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# INTERIM GUIDELINES FOR BEVERAGES IN SCHOOLS

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## 1. Interim Guidelines for Beverages in Schools

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### Preamble

The Government of Jamaica (GOJ), through the Ministry of Education, Youth and Information (MOEYI), is currently finalizing the National School Nutrition Policy (NSNP). The overall goal of this Policy is 'to create a school environment that promotes and facilitates healthy eating habits and a physically active lifestyle among students in Jamaica' (Draft National School Nutrition Policy, October 2018).

The National School Nutrition Standards (NSNS) being developed by the Ministry of Health (MOH) will support the implementation of nutrition related aspects of the NSNP. It will outline the recommended nutrient standards for meals, non-meal items (e.g. snack foods) and beverages. The NSNS will eventually be incorporated into the existing National School Feeding Programme (NSFP).

The Interim Guidelines for Beverages in Schools precedes the completion of the NSNP and the NSNS. It will apply to all schools up to and including the secondary level, which are under the remit of the MOEYI.

The standards and interim guidelines are based on current evidence and will be updated as new and relevant information becomes available.

## 2. Introduction & Background

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Non-Communicable diseases (NCDs) are of increasing global concern as the incidences continue to rise across regions and demographics. Globally, the rates of obesity in children and infants for example are predicted to continue to increase. A number of factors including easy access to processed foods with large amounts of fats, salt/sodium and sugar, as well as high intakes of sugary drinks have in large measure contributed to this situation. Advances in technology have also increased sedentary lifestyles.

It is an established fact that a continuous net intake of calories from unbalanced dietary sources and insufficient physical activity cause obesity. The major contributors to excess calories are fats and sugars. Processed, ultra-processed and convenience foods, including fast foods, are known to be loaded with fats and attempts to reduce their consumption or alter their composition to healthier options are clearly justified. The fact, however, is that less than 20% of all Jamaicans consume fast foods more than once per week. This is in contrast to the more than 75% of Jamaicans who

consume more than one (1) sweetened beverage every day; a finding of the 2008 Jamaica Health and Lifestyle Survey (JHLS II, 2008).

The 2017 Global School Based Health Surveys (GSHS) found that, 69% of Jamaican students aged 13-17 years reported drinking carbonated drinks one or more times per day (GSHS, 2017). This has not changed significantly over the past seven (7) years, indicating that this consumption pattern is well established. It is an important point to note since each additional serving of a sugary drink per day increases the odds of obesity in children by approximately 60% (Francis et. al, 2009). In addition, consuming seven (7) or more servings of sugary drinks per week can increase the risk of death from cardiovascular disease. Consuming excessive sugar in liquid form is harmful to the body primarily because it is absorbed more quickly than it can be processed resulting in it being stored as fat in the liver, contributing to liver disease and increased risk for diabetes and other NCDs (Malik & Hu, 2015).

Since 2010, there has been an overall increase in the obesity rates of adolescents. Recent surveys indicate that 20% of adolescent males, aged 13 – 17 years were overweight and 9% were obese. This compared with females of the same age group, of which 28% were overweight and 10% were obese (GSHS, 2017). Studies posit that excessive intake of sugars in any form (sucrose, fructose, glucose and other forms of sugar) provide only empty calories that contribute to weight gain and hormonal imbalances.

The evidence for a link between sugar-sweetened beverages (SSBs) consumption and childhood obesity is consistent and compelling. Increased consumption of SSBs affects all ages and social groups, and is related to increased insulin resistance, which can lead to Type 2 diabetes and other illnesses. Recent systematic reviews of 28 cohort studies and 12 meta-analyses confirm the link between increased intake of free sugars, particularly in the form of SSBs and unhealthy weight gain in both children and adults (Te Morenga 2013, Malik 2013, Escobar 2013). Conversely, reducing consumption of SSBs has been shown to reduce weight gain in children, particularly those who are already overweight (Malik 2013; de Ruyter 2012, Ebbeling, 2012).

In Jamaica, the following modifiable risk factors were found to be significantly associated with overweight/obesity among children aged 6-10 years: increased consumption of sweetened beverages, limited fruit and water intake and low physical activity levels (Blake-Scarlett et al, 2013). Childhood is a critical period for growth and development, and the formation of healthy habits. The environment plays an essential role in habit formation, particularly insufficient opportunities for physical activity, and

availability of unhealthy foods and beverages at low prices. Furthermore, obese children tend to become obese adults.

### Rationale

There is currently a strong body of research linking overweight and obesity to the development of NCDs such as Type 2 diabetes, hypertension and heart disease. Prevalence of obesity in a population can therefore be considered a forewarning to future prevalence of NCDs.

The GSHS, conducted in 2010 and 2017 shows that the rates of both overweight and obesity in the school aged population are trending upwards.

**Table 1: Prevalence of Overweight and Obesity in students ages 13-15 years old**

<i>Nutritional Status</i>	<i>Percentage of students surveyed (GSHS, 2010 &amp; 2017)</i>	
	<i>2010</i>	<i>2017</i>
<b>Overweight</b>	21.7	25.6
<b>Obese</b>	6	10.1

The Pan American Health Organization (PAHO) Plan of Action for Preventing Obesity in Children and Adolescents 2014-2019 highlighted scientific research which established that school based interventions can be effective at changing eating behaviours and preventing overweight and obesity (Lobelo et al, 2013; Verstraeten et al, 2012). This can be achieved by the provision of nutrient dense foods and limiting the marketing and sale of energy dense foods with poor nutrient profiles including sweetened beverages (WHO, 2010).

Given the urgent need to address the increasing rates of overweight and obesity in Jamaica, and particularly the adolescent population, the GOJ has taken the decision to introduce the Interim Guidelines for Beverages in Schools pending the completion of the NSNP and the NSNS.

### 3. Scope

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Children's total energy intake should be met by consuming approximately:

- 10% of calories from protein
- 25-35% of calories from fat
- 55-65% of calories from carbohydrate (less than 10% from added sugars)

It is recommended that a limit should be placed on sweetened beverages sold and served in all public educational institutions, which serve age groups from 0 to 18 years. These include:

- Early Childhood Institutions (ECIs)
- Primary level institutions
- Secondary level institutions

It should also apply to all persons, companies or groups involved in the provision of beverages to the abovementioned categories of institutions, including but not limited to:

- canteens
- concessionaires
- vendors
- teachers
- school administration
- students

It is also recommended that the limits on sweetened beverages be applicable in and around the institution, and during regular school hours and special school activities.

#### 4. Recommendation for beverages in schools

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##### Prohibited

- **Sugar-sweetened beverages-** E.g. carbonated beverages (such as regular soda), fruit drinks, sports drinks, energy drinks, sweetened waters, and coffee and tea beverages that are above the maximum sugar concentration as set out in the implementation schedule below.

##### Permitted

- Plain water
- Unsweetened flavoured and infused water
- Unsweetened juices
- Unsweetened coconut water
- Unsweetened milk or milk products
- Unsweetened milk substitutes and milk substitute products

- Sweetened beverages (including flavoured and infused water) at or below the maximum sugar concentration as set out in the implementation schedule below.

**Cautionary notes:**

- It is recommended that caffeine content be less than 10mg per serving.
- The use of artificial sweeteners is discouraged; their use should be guided by the Food and Drug Regulations, 1975 and its relevant amendments as well as the list of approved sweeteners published by the US Food and Drug Administration, which the Ministry of Health has adopted.
- It is recommended that the package size for all beverages except water, sold or served to children (i.e. less than 18 years old), should be less than 12 ounces.

Implementation schedule

The Permanent Secretary of the MOEYI has approved the Interim Guidelines for Beverages in Schools. The directive to schools to implement these guidelines will be issued by the Ministry once approved by Cabinet.

Sweetened beverages will be deemed as being in excess of the sugar limit, and therefore prohibited from being sold or served in schools as per Section 3, if the total sugar concentration exceeds the following:

Maximum 6g/100ml	-	effective January 1, 2019
Maximum 5g/100ml	-	effective January 1, 2020
Maximum 4g/100ml	-	effective January 1, 2021
Maximum 2.5g/100ml	-	effective January 1, 2023

Monitoring will occur with the assistance of Parish Nutritionists and Dietitians. This will take the form of:

1. School Nutrition and Physical Activity Audit to be carried out at baseline (December 2018), after six (6) months and after one (1) year.
2. Activities geared towards supporting schools in implementing the Interim Guidelines for Beverages in Schools, included in the work plans of Parish Nutritionists and Dietitians.

## 5. Glossary

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<b>Added sugars</b>	Free sugars added to foods and beverages during manufacturing or home preparation (PAHO, 2016).
<b>Excessive sugar</b>	Excessive in free sugars, if in any given quantity of the product, the amount of energy (kcal) from free sugars (g of free sugars x 4 kcal) is equal to or higher than 10% of the total energy (kcal) (PAHO, 2016).
<b>Free sugars</b>	Monosaccharides and disaccharides added to foods and beverages by the manufacturer, cook, and/or consumer plus sugars that are naturally present in honey, syrups and juices. (PAHO, 2016).
<b>Infused Water</b>	Water into which flavours and other water-soluble compounds have been extracted from parts of plants (e.g. fruits, leaves), by suspending the plant material in the water over time.
<b>Intrinsic Sugar</b>	Sugars forming an integral part of certain unprocessed foodstuffs enclosed in the cell, the most important being whole fruits and vegetables.
<b>Other sweeteners</b>	Food additives that impart a sweet taste to a food, including artificial non-caloric sweeteners (e.g., aspartame, sucralose, saccharin, and acesulfame potassium); natural non-caloric sweeteners (e.g., stevia); and caloric sweeteners such as polyols (e.g., sorbitol, mannitol, lactitol, and isomalt). This category does not include fruit juices, honey, or other food ingredients that can be used as a sweetener (PAHO, 2016).
<b>School hours</b>	Active class sessions or once the school gate is opened to allow for interaction with students for the purposes of transfer of knowledge in teaching.
<b>Sugar- Sweetened Beverages</b>	Liquids that are sweetened with various forms of added sugars. These beverages include, but are not limited to, soda (regular, not sugar-free), fruitades, fruit flavoured juice drinks, sports drinks, energy drinks, sweetened waters, and coffee and tea beverages with added sugars. Also called calorically sweetened beverages (USDA, 2015)
<b>Sweetened Beverages</b>	Liquids for consumption, with any type of free sugar or other sweetener added during preparation
<b>Total sugars</b>	All sugars from all sources in a food, defined as “all monosaccharides and disaccharides other than polyols.” This concept is used for labeling purposes (PAHO, 2016).



**Unprocessed Foods**

Foods obtained directly from plants or animals that do not undergo any alteration between their removal from nature and their culinary preparation or consumption.

## 6. References

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1. Azad MB, Abou-Setta AM, Chauhan BF, Rabbani R, Lys J, Copstein L, Mann A, Jeyaraman MM, Ashleigh Reid E, Michelle Fiander, MacKay DS, McGavock J, Wicklow B, Zarychanski, R, Nonnutritive sweeteners and cardiometabolic health: a systematic review and meta-analysis of randomized controlled trials and prospective cohort studies, *Canadian Medical Association Journal*. 2017 Jul 17; 189(28): E929–E939.
2. Bleich SN, Wang YC, Wang Y, Gortmaker SL., Increasing consumption of sugar-sweetened beverages among US adults: 1988-1994 to 1999-2004, *American Journal of Clinical Nutrition* 2009 Jan;89(1):372-81.
3. Blake-Scarlett, BE, Younger N, McKenzie CA, Van den Broeck J, Powell C, Edwards S, Win SS, Wilks RJ, Prevalence of overweight and obesity among children six to ten years of age in the north-east health region of Jamaica, *West Indian Med J*. 2013 Mar;62(3):171-6
4. De Ruyter JC, Olthof MR, Seidell JC, Katan MB. A trial of sugar-free or sugar sweetened beverages and body weight in children. *New England Journal of Medicine*. 2012, **367**(15): 1397-406.
5. Ebbeling CB, Feldman HA, Chomitz VR, Antomelli TA, Gortmaker SL, Osganian SK, Ludwig DS.(2012) A randomized trial of sugar-sweetened beverages and adolescent body weight. *New England Journal of Medicine*. 2012; **367**(15): 1407-16.
6. Escobar CM, Veerman JL, Tollman SM, Bertram, MY, Hofman KJ, Escobar M C. (2013). Evidence that a tax on sugar sweetened beverages reduces the obesity rate: a meta-analysis. *BMC Public Health*, 13(1), 1072. *BMC Public Health*. Retrieved from <http://www.pubmedcentral.nih.gov/articlerender.fcgi?artid=3840583&tool=pmcentrez&rendertype=abstract>
7. Francis DK, Van den Broeck J, Younger N, et al. (2009). Fast food and sweetened beverage consumption: association with overweight and high waist circumference in adolescents. *Public Health Nutrition*. 2009; **12** (8):1106-1114.
8. Global School-based Student Health Survey, 2010
9. Global School-based Student Health Survey, 2017

10. Jamaica Youth Risk and Resiliency Behaviour Survey 2007.
11. Lobelo F, Garcia de Quevedo I, Holub CK, Nagle BJ, Arredondo EM, Barquera S, et al. School-based programs aimed at the prevention and treatment of obesity: evidence-based interventions for youth in Latin America. *J Sch Health* 2013; 83(9):668-7.
12. Ludwig DS, Peterson KE, Gortmaker SL, Relation between consumption of sugar-sweetened drinks and childhood obesity: a prospective, observational analysis, *The Lancet* Vol 357 February 17, 2001
13. Malik VS, Pan A, Willet WC, Hu FB. Sugar-sweetened beverages and weight gain in children and adults: a systematic review and meta-analysis. *American Journal of Clinical Nutrition* 2013; **98**(4): 1084-102.
14. Malik VS, Hu FB (2015). Fructose and Cardiometabolic Health: What the evidence from Sugar-sweetened Beverages Tells Us. *Journal of American College of Cardiology*. 2015; **66**(14): 1615-24.
15. Pan American Health Organization (2015). Taxes on Sugar-sweetened Beverages as a Public Health Strategy: the Experience of Mexico. Mexico DF, Mexico: PAHO 2015.
16. Pan American Health Organization (2016). Nutrient Profile Model. Washington, DC: PAHO, 2016
17. Pan American Health Organization (2014) Plan of Action for The Prevention of Obesity in Children and Adolescents 2014-2019, Washington, DC: PAHO, 2015
18. Reid AE, Chauhan BF, Rabbani R, Lys J, Copstein L, Mann A, Abou-Setta AM, Fiander M, MacKay DS, McGavock J, Wicklow B, Zarychanski R, Azad MB. Early Exposure to Nonnutritive Sweeteners and Long-term Metabolic Health: A Systematic Review. *Pediatrics*. 2016 Mar; 137(3):e20153603. Epub 2016 Feb 25.
19. Sylvetsky AC, Rother KI. Nonnutritive Sweeteners in Weight Management and Chronic Disease: A Review. *Obesity (Silver Spring)*. 2018 Apr; 26(4):635-640.
20. Te Morenga L, Mallard S, Mann J. Dietary sugars and body weight: systemic review and meta-analyses of randomized controlled trials and cohort studies. *BMJ* 2013; 346: e7492.

21. U.S. Department of Health and Human Services and U.S. Department of Agriculture. 2015–2020 Dietary Guidelines for Americans. 8th Edition. December 2015. Available at <http://health.gov/dietaryguidelines/2015/guidelines/>
22. Verstraeten R, Roberfroid D, Lachat C, Leroy JL, Holdsworth M, Maes L, et al. Effectiveness of preventive school-based obesity interventions in low and middle income countries: a systematic review. *Am J Clin Nutr* 2012 Aug; 96(2): 415–38.
23. World Health Organization (2015). Guideline: Sugars intake for adults and children. Geneva: World Health Organization; 2015.
24. World Health Organization. A framework for implementing the set of recommendations on the marketing of foods and non-alcoholic beverages to children [Internet]. Geneva: WHO; 2012; Available from: <http://www.who.int/dietphysicalactivity/MarketingFramework2012.pdf>