Be smart
Drink water
A guide for school principals in restricting the sale and marketing of sugary drinks in and around schools
# Table of Contents:

<table>
<thead>
<tr>
<th>01</th>
<th>02</th>
<th>03</th>
<th>04</th>
</tr>
</thead>
<tbody>
<tr>
<td>Why should children drink water?</td>
<td>Why are sugary drinks?</td>
<td>How much sugar is in typical drinks?</td>
<td>What are the health consequences of high sugar consumption?</td>
</tr>
<tr>
<td>Why was this guide developed?</td>
<td>Why are schools encouraged to restrict sugary drinks?</td>
<td>What is the &quot;sugar limit&quot; for children?</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>05</th>
<th>06</th>
<th>07</th>
<th>08</th>
</tr>
</thead>
<tbody>
<tr>
<td>The school food and drink environment</td>
<td>The school drink environment: What creates an &quot;unhealthy environment&quot;? (Infographic)</td>
<td>Why focus on schools?</td>
<td>Recommend actions for school principals</td>
</tr>
<tr>
<td>Three common types of marketing</td>
<td>What creates an &quot;unhealthy environment&quot;? (Infographic)</td>
<td>What works?</td>
<td>Success stories</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>09</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommend actions for school principals</td>
<td>The school drink environment: what creates a &quot;healthy environment&quot;? (Infographic)</td>
<td>References</td>
</tr>
</tbody>
</table>
Be smart
Drink water
A guide for school principals in restricting the sale and marketing of sugary drinks in and around schools
Drinking safe water is the best way for children to stay healthy and quench thirst.

Water is the best choice for children to restore the fluids their bodies have lost, for example, through sweating. If children lose too much water, they become 'dehydrated' and their bodies cannot function properly. Drinking safe water is the best way for children to stay hydrated.

Sugary drinks often provide unnecessary calories, and in the case of sodas, no benefit to health. Indeed, they cause dental decay and obesity. Children have learnt to like sugary and flavoured drinks, but their bodies just need safe drinking water. Children could and should get the fluids they need from water and the nutrients and calories they need from food.

How much water do we need?

The general recommendation for adults is to drink at least 2 litres of water per day. However, for those with physical jobs, exercising or living in hot climates, more is needed – up to 4 litres or more. Children should also drink at least 2 litres of safe water per day.

Optimal water source

If your school does not have 24-hour access to safe drinking water, ask your local government to connect your school to a piped water supply system. The parent-teacher association is a key partner to support this request.

Why was this guide developed?

School principals can ensure healthier school environments and help children become healthy adults. This guide explains why it is important for children to drink more water and less sugar, and proposes actions schools can take to help children achieve their full potential and become healthy adults.
School environments are important to build healthy food and drink habits among children. Schools are a good platform to reach a large number of children. Unfortunately, drinks marketed to children are unhealthy, energy-dense products high in sugar. Soft drinks are some of the most commonly marketed. Studies in countries such as Australia, Mongolia and the Philippines (6, 7) show that the density of unhealthy marketing is much higher in outdoor areas close to primary schools. Sugary drinks are also commonly sold in settings where children gather, including in and around schools.

What are sugary drinks?
Sugary drinks are all non-alcoholic beverages containing sugars, whether carbonated or still. These can include soft drinks, fruit juices, powdered fruit-flavored drink mixes, sweetened milk and yoghurt drinks, energy drinks, vitamin waters and sweetened iced teas (1, 2).

Why are schools encouraged to restrict sugary drinks?
Most excess sugars consumed by children and adolescents are in the form of sugary drinks (1).

There has been a substantial increase in the consumption of sugary drinks in low- and middle-income countries in Asia – the region has the second highest consumption rates after Latin America (3).

Schoolchildren and adolescents in the Western Pacific Region have high consumption of sugary drinks, with 50% of those aged 13–15 drinking these beverages at least once per day (4, 5).

How much sugar is too much?
The World Health Organization (WHO) recommends that sugars account for less than 10% of the total amount of energy a person consumes per day, both for children and adults. This is equivalent to around 12 teaspoons (50 grams or 200 kilocalories) of sugars per day, in the average adult diet of 2000 kcal (8).

For additional health benefits, WHO recommends a further reduction in sugar consumption to less than 5% of the total amount of energy a person consumes per day (6 teaspoons, or 25 grams, for a 2000 kcal diet) (8).

IMPORTANT:
The WHO definition of sugars (also called “free sugars”) includes all sugars added to any food or drink by the manufacturer, cook or consumer, and sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates (9).
WHO recommends consuming no more than 12 teaspoons of sugar per day

Did you know?
One can of soft drink (330 ml) contains about 8.5 teaspoons of sugar, the daily limit for children 4–5 years old (see table below). Fruit juices are often seen as a healthier option; however, they can have as much or even more sugar than soft drinks.

Typical sugar content of drinks

<table>
<thead>
<tr>
<th>Drink</th>
<th>Sugar Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soft drink/ soda</td>
<td>8.5 teaspoons</td>
</tr>
<tr>
<td>Bottled ice tea</td>
<td>5.5 teaspoons</td>
</tr>
<tr>
<td>Powdered fruit-flavored drink mix</td>
<td>9.5 teaspoons</td>
</tr>
<tr>
<td>Flavored yoghurt drink</td>
<td>7 teaspoons</td>
</tr>
<tr>
<td>Flavored milk drink</td>
<td>7 teaspoons</td>
</tr>
<tr>
<td>Energy drink</td>
<td>10 teaspoons</td>
</tr>
</tbody>
</table>

What is the sugar limit for children?

While 2000 kcal is the average amount of energy consumed per day by adults, this will vary for children depending on age, sex and level of physical activity. The below estimates the amount of energy needed for children and the limit for sugar consumption (10).

<table>
<thead>
<tr>
<th>Age</th>
<th>Girls</th>
<th>Boys</th>
<th>Limit for sugar consumption (10% of daily calories)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>grams (girls/boys)</td>
<td>teaspoons (girls/boys)</td>
<td></td>
</tr>
<tr>
<td>4–5</td>
<td>1250</td>
<td>1350</td>
<td>31/34 8/8.5</td>
</tr>
<tr>
<td>6–7</td>
<td>1425</td>
<td>1575</td>
<td>36/40 9/10</td>
</tr>
<tr>
<td>8–9</td>
<td>1700</td>
<td>1825</td>
<td>42/45.5 10.5/11.5</td>
</tr>
<tr>
<td>10–11</td>
<td>2000</td>
<td>2150</td>
<td>50/54 12/13.5</td>
</tr>
</tbody>
</table>

Be smart
Drink water
Health consequences of high sugar consumption

There are serious health risks in consuming high amounts of sugars: overweight and obesity, obesity-related diseases and dental diseases, including caries.

1) Overweight and obesity
Overweight and obesity are the result of an imbalance between the amount of energy consumed and spent, over time. Sugary drinks contain high amounts of calories, offering energy without any feeling of fullness or nutritional value (known as “empty calories”). The more sugary drinks they consume, the higher the risk of a child being overweight or obese. Replacing sugary drinks with healthier beverage choices, ideally safe drinking water, can reduce this risk.

Childhood overweight and obesity are linked to immediate health problems including breathing difficulties, hypertension and insulin resistance (11).

They also have various psychosocial consequences including depression, social isolation, low self-esteem and eating disorders.

Approximately 30% of obese children become obese adults, making childhood obesity the major risk factor for adult obesity (12).

2) Obesity-related diseases
Childhood overweight and obesity are linked to several diseases later in life, such as type 2 diabetes, heart diseases, stroke and hypertension, as well as certain types of cancer. At the same time, overweight and obesity in childhood is also leading to an increase in diseases, for example childhood hypertension and diabetes.

These can lead to premature ill-health, disability and death (13).

Adolescent obesity increases the risk of illness and premature mortality in adulthood, independent of the development of adult obesity (12).

3) Dental diseases
Children who consume sugary drinks are at increased risk of dental carries. The consumption of soft drinks is also associated with dental erosion (loss of tooth protective coating), in particular when soda is consumed every day and sports drinks more than once a week. The higher the consumption, the higher the risk (14). The use of mouth hygiene products with fluoride can reduce caries in children by 20–40%, but it does not completely prevent them. The most effective way to prevent dental carries is lowering the consumption of sugars, in particular sugary drinks (15).

When dental caries go untreated, the risk of dental infection increases. Untreated dental caries are a common reason for poor school attendance and performance in children (15).

Although not life-threatening, untreated caries have a harmful effect on eating ability and can result in considerable pain, anxiety, impaired social functioning and lowered self-esteem (15).

Be smart
Drink water
Why don’t our children choose safe drinking water?

Children have learnt to like sugary drinks. These unhealthy alternatives are often cheaper and more readily available than safe drinking water.

The school food and drink environment

The food and drink environment is a key driving force of childhood ill-health.

These four factors can create an environment in which it is very difficult for children to drink healthily:

- Absence or low availability of safe drinking water
- Absence or low availability of healthy food vendors in and around schools
- High availability and accessibility of sugars
- Aggressive marketing of sugary drinks

Sugar-sweetened beverage marketing in the spotlight

Children have the right to non-misleading and truthful information (9). However, at no time in history have children been more exposed to potential harms arising from the aggressive marketing of sugary drinks. Children are more vulnerable to marketing than adults. They have limited ability to understand the persuasive intent of marketing and its often misleading messages. They may not fully understand the consequences of unhealthy drinking habits (16).

Three common types of marketing

1) Advertising

Typical advertisement of sugary drinks at schools is done through branded vending machines, signage in school canteens, corridors and sports facilities, and on sun umbrellas and tents.

2) Sponsorship

Due to increased pressure on school budgets, advertisement, promotion and sponsorships are often seen as an alternative way to gather resources to diversify school activities. Industry often sponsors sports events, school programmes, equipment (including catering equipment such as aprons and caps or sun umbrellas) as well as educational materials, e.g. notebooks and pens. Sugary drinks are commonly marketed through sponsorships.

3) Promotion

Promotion of sugary drinks is done through the use of popular cartoon characters, branding, free samples or other “tie-ins” and celebrity endorsements. Price discounts may be given at schools or vouchers as educational rewards.

Be smart
Drink water
The unhealthy school drink environment

What creates an “unhealthy environment”?

- High availability of unhealthy options (for example sugary drinks)
- Aggressive marketing of sugary drinks (advertising, sponsorship, promotion)
- Absence or low availability of safe drinking water

Be smart
Drink water
Why focus on schools?

Food and drink preferences and habits are established at a young age and tend to persist into adulthood. School environments are important to build healthy food and drink habits among young people and are a good platform to reach a large number of children. Schools have been the setting for interventions to prevent childhood obesity in several countries.

A survey of school principals commissioned in 2015 by the WHO Regional Office for the Western Pacific in Manila, Philippines, showed:

1) School principals believe regulations are necessary. Principals recognized the school environment as challenging, and welcomed regulations by national and local government that could support them in providing safer and healthier school environments.

2) School principals believe that they, along with teachers and other school personnel, are role models for students. Their behaviour and choices can give children a good example and provide healthier school environments, in combination with a safe and healthy food environment at home.

School principals are in a privileged position to act in the best interest of their students. Schools have the power to establish their own policies in the absence of specific national, provincial or local regulations. Action can be taken both in and around schools (17).

What works?

Actions to reduce access to sugary drinks in school premises (canteens/lunch rooms, snack bars/kiosks, vending machines and school buses) have almost universally reduced consumption of these beverages among students, largely without any increased consumption of sugary drinks outside of school (18, 19). In schools without access to vending machines, children tend to consume fewer servings of sugary drinks.

The presence and close proximity of sugary drink vendors around school premises can increase students’ consumption of these beverages during school hours, due to ease of access. Limiting availability in school surroundings is an important step to ensure children consume fewer sugary drinks.

Success stories

France: the 2004 Public Health Law prohibited vending machines in all schools, resulting in a significant reduction in sugar intake (by 10–12 grams or 2.5–3 teaspoons) during mid-morning breaks (20, 21).

Netherlands: the Dutch Obesity Intervention in Teenagers conducted over one school year reduced the availability of sugary drinks, provided smaller serving sizes and boosted availability of healthy drinks in school canteens. In addition to changes in the school environment, a nutrition and physical education component was included. The intervention cut consumption of sugary drinks by 250 ml per day in both girls and boys (12–14 years old) involved in the project over both the short- and long-term. The success of the programme led to nationwide implementation (22).

Hungary: the Hungarian Aqua Promoting Programme in the Young (HAPPY) was implemented during a two-month period in primary schools in 2007. The programme promoted water consumption by providing free safe drinking water on school premises and by educating students. As a result, soft drink consumption decreased both in school and at home, with fewer students bringing sugary drinks to school and there was a significant increase in water consumption (21).

The Republic of Korea: has taken a comprehensive approach to promoting healthy diets through schools. Starting in 2002, a series of strategies were developed that addressed student health, including the National Obesity Prevention Program and the Five-Year Policy for Children and Adolescents (2008 - 2012). In 2006, the School Meals Act was amended to incorporate nutrition education into school curricula. Since 2007, sugary drinks have been banned in schools. Nutrition labelling was mandated for school meals in 2008. The Special Act on the Safety Management of Children’s Dietary Life was implemented in 2009, establishing “Green Food Zones” within 200 meters of schools, currently operational at over 10 000 schools nationwide, where the sale of “high calorie foods with low nutritional value” is prohibited. From 2005 to 2009, students reported an overall decline in weekly consumption of fast-food, instant noodles, confectionaries, and most notably carbonated beverages, which dropped from 77.6% to 66.5%.

Challenges

Brunei Darussalam: efforts to restrict the sale of soft drinks in school canteens were undermined by the rapidly increasing number of vendors located outside of schools and the increased availability of sugary drinks around schools (23).

Be smart
Drink water
What can you do?

Recommended actions for schools:
The impact of actions at schools can be maximized by combining environmental elements (reduced availability of sugary drinks, increased availability of healthy drinks, access to free drinking water) with educational elements (nutrition and healthy lifestyle education encouraging water consumption in place of sugary drinks) and the involvement of parents/caregivers.

Increase the availability of safe drinking water

- Ensure that safe drinking water is accessible at all times in school and at school events.
- If your school does not have 24-hour access to safe drinking water, ask your local government to connect your school to a piped water supply system. (The parent–teacher association is a key partner to support this request).
- Establish clear standards based on nutrition guidelines (e.g. nutrient profiling model) for other healthy drink options that may be provided/sold or marketed in school and at school events, such as unsweetened milk or unsweetened water flavoured with natural ingredients.

Promote awareness of healthy drink options for children

- Integrate nutrition information into the core curriculum. This should include information about the benefits of water and the harms of sugary drinks, for students to develop a proper understanding of healthy drinking habits and the ability to make informed choices.
- Provide nutrition training to teachers and emphasize their status as role models for healthy drinking.
- Provide children with materials to take home to their parents and caregivers with key messages that promote healthy drink options, and that promote the consumption of fresh fruit rather than fruit juice.
- Organize public events to improve knowledge and skills among parents, caregivers, and community leaders to foster healthy drink environments at home and in the community.
- Support a network of interested parents and other members of the school community to jointly promote awareness of healthy drink options for children.

Be smart Drink water
IMPORTANT:
Both public and private schools are encouraged to act to restrict the consumption of sugary drinks in and around schools.

Reduce the availability of sugary drinks

- Ban the provision and sale of sugary drinks in school and at school events, including through vending machines, in tuck shops, in canteens and by vendors.
- Monitor for violations by appointing a teacher and/or students to conduct regular inspections.
- Together with parents and the community, advocate to the local government to institute zoning requirements that prevent marketing of sugary drinks near schools and preventing corner stores and street vendors from opening near schools.

Prohibit marketing of sugary drinks

- Ban the marketing of sugary drinks in school and at school events, including through advertising, promotion, and sponsorship.
- Secure alternative funding sources from companies that do not make money from selling sugary beverages. Examples include telecommunications, sporting goods, or insurance.

Be an advocate for healthy diets/safe drinking water at school, at home and in your community

For more information, visit: http://www.wpro.who.int/nutrition/en/
The school drink environment

What creates a “healthy environment”?

A) Free safe drinking water available
B) School has access to a piped safe water supply system
C) Healthy drink options available (like unsweetened milk or teas)
D) Standards for drinks sold in schools upheld
E) Food and drinks sold in schools are labelled
F) Marketing of sugary drinks banned
G) Nutrition education integrated into the curriculum
H) School community network promotes healthy drink options
I) Nutrition information provided to the entire school community
J) Safe drinking water offered during school community activities
K) Entire school community engaged
L) Marketing and sale of sugary drinks banned around schools
M) Healthy drink options available around schools

Be smart
Drink water
1. Hu FB. Resolved: there is sufficient scientific evidence that decreasing sugar-sweetened beverage consumption will reduce the prevalence of obesity and obesity-related diseases. Obes Rev. 2013;14(8):606-19.