biggest factor for COVID-related hospital admissions; tackling the chronic obesity pandemic will be key to tackling current and future viral pandemics

Read more

Future of food: Insights from experts at Imperial London

In January 2021, Imperial's Centre for Translational Nutrition & Food Research brought together experts from around Imperial to work on multidisciplinary holistic solutions for the future of food.
Read more

Share

About Mathilde Gressier

Research Postgraduate
Mathilde Gressier is a PhD candidate in Nutrition & Health Economics, sitting jointly between the Section of Nutrition Research of the Department of Metabolism, Digestion & Reproduction at Imperial College London, and the Centre for Health Economics & Policy Innovation at Imperial College Business School.

Her research focuses on identifying the impact of food reformulation policies on populations’ health.