

## **1<sup>st</sup> Call for submissions      Proposal P1056 – Caffeine review**

Public Health Services, Department of Health, Tasmania (PHS) appreciates the opportunity to comment on Proposal P1056 – Caffeine review.

Proposal P1056 was prepared by FSANZ following consideration of Urgent Proposal P1054 – Pure and highly concentrated caffeine products. The purpose of the proposal was to consider whether additional measures are required in relation to caffeine in the Australian and New Zealand food supply in order to protect public health and safety.

FSANZ considered three options:

1. Status quo (no change to the Code)
2. Status quo combined with non-regulatory approach
3. Hybrid mix of regulatory and non-regulatory approaches

FSANZ considered Option 3 as the preferred approach with the introduction of a new express permission to add caffeine to Formulated Supplementary Sports Foods (FSSFs), and an express prohibition on the addition of caffeine to foods for retail sale other than those that have a specific permission (namely cola-type drinks and formulated caffeinated beverages).

PHS agrees in principle that Option 3 is the preferred approach based on ensuring safety for all consumers, and in particular those most vulnerable to the chronic and acute effects of caffeine consumption.

Whilst PHS supports progressing Option 3, a number of areas have been identified that require further consideration and are detailed below.

### **Risk to adolescents**

PHS note the *Ministerial Policy Guideline – Regulatory Management of Caffeine in the Food Supply (2014)*<sup>i</sup> clearly states under specific policy principles that adolescents are included as a vulnerable population group, along with children, pregnant and lactating women and caffeine sensitive consumers.

PHS considers the risk to adolescents needs further consideration to align with this Policy Guideline and international consensus.

FSANZ are proposing a maximum level of 5.7mg/kg bw/day based on the caffeine clearance of adolescents likely being the same as adults as stated in the Scientific Opinion on the safety of caffeine, ESFA Panel on Dietetic Products, Nutrition and Allergies (2015)<sup>ii</sup>. However, ESFA go on to say that there are limited studies and uncertainty regarding the long term effects of caffeine in children and adolescents between the doses of 3 -10 mg/kg bw/day. Therefore, EFSA proposed a safety level of 3 mg/kg bw/day for children and adolescents (10- <18 years).

Since the ESFA Opinion in 2015 there have been a number of regulatory risk assessments internationally<sup>iiiiv</sup> that have noted there was insufficient information to derive a safe level of intake for adolescents and therefore have adopted the more conservative level of no safety concern of 3mg/kg bw/day as proposed by ESFA. This was due to the uncertainty on the long-term effects of caffeine in these population subgroups. PHS would recommend further consideration of the maximum level in adolescents to align with international consensus and the intent of the Policy Guideline on the vulnerability of this group.

PHS would also recommend further consideration is given to the single dose safety limit (200mg/day) in FSSFs for adolescents and how this risk can be mitigated. PHS notes that a single dose of caffeine up to 210mg (approx. 3mg/kg bw) is not generally associated with any adverse effects. Above this level, caffeine is associated with adverse effects including increase in blood pressure, plasma catecholamines and anxiety. FSANZ used the National Health and Medical Research Council reference ranges for bodyweight (2017) to calculate maximum recommended levels. If these reference body weights are used to calculate the acute (single dose) safety level for adolescents aged 14 -18 years, the maximum recommended level in a single dose would be 171mg for females and 192mg for males. Therefore, the proposed one-day quantity of 200mg (which is often the same as the quantity intended to be consumed in a single serve) would exceed the acute safety level and pose a risk to adolescents. Compositional limits and labelling requirements should be reconsidered to protect this vulnerable group, along with non-regulatory measures such as education.

As noted by FSANZ the dietary intake assessment was based off the 2011-12 NNPAS which does not reflect changes in the consumption of caffeinated food and beverages over the past 10 - 12 years. The sales and marketing of sports food and beverages has grown substantially during this time which suggests the dietary intake assessment is likely to be an underestimation of caffeine intake, particularly for some population sub-groups. The 2018 National Secondary Schools Diet and Activity Survey (2017) of Australian adolescents found that most adolescents were not consuming energy drinks (approx. 8% regularly), however regular consumption was more common in males. The Australian Secondary Schools Alcohol and Drug Survey was in the field in 2022 and FSANZ may like to consider obtaining access to the data questions around energy drinks to provide further analysis of this trend, noting that more recent data from overseas on energy drink consumption in this age group is significantly higher (ranging from 30-50%)<sup>vi</sup>.

We also know that young males are also higher consumers of sports supplements such as protein powders with a recent Australian study finding 49.8% of 14-16 year old boys reported current use of protein powders and 62% had intentions to use protein powders<sup>vii</sup>. Whilst it is unknown the extent these products contained caffeine; it is common practice for such products to contain caffeine. We also know users of sports foods commonly 'stack' with other products which creates a potential risk of excess caffeine consumption in this vulnerable age group.

### **Non-regulatory approach**

PHS supports consumer education and the provision of information to at risk sub-populations. PHS considers adolescents one of these at risk populations and would recommend FSANZ consider expanding the scope to include this group noting studies that have indicated understanding of caffeine content in energy drinks is low in young adolescents.

### **Questions for submitters**

- 2. Do you have any thoughts on FSANZ's preferred option that if caffeine is prohibited to be added to all foods apart from cola-type drinks, FCBs and FSSF, that a pre-market assessment is then required to add caffeine to any other food? If not, are there other approaches that would better address the problem?**

PHS supports that a pre-market assessment is required to add caffeine to any other food. This reduces the risk of vulnerable population groups from exceeding the recommended maximum limits of caffeine through its addition to food becoming more widespread. This is particularly important for vulnerable groups including infants and pre-schoolers, children, adolescents, and pregnant and lactating women. This also aligns with the *Ministerial Policy Guideline – Regulatory Management of Caffeine in the Food Supply* (2014) which states under the specific policy principles that the regulatory management of caffeine should consider vulnerable population groups, exposure from all sources and be informed by emerging evidence and regulation in overseas jurisdictions.

- 3. Do you foresee any compliance or enforcement issues with the preferred approach of expressly permitting total caffeine in FSSF at a maximum one-day quantity of 200 mg, whilst expressly prohibiting the addition of caffeine to all foods apart from cola-type drinks and FCBs?**

PHS does not foresee any compliance or enforcement issues with the preferred approach. Through labelling requirements (declaration of amount of caffeine, one-day quantity, advisory statements, and warning statements) outlined in this submission it should make it relatively straightforward for food regulators to assess compliance against the Code.

- 4. Are there other supporting measures that FSANZ should consider, whether regulatory or non-regulatory?**

PHS is concerned with the practice of 'stacking' with other products (which promotes consumption of multiple products in the one day) and labels that suggest a 'double serve' prior to an exercise session. PHS recommends FSANZ consider regulatory measures to reduce this practice such as explicit prohibitions or warning statements that would address this.

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<sup>i</sup> Ministerial Policy Guideline on the Addition of Caffeine in the Food Supply

[https://foodregulation.gov.au/internet/fr/publishing\\_nsf/Content/publication-Policy-Guideline-on-the-Addition-of-Caffeine-to-Foods](https://foodregulation.gov.au/internet/fr/publishing_nsf/Content/publication-Policy-Guideline-on-the-Addition-of-Caffeine-to-Foods)

<sup>ii</sup> Scientific Opinion on the safety of caffeine. ESFA Panel on Dietetic Products, Nutrition and Allergies. European Food Safety Authority (ESFA), Parma, Italy. ESFA Journal 2015;13(5):4102

<sup>iii</sup> BfR Opinion No. 018/2019 Children and adolescents: Excessive consumption of energy drinks increases health risk for cardiovascular system

<sup>iv</sup> VKM Report 2019:01 Risk assessment of energy drinks and caffeine. Scientific Opinion of the Panel on Food Additives, Flavourings, Processing Aids, Materials in Contact with Food, and Cosmetics of the Norwegian Scientific Committee for Food and Environment.

[https://vkm.no/download/18.416a9e91169d82a695d8bc8e/1554705398914/Energy%20drinks%20and%20caffeine\\_final\\_02.04.2019\\_revised.pdf](https://vkm.no/download/18.416a9e91169d82a695d8bc8e/1554705398914/Energy%20drinks%20and%20caffeine_final_02.04.2019_revised.pdf)

<sup>v</sup> Risk assessment of caffeine in food supplements. RIVM Letter report 2020-0022. D.W.Buijenhuijs et al. National Institute for Public Health and the Environment. <https://www.rivm.nl/bibliotheek/rapporten/2020-0022.pdf>

<sup>vi</sup> De Sanctis, V., Soliman, N., et al. Caffeinated energy drink consumption among adolescents and potential health consequences associated with their use: a significant public health hazard. *Acta Biomed.* 2017;88(2): 222-231 <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6166148/>

<sup>vii</sup> Yager, Z., McLean, S. Muscle building supplement use in Australian adolescent boys: relationships with body image, weight lifting, and sports engagement. *BMC Pediatr* **20**, 89 (2020). <https://doi.org/10.1186/s12887-020-1993-6>