Sugar in Health Policy

translating the research into policy practice

Megan Cobcroft
Principal Policy Analyst, Food Policy
Centre for Population Health
ILSI SEA Symposium - October 30 2015

Contents

1. Context and current practice
2. Policy analysis
3. Key findings and conclusions
4. Translation into practice

The Issue

What you can do to get sugar out of your school canteen

Good & Bad Sugars

Sugary drinks banned from hospitals and health boards

Long-awaited UK public health report calls for 10-20 per cent tax on sugary drinks

15 Terrible Things That Happen If You Eat Too Much Sugar

Sugar: the addictive white powder that's killing you

The big fat sugar myth?

The NSW Policy Context

52.5% of adults and 21.5% of children in NSW are overweight or obese (2014)

Premier’s Priorities
Reduce child overweight and obesity rates by 5% in 10 years (2015-2025)

NSW Healthy Eating and Active Living Strategy 2013-2018
Reduce intake of EDNP foods and drinks
Increase consumption of fruit and vegetables
Water in preference to sugar-sweetened drinks
Current Policy Approach to Sugar

- Healthy food policies for school canteens and hospitals (staff and visitors) – **under review**
  - Current nutrient criteria to define ‘red’ and ‘amber’ foods includes kilojoules, saturated fat and sodium but not sugar
- Ban on sugar sweetened beverages in schools (2007)
- Messages: broader than sugar – focus on EDNP foods in general and sugar sweetened beverages in particular

Policy Challenges

- **Limit the intake of foods containing added sugars** (NHMRC–2013)
- **Reduce intake of free sugars** to less than 10% of energy intake (5% for additional health benefits. (WHO 2015)
- Limited data on ‘added’ or ‘free’ sugar intake in the Australian food supply

Australian Dietary Guidelines

### Evidence Statements

**Sugars**

- High or frequent consumption of added sugars, particularly for infants and young children, is associated with increased risk of dental caries (Grade C)
- A reduction in sugar consumption prevents increases in measures of body weight and/or body fat (D)

**Beverages**

- Consumption of soft drink is associated with increased risk of dental caries in children (C).
- Consumption of sugar sweetened beverages is associated with increased risk of weight gain in adults and children (B).
- Consumption of fruit juice is not associated with increased risk of weight gain in children (D)

**NUTRITION INFORMATION**

<table>
<thead>
<tr>
<th>Serving Size: 150g</th>
<th>Quantity per Serving</th>
<th>Quantity per 100g</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td>606kJ</td>
<td>404kJ</td>
</tr>
<tr>
<td>Protein</td>
<td>4.3g</td>
<td>2.9g</td>
</tr>
<tr>
<td>Fat, total</td>
<td>7.4g</td>
<td>4.9g</td>
</tr>
<tr>
<td>~ Saturated</td>
<td>4.9g</td>
<td>3.0g</td>
</tr>
<tr>
<td>Carbohydrates, total</td>
<td>16.0g</td>
<td>11.4g</td>
</tr>
<tr>
<td>Sugars</td>
<td>10.5g</td>
<td>7.7g</td>
</tr>
<tr>
<td>Sodium</td>
<td>50mg</td>
<td>60mg</td>
</tr>
</tbody>
</table>

*Free sugars are added sugars + sugars naturally in honey, syrups, fruit juices and concentrates

**Key Guiding Documents**

- **Australian Dietary Guidelines 2013**
  - Core and Discretionary foods
    - Limit intake of foods containing saturated fat, added salt, added sugars and alcohol
    - Limit the intake of foods and drinks containing added sugars such as confectionary, sugar sweetened soft drinks and cordials, fruit drinks, vitamin waters, energy and sports drinks
- **Australian Healthy Survey 2011/2012**
NSW Commissioned a Rapid Review on Sugar Intake and Health Outcomes

- To include any research published since the Dietary Guidelines evidence review (2009)
- To inform the development of a NSW Health position on sugar and health to determine:
  - If and how sugar should be included in healthy food provision guidelines and population recommendations
  - If there is a need to consider limiting added sugar intake from core, nutrient-dense foods for the general population

Review: Methods

- Rapid review undertaken by PANORG (University of Sydney)
- Based on 3 main sources:
  - Sugar and the Heart : Evidence Update Commissioned by the NZ Heart Foundation (2013 with an addendum in 2014)
- Additional search for reviews and systematic reviews published December 2009-July 2015: 34 articles
- Outcomes: weight gain, overweight and obesity, cardiovascular disease, metabolic disease including Type 2 diabetes, cognition and dental caries

Australian Health Survey 2011-12
Foods contributing to Total Sugar intake (≥ 2 years)

- Fruit products and dishes: 16%
- Milk products and dishes: 17%
- Soft drinks and cordial: 13%
- Juices and juice drinks: 7%
- Sugar, honey, jams, chocolate, spreads & syrups: 8%
- Cakes, muffins, scones, cake type desserts, pastries: 5%
- Coffee: 2%
- Breakfast cereal: 3%
- Confectionary: 5%
- Other*: 20%

*Other: items contributing <2% e.g. sauces, soup, condiments, vegetables, muesli bars and alcohol

On average total sugars contributed to 20% of energy (116g)

Australian Health Survey 2011-12
EDNP foods contributing to energy intake (≥ 2 years)

- Cereal based products and dishes: 28%
- Alcoholic beverages: 13%
- Non alcoholic beverages: 10%
- Meat, poultry and game products: 8%
- Vegetable products and dishes: 5%
- Milk products and dishes: 6%
- Confectionary and cereal/nut/seed bars: 8%
- Snack foods: 4%
- Sugar products and dishes: 5%
- Other: 13%
- Other*: items contributing <2% e.g. sauces, soup, condiments, vegetables, muesli bars and alcohol

Discretionary foods are also high in kilojoules, saturated fat and salt and contribute 35% of energy intake

Weight gain, overweight and obesity, cardiovascular disease, metabolic disease including Type 2 diabetes, cognition and dental caries
Review: Key Findings

Likely that added sugar has an adverse effect on health

- Strongest evidence for consumption of SSBs and body weight
- Less clear if sugar affects body weight independent of energy
- Positive association between ‘free’ sugars and SSBs and dental caries but also need to consider frequency of consumption
- Growing evidence for positive association between SSBs and heart disease, type 2 diabetes & metabolic syndrome
- Adverse effects of SSBs at intakes of 1 serve/day


Isoenergetic replacement of sugars in adults

<table>
<thead>
<tr>
<th>Study</th>
<th>Mean Difference (95% CI)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>0.00 (−0.04 to 0.04)</td>
<td>0.30</td>
</tr>
<tr>
<td>&lt;8 weeks</td>
<td>−0.09 (−0.27 to 0.09)</td>
<td>0.33</td>
</tr>
<tr>
<td>&gt;8 weeks</td>
<td>0.07 (−0.01 to 0.15)</td>
<td>0.10</td>
</tr>
</tbody>
</table>

Overall effect: 0.04 kg
95%CI: −0.04 to 0.13
p = 0.30

Te Morenga et al. BMJ 2012

Other Policy Inputs

- Health Star Rating
  - Sugar as a nutrient criteria in the HSR calculator
  - NSW Health is assessing the validity of using the HSR system in NSW healthy food policies

- Emerging data on added sugar intake
  - Louie J et al 2015
  - Sugar sweetened beverages (AHS – released 16/10/15)

Alignment between HSR and Dietary Guidelines

- 11,500 products across 30 categories
  - 80% of Core foods had a HSR ≥3.5 (mean 3.7 stars)
  - 86% of Discretionary foods had a HSR < 3.5 (mean 1.9 stars)

HSR
- kilojoules
- saturated fat
- sodium
- sugar
- protein
- fruit/vegetable/nut/legume

<table>
<thead>
<tr>
<th>Food group</th>
<th>Percapita daily added sugars contribution (% of total sugars)</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>All ages</td>
<td>Per cent contribution</td>
<td></td>
</tr>
<tr>
<td>1-3 years</td>
<td>12.6 (16.7)</td>
<td>&lt;0.001</td>
</tr>
<tr>
<td>4-8 years</td>
<td>16.7 (17.2)</td>
<td></td>
</tr>
<tr>
<td>9-13 years</td>
<td>22.9 (20.2)</td>
<td></td>
</tr>
<tr>
<td>14-16 years</td>
<td>24.1 (21.9)</td>
<td></td>
</tr>
</tbody>
</table>

25.2% energy from total sugars
- 11.9% as added sugars
- 14% as free sugars
- >1/2 from EDNP foods & beverages

Policy Conclusions

- High consumption of EDNP foods and beverages - including but not limited to products with added sugar
- More than 50% of total and added sugars come from EDNP foods and drinks
- Strongest evidence is for adverse affect of SSBs on health outcomes (weight, dental caries, type 2 diabetes, heart disease, metabolic syndrome)
- Intake of SSBs appears to be decreasing but remains high particularly for some population groups e.g. adolescents

Policy Conclusions

- There is sufficient evidence to recommend reducing the intake of EDNP foods including those high in added sugar (in particular beverages high in added sugars)
  - Australian Dietary Guidelines “Limit intake of foods containing saturated fat, added salt, added sugars and alcohol”
  - Reducing the intake of EDNP foods and beverages e.g. ½ can soft drink less at a population level - could reduce ‘free’ sugar intake from 14% to < 10% (Louie et al 2015)
- There is insufficient evidence to support a broader recommendation at this stage to limit added sugar intake from core, nutrient-dense foods for the general population
  - However the HSR will address sugar of core and discretionary foods
Translating into Policy: Options

- Eliminate choice
- Restrict choice
- Guide choice by disincentives
- Guide choice by incentives
- Guide choice by changing the default policy
- Enable choice
- Provide information
- Do nothing

Translation into Policy: Next steps

Review NSW policies, programs and communications to incorporate recommendations

OBJECTIVES
- Reduce intake of energy-dense nutrient-poor food and drinks
- Increase consumption of fruit and vegetables
- Increase incidental, moderate and vigorous physical activity
- Reduce time spent in sedentary behaviours
- Increase community awareness of healthy eating and physical activity as protective factors against chronic disease
- Increase intake of water in preference to sugar-sweetened drinks

A rapidly changing space......

Sugary drinks banned from hospitals and health boards
Acknowledgements

Dr Seema Mihrshahi, Dr Sinead Boylan
& Professor Bill Bellew
School of Public Health, Sydney University
(PANORG)