

## Integrated Health Promotion Plan, 2013-7: Reducing Sweet Drink Consumption

### 1. Vision

There is a rising rate of obesity and a concerning level of dental caries in children in the Barwon region. Rates of sweet drink consumption contribute to these health issues.

Negative outcomes are most pronounced in areas of disadvantage. In the Geelong region these areas are the 3214, 3216, and 3219 postcodes.

It is our vision that children throughout Geelong, but particularly in disadvantaged communities, will have better nutritional outcomes through reducing consumption of sweet drinks in educational settings.

### 2. Priority Setting and Problem Definition

#### 2.1 Key Policy Documents

The 'State of Victoria's Children 2011' identifies a significant concern around sweet drink consumption in the Barwon South West Region. High rates of dental caries and obesity *in the presence of* reasonable rates of physical activity, implies a relationship between sweet drink consumption and these two health issues.

Local schools report that their efforts to reduce consumption through education alone are not having a strong impact. They report that, where rules exist against carbonated drinks, students are less likely to bring these to school. They also report that the majority of parents are supportive of these rules. We know that similar interventions have been successful ('Smiles4Miles' 2005-Ongoing & 'Romp & Chomp' 2005-9 projects coordinated by Barwon Health).

#### 2.2 Data and other Evidence

High consumption of sweet drinks has been associated with a number of health problems, including overweight and obesity, type 2 diabetes, osteoporosis and dental caries (Vartanian et al 2007; Taylor et al 2005; Malik et al 2006).

The contribution of soft drinks to weight gain is supported by the results of clinical trials in adults (DiMeglio & Mattes 2000, Raben et al 2002, Tordoff & Alleva 1990) and two long-term intervention trials in children (Ebbeling et al 2006, James et al 2004). These trials showed that a decrease in soft drink consumption resulted in a reduction in BMI (Ebbeling et al 2006) or, at least, an attenuation in weight gain (James et al 2004).

Soft drinks have no nutritional value other than an extremely large amount of sugar, and fluid (Jacobson 2005), and are identified in the Australian Guide to Healthy Eating as an 'extra' food- one that should be consumed only occasionally and in small amounts (Smith et al 1998, Wilde et al 2007).

On the day of the most recent National Nutrition Survey (1995), soft drinks were consumed by about a quarter of 2-7 year olds, a third of 8-15 year olds and half of 16-18 year olds. Boys and girls consumed similar amounts until the age of 12. From that age on, boys consumed more than girls. At age 16-18 years, the daily per capita consumption was 480 ml for boys and 240 ml for girls. (National Nutrition Survey 1995, Food Standards Australia New Zealand 2003, Webb et al 2006. VicHealth 2012, Armfield J 2013).

Soft drinks are readily available and marketed extensively, especially to adolescents.

Research indicates that consumption of sweet drinks is a modifiable behavior and that reducing consumption can decrease weight, (Chen et al. 2009). Research on attitudes to soft drink suggests there is little awareness of the health consequences of excessive consumption, and there is little impetus to change behaviour.

Social marketing is one strategy which can be used to raise awareness and achieve dietary change.

### Settings

The settings for action will be: primary schools in the Geelong region, with additional effort to those in the Corio/Norlane, Grovedale, and Newcomb/Whittington areas.

It is well documented that areas of disadvantage consume significantly higher levels of soft drink. The areas identified are significant areas of disadvantage.

A number of agencies have moved to reduce the access of children to soft drink and increase their access to alternatives, in particular water. Soft drinks have been banned for sale from schools in Victoria, and preschools throughout Geelong abide by water-only or water-or-milk-only policies. These restrictions could be extended to primary schools.

Given that patterns of consumption are set at an early age, it is our intention to extend our current early years strategies that reduce sweet drink consumption in preschool children, and to reinforce these behaviours within primary schools.

Strategies will include efforts to extend activity occurring in preschool settings, utilising staff from these centres to work with schools to introduce 'water and plain milk only' policies, and to travel with families over transition periods to ensure a seamless flow of support and compliance with these policies, thereby sustaining a reduced consumption of sweet drinks.

### **2.3 Community/Stakeholder consultation**

There appear to be two crucial points to target our efforts: when a child is very young, and during early teenage years. We shall therefore work with families, and the settings that support them, in order to develop appropriate, targeted, collaborative responses to reduce sweet drink consumption.

### **2.4 Alignment with local government**

This proposal ties in strongly with actions occurring across the health, municipal and education arenas:

- Obesity reduction is a State and National priority.
- The Healthy Together Victoria program (jointly developed by the Department of Health and the Department of Education and Early Childhood Development) supports healthy eating and oral health as one of its eight priority areas.
- Barwon Health Dental Health services are working in preschool settings and are looking at extending this service into prep grades across Geelong to support a suite of strategies, including reducing sweet drink consumption.

### **2.5 Sphere of Influence and Capacity Issues**

This project has the capacity to sit across several current state and regional foci of health efforts (see above), while bringing a specific focus to a high need area and the ability to apply clear measurable outcomes.

Families have access to excellent resources at preschool level (lunch boxes and drink containers) which can be transferred into school settings.

### 3. Solution Generation

#### 3.1 Program Logic

Inputs	Activities	Outputs	Impacts	Outcomes
<p>HPO staff member</p> <p>Budget for social marketing and community engagement events</p>	<p><i>See Strategies in section 2 below</i></p>	<p>Working party development</p> <p>Audit and evaluation documentation.</p> <p>Sample policy and protocol documents</p> <p>Information sessions for school staff, with support of preschool teachers and dental staff.</p> <p>Marketing materials for dissemination to parent communities.</p> <p>Information materials for dissemination to medical professional services.</p>	<p>Primary schools in target areas implement water-or-milk-only policies.</p> <p>School staff actively promote water and milk, and include in curriculum information about preferred drinks, and sweet drinks.</p> <p>Parents informed and supportive of policies and practices.</p> <p>Adolescent males engage in discussion to promote understanding of their high levels of sweet drink consumption.</p>	<p>Students do not consume sweetened drinks within target primary school settings.</p> <p>There is a greater understanding of the influences on young adolescent males to increase their consumption of sweet drinks.</p>

#### 3.2 Planning Summary

3.2.1 Goal: **By 2017 there is a reduced consumption of sweet drinks in educational settings in the Geelong area.**

3.2.2 Objectives:

1. Establish project coordination and strategic alliances that support the implementation and sustainability of the project.
2. Build school capacity to support monitoring of drink consumption, and implementation of water-or-milk-only practices
3. Work with school communities to advocate for reduced sweet drink consumption

3.2.3 Interventions:

- a) Regional Working/Advisory group
- b) School leadership engagement.
- c) Sample (primary school) policies and implementation plans
- d) Social marketing of messages through school and preschool settings
- e) Curriculum resource development

3.2.4 Population Groups and Settings

Primary schools throughout Geelong, and in particular those in areas of disadvantage in the Geelong region, being: Corio/Norlane, Whittington/Newcomb and Grovedale.

### 3.2.5 Timelines and Responsibilities

This is a staged intervention over four years. While the responsibility rests with the Health Promotion Unit, it is supported by the 'Wide-Smiles' (Barwon Health) and 'Healthy Together Geelong' initiatives, and is implemented in partnership with Barwon Water.

**It is intended that the following key deliverables will be achieved:**

1. Partnership development with Barwon Water.
2. Joint development of a Project plan and Communication plan with input and agreement from both partners.
3. All state primary schools in areas of disadvantage (identified as: all of postcode 3214, all of postcode 3219, and the Grovedale region of 3216) engage in the initiative (Approximately 25 schools).
4. All participating schools transition to becoming 'sweet-drink-free' environments – evidenced in documentation and practices.
5. All participating schools include class-based learning experiences supporting reduction in sweet drink consumption
6. 90% of children in engaged schools participate in pre and post survey information collection
7. Social marketing reaches 90% of school families

## 4. Evaluation Planning

### 4.1 2013-7 Evaluation planning expectations

The evaluation will examine efficacy of health promotion activity through measures of:

1. Settings engagement (number of primary schools engaging in dialogue and supportive practices)
2. Community support (parent attitudes to school rules regarding sweet drink consumption within their setting)
3. Organisational changes (development of school policies / protocols to manage reducing sweet drink consumption), and
4. Sweet-drink consumption within the primary school setting (how many students, how often, and what is being consumed)

These measures will occur through survey and key informant interviews, at baseline and again at project conclusion.

## CONCLUSIONS

The evidence linking sweet drink consumption to weight gain and obesity is sufficiently strong to take action. Individual behaviour changes which would result in a population level decline in soft drink consumption include:

- reducing the uptake of sweet drink consumption by young children
- reducing frequency and quantity of consumption
- substituting sweet drinks with water or milk.

These individual behaviour changes need to be supported by creating an environment which makes healthier choices easier choices. Extending current initiatives within preschools into primary schools to ensure these environments, at least, are free from pressures and abilities to consume sweet drinks, would be a substantial step forward.

SECTION 2: ACTION PLAN

Strategies/Actions

<b>Priority Area</b>	<b>Nutritious Food</b>		
<b>Goal</b>	By 2017 there is a reduced consumption of sweet drinks in educational settings in the Geelong area.		
<b>Target population group/s</b>	Educational settings throughout Geelong with particular effort applied to those within regions of disadvantage (Corio/Norlane 3214, Grovedale 3216, and Whittington/Newcomb 3219) in the Geelong area.		
<b>Budget and resources</b>			
<b>Key evaluation question/s</b>	Has there been a reduction in sweet drink consumption in primary schools in areas of disadvantage.		
<b>Objective 1</b>	<b>Impact indicators</b>	<b>Evaluation methods/tools</b>	<b>Timelines and responsibilities</b>
<b>To establish project coordination and strategic alliances that support the implementation and sustainability of the project</b>	There is a cohesive, coordinated, partnership approach to reducing sweet drink consumption in disadvantaged primary school areas	Documentation providing evidence of partnership, cohesion and coordination.	May 2014 All partners led by Barwon Health
<b>Interventions/Strategies</b>	<b>Process indicators</b>	<b>Evaluation methods/tools</b>	<b>Timelines and responsibilities</b>
<b>1.1 Identify &amp; invite representatives of partner organisations to form a steering committee &amp;/or working party, to achieve all objectives.</b>	Contact with relevant agencies (DEECD, Barwon Water, Dental services or others)	Documentation	March 2014 All partners led by Barwon Health
<b>1.2 Develop an accord and seek a collaborative approach in provision of administration, coordination and resourcing project objectives.</b>	Minutes of meetings	Documentation	April 2014 All partners led by Barwon Health
<b>1.3 Identify new opportunities to support project objectives</b>	Minutes of meetings	Documentation	Ongoing

<b>Objective 2</b>	<b>Impact indicators</b>	<b>Evaluation methods/tools</b>	<b>Timelines and responsibilities</b>
<b>Build school capacity to support monitoring of drinks, and implementation of water-or-milk-only practices</b>	Schools have practice documents (policies / protocols) that support monitoring and implementation of actions reducing sweet drink consumption.  Schools have ongoing access to resources (training, partnerships) that support their efforts to reduce sweet drink consumption	Audit	April 2016 All partners led by Barwon Health
<b>Interventions/Strategies</b>	<b>Process indicators</b>	<b>Evaluation methods/tools</b>	<b>Timelines and responsibilities</b>
<b>2.1.</b> Ensure settings have opportunities and support to develop, implement and sustain policy and protocol documentation, which clearly limit access to sweet drinks within schools.	Resources available and provided to schools to support development of documentation	Documentation	April 2016 All partners led by Barwon Health
<b>2.2.</b> Provide opportunities for staff to understand and contribute to policies and protocols within settings, and develop knowledge and skills to implement these.	Training, resources and information provided to schools to support knowledge and staff skill development to monitor and implement policies and protocols	Documentation Surveys KI interviews	April 2016 All partners led by Barwon Health
<b>Objective 3</b>	<b>Impact indicators</b>	<b>Evaluation methods/tools</b>	<b>Timelines and responsibilities</b>
<b>Work with school communities to advocate for reduced sweet drink consumption</b>	School communities advocate for reduced sweet drink consumption and support initiatives pertaining to this.	Documentation Surveys KI interviews	April 2016 All partners led by Barwon Health
<b>Interventions/Strategies</b>	<b>Process indicators</b>	<b>Evaluation methods/tools</b>	<b>Timelines and responsibilities</b>
<b>3.1</b> Ensure settings have means and opportunities to inform and engage their communities in reducing	Information is readily available to school communities and is widely disseminated through a variety of	Documentation	April 2016 All partners led by Barwon Health

consumption of sweet drinks	mediums		
<b>3.2</b> Provide messages and marketing to complement and support class-based messages and school-based practices promoting reduced sweet drink consumption and Promoting access to and consumption of healthy alternatives to sweet drinks	Social marketing resources are produced and disseminated providing information, resources and knowledge pertaining to sweet drink consumption. Resources can be utilized within school contexts.	Documentation KI interviews	April 2016 All partners led by Barwon Health
<b>3.3</b> Develop a communication strategy to ensure that the process and changes are known and understood by the total school community	Communication strategy is available to and understood by participating school communities and partners.	Documentation KI interviews	April 2016 All partners led by Barwon Health
<b>Evaluation design</b>	<p>The evaluation will examine efficacy of health promotion activity through measures of:</p> <ul style="list-style-type: none"> <li>Settings engagement: number of primary schools engaging in dialogue and supportive practices</li> <li>Community support: surveyed and focus group interviews of attitudes to rules regarding sweet drink consumption within their setting</li> <li>Organisational changes: Documentation of development of school policies / protocols to manage reducing sweet drink consumption, and</li> <li>Sweet-drink consumption within the primary school setting: audit of how many students are consuming sweet drinks, how often, and what is being consumed.</li> </ul> <p>These measures will occur through survey and key informant interviews, at baseline and again at project conclusion.</p>		
<b>Data analysis and interpretation</b>	<p>Quantitative data will be reported through frequency distribution measures</p> <p>Qualitative data will be reported through analysis of documentation, key informant interviews and survey results</p>		
<b>Evaluation dissemination</b>	<p>Findings will be disseminated through Health Promotion Unit and Barwon Health management to partners and reporting bodies, and made publicly available through research publication and presentation opportunities.</p>		

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