Can we change the food environment?

Removing sugar sweetened beverages from a university campus

Dr Celine Murrin,
Lecturer in Public Health Nutrition

School of Public Health, Physiotherapy and Sport Science
OUR VISION
A global health promoting university that ensures the holistic health and well-being of every member of the UCD community.

Be Active
Be Mindful
Help & Support
Keep Learning
Eat Healthy
Connect

healthyucd@ucd.ie  @healthyUCD  healthyUCD  www.ucd.ie/healthyucd
• Current focus on SSB in the “obesogenic environment”; also impact on dental caries.
• Public Health perspective: SSB one dietary factor of many which may contribute to passive over-consumption of nutrient-poor, energy dense foods and beverages.
How are sugar sweetened beverages classified?

In Scope for Tax: Water & Juice-based drinks with added sugar, and a total declared sugar content of 5g per 100ml or above

* Dilutes / Concentrates will be assessed based on sugar content when ready for consumption, based on preparation instructions

### Tax Exempt
- **Sugar Free**
  - No greater than 0.5g of sugar per 100ml
  - e.g. Pepsi, Club Orange, Club Lemon, Rock Shandy, Britvic 55 Orange, Energise Edge and Mountain Dew Energy and Red Bull

### Taxable
- **High Added Sugar**
  - 8g + of added sugar per 100ml
- **Low Added Sugar**
  - 0.6g to 4.9g of added sugar per 100ml
- **Medium Added Sugar**
  - 5g to 7.9g of added sugar per 100ml

Small producers are exempt 13,000 litres per year or less

100% juice will be exempt. Juice with added sugar will be taxed based on total sugar content
How are sugar sweetened beverages classified?

Measure of success?? Reformulation since tax was proposed in UK/IRL

**Un-Taxed**
- **Sugar Free**
  - No greater than 0.5g of sugar per 100ml
- **Sugar added / Low Sugar**
  - 0.6g to 4.9g of sugar per 100ml

**Taxed**
- **Lower tax rate**
  - **Sugar added / Medium Sugar**
    - 5g to 7.9g of sugar per 100ml
- **Higher tax rate**
  - **Sugar added / High Sugar**
    - 8g + of sugar per 100ml

Does not include Water and other tax exempt categories

- Water
- Pure Juice
- Smoothies
- Dairy Drinks & Substitutes (soya, cereal, nut or seed based) & supplements e.g.: protein drinks
- Iced Coffee

Small producers are exempt (13,000 litres per year or less)
Evidence for changing SSB behaviours

Meta-analysis of interventions to reduce SSB (Vargas-Garcia et al., 2017)

- Small reductions with interventions targeting adolescents/adults.

Hospital setting:
- UK, 1 retail outlet: Increased healthy product range (Simpson et al., 2018)
  - No reduction in sales or consumer satisfaction.
- Australia, 1 hospital: Increased SSB prices (Blake et al., 2017)
  - 20% SSB price increase led to reduction in purchase and increase in sales of healthier alternatives.

University setting:
- Australia (2018): Survey of SSB and attitudes to support of various interventions. (House et al., 2018)
How do students respond to change in the availability and price of SSB on campus?

Objectives

To determine:

• Student **awareness of change** to SSB environment on campus.

• **Perceived response to changes** in SSB environment on campus.

• **Actual consumer response** to change in SSB environment on campus.
Approach

Removed high SSB

All Campus Sites (17)

Campus Survey (n=600)

7 weeks from 22.1.18 to 9.3.18
**Sample**

- n=600 agreed to do the survey
- **Consumer Sample n=303**
  - 91.2% Aged 18 to 24 years
  - 46% Male
- **Consumer Student Sample n=295**
  - 94.6% Aged 18 to 24 years
  - 52.5% Male

**51% purchased SSBs in a typical week**
Before doing this survey were you **aware** that sugar sweetened carbonated (fizzy) soft drinks have **not been available** on campus since the start of term?
Results: Awareness of the trial

**Gender**

- Male: 71% Aware, 46% Unaware
- Female: 26% Aware, 51% Unaware
- Other: 3% Aware, 3% Unaware

**P=0.001**

**How many SSB would you purchase per week?**

- 1/wk: 15% Aware, 21% Unaware
- 2/wk: 24% Aware, 24% Unaware
- 3-6/wk: 47% Aware, 42% Unaware
- 7+/wk: 14% Aware, 4% Unaware

**P=0.007**
Results: Awareness of trial

Importance of health and nutrition when purchasing SSB?

Price was more important but not associated with awareness of the trial
Permanent removal of SSBs for sale on campus?

Results: Awareness of trial

Support: 38% Aware, 37% Unaware
Oppose: 40% Aware, 32% Unaware
Don't care: 30% Aware, 32% Unaware
Results

Permanent removal of SSBs for sale on campus and number of SSBs consumed per week?

A minority of students would oppose the permanent removal
Results

Change in sales over same period in 2017

16 outlets on campus ➔ Shops: 67% Share in campus soft drinks

Coffee shops and restaurant (26% of sales):
• no change or a small increase.

Vending (8% of sales):
• sales fell by 2%.

<table>
<thead>
<tr>
<th>Soft Drink Category</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult &amp; Water Plus</td>
<td>+29%</td>
</tr>
<tr>
<td>Carbonates</td>
<td>-11%</td>
</tr>
<tr>
<td>Energy</td>
<td>-22%</td>
</tr>
<tr>
<td>Sports</td>
<td>+82%</td>
</tr>
<tr>
<td>Water</td>
<td>+7%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>+7%</td>
</tr>
</tbody>
</table>
Only sugar-free/low sugar beverages now available on campus

All tax exempt products available
Response

Health Concerns

Other Concerns

"Ban stuff rather than encourage people to think and make their own"

Overall, Very Positive

"What about free choice over dictatorship?".

Q&A available on Healthy UCD website
• Partnership – key stakeholders
• Evaluation plan
• Timing
• Seek opportunities for change
• Have courage!
Acknowledgements

- James O'Connor – UCD Quinn School of Business
- Liam Delany – UCD Geary Institute for Public Policy
- Geraldine Doyle – UCD Quinn School of Business
- Leonhard Lades – UCD Geary Institute for Public Policy
- Nora Goodwin – Dublin Institute of Technology
- Grace Airey – Dublin Institute of Technology
- Grace O'Malley - Division of Population Health Sciences, Royal College of Surgeons in Ireland
- Odhran Lawlor - Hospitality Services
- Lisa Harold - Healthy UCD
- Brian Mullins - Healthy UCD
- Patricia Fitzpatrick - School of Public Health, Physiotherapy, and Sports Science
- Britvic Ireland
Vargas-Garcia et al. (2017) Interventions to reduce consumption of sugar-sweetened beverages or increase water intake: evidence from a systematic review and meta-analysis. Obesity Reviews, 18, 1350–1363.

Howse et al., (2018) The university should promote health, but not enforce it’: opinions and attitudes about the regulation of sugar-sweetened beverages in a university setting. BMC Public Health, 18:76 DOI 10.1186/s12889-017-4626-8


Thank you