Food advertising: A hidden cause of obesity

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Exhibit E1

Obesity is one of the top three global social burdens generated by human beings

Estimated annual global direct economic impact and investment to mitigate selected global burdens, 2012

GDP, $ trillion

<table>
<thead>
<tr>
<th>Selected global social burdens</th>
<th>Share of global GDP</th>
<th>Historical trend</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smoking</td>
<td>2.1</td>
<td>2.9</td>
</tr>
<tr>
<td>Armed violence, war, and terrorism</td>
<td>2.1</td>
<td>2.8</td>
</tr>
<tr>
<td>Obesity</td>
<td>2.0</td>
<td>2.8</td>
</tr>
<tr>
<td>Alcoholism</td>
<td>1.4</td>
<td>2.0</td>
</tr>
<tr>
<td>Illiteracy</td>
<td>1.3</td>
<td>1.7</td>
</tr>
<tr>
<td>Climate change</td>
<td>1.0</td>
<td>1.3</td>
</tr>
<tr>
<td>Outdoor air pollution</td>
<td>0.9</td>
<td>1.3</td>
</tr>
<tr>
<td>Drug use</td>
<td>0.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Road accidents</td>
<td>0.7</td>
<td>1.0</td>
</tr>
<tr>
<td>Workplace risks</td>
<td>0.4</td>
<td>0.6</td>
</tr>
<tr>
<td>Household air pollution</td>
<td>0.4</td>
<td>0.5</td>
</tr>
<tr>
<td>Child and maternal undernutrition</td>
<td>0.3</td>
<td>0.5</td>
</tr>
<tr>
<td>Unsafe sex</td>
<td>0.3</td>
<td>0.4</td>
</tr>
<tr>
<td>Poor water and sanitation</td>
<td>0.1</td>
<td>0.1</td>
</tr>
</tbody>
</table>

McKinsey Global Institute, Discussion Paper November 2014
~20% of Indians are overweight or obese
(National Family Health Survey-4, 2015-16; up from ~10% in NFHS-3, 2005-06)
Beliefs → Behaviours
BMI

What the doctors think

“Clearly, environmental causes for obesity are far more influential than genes. [...] Obesity results from overnutrition and the primary therapeutic target is preventing or reversing overeating [...] Exercise is associated with weight loss but its duration or intensity has minor effects on weight loss relative to diet.”

Livingston & Zylke, JAMA editorial (2012)
(Big) Food For Thought

**FAREED ZAKARIA (CNN):** We have three times the rate of obesity as Europe. They say it is because of the snacks and fast food and high calorie drinks.

**INDRA NOOYI (CEO, PEPSICO):** I wish the solution was that simple. ... When I was a kid, I would come home from school, throw my bag, go out to play. My daughter comes home from school, throws her bag, goes to play, but sitting in front of the computer because their definition of play has changed. *They don't go out to play.* ... *Lifestyles have changed.*

*CNN, April 17, 2011*
Beliefs → Behaviours
Food companies actively promote the exercise theory

- Public statements
- Lobbying
- Exercise philanthropy
- Sports sponsorships

‘active balanced lifestyle’: Coca Cola
‘balanced active lifestyle’: McDonald’s
‘balanced and healthy lifestyle’: General Mills
‘balanced diet and lifestyle’: Unilever
‘well-balanced lifestyle’: Mars
‘a balanced lifestyle’: Nestle, PepsiCo

Messaging → Beliefs

• “A hefty number of studies has shown that the trend of rising obesity rates can be attributed not to increased intake of food in general (or any particular food) or to the influence of restaurants, but rather to less physical activity compounded by a variety of other factors that are constantly being explored.”

• Also state: “A calorie is a calorie”
  – Center for Consumer Freedom:
    Paper titled: “An Epidemic of Obesity Myths”
The effect of believing BOTH those claims

We call it

Leanwashing

• Food marketing tries to influence people’s beliefs about obesity
  • Tries to make them attribute it to exercise

→ Dual effect of “Big Food” on obesity
Analyzing Obesity as Market Failure

**Monopoly Power**

- Externalities
  - Public health expenditures
  - Social contagion

**MARKET FAILURE**

**CORRECTIVE MECHANISMS**

- Corporate Social Responsibility
  - Not incentive compatible
  - Often irrelevant

- Industry Self-Regulation
  - Not happening
  - Possible opportunity

- Consumer Activism
  - Sporadic
  - Ineffective for many reasons

- Government Intervention
  - Unreliable (due to lobbying)
  - May be most effective
  - But how? Taxes? Bans?

**Asymmetric Information**

- Leanwashing
- Marketing to children
- Advertising power
- Problems with information disclosure

A BOAR, BY TOUTATIS!

HAHAHAHAHAHAHAHAHAH!
We'd like to pay some scientists to sing, in perfect harmony, and help us dupe the world that coke doesn't cause O-be-sit-ee!

It's the surreal thing...
Thank you!

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People Love Food (but Vice Versa?)

- Food quality is emerging as a major issue worldwide
  - Adulteration
  - Factory farming
    - Safety issues: Monocultures
    - Nutritional issues: Loss of nutrient diversity
    - Environmental issues: Land usage
    - Ethical issues: CAFO (Concentrated Animal Feeding Operations)
  - GMOs
  - Additives

- Labeling
  - Do people notice the labels? Do they read the labels? Do they understand the information? How do they use it?
Portion sizes = More of the good stuff
Inflation at McDonald’s

McDonald's Fries Portion Sizes

- 1955: 2.0 ounces
- 2000s: 4.1 ounces

Small (380 cal)
Medium (500 cal)

McDonald's Soda Portion Sizes

- 1955: 6.5 ounces
- 2000s: 32 ounces

Child's (110 cal)
Small (150 cal)
Medium (210 cal)
Large (310 cal)
Heart Attack Grill (Las Vegas)

- Freshly Baked Bun
- Crisp Chopped Lettuce
- Beefsteak Tomatoes
- Juicy Bacon
- Gourmet Red Onion
- Fresh Cheddar Cheese
- 1/2 Pound Beef
- Another Red Onion
- More Cheese
- Another 1/2 Pound Patty
- Another Red Onion
- More Cheese
- Another 1/2 Pound Patty
- More Bacon
- Another Red Onion
- More Cheese
- Another 1/2 Pound Patty
- More Bacon
- Gourmet Sauce
- Freshly Baked Bun
Obesity Trends* Among U.S. Adults

BRFSS, 1990, 2000, 2010

(*BMI ≥30, or about 30 lbs. overweight for 5’4” person)
Rigor and replication….in France

• French sample (N=290)
• Allocated 100 points among diet, exercise, and genetics as causes of obesity
• Measured *many* other factors known to affect obesity
  – Current SES
  – Childhood SES
  – Home location
  – Current pregnancy
  – Employed outside of the home
  – Smoker or not
  – Self-reported overall health
  – Interest in nutrition
  – Self esteem
  – Impulsivity
  – Gender, Age, Education level…
France – Results
Public statements indicting exercise and “lifestyle”

• “Balanced lifestyle” in most interviews and communications
  – ‘active balanced lifestyle’: Coca Cola; ‘balanced active lifestyle’: McDonald’s;
    ‘balanced and healthy lifestyle’: General Mills; ‘balanced diet and lifestyle’: Unilever;
    ‘well-balanced lifestyle’: Mars; ‘a balanced lifestyle’: Nestle, PepsiCo

• Directly implicating exercise and “personal choice”
  – “If all consumers exercised, did what they had to do, the problem of obesity wouldn't exist.” – Indra Nooyi, Fortune, April 27, 2010
  – “This is an important complicated societal issue that we all have to work together to provide a solution. That’s why we are working with government, business and civil society to have active lifestyle programs in every country we operate by 2015.” – Muhtar Kent, CEO, Coca-Cola, 2012
  – “We cannot escape the role of personal responsibility we each have…. [the growth in the number of overweight people is] mirrored by a decline in physical activity” – John Sutherland, CEO, Cadbury-Schweppes, 2004
Lobbying

• US Food industry spent $175 million on lobbying during 2009-12
  – $2.4 million to oppose the Berkeley soda tax in Nov 2014 ($30 per voter)

• Industry-funded groups that distort research findings
  • e.g., Coca Cola: “Global Energy Balance Network” (NYT, August 2015)
  • The Center for Consumer Freedom – a nonprofit “lobbying front for the restaurant, food, beverage, and alcohol industries”
    “A hefty number of studies has shown that the trend of rising obesity rates can be attributed not to increased intake of food in general (or any particular food) or to the influence of restaurants, but rather to less physical activity compounded by a variety of other factors that are constantly being explored.” – CCF website

• Influence on guidelines, standards, and initiatives
  – Michelle Obama’s “Let’s Move” campaign refocused
  – US “Inter-Agency Working Group” (FDA, FTC, CDC, & Dept of Agriculture) recommendation for voluntary standards for children’s food marketing blocked
    • “…focus on food advertising is misplaced, and distracts badly needed attention from the declines in physical activity and other societal factors that actually are fostering the obesity crisis” – General Mills public statement
Exercise philanthropy

• In-school programs, joint programs with local governments
• Helping to fund and build parks, playgrounds, and gyms
• Examples:
  • Kelloggs’ “Get in Step” initiative encouraged people to walk an extra 2,000 steps a day and then eat a bowl of cereal
  • PepsiCo’s “Smart Choices” built playgrounds in cities across the US
  • Kraft Foods Foundation invested more than US$ 7 million across Europe, targeting elementary schools, sports facilities, parks and community centers.
  • Coca-Cola funded sports and physical activity programs in China, Brazil, Singapore, and the Netherlands, among many others
  • Unilever sponsored the Flora London Marathon, the Flora Women’s 5km challenge, and the Danish Handball Summer School.
  • “If a 50-pound kid plays soccer for 45 minutes, she burns ~120 calories. But a typical post-game snack chosen from Pepsi's 'good for you' brand list – a 15.2-ounce bottle of Dole Strawberry-Kiwi juice and a reduced calorie Quaker granola bar – adds up to 320 calories.” – WSJ
Sports sponsorships

• Coke and McDonald’s: Olympics, FIFA World Cup, European soccer, multiple NBA teams

• Pepsico: NFL, Major League Baseball, Major League Soccer, ICC Cricket World Cup, Indian Premier League

• And hundreds of others