

Restricting Marketing of Foods and Beverages to Children in Canada

*Prospective Economic Impact and
Industry Responses*

March 24, 2015

Outline of Webinar

1. Background
2. Are restrictions effective?
3. Are restrictions cost-effective?
4. Impact on industry
5. Industry response
6. Lessons from tobacco control

Background

1. Rapidly increasing levels of obesity in Canadian children
2. Poor health - cardiovascular disease, asthma, gallbladder disease, many cancers, osteoarthritis, chronic back pain, type II diabetes

Background

3. *Economic burden*

- Excess weight vs. tobacco in Canada in 2012 - \$19.0 vs. \$21.3 billion (Krueger et al. *Canadian Journal of Public Health*, 2013; 105(1):e69-78)
- Updated model, excess weight vs. tobacco in Canada in 2013 - \$23.3 vs. \$18.7 billion (Krueger et al. *Canadian Journal of Public Health*, under review)

Background

4. World Health Organization 2009

“Evidence from many of the more complex studies, capable of inferring causality, demonstrate a statistically significant association between food promotion and children’s knowledge, attitudes, behaviours and health status.”

(Cairns et al. *The Extent, Nature and Effects of Food Promotion to Children: A Review of the Evidence to December 2008*. 2009. World Health Organization.)

Are Restrictions Effective?

- Progressive ban in the UK on the advertising and promotion of foods and drinks that are high in fat, salt or sugar (HFSS) to children implemented April 1, 2007
- Children 4-15 exposed to 37% less HFSS advertising in 2009 compared to 2005
 - Children 4-9 ↓ 52%
 - Children 10-15 ↓ 22%

Are Restrictions Effective?

- RCT in a Quebec children's camp assessing 5-8 year old children's afternoon snack choices
- 2 weeks of daily exposure to televised food and beverage messages
- *“Children who viewed candy commercials picked significantly more candy over fruit as snacks. Eliminating candy commercials proved as effective in encouraging the selection of fruit as did exposing the children to fruit commercials or nutritional public service announcements.”*

(Gorn and Goldberg, *Journal of Consumer Research*. 1982; 9(2): 200-5.)

Are Restrictions Effective?

- Television advertising for fast-food restaurants and childhood obesity in the United States.
- Every additional half hour / week of advertising is estimated to increase a child's BMI by 0.16 kg/m² and an adolescent's BMI by 0.49 kg/m² (for males) or 0.37 kg/m² (for females).
- Eliminating fast-food restaurant advertising would reduce the # of overweight children aged 3-18 by 11%.

(Chou et al. *Fast-food Restaurant Advertising on Television and Its Influence on Childhood Obesity*, National Bureau of Economic Research, 2005)

Are Restrictions Cost-effective?

- Assessing Cost-effectiveness in Obesity (ACE-Obesity) project in Australia
- OECD Economics of Prevention project
- Disability-adjusted Life Year (DALY)
- Cost / DALY

Effectiveness and Cost-effectiveness of ACE-Obesity Interventions

Australia, 2001

Intervention	DALYs Saved	Gross Cost (in m\$)	Net Cost (in m\$)	CE*
Reduction of TV advertising of high fat and/or high sugar foods & drinks to children	37,000	\$0.13	-\$299.00	-\$8,081
Education program to reduce TV viewing	8,600	\$27.70	-\$43.80	-\$5,093
Education program to reduce consumption of carbonated (fizzy) drinks	5,300	\$16.60	-\$26.70	-\$5,038
Multi-faceted school-based program targeted at overweight and obese children	360	\$2.20	-\$1.20	-\$3,333
Multi-faceted school-based programme with an active Physical Education component	8,000	\$54.20	-\$14.00	-\$1,750
Family-based targeted program for obese children	2,700	\$11.00	-\$4.00	-\$1,481
Laparoscopic adjustable gastric banding for morbidly obese adolescents	12,000	\$130.00	\$53.40	\$4,450
Multi-faceted school-based programme without an active Physical Education component	1,600	\$24.30	\$9.00	\$5,625
Family-based GP program targeted at overweight and moderately obese children	510	\$6.30	\$2.95	\$5,784
Orlistat therapy for obese adolescents	450	\$6.30	\$4.90	\$10,889
Active After School Communities program	450	\$40.30	\$36.50	\$81,111
TravelSmart Schools	50	\$13.30	\$12.58	\$251,600
Walking School Bus	30	\$22.80	\$22.53	\$751,000

* Cost-effectiveness ratios are expressed in 2001 Australian dollars per DALY averted, and represent the net cost of gaining 1 year of additional healthy life, relative to current practice.

DALYs = Disability-adjusted Life Years; CE=Cost-effectiveness

Source: Based on data provided in Haby et al, *International Journal of Obesity*, 2006 and Carter et al, *BMC Public Health*, 2009

Effectiveness and Cost-effectiveness of Interventions

Tackling Unhealthy Diets, Physical Inactivity and Obesity

In England, 2005

	<i>After 20 Years</i>	
	DALYs	CE*
Fiscal Measures	1,496	Cost-saving
Food Labelling	1,134	\$12,577
Physician Counselling	5,562	\$25,284
Food Advertising Regulation	245	\$25,672
Mass Media Campaigns	1,361	\$25,897
Worksite Interventions	1,725	\$45,630
School-based Interventions	0	>\$1,000,000
	<i>After 50 Years</i>	
	DALYs	CE
Fiscal Measures	6,049	Cost-saving
Food Advertising Regulation	2,179	\$4,278
Food Labelling	4,019	\$5,268
Mass Media Campaigns	4,025	\$13,796
Physician Counselling	14,776	\$15,731
Worksite Interventions	6,078	\$20,506
School-based Interventions	245	\$152,989

* Cost-effectiveness ratios are expressed in 2005 US dollars per DALY averted, and represent the net cost of gaining 1 year of additional healthy life, relative to a no prevention or treatment only scenario.

DALYs = Disability-adjusted Life Years; CE=Cost-effectiveness

Source: Cecchini, et al. *The Lancet*, 2010

Impact on Industry

Reported Child and Teen Marketing Expenditures and Overlap United States, 2006

<i>Food Category</i>	Marketing That Meets Child 2-11 Criteria (\$1000)		Marketing That Meets Teen 12-17 Criteria (\$1000)		Overlapping Marketing (\$1000)
	\$1,000	% of Total	\$1,000	% of Total	
Carbonated Beverages	\$77,171	8.9%	\$474,192	45.1%	\$58,868
Restaurant Foods	\$161,479	18.6%	\$145,008	13.8%	\$12,841
Breakfast Cereal	\$228,983	26.3%	\$71,266	6.8%	\$63,696
Juice & Non-carbonated Beverages	\$70,432	8.1%	\$108,606	10.3%	\$32,307
Snack Foods	\$112,607	12.9%	\$51,354	4.9%	\$25,248
Candy/Frozen Desserts	\$60,708	7.0%	\$98,998	9.4%	\$42,012
Prepared Food & Meals	\$59,821	6.9%	\$17,931	1.7%	\$13,468
Baked Goods	\$61,147	7.0%	\$39,649	3.8%	\$38,248
Dairy Products	\$29,572	3.4%	\$38,307	3.6%	\$13,404
Fruits & Vegetables	\$8,410	1.0%	\$6,236	0.6%	\$3,183
Total	\$870,329	100.0%	\$1,051,546	100.0%	\$303,275

Kovacic et al. *Marketing Food to Children and Adolescents: A Review of Industry Expenditures, Activities, and Self-Regulation*. 2008. Federal Trade Commission.

Impact on Industry - UK

Food and Drink Advertising Expenditures

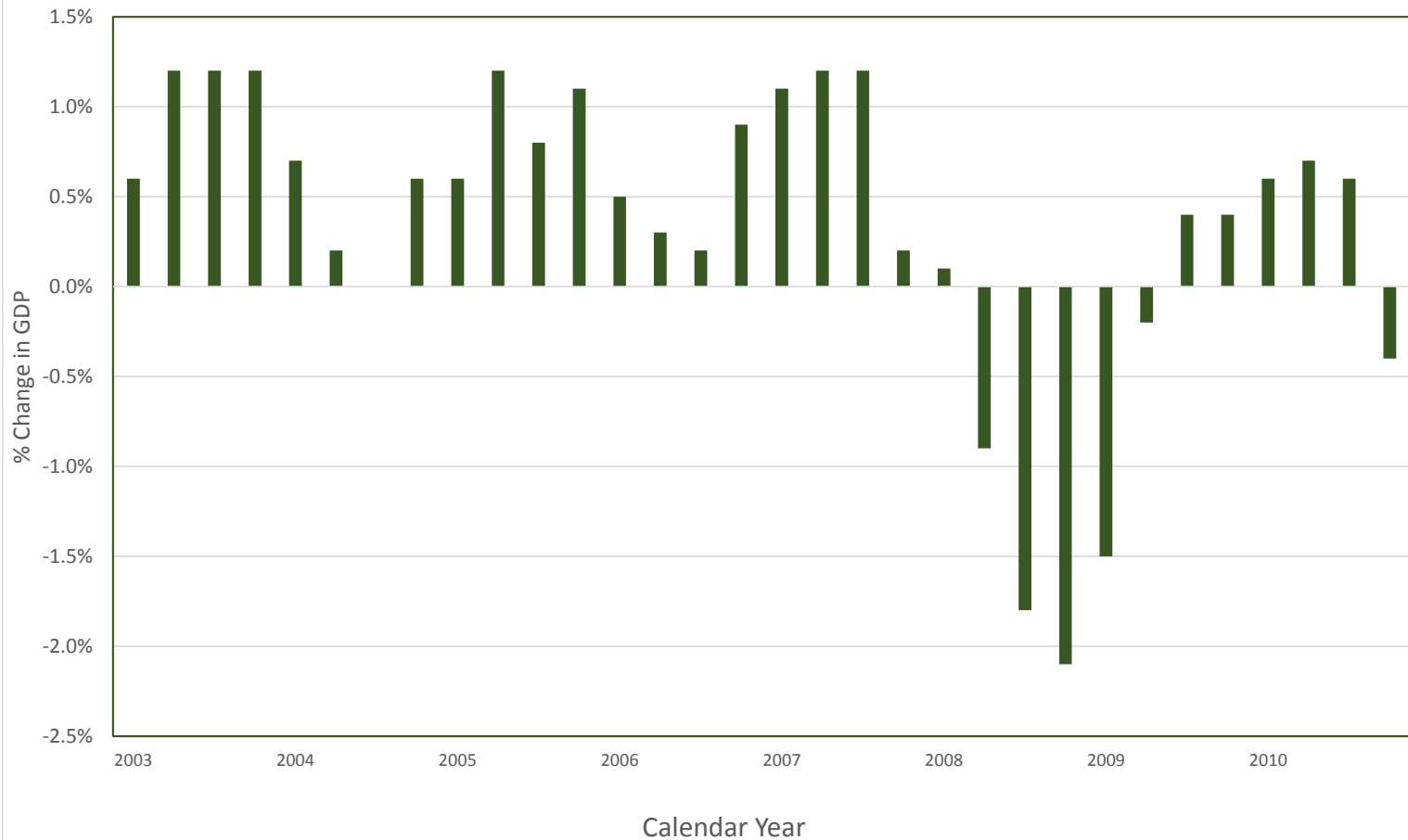
United Kingdom

2003 to 2009, By Medium (in million£)

Medium	Calendar Year						
	2003	2004	2005	2006	2007	2008	2009
TV	£548	£553	£584	£569	£590	£582	£527
Radio	£23	£32	£38	£29	£29	£23	£31
Print	£94	£113	£148	£176	£169	£164	£176
Outdoor	£79	£81	£83	£77	£103	£83	£100
Cinema	£15	£15	£18	£16	£24	£27	£30
Total	£759	£794	£871	£867	£915	£879	£864
% Change		4.6%	9.7%	-0.5%	5.5%	-3.9%	-1.7%

Impact on Industry - UK

% Change in Gross Domestic Product
United Kingdom
2003 to 2010 by Quarter



Impact on Industry - UK

Change in TV Advertising Revenues United Kingdom 2005 to 2007, By Channel Category

Channels	Change in Food and Drink Advertising Revenue	Change in Net Advertising Revenue
Children	-26%	35%
Main Commercial	-6%	-11%
Music	12%	-31%
Other	93%	72%

Industry Response

- “Self-regulation is sufficient”
- On November 24, 2008 representatives from the food and beverage industry, in conversation with the WHO, stated that “dramatic changes have taken place in how industry is marketing to children since the adoption of the [WHO’s] *Global Strategy on Diet, Physical Activity and Health* in 2004.”

(WHO. *Dialogue with the Food and Non-Alcoholic Beverages Industries: Drafting of Recommendations on Marketing of Foods and Non-Alcoholic Beverages to Children*. 2008)

Industry Response

- 22 national and regional pledges limiting the advertising of food and beverage products to children, involving over 90 companies worldwide, had been documented by 2012
- Canada - the *Children's Food and Beverage Advertising Initiative* was created in 2007 and currently includes 19 major food and beverage companies

Industry Response

Average Number of Advertising Spots Viewed by Children Per Month on Children's Specialty Channels Vancouver and Toronto, 2006 and 2009

<i>Food Category</i>	Vancouver			Toronto		
	May-06	May-09	% Change	May-06	May-09	% Change
Snacks	4.6	16.5	258.7%	7.3	29.2	300.0%
Cheese	6.2	4.8	-22.6%	11.6	6.8	-41.4%
Yogurt	-	2.5	∞	-	2.2	∞
Cereals	22.7	21.3	-6.2%	37.5	36.3	-3.2%
Juices	6.0	1.4	-76.7%	13.9	3.7	-73.4%
Soft Drinks	3.0	-	-100.0%	4.0	-	-100.0%
Diet Soft Drinks	3.0	-	-100.0%	4.2	-	-100.0%
Fast Food	21.4	22.1	3.3%	39.7	46.4	16.9%
Total	66.9	68.6	2.5%	118.2	124.6	5.4%

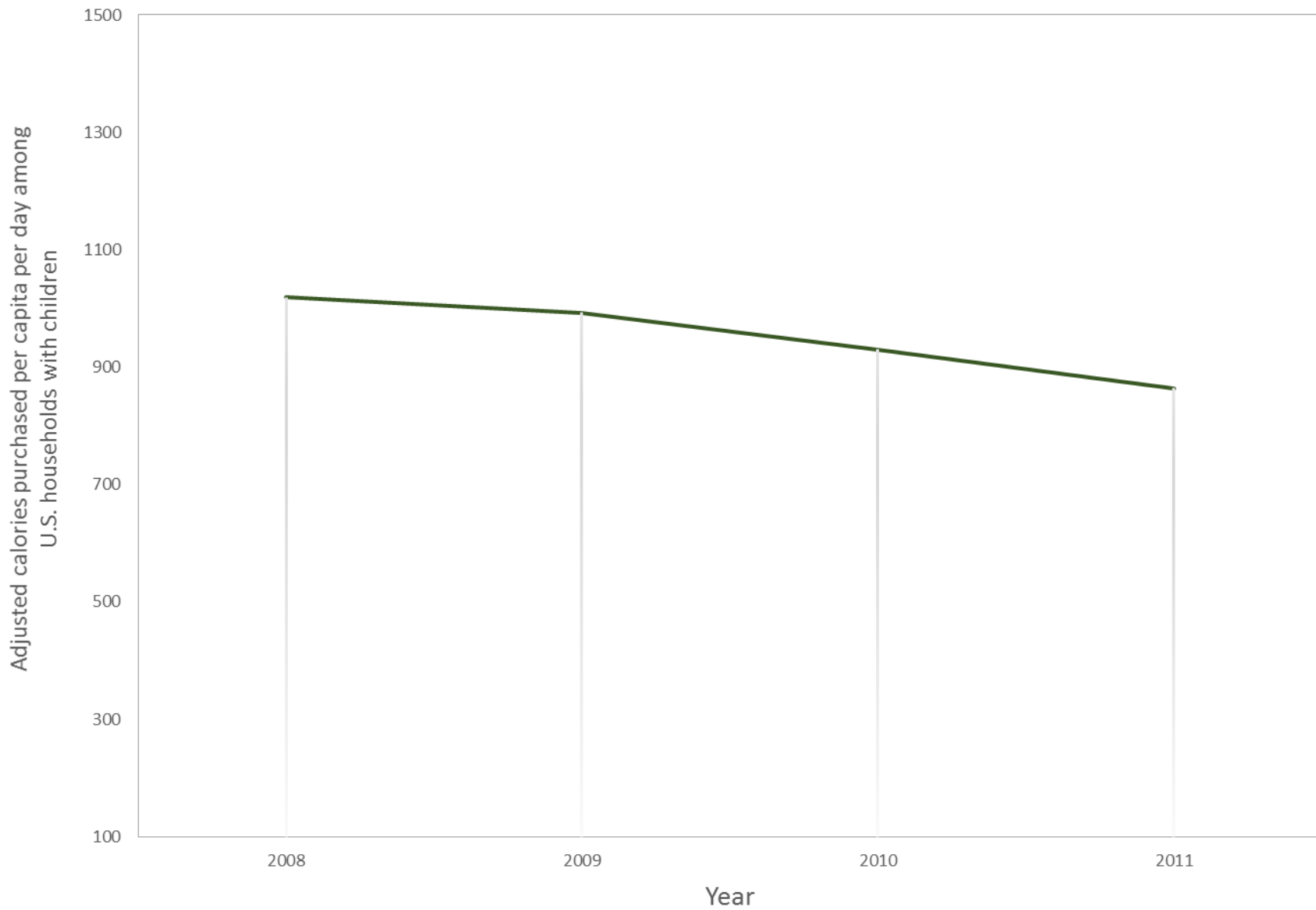
Potvin and Wanless. *International Journal of Obesity* . 2014; 38(4): 558-62.

Industry Response

- United States - The *Healthy Weight Commitment Foundation* (HWCF) was formed in 2009 to reduce the total number of calories sold in the US marketplace. It is a CEO-led organization “whose national, multiyear effort is designed to help reduce obesity - especially childhood obesity.”

Trends in Consumer Packaged Goods Calories Purchased

2008-2011



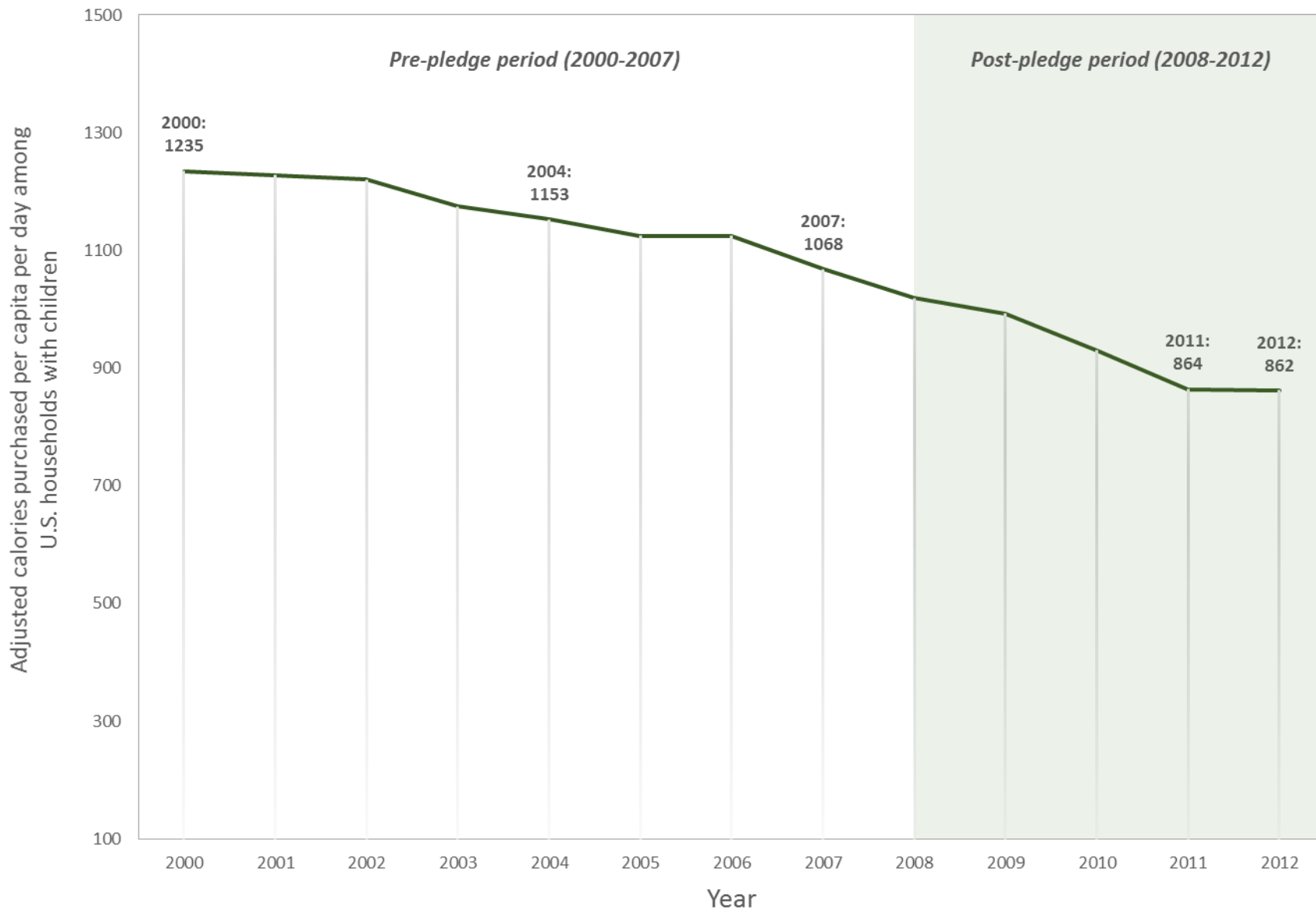
Industry Response

- Ng and Popkin set out to determine whether membership in the HWCF resulted in a reduction in the calories per capita of consumer packaged goods purchased by households **with children**. To do so, they assessed trends from 2000 to 2012 based on calories purchased from 16 major HWCF food-manufacturing companies

(Ng and Popkin. *American Journal of Preventive Medicine*. 2014; 47(4): 520-30.)

Trends in Consumer Packaged Goods Calories Purchased

2000-2012



Industry Response

- Ng & Popkin conclude:
“If the 16 HWCF companies had been able to maintain their pre-pledge trajectory, there should have been an additional 42 kcal/capita/day reduction in calories purchased from HWCF products in 2012 among households with children. The lack of change in total calories between 2011 and 2012 calls into question the sustainability of the decline....”

Marketing and Contradictory Messages About Healthy Eating

- Conflicting and contradictory messages about healthy eating are widespread.
- The media tends to selectively highlight controversial scientific findings in an effort to create newsworthy stories.
- The effectiveness of publically funded health promotion messages tend to be overwhelmed by the marketing resources of food and beverage companies.

Lessons from Tobacco Control

- Use the argument that restrictions will hurt small businesses
 - Smoke-free restaurant ordinance in 1987 in Beverly Hills, California
 - Initially received unanimous approval through two readings by the Beverly Hills City Council and survived two court challenges
 - Ultimately failed based on (subsequently unsubstantiated) claims that the ordinance resulted in a 30% decrease in restaurant revenue.

Lessons from Tobacco Control

- One of the strategies of the tobacco industry is to fund researchers and pay for research designed to instill doubt about the validity of research findings produced by non-industry funded scientists
- Review of 97 studies assessing the economic effects of smoke-free policies on the hospitality industry (Scollo et al. *Tobacco Control*. 2003; 12(1): 13-20)
 - 31 industry sponsored, all concluded negative impact
 - 66 non-industry sponsored, none concluded negative impact

Lessons from Tobacco Control

- Restricting cigarette sales in pharmacies
 - Industry predicted that “prohibiting pharmacy tobacco sales will cause pharmacies to lose revenue and risk going out of business”
 - The province of Ontario banned pharmacy sales of tobacco products effective December 31, 2004
 - Net gain of 70 pharmacies in 2005 in Ontario

Lessons from Tobacco Control

- Banning Tobacco Retail Displays in Convenience Stores
 - On July 1, 2009, Ireland introduced legislation removing point of sale tobacco advertising and displays in convenience stores
 - 1.7% decline in the total number of retail stores in Ireland in 2009
 - Part of a much longer term decline, with reductions of 5.6% and 9.1% in the two previous years (Quinn, et al. *Tobacco Control*. 2003; 12(1): 13-20.)

Lessons from Tobacco Control

- Tobacco Sponsorship of Festivals and Events
 - Industry predicted the “cancellation of the country’s most popular festivals and sporting events”
 - Rothmans International and Player’s Limited tennis championship – Rogers Cup
 - du Maurier Jazz Festival – Festival International de Jazz de Montréal
 - Benson & Hedges Symphony of Fire - Honda Celebration of Light

Conclusions

- There is sufficient evidence that restrictions influence children's eating habits
- Restrictions are cost-effective
- Restrictions will likely have a limited financial effect on industry
- Industry self-regulation is ineffective
- Industry claims of financial harms should be viewed with caution

Comments / Questions?