Is There the Courage to Change the U.S. Diet?

Kelly D. Brownell.
Yale University
Agenda

A Guiding Conceptual Scheme
Strategic Science
Food Marketing and Labeling
Beverages & Taxes
Who Are the Change Agents?
A Global Crisis?
Females
1985-1989

% Obesity
< 5 %
5-9.9%
10-14.9%
15-19.9%
20-24.9%
≥ 25%

© International Obesity TaskForce 2005
Females 2000-2005

© International Obesity TaskForce 2005
Projected % Increase in Diabetes, 2000 - 2030

Yach, Stuckler, Brownell
Nature Medicine, 2006
% Increase in Diabetes, 2000 - 2030

Yach, Stuckler, Brownell
*Nature Medicine*, 2006
What Has Gone So Horribly Wrong?

Is There The Courage to Change?
A Conceptual Scheme
How Best to Make Change?

Educate → Knowledge
Medicate
Operate
Implore → Motivation

The Individual

Less Obesity?
% of US Children Getting Recommended Fruit & Vegetable Servings

Youth Risk Behav Survey
What Are We Doing Now?

Educate ➔ Knowledge

The Individual

Less Obesity?

Implore ➔ Motivation
How Best to Make Change?

Educate ➔ Knowledge
Medicate
Operate
Implore ➔ Motivation

The Individual

Less Obesity?
One Example – Pension Plans

Employee must enroll < 50%

Automatic enrollment Near 100%

Choi, Laibson et al, 2002
In Poterba (Ed). Tax Policy and the Economy
Effective consent rates, by country. Explicit consent (opt-in, gold) and presumed consent (opt-out, blue).

“Do defaults save lives?”
Disastrous Defaults
(examples)

- Portions
- The economics of food
- Too much access
- Too little access
- Food marketing
PIGS IN THE MUD!
“It’s CHOCOLATE-COVERED BACON!”

FRESH ORANGEADE SHAKE UPS

New! PIGS IN THE MUD!
“It’s CHOCOLATE COVERED BACON!”
DEEP FRIED BUTTER

- MINI-DONUTS
- DEEP FRIED BROWNIES
- SUPER CORN DOGS
- FRESH SQUEEZED ORANGEADE SHAKE-UPS

PEPSI
Strategic Science
Is Science Making Itself Irrelevant?

- Slow ✓
- Poorly communicated ✓
- Unresponsive ✓
- Programmatic only ✓
- Conflicted ✓
<table>
<thead>
<tr>
<th></th>
<th>Programmatic Science</th>
<th>Strategic Science</th>
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<tbody>
<tr>
<td><strong>Gap</strong></td>
<td>Science/Theory</td>
<td>Policy/Opinion</td>
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<tr>
<td><strong>Pace</strong></td>
<td>Very slow</td>
<td>Rapid</td>
</tr>
<tr>
<td><strong>Aim</strong></td>
<td>Publication</td>
<td>Impact</td>
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<tr>
<td><strong>Why Publish?</strong></td>
<td>Accepted standard</td>
<td>Credibility</td>
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<tr>
<td><strong>Audience</strong></td>
<td>Scientists</td>
<td>Policy Makers</td>
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</table>
Food Marketing
Food Marketing

Powerful

Relentless

Exploitative
Future WHOPPER® Eater
TROUBLE SLEEPING?
TAKE A COUPLE OF THESE BEFORE BEDTIME.

Wendy’s Late Night
Classic Single, Classic Double, Classic Triple. Eat Great, Even Late.
Traditional Marketing

+ 

Guerilla Marketing
Viral Marketing
Stealth Marketing
The Cereal Example
## Overall Rankings of Children’s Cereals

<table>
<thead>
<tr>
<th>Nutrition Score*</th>
<th>Cereal</th>
<th>Company</th>
<th>Heavy Child Marketing</th>
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<tr>
<td></td>
<td></td>
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<td>Television Advertising</td>
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<tr>
<td>34</td>
<td>Reese’s Puffs</td>
<td>General Mills</td>
<td>x</td>
</tr>
<tr>
<td>36</td>
<td>Corn Pops</td>
<td>Kellogg</td>
<td>x</td>
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<tr>
<td>36</td>
<td>Lucky Charms</td>
<td>General Mills</td>
<td>x</td>
</tr>
<tr>
<td>36</td>
<td>Golden Grahams</td>
<td>General Mills</td>
<td>x</td>
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<tr>
<td>37</td>
<td>Cinnamon Toast Crunch</td>
<td>General Mills</td>
<td>x</td>
</tr>
<tr>
<td>37</td>
<td>Cap’n Crunch</td>
<td>Quaker</td>
<td>x</td>
</tr>
<tr>
<td>38</td>
<td>Count Chocula</td>
<td>General Mills</td>
<td>x</td>
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<td>38</td>
<td>Trix</td>
<td>General Mills</td>
<td>x</td>
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<tr>
<td>38</td>
<td>Froot Loops</td>
<td>Kellogg</td>
<td>x</td>
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<td>38</td>
<td>Smorz</td>
<td>Kellogg</td>
<td></td>
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<tr>
<td>38</td>
<td>Fruity or Cocoa Pebbles</td>
<td>Post</td>
<td>x</td>
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<tr>
<td>39</td>
<td>Cocoa Puffs</td>
<td>General Mills</td>
<td>x</td>
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<tr>
<td>40</td>
<td>Cookie Crisp</td>
<td>General Mills</td>
<td>x</td>
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<tr>
<td>40</td>
<td>Apple Jacks</td>
<td>Kellogg</td>
<td>x</td>
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<td>40</td>
<td>Cookie Crunch</td>
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<td>43</td>
<td>Frosted Flakes</td>
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<td>Disney High School Musical</td>
<td>Kellogg</td>
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<td>Rice or Cocoa Krispies</td>
<td>Kellogg</td>
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<td>Mini-Swirl</td>
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<td>Honey Nut O's</td>
<td>Cascadian Farm</td>
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<tr>
<td>44</td>
<td>Honey Nut Cheerios</td>
<td>General Mills</td>
<td>x</td>
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<td>44</td>
<td>Waffle Crisp</td>
<td>Post</td>
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<tr>
<td>44</td>
<td>Chex</td>
<td>General Mills</td>
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<td>Honey Smacks</td>
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<td>Purely O's</td>
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<td>46</td>
<td>Alpha Bits</td>
<td>Post</td>
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<tr>
<td>46</td>
<td>Golden Grahams</td>
<td>Post</td>
<td></td>
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<tr>
<td>46</td>
<td>Honeycomb</td>
<td>Post</td>
<td>x</td>
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<td>48</td>
<td>Rashin Bran</td>
<td>Post</td>
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<tr>
<td>50</td>
<td>Dora the Explorer</td>
<td>General Mills</td>
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<td>50</td>
<td>Cinnamon Crunch</td>
<td>Cascadian Farm</td>
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<td>51</td>
<td>Bunnies</td>
<td>Annie’s</td>
<td></td>
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<td>51</td>
<td>EnviroKid’s Organic</td>
<td>Nature’s Path</td>
<td></td>
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<tr>
<td>51</td>
<td>Puffins</td>
<td>Barbara’s Bakery</td>
<td></td>
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<tr>
<td>52</td>
<td>Cheerios (except Honey Nut)</td>
<td>General Mills</td>
<td></td>
</tr>
<tr>
<td>53</td>
<td>Kix</td>
<td>General Mills</td>
<td></td>
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<tr>
<td>53</td>
<td>Life</td>
<td>Quaker</td>
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<td>54</td>
<td>Hannah Montana</td>
<td>Kellogg</td>
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<td>54</td>
<td>Clifford Crunch</td>
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<td>56</td>
<td>Mighty Bites</td>
<td>Kashi</td>
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<td>56</td>
<td>Honey Sunshine</td>
<td>Kashi</td>
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<td>58</td>
<td>Organic Wild Puffs</td>
<td>Barbara’s Bakery</td>
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</tr>
<tr>
<td>72</td>
<td>Mini-Wheats</td>
<td>Kellogg</td>
<td></td>
</tr>
</tbody>
</table>
A Strategic Study

“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

-- J Amer Dietetic Assn, 2008
Nutrition and Marketing Ratings of Children’s Cereals
RWJF $100 million/yr vs. Child Marketing

January 4!
The Special Case of Sugar-Sweetened Beverages
The World’s Most Valuable Brand?
% Calories Per Day From 2 Beverages

% Increase in Costs from 1985-2000

- Soft Drinks: 20%
- Sugar & Sweets: 46%
- Fruits & Vegetables: 117%

Putnam et al.  
Food Rev, 2002
INTRODUCING THE G SERIES

- GATORADE PRIME 01
  - Pre-Game Fuel
  - Berry

- GATORADE PERFORM 02
  - Thirst Quencher
  - Fruit Punch

- GATORADE RECOVER 03
  - Post-Game Protein Recovery
  - Strawberry Kiwi
Vitamin Water
A Few Vitamin Water Versions

Revive
Power
Energy
Focus
Defense
XXX
In the Vitamin Water Lawsuit

Coca Cola Attorneys asked for dismissal:

"no consumer could reasonably be misled into thinking Vitaminwater was a healthy beverage."
Why Soda?

- Single greatest source of added sugar
- Completely empty calories
- Poor calorie compensation
- Sugar may be addictive
- Gratuitous addition of caffeine
- Targeting of vulnerable populations
- Rock solid proof of harm
SSBs: How Much?

Average intake = 50 gallons/yr

Average child = 175 calories/day
Ounces of Prevention — The Public Policy Case for Taxes on Sugared Beverages
Kelly D. Brownell, Ph.D., and Thomas R. Frieden, M.D., M.P.H.

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
HEALTH POLICY REPORT

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., Dr.P.H., Barry M. 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 reduced consumption of these beverages. Sugar-sweetened beverages are beverages that contain added, naturally derived caloric sweeteners such as sucrose (table sugar), high-fructose corn syrup, or fruit-juice concentrates, all of which have similar metabolic effects.

The relationship between the consumption of sugar-sweetened beverages and body weight has been examined in many cross-sectional and longitudinal studies and has been summarized in 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.
A National Penny Per Ounce Tax

1) Decrease consumption by 23%

2) Reduce health care costs by $50 billion over 10 years

3) Generate $150 billion in revenue over 10 years
Examples of Calls For Reducing Added Sugars & SSBs

Centers for Disease Control
US Department of Agriculture
Institute of Medicine
American Academy of Pediatrics
American Medical Association
American Heart Association
World Health Organization
Centers for Disease Control

A Primary Obesity/Diabetes Strategy

“Reduce intake of sugar-sweetened beverages”
How Worried is Industry?
Think Smart. Be Smart. Act Smart.

Now, more than ever, Americans must think smarter and act smarter. Especially when it comes to improving health care in America, an admirable goal we support. But we also know we can’t tax our way to healthier lifestyles, and we need to make that clear to our members of Congress. After all, we do have an obligation to our children - and to ourselves - to promote healthy lifestyles through balanced diet and exercise. More

Make your voice heard!

STEP 1
JOIN US

STEP 2
TAKE ACTION

STEP 3
TELL A FRIEND

SMART CHOICES FOR KIDS

EDUCATION NOT TAXATION

HEALTHY ECONOMY
SAY NO TO THE BEVERAGE TAX

NOBEVERAGETAX.COM

Paterson Tax adds +$1.44 on 12-packs
Soft Drink Tax Legislation
Filed 2009-2010

17 states, Baltimore, and Philadelphia
Rudd Center Resources

Tax Revenue Calculator
www.yaleruddcenter.org/sodatax.aspx
# Chicago Revenue

<table>
<thead>
<tr>
<th>Drink Type</th>
<th>Gallons</th>
<th>Tax Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Soft Drinks</td>
<td>55,141,209</td>
<td>$70,580,748</td>
</tr>
<tr>
<td>Fruit Beverages</td>
<td>30,189,475</td>
<td>$38,642,528</td>
</tr>
<tr>
<td>Sports Drinks</td>
<td>9,622,803</td>
<td>$12,317,188</td>
</tr>
<tr>
<td>Ready-to-Drink Tea - Nondiet</td>
<td>3,877,473</td>
<td>$4,963,165</td>
</tr>
<tr>
<td>Flavored Water</td>
<td>3,992,203</td>
<td>$5,110,020</td>
</tr>
<tr>
<td>Energy Drinks</td>
<td>2,633,511</td>
<td>$3,370,894</td>
</tr>
<tr>
<td>Ready-to-Drink Coffee</td>
<td>396,115</td>
<td>$507,027</td>
</tr>
<tr>
<td><strong>Total sugar-sweetened beverages</strong></td>
<td><strong>105,852,789</strong></td>
<td><strong>$135,491,570</strong></td>
</tr>
</tbody>
</table>

http://www.yaleruddcenter.org/sodatax.aspx
# Illinois Revenue

<table>
<thead>
<tr>
<th>Drink Type</th>
<th>Gallons</th>
<th>Tax Revenues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Soft Drinks</td>
<td>253,324,287</td>
<td>$324,255,087</td>
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<tr>
<td>Fruit Beverages</td>
<td>138,693,498</td>
<td>$177,527,677</td>
</tr>
<tr>
<td>Sports Drinks</td>
<td>44,208,131</td>
<td>$56,586,408</td>
</tr>
<tr>
<td>Ready-to-Drink Tea - Nondiet</td>
<td>17,813,500</td>
<td>$22,801,280</td>
</tr>
<tr>
<td>Flavored Water</td>
<td>18,340,584</td>
<td>$23,475,948</td>
</tr>
<tr>
<td>Energy Drinks</td>
<td>12,098,616</td>
<td>$15,486,228</td>
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<tr>
<td>Ready-to-Drink Coffee</td>
<td>1,819,791</td>
<td>$2,329,332</td>
</tr>
<tr>
<td><strong>Total sugar-sweetened beverages</strong></td>
<td><strong>486,298,407</strong></td>
<td><strong>$622,461,960</strong></td>
</tr>
</tbody>
</table>

[Source: http://www.yaleruddcenter.org/sodatax.aspx]
Who Are The Change Agents?
Legislators
  federal, state, local

Legal Authorities
e.g., state attorney’s general

The Press

Litigators
Game Changing Developments

NYC trans fat ban in restaurants
Menu labeling
Conn. Attorney General – Smart Choices
White House Announcements
Soda tax proposals
Smart Choices
Case Study
How Smart Are Smart Choices?

Rated Smart Choices products on Nutrient Profile Model

Scored 100 Smart Choices products
Results

64% did *not* meet NPM criteria
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
Public Policy Priorities

• Protect children
  schools
  marketing

• Change food economics
  subsidies
  taxes

• Use legislation, regulation, litigation