

FDI Creme Global Reformulation Project Case Study



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About the Project

Food Drink Ireland (FDI), formerly Food and Drink Industry Ireland (FDII), is the main trade association for the food and drink industry in Ireland. Reformulation of foods and beverages by the food industry in Ireland is not new. It is done to achieve several corporate objectives, including to improve the nutritional content of their products.

Nutrition information related to salt, sugar, fat, saturated fat, and calories of the affected foods over time were collected from the FDI members. Nationally representative Irish food consumption data was altered to reflect these nutritional changes over time. Nutritional intakes in the Irish population were calculated before and after reformulation in order to quantify the impact of these changes.

This project quantified the impact that voluntary reformulation efforts of the food industry had on the Irish population's nutrient intake. Nutrient composition data on reformulated products were collected from 14 major food companies for two years, 2005 and 2012. Probabilistic intake assessments were performed using the Irish national food consumption surveys as dietary intake data. The nutrient data were weighted by market shares replacing existing food composition data.

Services Provided

Domain consultancy
Safe Data Collection
Data wrangling

Product Used

Creme Nutrition

Solution

Nutrition information of the participating companies' food and beverage products over time were collected from the FDI members. Nationally representative Irish food consumption data was altered to reflect these nutritional changes over time. Nutritional intakes in the Irish population were calculated before and after reformulation in order to quantify the impact of this change.

Food consumption data

Analysis was performed using data from the National Pre-School Nutrition Survey (NPNS; 2010–2011), National Adult Nutrition Survey (NANS; 2008–2010), National Teens Food Survey (NTFS; 2005–2006) and the Irish National Children's Food Survey (NCFS; 2003–2004) (IUNA 2005, 2008, 2011, 2012). All four surveys recorded food and beverage intake data using food records of the participants over seven and four consecutive days, including at least one weekend day. The diet of the children was recorded with help from a parent or guardian and the diet of the pre-school children was recorded by a parent or guardian.

Data on reformulated products

Data on reformulated products on the Irish market were collected at the individual product level. The data contained information on product name, product description and nutrient composition in grams per 100 grams of the product as consumed. The nutrients focussed on were sodium, sugar, saturated fat, as well as total fat and energy; the nutrients mainly being targeted for reformulation.

Creating weighted distributions of concentrations

A scenario was simulated which took account of just the products submitted by the participating companies where the relative volume sales of each product within a food category acted as weightings in nutrient distributions. Another scenario was also simulated as though the other products on the market had not reformulated at all (nutrient values kept constant between baseline and scenario). To estimate the size of the rest of the market for a given category, volume sales per category, per year were procured from Euromonitor.

Intake assessments and statistical analysis

Probabilistic intake assessments were run for baseline year (2005) and follow-up year (2017) for all four dietary surveys separately, using the Creme Nutrition model. For each eating event recorded in surveys, the corresponding nutrient composition values were multiplied by the amount of food consumed. This was done per eating occasion per day for every survey participant. From these, distributions of intakes at the population level were compiled at baseline and intervention and the distributions at both time points were statistically analysed.

Results

Reductions were observed in all nutrients when all food and beverage categories were averaged:

- 1.6% reduction in energy
- 0.3% reduction in total fat content
- 0.1% reduction in saturated fat
- 28% reduction in sodium content
- 8% reduction in sugar



Publications

The evolution of food and drink in Ireland 2005-2017

[https://www.google.com/url?q=https://www.fooddrinkireland.ie/Sectors/FDI/FDI.nsf/vPages/Publications~the-evolution-of-foodand-drink-in-ireland-2005-2017-20-02-2019/\\$file/The%2Bevolution%2Bof%2Bfood%2Band%2Bdrink%2Bin%2BIreland%2B2005%2B-%2B2017%2B-%2BReformulation%2Band%2BInnovation%2B-%2BSupporting%2BIrish%2Bdiet-s.pdf&sa=D&ust=1575049810270000&usg=AFQjCNEZkgmVDvHcCamsIMwWUfAeoCLoNw](https://www.google.com/url?q=https://www.fooddrinkireland.ie/Sectors/FDI/FDI.nsf/vPages/Publications~the-evolution-of-foodand-drink-in-ireland-2005-2017-20-02-2019/$file/The%2Bevolution%2Bof%2Bfood%2Band%2Bdrink%2Bin%2BIreland%2B2005%2B-%2B2017%2B-%2BReformulation%2Band%2BInnovation%2B-%2BSupporting%2BIrish%2Bdiet-s.pdf&sa=D&ust=1575049810270000&usg=AFQjCNEZkgmVDvHcCamsIMwWUfAeoCLoNw)

Soft drinks are leading with less

[https://www.google.com/url?q=https://www.fooddrinkireland.ie/Sectors/FDI/FDI.nsf/vPages/Publications~the-evolution-of-foodand-drink-in-ireland-2005-2017-20-02-2019/\\$file/Soft%2Bdrinks%2Bare%2Bleading%2Bwith%2Bless%2B-%2BHelping%2BIrish%2Bconsumers%2Bmanage%2Bsugar%2Bintake%2Bthrough%2Binnovation.pdf&sa=D&ust=1575049810270000&usg=AFQjCNFhHnNRnyRD_FECLJ0ELbz3BXnJjA](https://www.google.com/url?q=https://www.fooddrinkireland.ie/Sectors/FDI/FDI.nsf/vPages/Publications~the-evolution-of-foodand-drink-in-ireland-2005-2017-20-02-2019/$file/Soft%2Bdrinks%2Bare%2Bleading%2Bwith%2Bless%2B-%2BHelping%2BIrish%2Bconsumers%2Bmanage%2Bsugar%2Bintake%2Bthrough%2Binnovation.pdf&sa=D&ust=1575049810270000&usg=AFQjCNFhHnNRnyRD_FECLJ0ELbz3BXnJjA)

Publication of previous similar work

<https://www.tandfonline.com/doi/abs/10.1080/09637486.2018.1438375?journalCode=ijjf20>



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