Toi Te Ora Public Health Service BAY OF PLENTY DISTRICT HEALTH BOARD

Serving Bay of Plenty and Lakes Districts

Drinks in Schools Report

A snapshot of the availability of sugary drinks in schools and kura in the Bay of Plenty and Lakes District Health Board areas

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Executive Summary

There is significant evidence around sugary drinks and their contribution to childhood obesity (Te Morenga, Mallard & Mann, 2013; Hu, 2013). Childhood years are when lifelong food and drink habits are established. Schools and kura have the opportunity to create a culture of healthy eating where children are supported to develop lifelong preferences that will help them grow into healthy adults.

Schools and kura are important role models for their communities and have an influence well beyond their students and their families. Schools and kura are well positioned to reduce the availability of sugary drinks (also known as sugar sweetened beverages or SSBs) to students and as a result improve nutrition and oral health. This action, if taken by schools, can contribute to reducing the risk of overweight and obesity, and diabetes at a population level. Recently this action has been endorsed by the Ministries of Health and Education through a letter sent to Principals and Boards of Trustees of all schools inviting them to remove sugary drinks and adopt *water-only* policies (see Appendix 1).

The availability of sugary drinks in all schools in the Bay of Plenty and Lakes District Health Board areas was unknown so Toi Te Ora – Public Health Service (Toi Te Ora) (see Appendix 2) completed a stocktake to establish this baseline information. A telephone survey conducted with all 189 schools (including all levels and types of schools) asked questions about the types of drinks available for purchase at the school, whether there were bans on sugary drinks in place, and methods of promotion of water to students. With a 99.5% response rate, key findings confirmed that:

- 73% of students in the Bay of Plenty and Lakes District Health Board areas have sugary drinks available for purchase at school
- flavoured milk and juice are the most commonly available sugary drinks across all school types
- approximately 30% of primary schools, 50% of intermediate schools and 100% of secondary schools have flavoured milk and/or juice available for purchase
- no primary schools or intermediate schools have fizzy drinks available or for sale at school but over 60% of secondary schools have fizzy drinks available for purchase
- the availability of sugary drinks typically increases as students move up levels of schooling, that is, from primary to intermediate to secondary school.

In primary schools, a smaller proportion of decile 1-4 schools have flavoured milk and juice available for purchase than decile 5-10 schools (when averaged and grouped).

Bans are used by schools to prevent sugary drinks being brought into the school. Across all schools, 20% of schools banned all six types of sugary drinks which were fizzy drinks, sports drinks, energy drinks, juice, flavoured milk and flavoured water. There is a higher level of bans on fizzy drinks, energy and sports drinks than flavoured milk, juice and flavoured water. Over 60% of all schools ban fizzy drinks and at least 40% also ban sports drinks and energy drinks. Secondary schools have the largest range of sugary drinks and none of them ban any drinks.

In addition to the telephone survey, the experience of some schools that have already successfully removed sugary drinks was obtained. Of these schools, all had removed sugary drinks simultaneously, and had normalised water as the only drink of choice and communicated this expectation to parents. All of these schools reported school organisational practices as vital to creating and sustaining a *water-only* environment. One of the schools formalised the decision to have *water-only* at school by including it in their charter.

Organisational practices that support a *water-only* environment are:

- strong leadership, including the support of the Board of Trustees
- consistent communication with the whole school community
- adoption of school wide guidelines reinforced by teachers
- review of and adaptation to physical environments to make water an easy and comfortable choice for the whole school community.

Both the current availability of sugary drinks and common experiences of schools that have successfully removed sugary drinks, inform the following recommendations to schools and community-based health organisations. They may also provide direction for reducing the consumption of sugary drinks in other settings, for example, workplaces.

To promote sugary drink free environments:

Schools can:

- remove juice and flavoured milk from school lunch order systems and canteens
- strengthen leadership, communication, and school organisational practices to support the removal of sugary drinks and the development of a *water-only* environment including a *water-only* policy
- review and adapt the physical environment to make water an easy and comfortable choice
- share ideas on approaches and challenges especially with schools of similar sizes, ethos or characteristics
- set collaborative goals to remove sugary drinks across all levels of schooling in a locality (for example, a primary, intermediate and secondary school in a suburb or locality)
- actively promote water and plain milk
- ban sugary drinks brought from home to reinforce a water-only environment
- not allow sponsorship, advertising or marketing of sugary drinks on school premises, at events and in school sporting activities
- if relevant, limit the introduction of new sugary drinks under any current canteen contract or lunch order contract, and then remove sugary drinks when canteen or lunch order contracts come up for renewal.

Community-based health organisations can:

- communicate the findings in 'Part A' of this 'Drinks In Schools' report to advocate for the removal of sugary drinks from schools
- communicate the findings in 'Part B' of this 'Drinks In Schools' report and advocate for the normalisation of water as the only drink
- seek opportunities to communicate with multiple schools through cluster meetings, Communities of Schools, and all levels of schools, for example, Principals' Association meetings
- provide web-based information and resources to increase understanding, in the whole school community, of the health effects of sugary drinks
- provide web-based information and resources to support schools to formalise and communicate their decision to create a sugary drink free environment
- support schools to develop policies and guidelines to support and sustain a *water-only* environment and reinforce this in strategic documents such as their school charter, new entrant pack or prospectus
- support the school's pace of change and school's ethos, for example, resources can be adapted by schools to suit their charter and community.

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Why focus on sugary drinks in schools?

In 2013, Toi Te Ora – Public Health Service (Toi Te Ora) identified childhood obesity prevention as one of its long term strategic goals and has undertaken considerable work to review the evidence of what may work to help reduce the prevalence of childhood obesity. One of the primary strategic objectives identified to progress this is to reduce consumption of sugar sweetened beverages (SSBs) by school-aged children. SSBs are drinks that contain added sugar. For the purposes of this *'Drinks in Schools'* report, SSBs will be referred to as sugary drinks.

Consumption of sugary drinks contributes to the risk of obesity, diabetes and tooth decay in children and adults (Toi Te Ora, 2015a). The World Health Organization (WHO) guidelines indicate that, ideally, adults should consume no more than about six teaspoons of sugar per day, and children no more than about three to four teaspoons of sugar per day (World Health Organization, 2015). Toi Te Ora recommends water and plain milk as the preferred drinks for children.

There are examples of schools, both nationally and locally, that have removed sugary drinks and created a *water-only* environment. Based on knowledge from seventy schools that Toi Te Ora currently support in the Health Promoting Schools (HPS) programme¹, we know that schools are well positioned to influence student health and nutrition. Schools also regularly communicate health messages to parents and whānau and so have a wider influence on health and nutrition in the home and community.

The purpose of this report is to inform actions to reduce the availability of sugary drinks in schools and kura in the Bay of Plenty and Lakes District Health Board areas. The information in this report was collected in separate ways and is organised as:

Part A: A stocktake of sugary drinks availability in schools and kura in the Bay of Plenty and Lakes District Health Board areas

Part B: Organisational practice in schools that have removed sugary drinks.

The first part of this report presents the information provided by schools and so describes the current availability of sugary drinks in schools and kura in the Bay of Plenty and Lakes District Health Board areas. This provides useful information that can inform actions to reduce sugary drink consumption and can be used to monitor progress with reducing sugary drink availability and consumption.

The second part of this report describes and summarises the organisational practices of four schools that have successfully removed sugary drinks and become *water-only* schools.

With the intention of supporting and encouraging schools to become *water-only* schools, this report has been developed for use by Toi Te Ora, the Heart Foundation, local oral health promoters, Healthy Families (NZ) Rotorua and Healthy Families (NZ) East Cape, regional delegates of the Ministry of Education, and other stakeholders.

¹ Health Promoting Schools is a Ministry of Health funded programme for Decile 1-4 Schools.

Part A: A stocktake of sugary drinks availability in schools and kura in the Bay of Plenty and Lakes District Health Board areas

Background

The availability of sugary drinks in all schools in the Bay of Plenty and Lakes District Health Board areas was not known, so a stocktake was proposed to establish this baseline information. This information will help to identify actions for collective impact and enable monitoring of progress towards reducing sugary drink consumption.

Toi Te Ora partnered with the Heart Foundation to complete the stocktake. The Heart Foundation works alongside Early Childhood Education (ECE) services and schools to improve healthy eating and physical activity. Therefore it was appropriate to combine resources to work on this area of common interest.

It is important to acknowledge that many schools offer milk to students daily through Fonterra's Milk for Schools programme. Water and plain milk are recommended as the preferred drinks for children by Toi Te Ora (Toi Te Ora, 2015b) and therefore plain milk is another drink option for schools without sugary drinks.

Throughout this report, brand names have been replaced with generic descriptions of the type of drink.

Method

The Heart Foundation and Toi Te Ora conducted a telephone survey (see Appendix 3) with all 189 schools in the Bay of Plenty and Lakes District Health Board areas. The staff member that answered the school office phone was asked four survey questions. If the respondent redirected the enquiry to another staff member at the time, the survey was conducted with them. In a small number of schools, the interview was conducted with a specific staff member by return phone call.

In primary schools, the school administrator most often answered the survey, and in secondary schools, the canteen manager most often answered the survey. In many small schools or kura, the Principal or Tumuaki answered the survey.

The following table provides the year groups of students that are enrolled in different types of schools in the Bay of Plenty and Lakes District Health Board areas. The second section of the table lists the groups of schools that are regularly referred to in the results.

| Types of school | Year groups |
|---|-----------------------------------|
| Full Primary School | Years 1-8 |
| Contributing Primary School | Years 1-6 |
| Intermediate School | Years 7-8 |
| Composite School (previously Area School) | Year 1-15 |
| Secondary School | Year 7-15 |
| Secondary School | Year 9-15 |
| Special School | |
| Teen Parent Unit | |
| Groups of schools | |
| All | All types of schools listed above |

Table 1: Types and composition of schools.

| Primary Schools | Full Primary and Contributing Primary schools |
|----------------------|---|
| Intermediate Schools | Years 7 & 8 |
| Secondary Schools | Secondary schools (Years 7-15 & Years 9- 15) |

Figure 1: Types of schools in Bay of Plenty and Lakes District Health Board areas.



Source: 2015 July roll return, Ministry of Education

The proportion of each type of school in the Toi Te Ora region is shown in Figure 1 above. Primary schools, including contributing or full primary, are the largest groups. There are fewer intermediate schools and colleges but they provide for many more students.

Results

Of a total of 189 schools in the Bay of Plenty and Lakes District Health Board areas, 188 schools answered the survey and one school was not able to be contacted. This represents a 99.5% response rate.

Sixty-two percent of schools had either a lunch order system or a canteen and 54% of schools sold one or more types of sugary drinks. However, the total school roll numbers in these schools confirm that a significant percentage of students (73%) are in schools that had sugary drinks available for purchase. A large proportion of the schools that do not sell sugary drinks are small schools. Some of these small schools are geographically isolated and feedback received from these schools was that they were *water-only* because of their geographic isolation.

Of the schools that have provision for purchased lunches, primary schools (full and contributing) usually had lunch order systems, whereas secondary schools (Years 7–15) and 9-15 inclusive) usually had canteens. There was no distinction made between types of lunch order systems but during the survey we became aware of online order systems.

Availability of drinks

Of schools that had sugary drinks available for purchase, on average secondary schools have five types, intermediate schools have three types and primary schools have two types. Figure 2 shows the percentage of all schools offering each type of drink.



Figure 2: Availability of sugary drinks in all schools.

Juice and flavoured milk were the most common sugary drinks available in all schools by a large margin. A total of 41% of schools had juice available to purchase and 36% of schools had flavoured milk available to purchase. The next most common sugary drink was flavoured water and it was available in 13% of schools. The remaining types of sugary drinks named in Figure 2 were each available in less than 10% of all schools. The category labelled 'other' included five types of sugary drinks and they were available in fewer than 5% of schools.

As shown in Figure 3, the most common sugary drinks increase in availability as students' progress through primary, intermediate and secondary schools. This means that students are more likely to be able to purchase sugary drinks at school as they move up school levels.



Figure 3: Availability of most common sugary drinks, by school type.

Approximately 30% of primary schools and 50% of intermediate schools had either flavoured milk and/or juice available. All secondary schools had juice available and more than 60% of secondary schools had flavoured milk and/or fizzy drinks. Some secondary schools reported they only had artificially sweetened fizzy drinks, for example Zero or Diet varieties, however these have not been recorded separately.

No primary or intermediate schools have fizzy drinks available to purchase.

Composite schools cater for students from Year 1-13. They cater for settlements that are located over a widespread area or they may be of special character. The most common drinks are less available in these schools.

Some differences in availability of sugary drinks were evident across deciles of primary schools. Lower decile schools as a group were less likely to have sugary drinks available for purchase than higher decile schools as shown in Figure 4.



Figure 4: Availability of sugary drinks in primary schools, by school decile.

Bans on Drinks

In the survey, schools were asked if they banned any of six types of sugary drinks. These drinks were selected as they were likely to be to be commonly available in schools. They were fizzy drinks, energy drinks, sports drinks, juice, flavoured milk and flavoured water. Primary schools were more likely to ban one or more of these drinks as shown in Figure 5.



Figure 5: Proportion of schools that have a ban on specific types of sugary drinks.

Over 60% of all schools banned fizzy drinks and at least 40% also banned sports and energy drinks. Fewer schools (around 20%) banned juice, flavoured milk and/or flavoured water. Twenty percent of schools (20%) banned all six sugary drinks as shown in Table 2.

| Type of school | Number of schools that ban all six* sugary drinks | Total schools | % of schools that ban all six* sugary drinks |
|-------------------------|--|---------------|---|
| Primary | 27 | 133 | 20 |
| Intermediate | 2 | 9 | 22 |
| Secondary | 0 | 22 | 0 |
| Composite (Year 1 – 15) | 7 | 20 | 35 |
| Other | 3 | 14 | 21 |
| Total | 37 | 189 | 20 |

Table 2: Bans on six types of sugary drinks in all schools.

*The six types of sugary drinks are those shown in Figure 5.

Proportionately, more composite schools (35%) banned all six types of sugary drinks than any other type of school, followed by intermediate, primary and 'other' schools at around 20%. The 'other' schools category includes teen parent units and special schools.

There is considerable use of bans across all deciles of primary schools to restrict drinks as shown in Figure 6. It is common for primary schools to ban fizzy drinks, energy and sports drinks but less common to ban juice, flavoured milk and flavoured water.



Figure 6: Bans on sugary drinks in primary schools, by school decile.

Primary school bans on drinks by decile show a higher percentage of Decile 1-4 schools had bans on fizzy drinks, energy and sports drinks. The use of bans is less for juice, flavoured milk and flavoured water for all primary schools. However, a slightly higher percentage of Decile 5–10 schools ban these drinks.

Promotion of water

A total of 246 comments were received about the differing ways schools promoted water. Not all schools commented and some schools made more than one comment. Figure 7 shows how often these comments were made.



Figure 7: Methods reported by schools to promote water.

Around 88% of schools promoted water in some way.

The two most common methods schools used to promote water were drinking fountains and allowing water bottles in class. Together these accounted for nearly half of all methods reported by schools. Other ways schools promote water revealed a variety of methods that are working for schools. The largest number of comments in the "other" category was "informing parents that sugary drinks are not allowed."

A smaller number of general comments were also received from schools. Only a few schools mentioned comments of a similar theme. These comments were that the schools:

- "do not support bans due to proximity to dairies and other shops that sell drinks"
- "normally promote water but also have fundraisers or special days where other drinks including fizzy are allowed"
- "belong to a programme with an underlying health or sustainability ethos, for example, Health Promoting Schools or Enviroschools"
- "link water to performance in sport, optimum learning and hydration (to avoid headaches)".

Discussion

The survey confirmed that a significant percentage of schools (46%) do not have sugary drinks for purchase. However, a high proportion of these schools are small therefore their collective influence to help reduce sugary drink consumption is relatively limited.

Information was not collected on drinks brought to school in lunch boxes. However the results showed some schools, including some large intermediate schools, use bans to prevent certain types of sugary drinks being brought to school.

While there is a wide range of sugary drinks available across all schools, flavoured milk and juice are the most common sugary drink options for schools of all types. As students move up the levels of schooling, they experience a greater range and availability of sugary drinks at school. Around half of intermediate schools have flavoured milk and juice available which is substantially more than primary schools.

Primary schools have higher levels of bans on all types of sugary drinks. This indicates that primary schools actively consider drink options more than other schools. Of note, intermediate and primary schools currently do not sell fizzy drinks at all.

Within primary schools there is a pattern where decile 1-4 schools are less likely to have sugary drinks than decile 5-10 schools. This could be associated with characteristics of lower decile schools. For example, geographical isolation may reduce access to sugary drinks or there may be greater emphasis in these schools on activities to reduce sugary drink consumption. Decile 1-4 primary schools are also eligible to participate in the HPS programme, co-ordinated by Cognition Education and funded by the Ministry of Health. HPS schools are supported to make improvements to their school food and drink environment if they identify nutrition as a priority area.

The large majority of secondary schools have sugary drinks available for purchase. Compared to all schools, secondary schools have the largest range of sugary drinks and none of them ban any drinks. Efforts by some secondary schools to only offer fizzy drinks in smaller sizes and/or artificially sweetened varieties were reported and are acknowledged. The availability of fizzy drinks of any type supports brand promotion, maintains a preference for sweet taste and contributes to erosion of teeth. Secondary schools generally demonstrated a non-regulatory approach to sugary drinks which might be expected as most secondary school canteens are contracted out as businesses. This will need to be considered when assessing options to reduce sugary drink availability in secondary schools.

It is interesting to note that all composite schools have less sugary drink availability than secondary schools, and proportionately, they ban all sugary drinks more often than all other schools. This might be due to the wider range of ages in composite schools compared to other schools, their geographical isolation or other special characteristics, such as a religious charter.

The difference between school types and availability of sugary drinks suggests that collaborative goal setting between primary, intermediate and secondary schools in a community is likely to be an effective approach. This approach recognises the variation between schools and acknowledges the student experience when progressing from one school to the next. It is also aligned to the expectations of the wider community rather than the parents of just one school.

The two most common methods of promoting water, that is, drinking fountains and allowing water bottles in class, assisted in making water easily accessible to all students. Other methods used communication to modify behaviour such as encouraging students to drink water regularly and discouraging consumption of drinks other than water. Another method

was to simply provide water only. Water coolers and school purchased water bottles were examples of methods that demonstrated the commitment of some schools to encourage equal access to and enjoyment of drinking water for students. It was interesting to note that informing parents was not mentioned as often by schools as other methods.

This Drinks in Schools survey has provided some useful information about the range and availability of sugary drinks in schools and kura in the Bay of Plenty and Lakes District Health Board areas, and the frequency of the use of bans on a common range of sugary drinks.

There were a few minor limitations of the survey. The survey did not ask about drinks brought to schools from home. However, it did ask about bans and it is most likely that schools with bans use these to manage drinks brought from home. There may also be other methods schools use to restrict or prevent specific drinks being brought from home. It is reasonable to assume schools would allow the same drinks available on their lunch order system to also be brought from home.

Some schools responded that the word 'ban' was too strong. The terminology used by schools is individual and the term 'ban' did not resonate with every school's experience. Therefore the percentages of schools reporting a ban on certain drinks may be underestimated as schools also use practices with other descriptions to restrict sugary drinks.

The survey made no distinction between lunch order systems and online lunch order systems, such as The Lunchbox Club (online ordering system for lunches), which a few schools mentioned. It is likely that schools included drinks from the online lunch order systems when providing their feedback, but since the survey did not ask this, no absolute conclusions can be drawn. Twenty four schools in the Bay of Plenty and Lakes District Health Board areas are registered with The Lunchbox Club. The Lunchbox Club website links schools to a food outlet in their locality, and enables the school's community to access and order from a menu previously approved by the school. It is likely that the use of online order systems will increase.

Part B: Organisational practice in schools that have removed sugary drinks

Background

Some schools in the Bay of Plenty and Lakes District Health Board areas and beyond have already removed sugary drinks and are offering only water and plain milk. These schools are likely to have implemented organisational processes and adopted new practices to reach this point. This information is valuable to helping encourage other schools to do the same.

Currently, the Fonterra Milk for Schools programme is available to all primary schools in New Zealand and 73% of New Zealand schools are receiving it. Where schools are signed up to the programme, students are supplied with a small carton of plain milk every school day. This milk does not have added sugar so is not a sugary drink.

Toi Te Ora recommends water and plain milk as the preferred drinks for children. Schools vary in their practice of promotion of drinks. Many have options available that commonly contain added sugar such as soft drinks, fizzy drinks, sports drinks, energy drinks, fruit drinks, flavoured milks, flavoured waters, and iced teas/coffees.

Aim and method

The aim of this research was to identify organisational practice employed by schools to introduce and maintain the promotion of water as the only drink of choice. This information will be used by Toi Te Ora and other stakeholders to mobilise and support actions that encourage schools to create and sustain a *water-only* environment.

Four schools were selected to participate in this survey. These schools were selected because they were either well-known for the *water-only* environment they had created, promoted this on their website, or were referred to us by another school. The four schools, two in Bay of Plenty and one each in Hamilton and Auckland, were contacted by telephone and asked three open-ended questions. The questions were answered by either a Principal, a deputy Principal or a key member of staff who had knowledge of how the school had progressed to create a *water-only* environment.

Results

The information provided by schools fell into three main areas of school organisational practice. These were leadership, communication, and adaptation of physical environments. This section will provide a breakdown of each.

1. Leadership

Most schools reported they do not describe themselves as a *water-only* school. Rather they see themselves as schools that have normalised water as the only choice by simply not allowing other drinks and communicating this expectation to parents.

Some schools shared their purpose for normalising water with students, staff and parents. They promoted the benefits of water for learning, taught students about 'brain food' and others made links to cultural values by emphasising water being taonga, or promoted taglines such as 'wai is best'. Several schools mentioned environmental reasons as motivation for *water-only*, such as the reduction of litter from packaged drinks, and sustainable practices like collecting water for drinking.

One of the four schools surveyed had a *water-only* policy. No schools mentioned a *water-only* policy within a nutrition policy. However, one school made the decision to become *water-only* following a change to healthy food items in their lunch orders. They reported it was a logical step.

All schools identified that strong leadership and strategic direction were both integral to gaining agreement as was support for *water-only* from their Board of Trustees. Examples of this included principals linking *water-only* with improved educational outcomes, inclusion of a *water-only* goal in the school's charter and the development and communication of a *water-only* policy.

Commitment to the purpose of promoting *water-only* was essential from all levels of school management and staff to create and maintain new organisational practices. An example given to achieve this was a display or presentation of high quality resources and factual information on the amount of sugar in sugary drinks.

2. Communication

Parents

All schools communicated the decision to normalise water to parents. Most schools did this through their school newsletter and some also used their website or Facebook page.

All schools promoted positive catchphrases about water which aligned with their agreed purpose (as discussed above), and requested parents provide a water bottle for students to use and refill at school. One school used Facebook to inform parents of the effects of sugary drinks. For example, they used a photograph of decaying teeth to motivate parents to understand the rationale for eliminating sugary drinks. They cited a moral responsibility to students as motivation for this.

When communications in the school newsletter were not followed, and other drinks were provided by parents, schools used a consistent response. Examples of this was returning these drinks home that afternoon with a reminder not to bring them again, or an amnesty at the school's gate where parents and students hand in any other drinks, both reinforcing the school's decision.

However, some schools reported that occasionally a few parents do not adhere to the *water-only* expectation, such as when sugary drinks are brought in to the school for sports days or when parents would think that fruit juices were acceptable.

Students

All schools communicated to students that water and milk were the only options available at school. All schools had adopted guidelines that all teachers reinforced which included:

- encouraging students to use drinking fountains to refill water bottles
- institutionalised water breaks
- allowing students to refill their bottles as needed.

Most schools reported that students understood the *water-only* decision and it was largely unquestioned because it applied to all students. Several schools mentioned that at the time the school made the decision to promote *water-only*, teachers were concerned they would need to 'police' the rule; however they found this was not necessary. In fact, students reported any instances of the rules being breached to the teachers.

Some schools integrated curriculum around label reading, which included teaching the recommended maximum daily sugar intake. Other schools mentioned that resources by the Heart Foundation, Health Promotion Agency and Sport Waikato's Project Energise had been sent home with students and had positively influenced parents to change rules at home.

Staff

Several schools mentioned that staff must role model the behaviour they want or 'walk the talk' in front of students so may choose water, milk, tea or coffee only at school. If they choose to drink other options, they must leave school grounds to do so.

A few schools identified ongoing challenges with some teachers still wanting to have 'treats' in class lunches. The feedback from this sample of schools revealed at least one school diverts from the usual *water-only* promotion if they believe the impact is limited and brief. For example, one school agreed that treats can be included in a class party if only held twice a year.

3. Review of and adaptations to the physical environment

All schools had considered convenient and easy access to water for all students.

Most schools reviewed the number of fountains and had systems in place for regular cleaning and prompt attention to any weekend vandalism of fountains. Some schools had ensured the fountains were covered or inside. One school had signs declaring the school grounds as a *water-only* area.

Discussion

All schools demonstrated leadership and communication to the whole school community around their decision to be a *water-only* school. If not at the outset, then very early on, the Principal and senior management were involved in this decision and how this decision was communicated. To ensure success, all schools had adapted their physical environment and agreed on school guidelines to make water easy to access by students, parents and whānau. These areas of organisational practice were vital to create and sustain a *water-only* environment. However, despite the best groundwork, feedback revealed occasionally parents or staff did not adhere to school guidelines. Some ideas to manage breaches would be practical for schools.

All schools reported different rationale, catchphrases and use of resources to communicate their *water-only* decision. They were also distinctive in their process. For some, it was a structured process that was ordered and for others the process was more organic. This suggests that when considering a useful model for schools, it should have multiple entry points and a multi-faceted pathway of progression. It is reasonable to conclude that schools are more likely to choose resources that can be adapted to suit their community.

Whilst all schools communicated to all groups (students, staff and parents/whānau), the results reveal that parents/whānau and staff were more likely to challenge the *water-only* environment than students. It is therefore interesting to see that students were the subjects of increasing knowledge through label reading or external health programmes rather than parents/whānau or staff. This warrants further exploration, suggesting that there may be a gap in opportunities to increase knowledge of the impact of sugary drinks to parents /whānau and staff.

Recommendations

Both the current availability of sugary drinks and common experiences of schools that have successfully removed sugary drinks, inform the following recommendations to schools and community-based health organisations. They may also provide direction for reducing the consumption of sugary drinks in other settings, for example, workplaces.

To promote sugary drink free environments:

Schools can:

- remove juice and flavoured milk from school lunch order systems and canteens
- strengthen leadership, communication, and school organisational practices to support the removal of sugary drinks and the development of a *water-only* environment including a *water-only* policy
- review and adapt the physical environment to make water an easy and comfortable choice
- share ideas on approaches and challenges especially with schools of similar sizes, ethos or characteristics
- set collaborative goals to remove sugary drinks across all levels of schooling in a locality (for example, a primary, intermediate and secondary school in a suburb or locality)
- actively promote water and plain milk
- ban sugary drinks brought from home to reinforce a water-only environment
- not allow sponsorship, advertising or marketing of sugary drinks on school premises, at events and in school sporting activities
- if relevant, limit the introduction of new sugary drinks under any current canteen contract or lunch order contract, and then remove sugary drinks when canteen or lunch order contracts come up for renewal.

Community-based health organisations can:

- communicate the findings in 'Part A' of this 'Drinks In Schools' report to advocate for the removal of sugary drinks from schools
- communicate the findings in 'Part B' of this 'Drinks In Schools' report and advocate for the normalisation of water as the only drink
- seek opportunities to communicate with multiple schools through cluster meetings, Communities of Schools, and all levels of schools, for example, Principals' Association meetings
- provide web-based information and resources to increase understanding, in the whole school community, of the health effects of sugary drinks
- provide web-based information and resources to support schools to formalise and communicate their decision to create a sugary drink free environment
- support schools to develop policies and guidelines to support and sustain a *water-only* environment and reinforce this in strategic documents such as their school charter, new entrant pack or prospectus
- support the school's pace of change and school's ethos, for example, resources can be adapted by schools to suit their charter and community.

References

Hu, F.B. (2013). Resolved: there is sufficient scientific evidence that decreasing sugarsweetened beverage consumption will reduce the prevalence of obesity and obesity-related diseases. *Obesity Reviews*, 14(8), 606-19.

Te Morenga, L., Mallard, S. and Mann, J. (2013). Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies. *British Medical Journal*, *346*:e7492.

Toi Te Ora – Public Health Service, (2015a). *Internal Briefing Paper: Toi Te Ora's Childhood Obesity Prevention Strategy*.

Toi Te Ora – Public Health Service, (2015b). *Position Statement – Sugar Sweetened Beverages.*

World Health Organization, (2015). *Guideline: Sugars intake for adults and children. Geneva.*

Appendices

Appendix 1 – Water-only policy template



SUGGESTED TEMPLATE - ADD OR DELETE CONTENT AS REQUIRED

Our school is water-only

Rationale

We care about the health of our students Sugary drinks¹ are one of the most significant causes of poor oral health and contribute greatly to childhood obesity and Type 2 diabetes.

We care about their achievement

Sugary drink consumption is associated with problem behaviours. Studies have found poor diet and nutrition are associated with lower academic achievement.

Our commitment

We will ensure parents and students receive clear, consistent messages about the importance of healthy choices and the impact of sugary drinks by:

- continuing to educate students about the importance of healthy drink choices and the benefits of consuming water
- · actively promoting water as the best option in school publications
- ensuring staff commitment to model healthy drinking habits.
- And we will create an enabling environment by:
- · actively discouraging sugary drinks being brought to school by students
- · providing water (and plain reduced fat milk) as the only drink option for students
- · allowing students access to water during class time
- · not associating our school with programmes that promote sugary drinks
- ensuring school lunch options don't include sugary drinks
- ensuring sports teams will only use water as their source of hydration
- not selling sugary drinks as part of sausage sizzles, the school gala or other celebrations.

ny beverage that contains added caloric sweetener usually sugar. The main categories of sugary drinks include soft-drinks/fizzy-drinks, sachet mixes, fruit drinks, cordials, pured milks, flavoured waters, cold teas/coffees, and energy/sports drinks

Appendix 2 – About Toi Te Ora – Public Health Service

Toi Te Ora - Public Health Service (Toi Te Ora) is one of twelve public health units funded by the Ministry of Health and is the public health unit for the Bay of Plenty and Lakes District Health Boards. The purpose of Toi Te Ora is to improve and protect the health of the population in the Lakes and Bay of Plenty districts with a focus on reducing inequalities.

The map below shows the area Toi Te Ora covers:



Appendix 3 – Survey questionnaire

Survey on 'Drinks in Schools'

Hello, I am ______ from Toi Te Ora/Heart Foundation. How are you today?

As part of research we are gathering, I am ringing to find out what drinks are available to students at your school.

| | Respondent is listening, continue | Respondent redirects you: e.g. You will need to speak to: (note these details) Name |
|---|---|---|
| / | | Ph Best time to call |

1. Does your school have a canteen?... OR... a lunch order system? (circle)

| ↓ 2. What drin | ks do you have availa | ble in your school ca | nteen / lunch order | system? (list) |
|-------------------|-----------------------|-----------------------|---------------------|----------------|
| what unit | | | | |
| | | | | |
| | | | | |
| | | | | |

| | Enter Y for Yes | N for No |
|-----------------|-----------------|----------|
| Energy Drinks | | |
| Fizzy | | |
| Juice | | |
| Sports drinks | | |
| Flavoured milk | | |
| Flavoured water | | |

4. Is there anything you do in your school to promote drinking water to students? (list here and over page if required)

That's all we need to know. Thanks for your time.