Lessons from 50 years of Tobacco Control: Can they be applied to global food problems?

Cheryl L. Perry, Ph.D.
MeLisa R. Creamer, MPH
May 23, 2012
Tobacco Control: A Public Health Victory?

I miss my lung, Bob.
Cigarettes: When Used as Intended

• Cigarette smoking kills 1 out of 2 consumers.
• The average smoker loses 13 years of life.
• Smoking is particularly addictive for teens.
• Nine out of 10 smokers begin by age 18.
• Smokers are brand loyal from early age.
• Kids smoke the most marketed brands, not adults.
Lessons from Rise/Fall of Tobacco Industry

for more information on lung cancer, keep smoking.

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The world is your oyster, not your ash tray!

DANGER
NO SMOKING ON THESE PREMISES
The 20th Century of Smoking

Cigarettes Smoked Per Person Each Year

Cigarettes per Capita

Year

Cigarettes per capita
The 20\textsuperscript{th} Century of Smoking: Prevalence among 21 year olds

<table>
<thead>
<tr>
<th>Year</th>
<th>White Male</th>
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</table>
1. Tobacco Industry Technology
1. Tobacco Industry Technology

Reconstituted Tobacco
2. Tobacco Industry Marketing: No Health Concerns

20,679* Physicians say "LUCKIES are less irritating"

"It's toasted"

Your Throat Protection against irritation against cough

2. Tobacco Industry Marketing: AMA
2. Tobacco Industry Marketing: Women

To keep a slender figure
No one can deny...

Reach for a LUCKY
instead of a sweet

“It’s toasted”
No Throat Irritation - No Cough.
2. Tobacco Industry Marketing: Children
2. Tobacco Industry Marketing: Youth
2. Tobacco Industry Marketing: Women

1970s
2. Tobacco Industry Marketing: Women
3. Keeping Prices of Cigarettes Low
3. Keeping Prices of Cigarettes Low
4. Suppressing Addiction Information
4. Suppressing Lung Cancer Information

![Graph showing Lung and Bronchus Cancer Incidence and Cigarettes per capita over time.](image)
Increasing Cigarette Use in 20\textsuperscript{th} Century

• Technologies to cut production time and costs.
• Making cigarettes cheap and convenient.
• Normalizing smoking for women and youth.
• Marketing to appeal to specific groups using emerging communication technologies.
• Getting young people addicted.
• Suppressing negative health information.
Relevance to Global Food Problems?

Obesity + Malnutrition
Obesity: Epidemic of 21st Century?

Percent Obese by Country 1975 -- 2010

- Australia
- Belgium
- Canada
- Netherlands
- United States
- China
- India
Obesity: Increased Diabetes

- Prevalence of Overweight
- Prevalence of Obesity
- Prevalence of Diabetes
Obesity: Increased Calories Worldwide

Calories Per Capita Per Day 1961--2007

- Australia
- Belgium
- Canada
- China
- India
- Netherlands
- United Kingdom
- United States of America
- World + (Total)

Kcal/capita/day

Year

1000
1500
2000
2500
3000
3500

Obesity: Increased Calories Worldwide

Calories Per Capita Per Day 1961--2007

- Australia
- Belgium
- Canada
- China
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- Netherlands
- United Kingdom
- United States of America
- World + (Total)
Overweight/Obese
Malnourished
General Population

Percent of World Population with Significant Food Problems
Obesity and Malnutrition: Coexistence

Percent of World Population with Significant Food Problems

- Overweight/Obese
- Malnourished

General Population

78% live in countries with food surpluses
Obesity and Malnutrition: Coexistence

Example: **Egypt**
Population: 85 million

- 66% overweight or obese
- 50% pregnant women anemic
- 29% children stunted growth
- 12% of stunted have obese mothers
What are some of the factors that have caused the increase in obesity and persistence of malnutrition over the past 40 years?
1. Agribusiness & Transportation Technology

New product introductions of consumer packaged goods, 1992-2009

- Food and beverage
- Nonfood
1. Agribusiness & Transportation Technology

- Industrial manufacturing of new foods and meals
- Better storage of foods – with many foods not needing refrigeration
- Transportation worldwide via the “chill chain”
- Less reliance on local produce and livestock
- Replication of “western” meals via global fast food chains
1. Technologies: Global Transport of Food
1. Technologies: Increases in Soy Oil

Technologies: Increases in Oil Consumption

United States of America - Food Supply

- Sugar & Sweeteners + (Total)
- Vegetables + (Total)
- Fruits - Excluding Wine + (Total)
- Meat + (Total)
- Fish, Seafood + (Total)
- Vegetable Oils + (Total)
Technologies: Increases in Soy Oil in the US

**United States - Food Supply (Vegetable oils only)**

- Soyabean Oil
- Groundnut Oil
- Sunflowerseed Oil
- Rape and Mustard Oil
- Cottonseed Oil
- Palmkernal Oil
- Palm Oil
- Coconut Oil
- Sesame Seed Oil
- Olive Oil
- Ricebran Oil
- Maize Germ Oil
- Oilcrops, Other
1. Technology: Increases in Vegetable Oil

Vegetable Oils: Calories per Capita per Day

- Australia
- Belgium
- Canada
- China
- India
- Netherlands
- United Kingdom
- United States of America
- World + (Total)

Year: 1961-2006
Kcal/capita/day: 0-800
1. Technologies: Pizza?
1. Technologies: Yum! Brands in India & China
1. Technologies: Easy to Get Pizza
Pizza Hut introduces the **Crown Crust Burger Pizza**: A pizza encrusted by cheeseburgers. Only available in the **Middle East**.
1. Technologies: What’s bad about pizza?

6” Pizza Hut Meat-Lover’s Pizza

Calories for one person: 830

- 50% of calories from fat (46 grams)
- 18.5% of calories from saturated fat (17 grams)
- 2 grams of sodium
- 7 grams of sugar
- 3 mg of fiber
2. Keeping Food Cheap and Convenient

“Cheap Food Policy”

• Subsidizes crops with federal funds in order to stabilize farm incomes.
• Ensures sufficient food for the nation from basic crops.
• Provides access to food for those most at risk of being hungry (food stamps, school meals).
• Forms the basis for food aid worldwide.
• Helps to prevent food riots due to high prices.
2. Keeping Food Cheap and Convenient
<table>
<thead>
<tr>
<th>Subsidy Totals</th>
<th>1995 – 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Corn Subsidies</td>
<td>$77,123,770,222</td>
</tr>
<tr>
<td>2 Wheat Subsidies</td>
<td>$32,373,080,169</td>
</tr>
<tr>
<td>3 Cotton Subsidies</td>
<td>$31,009,614,843</td>
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<tr>
<td>4 Conservation Reserve Program</td>
<td>$27,885,392,216</td>
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<tr>
<td>5 Soybean Subsidies</td>
<td>$24,285,436,252</td>
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“Cheap Food Policy”

• Contributes to excess foods of low nutritional quality.
• Provides incentives to create products from subsidized crops.
• Encourages the manufacturing of foods and meals of low nutritional quality that can be packaged, frozen, vacuum-packed, and shipped worldwide.
3. Marketing Cheap & Convenient Foods

• Children watched over 13 ads for food per day in 2007.
• Over 90% of the ads were for foods high in fat, sugar, and salt.
• 84% of parents of children ages 2 to 11 had taken their children to a fast food restaurant in the past week.
• Unrestricted marketing makes unhealthy foods normative, ubiquitous, and in demand.
### THE RESTAURANTS IN THIS STUDY

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### 3. Marketing Cheap & Convenient Foods

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3. Marketing Cheap & Convenient Foods
Kelly Brownell (Rudd Center, Yale) summarizes:

“...food itself triggers some biological process that makes it hard for people to stop eating. We know very little about the dozens of chemicals that get added to food. The food industry refers to these as ‘flavor enhancers,’ but they help increase consumption of the food. Whether these trigger some event in the brain that creates dependence, we just don’t know.”
Increasing Food Problems in 21st Century

- Technologies to boost agribusiness, new manufactured foods, and easier global transit.
- Marketing unhealthy foods to appeal to young people.
- Making unhealthy foods cheap and convenient.
- Getting young people into the “habit” of eating unhealthy foods.
Tobacco Control versus Food Problems?

- The tobacco industry consists of a few giant corporations.
- Cigarettes are not needed for existence.
- Cigarettes are highly addictive and toxic.
- The causal relationship between cigarettes and their health consequences has been well established.
Interventions: Should some foods be banned?

TOXIC TRANS FAT IN PROCESSED FOODS
Interventions: What Worked with Tobacco?

• Tobacco-free clean air ordinances
• Educating the public about health consequences
• Increasing the prices of cigarettes
• Restrictions on marketing activities
• Mass media counter-advertising campaigns
• Keeping the tobacco companies accountable
• Multi-component state and community programs
The 20th Century of Smoking

Cigarettes Smoked Per Person Each Year

Year

1900 1920 1940 1960 1980 2000

Cigarettes per Capita

0 500 1000 1500 2000 2500 3000 3500 4000 4500 5000

Cigarettes per capita
1. Increasing Knowledge: Expose the Truth

Cigarettes Smoked Per Person Each Year

First Surgeon General’s Report

Cigarettes per Capita

Year
1. Interventions: Expose the Truth

SEEK
TRUTH
1. Interventions: Expose the Truth

AMMONIA IS GREAT FOR CLEANING TOILETS AND INCREASING THE IMPACT OF NICOTINE IN CIGARETTES.
1. Interventions: Should I Be Eating This?

IT'S THE #littlethings THAT MAKE US HAPPY

new chicken McBites™

Bring the smiles

At participating McDonald's. CIBT2 McDonald's. For a limited time.
1. Interventions: Should I Be Eating This?

Chicken McBites Commercial
Chicken McBites Ingredients: 42+

Calories in Regular Serving: 470  Fat: 53%

Chicken breast chunks with rib meat, water, maltodextrin, modified rice starch, yeast extract, sodium phosphates, salt, modified tapioca starch, onion powder, garlic powder, sugar, spices, carrageenan, natural (botanical and animal source) and artificial flavors, chicken broth, citric acid, spice extractive, gum arabic, lactic acid, chicken fat. Battered and breaded with: bleached wheat flour, water, wheat flour, food starch-modified, wheat gluten, leavening (baking soda, sodium aluminum phosphate, sodium acid pyrophosphate, monocalcium phosphate), salt, spices, garlic powder, dried onion, dried garlic, maltodextrin, onion powder, citric acid, natural (plant source) and artificial flavors, lactic acid, yellow corn flower, extractives of paprika and turmeric (color).
1. Interventions: Should I Be Eating These?
2. Interventions: Reduce Healthy Food Prices

1. Fruits and vegetables not substantially subsidized.
2. Kids eat more fruits and vegetables in school when they are less expensive.
3. More fruits and vegetables would be grown if they were subsidized.
4. Healthy foods should be less expensive.
5. Americans want “cheap food.” Let’s make it healthy!
2. Interventions: Reduce Healthy Food Prices

Percent of Income Spent on Food by Country

- United States
- Australia
- Belgium
- Canada
- China
- India
- Netherlands
- United Kingdom

- 2009
- 2008
- 2007
- 2006
- 2005
2. Interventions: Increase Prices Unhealthy Foods

Price of cigarettes and youth cigarette smoking

2. Interventions: Increase Prices Unhealthy Foods?
3. Interventions: Counter-Advertising

Cigarettes Smoked Per Person Each Year

Fairness Doctrine
1967-1971

Cigarettes per Capita

Year
3. Interventions: Counter-Advertising

Fairness Doctrine for Food

• Mandate 1 healthy food (or counter an unhealthy food) advertisement on TV for each 3 food advertisements.
  • **Role models** to support healthy foods.
• Negotiate for fewer or **no unhealthy food TV ads**.
3. Interventions: Counter-Advertising

Role Models: Healthy Eating

Woody Harrelson
Ellen DeGeneres
Brad Pitt
Omar Epps
Natalie Portman
3. Interventions: Counter-Advertising

Why love one but eat the other?
4. Interventions: Declare War?

Joseph A. Califano
Surgeon Generals’ Reports (SGRs):
- Mandated by Congress for annual release
- Written by scientists and peer-reviewed
- Special office for ongoing production at CDC
- Provides scientific basis for program, policy, and legal actions
- Not advocacy reports
5. Interventions: Annual SGRs on Food

- Global health and social consequences
- Epidemiology of food, obesity, malnutrition, food insecurity
- Food industry influences including marketing, new products and ingredients, food science
- Results of interventions to create healthier food policies and programs
6. Interventions: Get Greater Accountability

- Tobacco companies continue to want "self-regulation," such as with warning labels.
- Tobacco companies knew their products were causing disease before the 1950 reports.
- Tobacco companies intentionally marketed addictive products to youth.
- Profits of the tobacco companies continue to grow – to $35 billion in 2010.
6. Interventions: Get Greater Accountability

- Number one fast food company worldwide is McDonalds
- Sales revenue in 2011 was $27 billion
- McDonald’s serves over 68 million people per day worldwide – 1% of the world’s population
- 75% of sales are for Big Macs & French Fries
- James Skinner, CEO, makes over $13 million/year.
6. Interventions: Get Greater Accountability

Pharmaceutical Sales for Diabetes in 2010: $34.4 billion
1. Who is benefiting financially from the expansion of unhealthy foods?

2. Is evidence being suppressed about the negative health consequences of particular foods, additives, flavor enhancers?

3. Are people “brand loyal” to particular foods, and so are they being targeted as children to become life-long consumers?
Interventions for Food from Tobacco Control

1. **Truth Campaign** about food – increase knowledge and motivation.

2. **Reduce prices** of healthy foods.

3. **Increase prices** of unhealthy foods.

4. Demand Fairness Doctrine for **healthy food advertising** at 1:3 with unhealthy food advertising.

5. Produce **annual Surgeon Generals’ Reports on Food**.

6. Keep **companies accountable** for outcomes.
Summary: Tobacco Control Challenges

Emerging Tobacco Products
Number of deaths in millions from tobacco use

Developed countries:
- 2000: 2
- 2030: 3

Developing countries:
- 2000: 2
- 2030: 7
Summary: Food Issues More Complex

1. 10 billion people eating from frozen food trays?
2. 3 billion people going hungry?
3. Use scientific evidence as foundation for advocacy.
4. Challenge the choices now available.
5. Work at all levels for sufficient, healthy, affordable food.
Thank you!!