

Surveillance of Unregulated Caffeine Health Claims on Coffee and Other Foods

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Background

Caffeine is an alkaloid from the methylated xanthine family and occurs naturally in various foods of plant origin such as tea leaves, guarana berries and coffee beans. Due to its stimulating effect on the central nervous system and the associated increase in alertness and reduction of tiredness, caffeine is specifically added to some foods, such as food supplements [1]. Claims about the physiological effects of caffeine are generally health claims within the meaning of the European Union Health Claims Regulation and must be authorized before use. Despite a positive opinion from the European Food Safety Authority, the approval regulation for four caffeine claims was withdrawn due to a veto by the European Parliament. At present, no health claims for caffeine are approved and most of the transitional measures for certain on-hold health claims no longer apply. As products with caffeine health claims repeatedly come into focus in the course of official food control, an internet search (n=188) was carried out to investigate how these are currently used on the market. Samples examined for official control purposes, which were conspicuous in connection with caffeine analytically and/or in the labelling from the years 2019 - 2023 (n=136), were also retrospectively taken into account.

Scientifically supported caffeine health claims

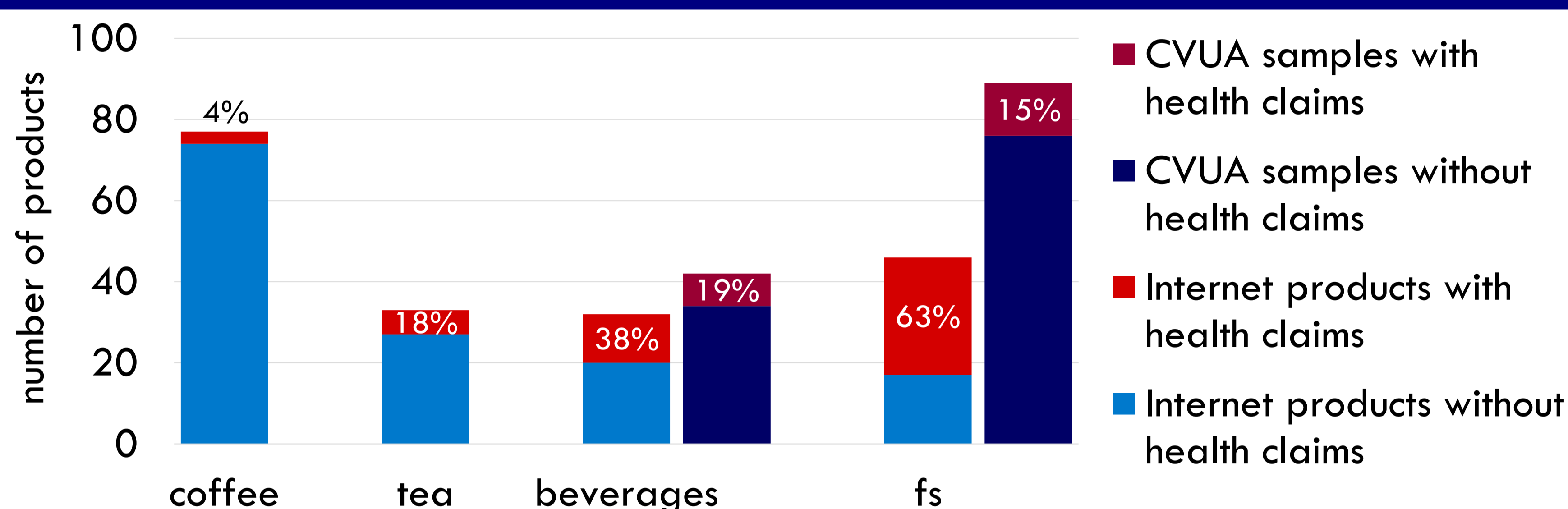
Physical performance

"Caffeine contributes to an increase in endurance performance"
"Caffeine contributes to an increase in endurance capacity"

Mental performance

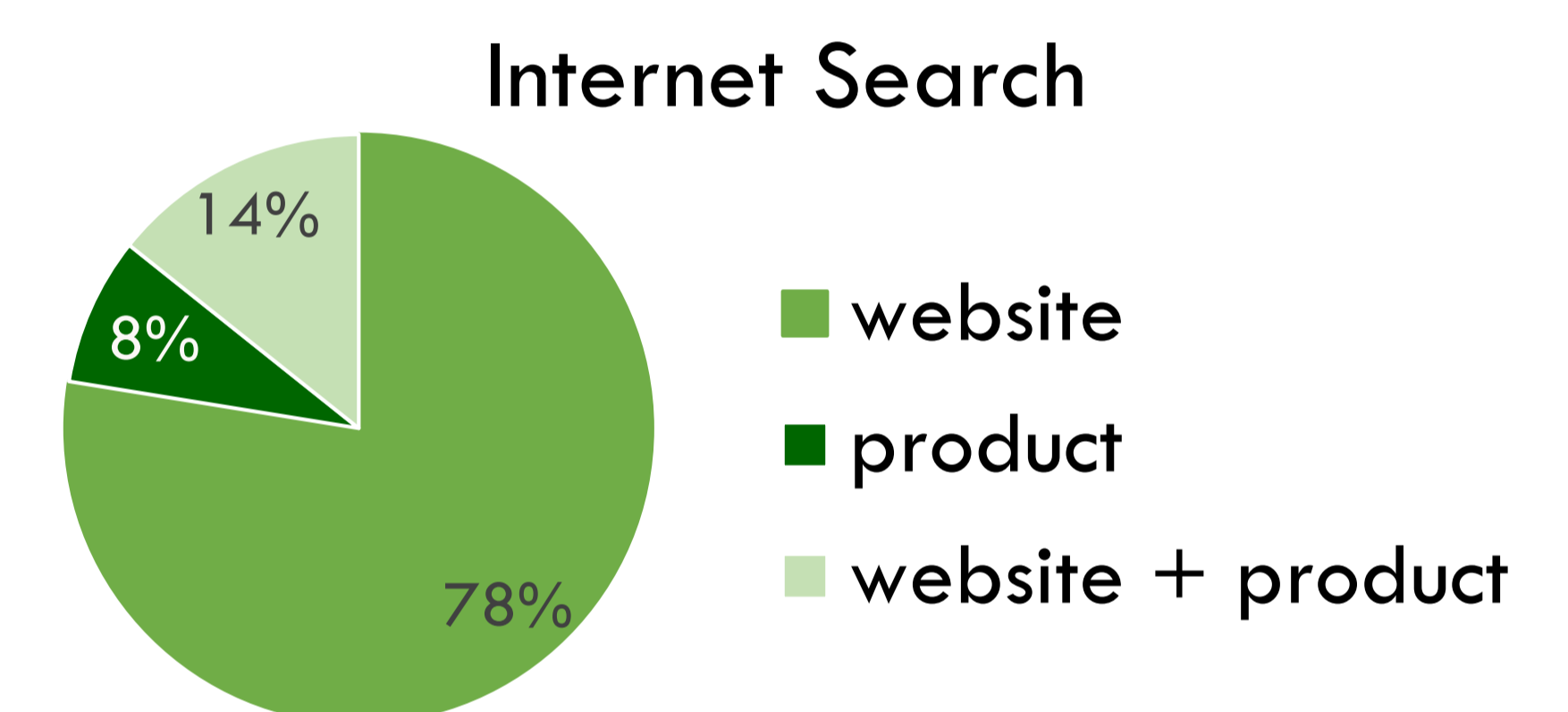
"Caffeine helps to increase alertness"
"Caffeine helps to improve concentration"

How many products contain caffeine health claims?



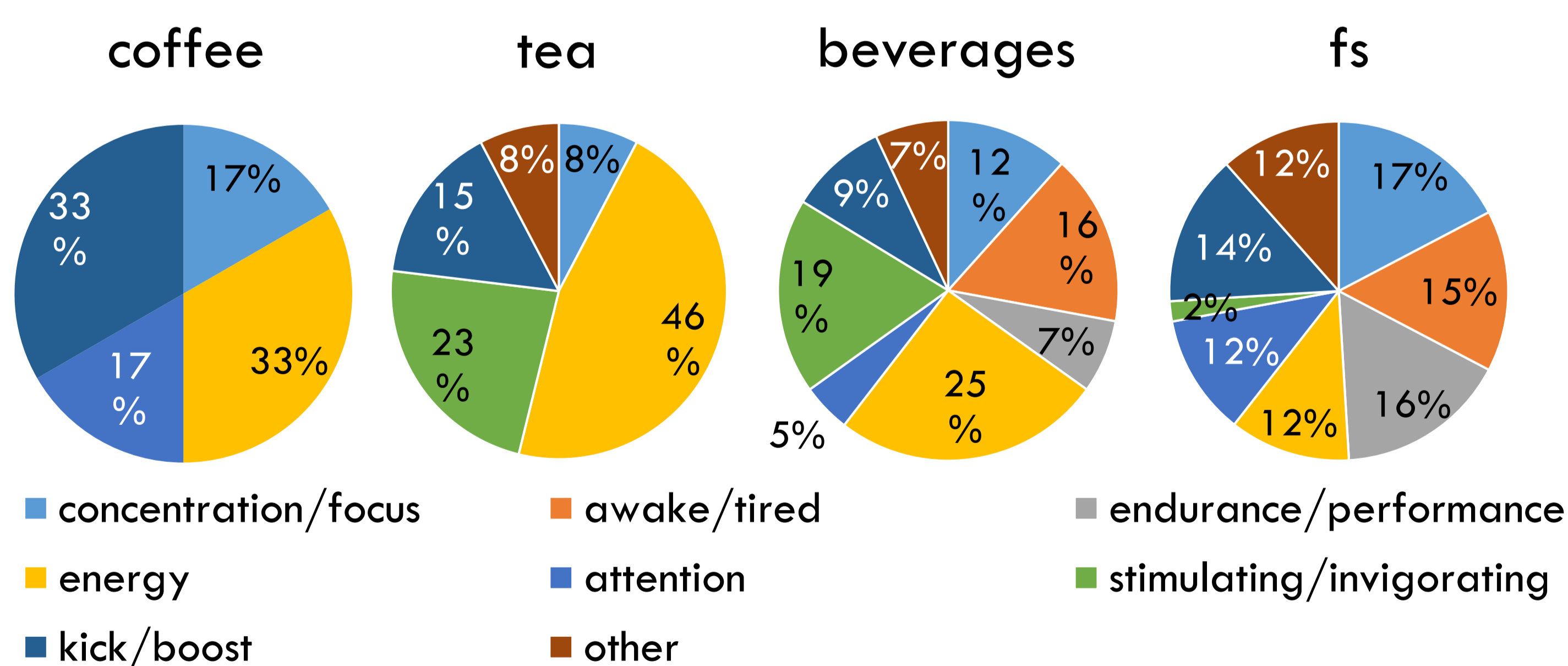
Among the internet samples evaluated, health claims for caffeine were most frequently stated for food supplements (fs, including sports nutrition). In the official samples analysed for caffeine between the years 2019-2023, they were used in similar proportions for fs and non-alcoholic soft drinks and mixed drinks (beverages).

Place of application



In the internet samples where the product label was fully visible, health claims were more frequently stated exclusively on the websites than on the products.

What caffeine health claims are made?



Health claims for caffeine can be differentiated according to the type of health claim in question. In the case of coffee and tea products, health claims predominantly promote energy and energy-related parameters. For beverages and fs, a greater variety of health claims are identified, each in similar proportions. Health claims were also made that do not fall into the areas of concentration, performance or energy and extend beyond the scientifically confirmed effects of caffeine such as the promotion of fat burning.

Conclusion

Despite legal uncertainty health claims relating to caffeine are frequently used for the promotion of numerous products. They are employed with greater frequency for products containing added caffeine than in the case of products naturally containing caffeine. The type of health claims made vary according to the product group. In distance selling, health claims are employed with greater frequency on websites than on the product itself. Although some caffeine health claims are scientifically supported, they are still not regulated, which makes them difficult to communicate and enforce under food law. The considerable number of caffeine claims identified in the products under review, coupled with the wide range of different types of claims, indicates that this is a prevalent advertising strategy, despite the absence of regulatory approval. A prompt revision of European regulations is required to guarantee a high level of consumer protection based on scientifically validated and approved caffeine claims.

[1] EFSA Journal 2015;13(5):4102.

