Assessing food environments to monitor policy implementation

Boyd Swinburn
Professor of Population Nutrition & Global Health
University of Auckland
Are you interested in these questions?

- How well is my government doing on implementing policies for healthier food environments?
  - How do they compare with other governments?
  - Are they making progress over time?
- How are large food companies influencing food environments in my country?
  - Commitments, transparency, performance?
  - Differences between companies, changes over time?
- What is the state of our food environments?
  - Composition, labelling, promotion, price, school, retail?
  - How do they relate to diet and nutrition outcomes?
  - How do they differ across countries?
  - How do they change over time?
  - How do change in response to policy interventions?
### INFORMAS module structure

#### Public sector policies and actions

- How much progress have (international, national, state and local) governments made towards good practice in improving food environments and implementing obesity/NCDs prevention policies and actions?
  
  *(University of Auckland)*

#### Private sector policies and actions

- How are private sector organisations affecting food environments and influencing obesity/NCDs prevention efforts?
  
  *(Deakin University)*

### FOOD ENVIRONMENTS

- **IMPACTS**
  - Food composition
  - Food labelling
  - Food promotion
  - Food provision
  - Food retail
  - Food prices
  - Food trade & investment

- **ORGANISATIONS**
  - Food environments
  - Populations

#### IMPACTS

- **Food composition**
  - What is the nutrient composition of foods and non-alcoholic beverages?
    *(The George Institute)*

- **Food labelling**
  - What is the exposure and power of promotion of unhealthy foods and non-alcoholic beverages to different population groups?
    *(University of Wollongong)*

- **Food promotion**
  - What is the nutritional quality of foods and non-alcoholic beverages provided in different settings (e.g. schools, hospitals, workplaces)?
    *(University of Toronto)*

- **Food provision**
  - What is the availability of healthy and unhealthy foods and non-alcoholic beverages in communities and within retail outlets?
    *(University of Auckland)*

- **Food retail**
  - What is the relative price and affordability of ‘less healthy’ vs ‘healthy’ foods, meals & diets?
    *(University of Queensland)*

- **Food prices**
  - What are the impacts of trade & investment agreements on the healthiness of food environments?
    *(Australian National University)*

### OUTCOMES

- **Populations**
  - Population diet
  - Physiological & metabolic risk factors
  - Health outcomes

- **Population diet**
  - What is the quality of the diet of different populations?
    *(University of Sao Paulo)*

- **Physiological & metabolic risk factors**
  - What are the burdens of obesity and other risk factors?
    *(WHO)*

- **Health outcomes**
  - What are the burdens of NCD morbidity and mortality?
    *(WHO)*
INFORMAS (www.informas.org)

• International Network for Food and Obesity/NCD Research, Monitoring and Action Support
  - INFORMAS is a global network of public-interest organisations and researchers that aims to monitor, benchmark and support public and private sector actions to create healthy food environments and reduce obesity, NCDs and their related inequalities

• Progress
  - Phase 1: (2012) frameworks & indicators
    - 2013 Obesity Reviews – 14 Foundation papers
  - Phase 2: (2013/4) protocols, pilot testing
  - Phase 3: (from 2015/6) available globally – INFORMAS research now funded in 30+ countries (108 module uses)
Countries implementing INFORMAS modules
<table>
<thead>
<tr>
<th>Country</th>
<th>Public Sector</th>
<th>Private Sector</th>
<th>Food Composition</th>
<th>Food Labelling</th>
<th>Food Promotion</th>
<th>Food Prices</th>
<th>Food Retail</th>
<th>Food Provision</th>
<th>Food Trade &amp; Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Australia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belgium</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brazil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Canada</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chile</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>China</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Costa Rica</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fiji</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethiopia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>France</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ghana</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kenya</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Guatemala</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Iceland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>India</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ireland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hong Kong</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malaysia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Malta</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mexico</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mongolia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New Zealand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Norway</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Poland</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Singapore</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>South Africa</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thailand</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Netherlands</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tonga</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UK</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USA</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vietnam</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senegal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Uganda</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**KEY:**
- **Planning**
- **Underway**
- **Completed**
- **Published**
Public sector policies and actions

How much progress have (international, national, state and local) governments made towards good practice in improving food environments and implementing obesity/NCDs prevention policies and actions?

(University of Auckland)

Private sector policies and actions

How are private sector organisations affecting food environments and influencing obesity/NCDs prevention efforts?

(Deakin University)

<table>
<thead>
<tr>
<th>PROCESSES</th>
<th>IMPACTS</th>
<th>OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food compositions</td>
<td>Food labelling</td>
<td>Food promotion</td>
</tr>
<tr>
<td>What is the nutrient composition of foods and non-alcoholic beverages? (The George Institute)</td>
<td>What health-related labelling is present for foods and non-alcoholic beverages? (University of Oxford)</td>
<td>What is the exposure and power of promotion of unhealthy foods and non-alcoholic beverages to different population groups? (University of Wollongong)</td>
</tr>
<tr>
<td>Food provision</td>
<td>Food retail</td>
<td>Food prices</td>
</tr>
<tr>
<td>What is the nutritional quality of foods and non-alcoholic beverages provided in different settings (e.g. schools, hospitals, workplaces)? (University of Toronto)</td>
<td>What is the availability of healthy and unhealthy foods and non-alcoholic beverages in communities and within retail outlets? (University of Auckland)</td>
<td>What is the relative price and affordability of ‘less healthy’ vs ‘healthy’ foods, meals &amp; diets? (University of Queensland)</td>
</tr>
<tr>
<td>Food trade &amp; investment</td>
<td>Population diet</td>
<td>Physiological &amp; metabolic risk factors</td>
</tr>
<tr>
<td>What are the impacts of trade &amp; investment agreements on the healthiness of food environments? (Australian National University)</td>
<td>What is the quality of the diet of different populations? (University of Sao Paulo)</td>
<td>What are the burdens of obesity and other risk factors? (WHO)</td>
</tr>
<tr>
<td></td>
<td>Health outcomes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>What are the burdens of NCD morbidity and mortality? (WHO)</td>
<td></td>
</tr>
</tbody>
</table>
Healthy Food Environment Policy Index (Food-EPI)
Process for Food-EPI

1. DOCUMENT
   Collect and validate evidence on policies and actions

2. CONVENE/RATE
   Assess degree of implementation of policies and actions against int benchmarks

3. FORMULATE
   Identify the potential, specific actions for government

4. PRIORITISE
   Rate actions by importance and achievability

5. SYNTHESIZE
   Combine results from ratings, priority-setting for top messages

6. TRANSLATE
   Translate and communicate findings for Govt & other stakeholders

Process driven by existing or formed group of informed public health non-government organisations and researchers
NZ experience with the Food-EPI

• Implemented
  – 2014, 2017

• Outputs
  1. Validated evidence base
  2. Implementation gaps
  3. Specified policy options (~45)
  4. Top priorities (7-9)

• Process
  – Experts engaged (53 & 71)
  – Independent & government
  – Convergent exercise to agreement
  – Dissemination
  – Benchmarking
### Example from evidence portfolio (NZ)

**3 FOOD PROMOTION:** There is a comprehensive policy implemented by the government to reduce the impact (exposure and power) of promotion of unhealthy foods to children (<16 years) across all media.

<table>
<thead>
<tr>
<th>Domain definition</th>
<th>Indicator definition</th>
<th>Local evidence of action</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROMO1: Effective policies are implemented by the government to restrict exposure and power of promotion of unhealthy foods to children through broadcast media (TV, radio).</td>
<td>Evidence of implementation</td>
<td></td>
</tr>
<tr>
<td>• There are no government regulations in place to restrict unhealthy food marketing to children through broadcast media.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• A 2015 NZ study found that in peak viewing times (6–7pm), more than 120,000 5–13 year olds were exposed to over 15 unhealthy food advertisements an hour on television, creating over 2 million ‘impacts’ (ad impressions x viewers) per hour [57].</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• The Government stimulated a review of the Advertising Standards Authority (ASA) Code on Advertising to Children and the Children’s Code for Advertising Food as part of the Childhood Obesity Plan. Initiative 9: ‘Marketing and advertising to children’, with a report published in 2016 [58]. The Code for Advertising to Children and the Children’s Code for Advertising Food were reviewed by an independent panel with open public consultation and public health representation. The ASA Codes review panel made 7 recommendations to further restrict advertising to children. The Review Panel has revised and combined the Codes and recommended</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Example of international benchmarks

INTERNATIONAL BEST PRACTICE EXAMPLES (BENCHMARKS) 2017:

- **Quebec**: All advertising to children under 13 years old banned since 1980.
- **Norway/Sweden**: All food ads targeting children under 12 years old banned since 1990.
- **Ireland**: Advertising of unhealthy foods during children’s TV and radio programmes (when over 50% of the audience is under 18) prohibited. Advertising to children under 13 must not feature celebrities.
- **South Korea**: Since 2010 TV food ads before, during and after programmes between 5-7pm and during other children’s programmes prohibited. Children are defined 4-18 yrs. The regulation of TV ads also applies to the Internet.
- **Chile**: the Law of Nutritional Composition of Food and Advertising restricts advertising directed to children under 14 years (for foods exceeding limits for calories, sugar, saturated fat and/or sodium in food and beverages). This includes promotional strategies and premium offers.

Priority recommended actions

1. Food composition
   - Structured reformulation for sugar and sodium

2. Food labelling
   - Fix HSR and make mandatory

3. Marketing to children
   - Regulations needed

4. Food prices
   - 20% tax on sugary drinks

5. Food in schools/ECEs
   - Ensure healthy food

6. Leadership
   - Strengthen child obesity plan
   - Target for reducing child obesity
   - Targets for population intakes for sugar, salt, saturated fat
   - Promote healthy eating guidelines

7. Monitoring
   - New Child Nutrition survey

8. Funding
   - Increase to ~10% of costs of overweight and obesity (~$100m)
Scorecard for the Australian Federal Government

State and Territory government assessments

Deakin University CRICOS Provider Code: 00113B
International comparisons
Summary

• Monitoring and benchmarking food policies and environments
  • Sets the focus upstream
  • Data can be used for multiple purposes to stimulate and evaluate action
  • Processes are as important as the outcome for the Food-EPI (and the private sector module)

• Brings researchers and NGOs into the accountability systems

• Most modules are low cost eg Masters student

• Strong INFORMAS network internationally
THANK YOU!

Boyd.Swinburn@auckland.ac.nz

@BoydSwinburn

www.informas.org