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**Re: Health Canada's Proposed Approach to Managing Caffeinated Energy Drinks**

To Whom It May Concern:

We applaud Health Canada for proposing a comprehensive approach to managing caffeinated energy drinks. We support the inclusion of additional information to help guide the consumer in making an educated choice (e.g., listing total caffeine from all sources and including a Nutrition Facts Table).

Energy drinks are unique beverages with unique concerns. Although some energy drinks have caffeine levels similar to coffee, there is evidence to suggest that the pure caffeine often added to energy drinks, compared to the caffeine naturally occurring in coffee beans, might have different and more potent effects on blood pressure and glucose tolerance (Dietitians of Canada, 2009). Consumers might also find it easier to consume energy drinks more rapidly and in greater quantities compared to hot beverages like coffee and tea (Dietitians of Canada, 2009). In addition, energy drinks contain other herbal ingredients (e.g., ginkgo biloba, ginseng, taurine, and glucuronolactone) that risk interacting with certain medications and for which there is no long-term safety and health impact data (Dietitians of Canada, 2009).

Although not recommended for children and teenagers (Health Canada, 2011a; Health Canada, 2011c), 40% of children and adolescents consume energy drinks (Dietitians of Canada, 2009). Additionally, it is not recommended for energy drink to be mixed with alcohol (Health Canada, 2005); however, approximately 25% of college-aged energy drink users regularly mix them with alcohol (Dietitians of Canada, 2009). Additionally, these beverages are readily available for purchase pre-mixed with alcohol. Some energy drink companies claim they do not directly market to children and youth; however, their marketing strategies include youth appealing promotion strategies, including eye catching packaging and product names, advertising via sporting events, athlete sponsorships, alcohol-alternative promotions, and product placement in video games (Seifert et al., 2011).

We believe that Health Canada's proposed approach can be further strengthened. A summary of the changes recommended to Health Canada's proposed approach are detailed below. Further information and rationale with respect to these recommendations are detailed in the body of this report.



## **Summary of Recommendations:**

### *Labelling*

- **The inclusion of the following additional warning labels:**
  - **Energy drinks are not suitable for consumption by children and teenagers.**
  - **Energy drinks are not recommended for use during exercise or to rehydrate following exercise.**
  - **Ingredients contained in energy drinks may interact with certain natural health products and medications and consumers should consult their health care practitioner before use.**
  - **The maximum daily caffeine intake from all sources for adults is 400 mg and 300 mg for pregnant and breastfeeding women.**
- **Warning labels cover at least 25% of the package.**

### *Expert Consultation*

- **Consultation with Registered Dietitians, through organizations such as Dietitians of Canada, to determine safe and appropriate regulations for the addition of vitamins and minerals.**

### *Drink Contents*

- **A lower caffeine maximum per single-serve container and per litre.**

### *Retailing Restrictions*

- **Prohibit the sale of caffeinated-alcoholic beverages from Provincial Liquor outlets.**

### *Alcohol Related*

- **Prohibit the sale of energy drinks at all locations where alcohol is sold and served. At a minimum, mandatory training be instituted to anyone selling and/or serving alcohol around the dangers of combining alcohol and energy drinks.**

### *Advertising and Accessibility to Youth*

- **Prohibit marketing and advertising of energy drinks to children and teenagers. This prohibition should include all forms of marketing and advertising to children and teenagers (e.g., free samples, sponsorship of children and/or teenage targeted events, online advertising through social media platforms, and online games).**
- **Prohibit the sale of energy drinks to children and teenagers utilizing the infrastructure currently in place for restricting the purchase of tobacco products.**
- **Review the current regulations for other high caffeine products (e.g., energy shots) and propose stricter caffeine limits and additional warning labels similar to energy drinks. A review of the marketing and advertising of the high caffeine products, particularly to children and teenagers.**



- **Prohibit marketing and advertising of energy drinks to children and teenagers. This prohibition should include all forms of marketing and advertising to children and teenagers (e.g., free samples, sponsorship of children and/or teenage targeted events, online advertising through social media platforms, and online games).**
- **Prohibit the sale of energy drinks to children and teenagers utilizing the infrastructure currently in place for restricting the purchase of tobacco products.**
- **Review the current regulations for other high caffeine products (e.g., energy shots) and propose stricter caffeine limits and additional warning labels similar to energy drinks. A review of the marketing and advertising of the high caffeine products, particularly to children and teenagers.**

#### *General Recommendations*

- **If the prohibited sale of caffeinated-alcoholic beverages is not supported the following are recommended:**
  - **Strict limits, consistently across the country, restricting the amount of caffeine from all sources that is allowed to be added to pre-mixed alcoholic beverages. A maximum caffeine level from all sources of 30 mg per 500 ml or 60 mg per litre is recommended.**
  - **A warning label added to caffeinated-alcoholic beverages that states: “This product contains alcohol and caffeine. Consuming alcohol and caffeine together may increase your risk of injury.” This warning label should be displayed prominently on the container and packaging for visibility and readability. All labels should cover at least 25% of the package.**
  - **A more discernible difference in the packaging of caffeinated-alcoholic beverages from that of their energy drink counterparts (e.g., RockStar™ + Vodka versus RockStar™ Energy Drink) to help avoid consumer confusion.**

#### Re. 1.1 Composition Requirements

##### *Caffeine Content*

While the proposed 180 mg caffeine limit for single-serve containers is less than half the recommended amount for adults, it is twice the 85 mg Recommended Maximum Daily Intake (RMDI) for children 10 to 12 years of age, almost three times greater than the 62.5 mg RMDI for children 7 to 9, and four times greater than the 45 mg RMDI for children 4 to 6 (Health Canada, 2010a; Nawrot et al., 2003).

Based on a suggested caffeine limit of 2.5 mg per kg body weight per day (Health Canada, 2010a; Nawrot et al., 2003), 180 mg caffeine would be equal to or exceed the maximum daily caffeine for all adolescents 72 kg (158 lbs) and under. As there are no restrictions related to who can purchase energy drinks, children and adolescents may purchase and drink them, easily consuming unsafe caffeine levels (Reissig et al., 2009).



There are a substantial proportion of Canadian adults who do not consume caffeine within safe limits. As of 2004, more than 20% of men and 15% of women aged 31 to 70 exceeded the recommended maximum of 400 mg of caffeine per day (Health Canada, 2004a). With the increasing popularity of energy drinks, these beverages likely contribute further to excessive intakes and thereby have detrimental effects.

**Given that the maximum suggested caffeine level for adults is 400 mg, that energy drinks are not the sole source of caffeine in the diet, and that currently they are available for sale to both adults and children, a lower caffeine maximum per single-serve container and per litre is strongly recommended.**

Energy drinks and related legislation are an international concern. The Australia New Zealand Food Authority limits caffeinated beverages to 320 mg per litre (Australia New Zealand Food Authority, 2001). Using the same ratio as 180 mg per single-serve container to 400 mg per litre, this would equate to a maximum of 145 mg caffeine per single-serve container.

A proposed limit of 400 mg per litre, but only 180 mg per single-serve container, would allow multi-serve containers to contain a higher concentration of caffeine than a 591 ml single-serve container. Using the same caffeine concentration proposed in a 591 ml single-serve container, the maximum caffeine limit should be 305 mg per litre.

The maximum caffeine levels for cola-type beverages and carbonated non-cola beverages are 200 ppm and 150 ppm, or approximately 200 mg per litre and 150 mg per litre, respectively (Health Canada, 2010a). The expert panel recommended a maximum amount of 80 mg caffeine per single serving (Macdonald, Hamilton, Malloy, Moride & Shearer, 2010). These caffeine levels are likely closer to more reasonable and safe limits.

Health Canada's proposed approach refers to a minimum amount of caffeine a beverage must contain in order to be classified as an energy drink. Knowledge of this minimum amount was not included in Health Canada's proposed labelling, but should be made public knowledge to aid consumers in making informed choices.

Health Canada's proposed approach also refers to requirements to control the types and levels of ingredients added to energy drinks. Typically vitamins and/or minerals are added to energy drinks; however, their regulation was not specified in Health Canada's proposed approach.

**It is recommended that consultation occurs with Registered Dietitians or other qualified experts to determine safe and appropriate regulations for the addition of vitamins and minerals to energy drinks.**



### Re 1.2 Labelling Requirements

Health Canada's approach should define the caffeine threshold for a beverage to be considered a 'high source of caffeine'. The Union of European Beverages Association (2010) defines high caffeine content as greater than 150 mg caffeine per litre. The Australia New Zealand Food Authority defines high caffeine as greater than 145 mg caffeine per litre and requires advisory statements on these products similar to current Canadian legislation (Australia New Zealand Food Authority, 2001).

Warning labels that are more comprehensive in content are shown to be more effective in communicating health risks (Hammond et al., 2006).

**In addition to the statements proposed by Health Canada, the following additional warning labels to facilitate consumer education and awareness of the health concerns related to energy drinks are recommended.**

- **A statement indicating energy drinks are not suitable for consumption by children and teenagers.** This warning label is important for safety, consumer education, and consistency in messaging. Health Canada recently posted a video stating that energy drinks were not recommended for children and teens (Health Canada, 2011a) and has stated its continued commitment to advising consumers and parents not to seek these products for children and adolescents (Health Canada, 2011c). Based on a suggested caffeine limit of 2.5 mg per kg body weight per day (Health Canada, 2010a; Nawrot et al., 2003), the proposed maximum 180 mg caffeine in one single-serve container would be equal to or exceed the maximum daily caffeine for all adolescents 71.8 kg (158 lbs) and under. Therefore, it would be prudent to include a statement to indicate these products are not appropriate for consumption by 'teenagers', an easier term for consumers to understand than 'adolescents'.
- **A statement indicating energy drinks are not recommended for use during exercise or to rehydrate following exercise.** It is well documented that energy drinks are not recommended for use during exercise and interfere with proper hydration (Dietitians of Canada, 2009; Health Canada, 2005). Sweden requires warning labels stating the dangers of consuming high amounts of caffeine after exercise (Seifert, Schaechter, Hershorin, Lipshultz et al., 2011). This is particularly important as consumer confusion exists about the difference between sports drinks and energy drinks. Adolescents in particular have been shown to use energy drinks as ergogenic aids (O'Dea, 2003).
- **A statement indicating that ingredients contained in energy drinks may interact with certain natural health products and medications and that consumers should consult their health care practitioner before use.** By regulating energy drinks as food, consumer perception may be that energy drinks are now safe to consume. It is vital that consumers are



aware of possible risky interactions. For example, ginseng and ginkgo biloba may adversely interact with warfarin and affect blood clotting (Health Canada, 2004b).

- **A statement indicating that the maximum daily caffeine intake from all sources for adults is 400 mg and 300 mg for pregnant and breastfeeding adults.** Previous guidelines suggested that consumers restrict their intake of energy drinks to no more than 500 ml per day (Health Canada, 2005); however, this statement is not included in the proposed approach. Consumers require knowledge of a maximum daily caffeine amount to help safely monitor their own consumption.

**As with other food labels (e.g., Nutrition Facts Table), Health Canada should consider specifying the formatting and prominence of the energy drink warning labels on the packaging to ensure visibility and readability.** Larger warning labels are shown to be more effective in communicating health risks (Hammond et al., 2006). Health Canada currently requires warning labels on tobacco products to cover at least 75% of the package, an increase over the previous requirement of at least 50% (Department of Justice, 2011). **Given the additional information required on energy drinks (e.g., Nutrition Facts Table), it is recommended that warning labels on energy drinks cover at least 25% of the package.**

### Re 1.3 Prohibition of Premixed Alcoholic Beverages with Caffeinated Energy Drinks

Although Health Canada currently prohibits energy drinks as an ingredient in pre-mixed alcoholic beverages, this does not address alcoholic beverages currently being sold in Provincial Liquor outlets containing natural sources of caffeine and not defined as energy drinks. These products, such as RockStar™ + Vodka, have high levels of alcohol (6.9%), added caffeine from natural sources (e.g., guarana), and elevated levels of sugar.

Caffeinated-alcoholic beverages are a public health concern due to their association with injury and high risk-behaviour and increased alcohol consumption (e.g., binge drinking). Research has demonstrated that when individuals consume caffeinated-alcoholic beverages, as compared to alcohol alone, they experience a greater likelihood of being injured, requiring medical treatment, driving intoxicated or riding with an intoxicated driver, having alcohol poisoning, and being a victim or perpetrator of aggressive physical or sexual behaviour (Atlantic Collaborative on Preventative Injury, 2011; Donkin & Birks, 2007; Ferreira et al., 2006; O'Brien, 2008). These outcomes are a result of the countering effects of the stimulant (i.e., caffeine) with the sedative effects of alcohol. Even though the person is impaired by alcohol, the stimulating effects of the caffeine give the subjective feeling of being more awake and having increased motor control and visual reactions. This increases the likelihood of poor decision making and risky behaviours.





**It is recommended that Health Canada prohibit the sale of caffeinated-alcoholic beverages from Provincial Liquor outlets.**

**If the prohibited sale of caffeinated-alcoholic beverages is not supported by Health Canada, it is recommended that Health Canada set strict limits, consistently across the country, restricting the amount of caffeine from all sources that is allowed to be added to pre-mixed alcoholic beverages. A maximum caffeine level from all sources of 30 mg per 500 ml or 60 mg per litre is recommended.**

**In addition, if the prohibited sale of caffeinated-alcoholic beverages is not supported by Health Canada, it is recommended that a warning label be added to caffeinated-alcoholic beverages that states: “This product contains alcohol and caffeine.**

**Consuming alcohol and caffeine together may increase your risk of injury.” It is recommended that this warning label be displayed prominently on the container and packaging for visibility and readability.**

**In addition, if the prohibited sale of caffeinated-alcoholic beverages is not supported by Health Canada, it is recommended there be a more discernible difference in the packaging of caffeinated-alcoholic beverages from that of their energy drink counterparts (e.g., RockStar™ + Vodka versus RockStar™ Energy Drink) to avoid consumer confusion.**

An additional concern with alcohol and energy drinks occurs at bar and restaurant points of sale. Currently, energy drinks are allowed to be sold at bars and restaurants alongside, and sometimes mixed with alcohol. As stated previously, mixing energy drinks and alcohol increases patrons’ risk for injury and risk-taking behaviours (Atlantic Collaborative on Preventative Injury, 2011; Donkin & Birks, 2007; Ferreira et al., 2006) and is not considered safe by Health Canada (Health Canada, 2005).

**It is recommended that Health Canada prohibit the sale of energy drinks at all locations where alcohol is sold and served.**

#### Re 4. Leverage Tools Developed by Stakeholders

There is a well documented ability of advertisements aimed at children to influence food preference, food choice, and purchasing behaviour (Dietitians of Canada, 2010). Canada’s Health Ministers support the reduction of marketing of foods high in sugar to children as part of the Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights (Public Health Agency of Canada, 2010). Since energy drinks are sugar sweetened beverages, addressing energy drink marketing supports this key policy priority area from the framework.

Despite warning labels that energy drinks are not for children, marketing and availability targets young people. Energy drink companies may claim they do not directly market to children and



youth; however, their marketing strategies include youth appealing promotion strategies, including advertising via sporting events, athlete sponsorships, alcohol-alternative promotions, and product placement in video games (Seifert et al., 2011). We are concerned with the limited impact industry-regulated marketing and advertising Code of Practices would have on current practice. We recommend Health Canada take a stronger stance about marketing to both children and teenagers, as Health Canada does not recommend energy drinks for either age group (Health Canada, 2011a; Health Canada, 2011c).

Internationally, recognizing the impact and prevalence of energy drink marketing to young people, the British Soft Drinks Association has legislated that high caffeine drinks (i.e., > 150 mg/L) may not be promoted or marketed to children less than 16 years of age (British Soft Drinks Association, 2010).

In 2010, the Union of European Beverages Associations released its Code for the Labelling and Marketing of Energy Drinks (Union of European Beverages Association, 2010). The principles for sales and marketing of energy drinks included:

- No marketing communications concerning energy drinks will be placed in any media with a majority audience of under 12 years of age.
- No claims will be made on alcohol together with energy drinks.
- Energy drinks will not be marketed as sports beverages which deliver a rehydration benefit.
- Samplings will not be conducted in the close proximity of primary and secondary schools or other institutions taking care of this age group.

**Given that energy drinks are not recommended for children and teenagers (Health Canada, 2011a; Health Canada, 2011c), it is recommended that Health Canada prohibit marketing and advertising of energy drinks to children and teenagers. This prohibition should include all forms of marketing and advertising to children and teenagers (e.g., free samples, sponsorship of children and/or teenage targeted events, online advertising through social media platforms, and online games).**

#### Additional Recommendations

**Given that energy drinks are not recommended for children and teenagers (Health Canada, 2011a; Health Canada, 2011c) and there are limits to the effectiveness of consumer education, it is recommended that Health Canada prohibit the sale of energy drinks to children and teenagers utilizing the infrastructure currently in place for restricting the purchase of tobacco products.**

In addition to energy drinks, other high caffeine products (e.g., energy shots) are widely available for sale in Canada. The product variety of these concentrated caffeine sources is rapidly expanding.





**It is strongly recommended that Health Canada review the current regulations for other high caffeine products and propose stricter caffeine limits and additional warning labels similar to energy drinks. A review of the marketing and advertising of the high caffeine products, particularly to children and teenagers is also recommended.**

We appreciate the opportunity to comment and provide feedback on Health Canada's Proposed Approach to Managing Caffeinated Energy Drinks. As Public Health professionals we are dedicated to the health and well-being of the whole population through the promotion and protection of health and the prevention of illness and injury. Strengthening the approach proposed by Health Canada to managing caffeinated energy drinks by incorporating the recommendations detailed in this report will help to ensure greater safety related to energy drink formulation, greater consumer protection through additional warnings, label information, and contraindications for use, and the marketing and the sale of these products to the intended market segment only. Thank you for this opportunity to provide feedback and we look forward to a favourable result with respect to our recommendations.

Sincerely,

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