



Toi Te Ora Public Health PO Box 2120 TAURANGA 3140

19 May 2022

## RE: Proposed changes to the promotion and provision of healthy drinks in schools

# Submitter details:

Toi Te Ora Public Health (Toi Te Ora) is the public health service for the Bay of Plenty and Lakes areas. Our role is to promote and protect the health of the community with a focus on the achievement of health equity, in particular for Māori. Toi Te Ora appreciates the opportunity to comment on the public health perspective on the Ministry of Education's **Discussion document: Proposed changes to the promotion and provision of healthy drinks in schools.** 

# Definition of sugar sweetened beverages

Sugar sweetened beverages (SSBs) are drinks that contain added sugar. Drinks that commonly have added sugar are soft drinks, fizzy drinks, sports drinks, energy drinks, fruit drinks, powdered drinks, cordials, flavoured waters, and iced teas/coffees. For the purposes of this submission the term SSBs will be used.

Q1: In what capacity are you providing feedback? For example, are you responding as a parent, student, organisation, principal, teacher, or other interested person? Please specify your role and, if applicable, the type of school you work in.

Toi Te Ora is the public health unit for the Bay of Plenty and Lakes District Health Boards and serves a population of over 300,000 people (Ministry of Health, 2021a; Ministry of Health, 2021b). This region has a high Māori population, with 25.6% of the population in the Bay of Plenty being Māori, and 36.9% in the Lakes region. The purpose of Toi Te Ora is to improve and protect the health of the population with a focus on the achievement of equity, in particular for Māori. Unhealthy diets are a symptom of inequities in income, food security, food choices and access to land and safe drinking water. Māori are more likely to experience these inequities, which is not meeting obligations of Article Three of Te Tiriti o Waitangi. A priority goal for Toi Te Ora is to reduce childhood obesity and to help ensure that every child in the Bay of Plenty and Lakes area grows up in an environment which enables them to be a healthy weight throughout their lives.

# Q2: Do you agree with our view of the problem? If not, why not? What other problems, if any, do you think should be taken into consideration in assessing options?

Yes, Toi Te Ora agrees with the Ministry of Education's view of the problem. In 2013, Toi Te Ora identified childhood obesity prevention as one of its long-term strategic goals and has reviewed the evidence of what may work to reduce the prevalence of childhood obesity. One of the primary objectives identified to progress this is to reduce consumption of SSBs by school-aged children. Subsequently, Toi Te Ora (2016a) undertook a stocktake of the availability of SSBs in all 189 schools (including all levels and types of schools) in the Bay of Plenty and Lakes District Health Board areas. With a response rate of 99.5%, the data showed 73% of schools have sugary drinks available for students to purchase. As such, schools are well positioned to decrease the availability of SSBs to students and thus contribute to reducing the risk of excessive weight gain and poor oral health at a population level (Toi Te Ora, 2016a).

# Q2, part 2: What other problems, if any, do you think should be taken into consideration in assessing options?

An additional issue that should be included in the above 'problem definition' is the availability of SSBs in secondary schools, and the impact this is having on rangatahi across the motu. Evidence suggests that secondary school students are frequent consumers of SSBs, with high daily consumption (Kajons, David, Gowland-Ella & Batchelor, 2018). A report surveying Australian adolescents found nearly 25% of children aged 12-17 years were consuming SSBs at least five or more times a week (Centre for Epidemiology and Research, 2009). Additionally, the survey of the Bay of Plenty and Lakes schools found that 100% of secondary schools had flavoured milk and/or juice available for purchase, while over 60% of secondary schools sold fizzy drink (Toi Te Ora, 2016a). This accessibility is concerning as evidence has confirmed the link between SSB consumption and weight gain (Bleich & Vercammen, 2018). Furthermore, frequent (>1 time/day) SSB consumption in youth is associated with an increased risk of obesity, insulin resistance, metabolic syndrome and dental caries (Bleich & Vercammen, 2018). For these reasons it is necessary for this problem to be included in the Ministry's definition above, and for secondary schools to be included in the new duty.

Another problem that should be taken into consideration is the accessibility of SSBs in proximity to schools and the contribution to an obesogenic environment, ultimately impacting the health of school-age children in Aotearoa (New Zealand). Research of Aotearoa's obesogenic environment reported that 68.5% of urban schools and 14% of rural schools had a convenience store within 800 metres. The research also observed that convenience stores were significantly closer for low decile schools compared to high decile schools (Vandevijvere, Sushil, Exeter & Swinburn, 2016). Furthermore, Smirk et al. (2021) found that frequent fast food/dairy/supermarket visits were associated with increased SSB consumption. These findings show the importance of changing the environment within a school as well as the need to consider the surrounding environment and the accessibility by students to products that are no longer available within the school environment.

### Q3: Are these the right objectives? Can you think of any others to add?

Yes, Toi Te Ora strongly supports the proposed objectives that all students must continue to receive positive education on healthy food and nutrition and the Regulations are reasonable and fit for purpose for all schools. However, the objective "schools model healthy drink consumption behaviours for children at a young age" could be strengthened to include adolescents in secondary schools. This would better address the need for continued positive role modelling throughout a student's schooling years, which is especially important for high-school-aged rangatahi who have increased accessibility to SSBs, and means of purchasing them (Toi Te Ora, 2016a).

An additional objective addressing the importance of nutrition environments could complement the proposed objectives. For example, "schools encourage healthy food and drink choices by creating healthy nutrition environments". Although the term nutrition environment includes the proposed objectives (nutrition education and role modelling), it could also extend to the type of food-related advertising present at schools, and the use of food environment policies in schools. This is supported by Micha et al., (2018) who found various policies that targeted SSBs and unhealthy snacks in schools (i.e., product-specific restrictions, standards on nutrients, calories, or portion control) had a positive impact on reducing the consumption of SSBs and unhealthy snacks. Similarly, policies addressing school meal standards (i.e., implementing standards on daily serves of fruits and vegetables available or limiting the amount of dietary fat in a meal) effectively increased fruit and vegetable consumption and decreased saturated fat and sodium intake (Micha et al., 2018).

#### Q4: Are there any other options that you think should be considered?

Toi Te Ora strongly supports Option two: replace the existing NAG 5b with a duty in Regulations and place an additional duty on all schools (primary and secondary) to only provide healthy drinks. Evidence from Toi Te Ora (2016a) shows that the availability of sugary drinks typically increases with the levels of schooling, (e.g., primary, intermediate, secondary school). The data showed that 100% of secondary schools within the Bay of Plenty and Lakes district had flavoured milk and/or juice available for purchase, of which 60% also had fizzy drink available. Comparatively, 30% of primary and 50% of intermediate schools were highlighted as having flavoured milk and/or juice available for purchase (no primary or intermediate schools had fizzy drink available for purchase.) Toi Te Ora notes the Ministry's preferred option, which will not achieve the desired outcomes. Additionally, Toi Te Ora advocates for the inclusion of healthy food in the Regulations taking a staged approach with healthy drinks first. Healthy food and drink standards have been successfully adopted by hospital cafeterias, and the same approach could be taken with school canteens.

In addition to the accessibility of SSBs in secondary schools, the evidence supporting the inclusion of secondary schools in the Regulations cannot be dismissed. For example, as adolescents start to develop their independent decision making related to their social environment (including their dietary intake), they have been found to follow an unbalanced diet when given free choice (McKeown & Nelson, 2018). Additionally, evidence shows that individual soft drink consumption is associated with consumption by peers and availability at school (Wouters, Larsen, Kremers, Dagnelie & Greenan, 2010), both being exacerbated in secondary schools. Another study observed that adolescents who perceive that their peers drink SSBs, will consume more SSBs themselves (Perkins, Perkins & Craig, 2010). While, de Vet, de Ridder & de Wit (2011) acknowledged that adolescents still have less autonomy over their behaviour change and are more susceptible to environmental influences. This demonstrates the importance of placing the additional duty on both primary and secondary schools.

Q5: Do you agree with this definition of healthy drinks? Are there any other drinks you think should be allowed, or any included in this definition that shouldn't be? If so, what are your reasons for including or excluding these drinks?

Yes, Toi Te Ora agrees with the definition of healthy drinks. The definition is consistent with the Bay of Plenty District Health Board Workplace Food and Nutrition Standards, which defines drinks meeting the 'green criteria' as unsweetened water and plain milk (includes calciumenriched cow's milk alternatives for example soy, almond milks and tea and coffee). These Workplace Food and Nutrition Standards are compliant with the National Healthy Food and Drink Policy, following the requirement for all District Health Boards in New Zealand to implement a healthy food and drink policy from 2016.

Additionally, the current Ministry of Health <u>'Healthy Food and Drink Guidance - Schools</u> and Early Learning Services (ELS) documents also promote water and milk only in these settings. These documents were published to support the implementation of Healthy Active Learning in Schools and ELSs and underpin the key messages for the Ka Ora Ka Ako Healthy Free Lunches initiative. Schools also participate in the Food for Thought programme with the Heart Foundation, a segment of which covers the quantity of added sugar in a variety of branded SSBs and promotes water and milk as first choices.

Q6: Can you think of any difficulties primary schools might have in only providing healthy drinks? Would a 'lead-in' period be helpful for schools to transition to the new duty? If you are an area and/or composite school, are there particular difficulties you may face implementing this duty?

#### Difficulty: inadequate infrastructure

A potential challenge that some primary schools might experience is the availability of 24-hour access to clean and safe drinking water. All schools are required to comply with Clause G12 of building Regulations (1992) which states that **"Buildings** provided with water outlets, **sanitary fixtures**, *or* **sanitary appliances** must have safe and **adequate** water supplies" (Ministry of

Education, 2021). Anecdotal evidence provided from Toi Te Ora's Health Protection Officers suggests that over the past 10-20 years most rural schools within the Eastern Bay of Plenty have struggled to meet this obligation. It has been observed that there has been inadequate infrastructure to provide safe drinking water and various issues including E.coli contamination, arsenic contamination and shallow bores (Toi Te Ora, n.d). This could potentially impact schools' ability to provide the required 23 litres of water per person/ day, and at least one bubble fountain or similar for every 60 students (Ministry of Education, 2021). This highlights the need for the Ministry of Education to further support schools by providing increased funding for quality infrastructure.

### Difficulty: lack of buy-in and/or role modelling from staff

Another challenge that primary schools might experience is a lack of role modelling and buyin from staff. A survey conducted by Mansoor, Ali and Richards (2017) of 201 schools in the greater Wellington region found that some staff did not feel it was the role of the school to control what students eat and drink. Furthermore, Toi Te Ora (2016b) found some schools reported ongoing issues with teachers wanting to have "treats" in class lunches i.e., class parties. However, another study by Laguna et al. (2020) found that most teachers (n= 56) drank water during the school day and limited consumption of SSBs, which correlated with students being more likely to drink water during school hours. The data from Toi Te Ora (2016b) also found schools acknowledged the importance of staff members' buy in, with some schools mentioning that staff must act as role models and "walk the talk" in front of students meaning that only water, milk, tea or coffee was consumed in front of students. This highlights the importance of providing training to teachers and emphasising their status as role models for healthy drinking choices (World Health Organisation, 2016a), and the need to engage the whole school community to understand and support the new duty (Mansoor et al., 2017).

#### Difficulty: the practice of using SSBs to fundraise at events

Excluding SSBs from special events such as school discos, and fundraising events may be challenging for schools to adjust to. However, there is evidence to suggest that this may not be as significant a barrier compared to other factors such as community and family support (Mansoor et al., 2017). When assessing potential barriers for schools to implement a water-only policy, Mansoor et al., (2017) found only two of the 78 schools mentioned the use of SSBs at fundraising events as being a barrier. Potential solutions for removing SSBs from special events/fundraising may include food-free fundraising or providing healthier alternatives. This has been displayed in various resources that have been developed by organisations such as the Heart Foundation and the Canterbury District Health Board to support schools with healthier fundraising options (Action for Healthy Kids, 2022; Canterbury District Health Board, n.d.; Healthy-kids.com.au, 2022; Heart Foundation NZ, 2022).

#### Difficulty: community and whānau support

Overcoming parental objections and gaining community support may be a challenging barrier for schools in promoting and providing healthy drinks only. Mansoor et al.,(2017) found that of the main barrier for schools who were not considering a "water only policy" was "a lack of community and/or family support". However, a survey conducted in the Bay of Plenty and Lakes area found that the local community largely supports SSBs being unavailable in schools (Toi Te Ora, 2016b). Eighty-five percent of respondents agreed that SSBs should not be sold on school grounds, and 67% felt schools should not allow children to bring sugary drinks to school (Toi Te Ora, 2016b).

As such, the communication between school, community and whānau about the Regulations will be extremely important. Some schools have already highlighted their learning in this space such as using the school newsletter, website or Facebook page to normalise drinking water, and inform parents of the negative effects of sugary drinks (Toi Te Ora, 2016b). For effective implementation, and to achieve optimal benefits from the Regulation, the principal and staff

have a responsbility to support whānau to be engaged in students' learning and health (New Zealand Beverage Guidance Panel, 2020).

# Q7: Can you think of any benefits that secondary schools would face in meeting a new legal duty to only provide healthy drinks?

### Benefits: health, academic and economic

The benefits of introducing a new Regulation and additional duty on secondary schools are numerous including mental and physical health, academic and economic benefits. As secondary school students are frequent consumers of SSBs (Kajons et al., 2018), the new legal duty would enable rangatahi to establish and normalise healthier dietary behaviours in the school environment, presenting an opportunity to form healthy habits that persist into adulthood (Craigie, Lake, Kelly, Adamson, & Mathers, 2011).

This is likely to reduce the risk of weight gain and dental caries. Therefore, children will be less likely to develop poor outcomes, such as asthma (Al-Zalabani et al., 2019) type two diabetes, poor emotional wellbeing, and poor academic performance and less likely to become obese adults (Bleich et al., 2018). As excess weight contributes to health problems costing Aotearoa at least \$2 billion a year (Barton & Love, 2021) there is a substantial economic benefit from investing in people's dietary habits from a young age, including adolescence.

#### Benefit: leveraging opportunity

Schools can experience additional benefits by leveraging off the Regulations (additional duty) and introducing additional healthy environment supports such as inclusion of nutrition education within home economics and food technology studies (Godin, Chaurasia, Hammond, & Leatherdale, 2018). If implemented well, there will be many opportunities for students to further develop their health literacy and develop their personal skills well beyond reducing their SSB consumption. This is in alignment with the Ministry's proposed objectives, with the aim of enabling students to have positive behavior change and thereby benefiting whānau and

the wider community. There is also an opportunity for both teaching staff and students to be role models within their school and community (Ministry of Health, 2020).

#### **Benefit: Reduction in SSB consumption**

Toi Te Ora supports the view that it is the school's duty of care not to sell unhealthy drinks to students, as emerging evidence suggests that sugar consumption can cause some symptoms consistent with addiction (Di FNicolantonio, O'Keefe & Wilson, 2018), and is a contributary cause of non-communicable disease (Roberton, Thyne and Green, 2018). SSBs contribute over a quarter of the total dietary sugar that NZ children consume (Ministry of Health, 2002). As previously stated, schools are well positioned to reduce SSB consumption by children (Toi Te Ora, 2016a), as research in Canada shows that policy regarding the availability of SSBs may reduce the overall consumption during the school week (Godin, et al., 2018). Mandatory policies in high schools are more successful in reducing SSB consumption when compared to voluntary policies (Godin et al., 2018).

Furthermore, schools that sold soft drink were associated with higher average SSB consumption among adolescents (Rocha et al., 2021) and purchases of SSBs increased when adolescent students purchased food from nearby food outlets (Godin et al., 2018).

# Q7, part 2: Can you think of any challenges that secondary schools would face in meeting a new legal duty to only provide healthy drinks?

#### Challenge: similar challenges to primary schools

There are various potential challenges a secondary school may face in meeting a new legal obligation to only provide healthy drinks. Challenges similar to those faced by primary schools (as mentioned in Q6) include inadequate infrastructure, inadequate access to clean, safe drinking water (especially for rural schools), the use of SSBs in events and fundraisers, and lack of support from schools, staff, communities and whānau. It is also important to note that some issues may be exacerbated in secondary schools such as the influence of peers, and the role

SSBs may have in school events (Perkins et al., 2010). Solutions to these challenges have been discussed in question six.

#### Challenge: obesogenic environments

Another potential challenge relates to the obesogenic environment accessible by students outside of school, as highlighted in question two and in New Zealand Research (Vandevijvere, et. al., 2016). Research in Canada observed students will still access offsite food outlets and are more likely to purchase SSBs (Godin et al., 2018), while research in Australia observed that male adolescent intake of SSB was three-fold higher on the weekend than it was on weekdays (Smith, Straker, Kerr & Smith, 2015). Although not in the scope of the proposed Regulation, it is important to highlight the need for additional strategies to address the wider food environments that contribute to the consumption of SSBs by children (Godin et al., 2018).

#### Challenge: contracts

The school canteen is an integral part of the school food environment and by selling foods high in sugar, fat and sodium; many canteens promote unhealthy lifestyles and could undermine attempts to promote healthy dietary behaviours (Rathi, Riddell, & Worsley, 2017). Therefore, there are potential challenges around the impact of private industry and canteen operators influencing sugary drinks being sold in the school environment. For example, Coca-Cola Amitil and Frucor Suntory pledged to remove full sugar carbonated beverages and energy drinks from secondary schools by 2009 (Coca Cola Amatil Limited & Frucor Beverages Group Limited, 2009). However, SSBs remain prevalent in secondary schools as highlighted by Toi Te Ora (2016a). This is mostly due to two reasons: the private operators are able to buy SSBs from the supermarket (thus bypassing beverage wholesalers), and then on-sell to students via the school canteen; secondly, the restrictions pledged by industry failed to include many types of drinks such as artificially sweetened carbonated drinks, soft drinks, fruit juices and flavoured waters (Coca Cola Amatil Limited & Frucor Beverages Group Limited, 2009). This highlights the need for a regulatory approach in secondary schools, requiring private operators to comply with the promotion and provision of healthy drinks, thereby contributing to consistent health messaging.

Another potential challenge might include the contracts held between secondary schools and privately operated canteens. There is the potential for these contracts to include agreements to provide a certain volume of SSBs in exchange for discounts and/or provision of fridges. Additionally, Rathi, Riddell and Worsley (2016) found that the demand for fast food and high – calorie beverages compelled the canteen operator to provide such items, demonstrating the need for a 'whole-school approach' (Drummond & Sheppard, 2011) as previously mentioned in Q5. Schools may need support in renegotiating contracts if they are not due for a renewal. Learning could be gained from the successful implementation of the National Healthy Food and Drink Policy across the DHBs and contracted organizations.

Q8: Do you agree that we should replace the current guidance to promote healthy food and nutrition with Regulations that require school boards to continue doing this? Please explain the reasons for your agreement or disagreement.

Yes, Toi Te Ora agrees there is an urgent need to replace the current guidance with Regulations requiring all schools to promote and provide healthy food and drinks only. In 2016, the Ministry of Education issued a guideline encouraging schools to consider a 'water-only' policy and provided supporting resources. Additionally, the World Health Organisation (2016b) recommends that schools introduce a water-only policy as a first step to creating healthy food environments, as is supported by the Ministry of Health. Although some schools are now leaders in this space such as Yendarra Primary School, Orautoha School, Mosston School and Glenview School (NZBGP 2020), and most schools promote water in some way (88% of schools in the Bay of Plenty and Lakes region) many schools have not adopted a policy and therefore, children in Aotearoa are still exposed to SSBs in their school environment (Toi Te Ora, 2016a). This variance of policy adoption clearly highlights the need for a national regulatory approach to remove SSBs from schools.

## The need for action

Governmental bodies around the world are taking increasing action to address the availability of sugary drinks in schools (Hawkes, 2010). The NZBGP (2020) state "the government has a responsibility to implement comprehensive policy in areas that are known to be detrimental to health". As the evidence continues to demonstrate the negative health effects associated with sugary drink consumption (Bleich & Vercammen, 2018) all schools in New Zealand should be required to remove sugary drinks and adopt a national 'water-only' school policy (2020). Mello, Pomeranz and Moran (2007) found that policies aiming to decrease students' consumption of SSBs were strongest with a legislative mandate, while a recent review of 36 interventions in school settings demonstrated that 70% of interventions were effective in decreasing SSB consumption, with effectiveness increasing for those that targeted legislation and/or the environment (Vezina – Im et al., 2017). Finally, The World Health Organisation (2016b) highlighted the need for political commitment and a 'whole of government' approach to eliminate the provision or sale of unhealthy foods, such as SSBs in the school environment.

#### An equitable approach

Replacing the current guidance with Regulations and an additional duty on secondary schools will help ensure a more equitable approach to promoting and providing healthy drinks in all schools, as socially disadvantaged children and adolescents have been consistently shown to consume SSBs more frequently (Smirk et al, 2021). A study by Smirk et al., (2021) surveyed 578 school age children (8-12 years) in Auckland and found 92% consumed more than one serving of SSBs a week; with more than five servings reported by 62%. Higher consumption (at least five servings of SSBs a week) was observed among those from socially disadvantaged areas, children of Māori, Pacific, and Asian background, and medium decile schools. Interestingly, 74% of children reported their schools encouraged them to consume healthy beverages, however schools' healthy beverage policies (encouragement and water–only policy) were not associated with healthy beverage consumption (Smirk et al., 2021). This shows the need for a regulatory approach requiring all schools to provide and promote healthy drinks only, thereby making the healthiest choice the easiest for all children in Aotearoa. The new duty has the

potential to significantly decrease consumption of SSBs by those who are consuming SSBs frequently, and to normalise water and milk as first choices.

Q9: What do you think about these circumstances? Are any of them unnecessary? Can you think of any other circumstances where it would be reasonable to not have the duty? If so, why?

Yes, Toi Te Ora agrees with the circumstances listed in the Discussion document.

# Q10: Do you feel that the high-trust light-touch compliance approach is appropriate? If not, why not?

Yes, Toi Te Ora Public Health agrees with the proposed compliance approach. Toi Te Ora reccomends that additional support be given to canteen managers and secondary schools to transition away from SSBs. COVID-19 has put additional strain on schools, so any changes in Regulations should be accompanied by mechanisms and resources for schools to implement changes successfully.

## Conclusion

Toi Te Ora thanks the Ministry of Education for the opportunity to comment on the Discussion Document: Proposed changes to the promotion and provision of healthy drinks in schools.

Yours sincerely,

Valente

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### References

Action for Healthy Kids. (2022). *Healthy Fundraising - Action for Healthy Kids*. Retrieved 6 May 2022, from <u>https://www.actionforhealthykids.org/activity/healthyfundraising</u>

Ambrosini, G.L., Oddy, W.H., Huang, R.C., Mori. T.A., Beilin, L.J., Jebb, S.A. (2013)

Prospective associations between sugar-sweetened beverage intakes and cardiometabolic risk factors in adolescents. Am J Clin Nutr., 98:327-334.

Barton, B., & Love, T. (2021). *Economic impact of excess weight in Aotearoa*. Auckland: Hāpai te Hauora.

Bleich, S.N., Vercammen, K.A. The negative impact of sugar-sweetened beverages on children's health: an update of the literature. BMC Obes 5, 6 (2018). <u>https://doi.org/10.1186/s40608-017-0178-9</u>

- Canterbury District Health Board. (n.d.). *Healthy Events & Fundraisers A guide for school and community event organisers*. Retrieved 6 May 2022, from <u>http://www.cph.co.nz/wpcontent/uploads/healthyeventfundraisers.pdf</u>.
- Centre for Epidemiology and Research. (2009). New South Wales School Students Health Behaviours Survey: 2008 Report.
- Coca Cola Amatil Limited & Frucor Beverages Group Limited (2009 December 10). *Companies remove full sugar drinks from schools* [Press release]. https://www.infonews.co.nz/news.cfm?id=45831
- Craigie, A.M., Lake, A.A., Kelly, S.A., Adamson, A.J., Mathers, J.C. (2011) Tracking of obesityrelated behaviours from childhood to adulthood: a systematic review. Maturitas., 70:266-284.
- De Vet, E., de Ridder, D. T. D., & de Wit, J. B. F. (2011). Environmental correlates of physical activity and dietary behaviours among young people: a systematic review of reviews. *Obesity reviews*. *12* (5), 130-142. https://doi.org/10.1111/j.1467-789X.2010.00784.x
- Godin, K. M., Chaurasia, A., Hammond, D., & Leatherdale, S. T. (2018). Food Purchasing Behaviours and Sugar-Sweetened Beverage Consumption among Canadian

Secondary School Students in the COMPASS Study. *Journal of nutrition education and behavior*, *50*(8), 803–812.e1. https://doi.org/10.1016/j.jneb.2017.12.014

Hawkes, C. (2010). The worldwide battle against soft drinks in schools. *American journal of preventive medicine*, *38*(4), 457–461. <u>https://doi.org/10.1016/j.amepre.2010.01.011</u>

- Healthy-kids.com.au. (2022). *Food-Free Fundraising Healthy Kids*. Retrieved 6 May 2022, from https://healthy-kids.com.au/food-free-fundraising/.
- Heart Foundation NZ. (2022). *Healthy fundraising ideas for schools Tool*. Retrieved 6 May 2022, from https://www.heartfoundation.org.nz/educators/edu-resources/healthy-fundraising-ideas.
- Kajons, N., David, M., Gowland-Ella, J., Lewis, P., & Batchelor, S. (2018). Thirsty? Choose
  Water! Behavioural interventions and water stations in secondary schools a two-bytwo factorial randomised controlled trial. *BMC Public Health 18,* 788. https://doi.org/10.1186/s12889-018-5685-1
- Laguna, M. C., Hecht, A. A., Ponce, J., Jue, T., Brindis, C. D., & Patel, A. I. (2020). Teachers as Healthy Beverage Role Models: Relationship of Student and Teacher Beverage Choice in Elementary Schools. *Journal of Community Health*, 45 121-127. https://doi.org/10.1007/s10900-019-00717-7
- Mansoor, O.D., Ali, R. & Richards, R. (2017). Regional survey supports national initiative for 'water-only' schools in New Zealand. Australian and New Zealand Journal of Public Health, 41, 508-511. <u>https://doi.org/10.1111/1753-6405.12705</u>
- McKeown, A & Nelson, R. (2018). Independent decision making of adolescents regarding food choice. *International Journal of Consumer Studies* 42(5), 469-477.
   https://doi.org/10.1111/ijcs.12446
- Mello, M., Pomeranz, J., & Patricia Moran, P. (2008). <u>The Interplay of Public Health Law and</u> Industry Self-Regulation: The Case of Sugar-Sweetened Beverage Sales in Schools.
   *American Journal of Public Health 98*, 595 – 604. <u>https://doi.org/10.2105/AJPH.2006.107680</u>
- Micha, R., Karageorgou, D., Bakogianni, I., Trichia, E., Whitsel, L. P., Story, M., . . . Mozaffarian, D. (2018). Effectiveness of school food environment policies on

children's dietary behaviors: A systematic review and meta-analysis. *PLoS One, 13*(3) doi: <u>http://dx.doi.org/10.1371/journal.pone.0194555</u>

Ministry of Health. (2002) NZ Food NZ Children: Key Results of the National Children's Nutrition Survey. Wellington New Zealand: Government of New Zealand.

Ministry of Education. (2021). Drinking water quality. Ministry of Education. Drinking water quality – Education in New Zealand

- Ministry of Health. (2020). Healthy Food and Drink Guidance Schools. Wellington: Ministry of Health. ISBN 978-1-98-859770-6 (online)
- Ministry of Health. (2021a). *Population of Bay of Plenty DHB*. Retrieved from <u>Population of Bay of Plenty DHB | Ministry of Health NZ</u>

Ministry of Health. (2021b). *Population of Lakes DHB*. Retrieved from
<u>Population of Lakes DHB | Ministry of Health NZ</u>

- New Zealand Beverage Guidance Panel. (2020). Water only Schools for Aotearoa, New Zealand Policy Brief.
- Perkins, J. M., Perkins, H. W., & Craig, D. W. (2010). Misperceptions of peer norms as a risk factor for sugar-sweetened beverage consumption among secondary school students. *Journal of the American Dietetic Association*, 110(12), 1916–1921. <u>https://doi.org/10.1016/j.jada.2010.09.008F</u>
- Smith, K., Straker, L., Kerr, D., Smith, A. (2015) Overweight adolescents eat what? And when? Analysis of consumption patterns to guide dietary message development for intervention. J Hum Nutr Diet. 28:80-93.
- Smirk, E., Mazahery, H., Conlon, C, A., Beck, K. L., Gammon, C., Mugridge, O & von Hurt, P, R.
  (2021). Sugar-sweetened beverages consumption among New Zealand children aged
  8-12 years: a cross sectional study of sources and associates/correlates of
  consumption. *BMC Public Health 21*, 2277. https://doi.org/10.1186/s12889-02112345-9
- Toi Te Ora Public Health Service. (2016a). 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.* Retrieved from https://toiteora.govt.nz/information-for/education-sector/sugary-drinks/

Toi Te Ora. (2016b). Issues of Health and Wellbeing Population Survey 2016 Insights into people's public health knowledge, attitudes and perceptions across the Bay of Plenty and Lakes districts 2016. Retrieved from <u>Population Surveys | Toi Te Ora Public</u> Health.

Toi Te Ora. (n.d). Health Protection Officers Compliance Report.

- World Health Organisation (2016a). Be Smart Drink Water: A guide for school principals in restricting the sale and marketing of sugary drinks in and around schools.
- World Health Organisation. (2016b). *Ending Childhood Obesity*. <u>Report of the commission on</u> <u>ending childhood obesity (who.int)</u>.

Wouters, E. J., Larsen, J. K., Kremers, S. P., Dagnelie, P. C., & Geenen, R. (2010). Peer influence on snacking behavior in adolescence. *Appetite*, *55*(1), 11–17.

https://doi.org/10.1016/j.appet.2010.03.002