Bridging the Gap Between Research & Policy

Kelly D. Brownell

How Good Are We, Really, At Creating Change?

Creating Impact From Knowledge

Knowledge Produced To Serve Society → Society Being Served

Knowledge Produced To Serve Society → ?? → Society Being Served
The Frustration

Research = small audiences
Research misses key audiences
Poor links of scholarship & policy

How We Construe Impact

Citation Indices
h-index
i10-index
Journal Impact Factor

Slow Movement in a Fast World

Slow ✓
Poorly communicated ✓
Unresponsive ✓
Programmatic only ✓
Conflicted ✓
Indecipherable jargon ✓

Linking Scholarship To Public Policy

How We Addressed
A Fundamental Challenge

Hopeful (Wishful) Thinking

Research
Scientists
Pretty Good
Poor
Social Change
Policy Change
Making Our Work Matter

Research → ??? → Social Change → Policy Change

Can We Create a Virtuous Cycle of Solutions?

Identify Change Agents → Develop Strategic Questions → Research → Communications

Science → Change Agents

Science ← Change Agents

Strategic science with policy impact

Science-based policy making is an important neglected area of research. Too often, research is not translated into practice, and policy makers are not engaged in evidence-based policy making. The public is left to navigate the complex landscape of evidence and decision-making on their own. However, there are steps that can be taken to bridge the gap between science and policy. One such step is the creation of a virtuous cycle of solutions. This cycle involves identifying change agents, developing strategic questions, and communicating the research findings to the public. By working together, science and policy can create a positive impact on society.

Brownell & Roberto
Lancet, 2015
Case 1

Industry and Menu Labeling

An observational study of consumer use of fast-food restaurant drive-through lanes: implications for menu labelling policy

Christina A Roberto*, Elena Hoffrange, Moria A Bragg and Kelly D Brownell
Department of Psychology, Yale Center for Food Policy and Obesity, Yale University, PO Box 205209, New Haven, CT 06517, USA

Public Health Nutrition, 2013

Case 2

Children’s Food Marketing
**The Best Dozen**

<table>
<thead>
<tr>
<th>TV Advertising</th>
<th>Adver-gaming</th>
<th>Other Youth Websites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bunnies</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>EnviroKids Organic</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Puffins</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Cheerios</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Kix</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Life</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Hannah Montana</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Clifford Crunch</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Mighty Bites</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Honey Sunshine</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Organic Wild Puffs</td>
<td>None</td>
<td></td>
</tr>
<tr>
<td>Mini Wheats</td>
<td>None</td>
<td></td>
</tr>
</tbody>
</table>

**The Worst Dozen**

<table>
<thead>
<tr>
<th>TV Advertising</th>
<th>Adver-gaming</th>
<th>Other Youth Websites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reese’s Puffs</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Corn Pops</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Lucky Charms</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Golden Grahams</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cinnamon Toast Crunch</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Cap’ n Crunch</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Count Chocula</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trix</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Froot Loops</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Smorz</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fruity/Cocoa Pebbles</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Cocoa Puffs</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

**Predicted Defense**

“Food does not become nutrition until it is eaten.”

“Children like the taste of ready-to-eat cereals and are therefore more likely to eat breakfast.”

Celeste Clark, Ph.D., Kellogg Company
Susan J. Crockett, Ph.D., R.D., General Mills

**Effects of Serving High-Sugar Cereals on Children’s Breakfast-Eating Behavior**

* USA Today

**Pediatrics, 2011**
Case 3

High Consumption of SSBs

Ounces of Prevention — The Public Policy Case for Taxes on Sugared Beverages

Perspective

APRIL 30, 2009

Sugar, rum, and tobacco are commodities which are nowhere necessaries of life, which are become objects of almost universal consumption, and which are therefore extremely proper subjects of taxation.

Adam Smith, The Wealth of Nations, 1776

creating consumption increases risk for obesity and diabetes; the adverse effects are seen in studies with the two methods e.g., longitudinal and cross-sectional vs. correlation models, and intervention studies show that en-

The Impact of Food Prices on Consumption: A Systematic Review of Research on the Price Elasticity of Demand for Food

Am J Public Health, 2010

The Public Health and Economic Benefits of Taxing Sugar-Sweetened Beverages

Kelly D. Brownell, Ph.D., Thomas Farley, M.D., M.P.H., Walter C. Willett, M.D., M.P.H., Barry W. Popkin, Ph.D., Frank J. Chaloupka, Ph.D., Joseph W. Thompson, M.D., M.P.H., and David S. Ludwig, M.D., Ph.D.

The consumption of sugar-sweetened beverages has been linked to risks for obesity, diabetes, and heart disease. Therefore, a compelling case can be made for the need for policies to reduce consumption of these beverages. Sugar-sweetened beverages are beverages that contain added, naturally derived sugars in a volume of 25 g or greater, high-fructose corn syrup, or other high-calorie sweeteners, all of which have similar metabolic effects.


The relationship between the consumption of sugared beverages and body weight has been examined in many cross-sectional and longitudinal studies, with a number of systematic reviews. A meta-analysis showed positive associations between the intake of sugar-sweetened beverages and body weight — associations that were stronger in longitudinal studies than in cross-sectional studies and in studies that were not funded by the beverage industry.
Soda Taxes Passed in US
- Berkeley
- Oakland
- San Francisco
- Albany, CA
- Boulder
- Seattle
- Philadelphia
- Boulder
- Navajo Nation
- Chicago/Cook County

Taxes Passed Outside US
- Barbados
- Belgium
- Brunei
- Chile
- Dominica
- Fiji
- Finland
- France
- French Polynesia
- Hungary
- India
- Kiribati
- Mauritius
- Mexico
- Norway
- Palau
- Philippines
- Portugal
- Samoa
- Saudi Arabia
- South Africa
- Spain (Catalonia)
- St. Helena
- Thailand
- Tonga
- Vanuatu

Revenues for Pennsylvania

<table>
<thead>
<tr>
<th>Sugary Drink Type</th>
<th>Gallons Sold</th>
<th>Annual Tax Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbonated Soft Drinks</td>
<td>256,428,160</td>
<td>$341,028,045</td>
</tr>
<tr>
<td>Fruit Drinks</td>
<td>61,623,578</td>
<td>$78,878,180</td>
</tr>
<tr>
<td>Sports Drinks</td>
<td>29,622,156</td>
<td>$37,916,360</td>
</tr>
<tr>
<td>Ready-to-Drink Tea</td>
<td>48,440,466</td>
<td>$62,003,797</td>
</tr>
<tr>
<td>Energy Drinks</td>
<td>11,374,705</td>
<td>$14,559,622</td>
</tr>
<tr>
<td>Enhanced Water</td>
<td>4,751,939</td>
<td>$6,082,482</td>
</tr>
<tr>
<td>Ready-to-Drink Coffee</td>
<td>6,874,471</td>
<td>$8,769,672</td>
</tr>
<tr>
<td>Sugary Drink TOTAL</td>
<td>429,115,475</td>
<td>$549,267,808</td>
</tr>
</tbody>
</table>
Richard Blumenthal
Senator from Connecticut
Former CT Attorney General

Key Dates

Critical NY Times article  Sept 4, 2009
Conn. Atty General Investigation  Oct 14, 2009
FDA Call  Oct 20, 2009
Smart Choices Closed Down  Oct 23, 2009

Should Researchers Be Doing This?
A Stunning Public Health Victory

Multiple Effects of Malnutrition

Overall
- weight loss
- muscle mass depletion
- weakness & apathy
- depression
- inability to work

Body Systems
- gastrointestinal
- blood cells
- skin
- nervous system
- immune function

Symptoms
- malabsorption
- indigestion
- skin lesions
- anemia
- neurologic issues
- immune compromise

Health Impacts
- pellagra
- rickets
- beiberi
- scurvy
- death

One Micronutrient Deficiency

- Vitamin A deficiency - weakens immune systems of children, increasing vulnerability to disease. Vitamin A deficiency increases the risk of dying from diarrhea, measles and malaria by 20-24%. Highly elevated risk for blindness.

http://www.wfp.org/aboutwfp/introduction/hunger_what.asp?sectionfiltered=1&sub_sectionfiltered=1

Alfred Sommer
School of Public Health
Johns Hopkins

1970s - documented that vitamin A deficiency linked to:
- measles
- diarrhea
- blindness

Conducted small trials of supplementation

Sommer Then Connected Science with Policy

- Annual cost - $0.50/child/yr (age 6 mo – 5 yr)
- Every dollar invested returns $100
- 23-34% drop in deaths from illnesses like measles & diarrhea
- Prevented 400,000 cases of blindness/yr
- Saved as many as 1,000,000 deaths/yr
**Some Current Strategic Issues**

- Preempting preemption
- Industry running candidates for office
- Food policy as political platforms