

# MARKETING UNHEALTHY FOODS TO KIDS

## Why Regulation is Critical to Reducing Obesity

### A Growing, Global Obesity Epidemic

- Worldwide, over 223 million children aged 5-18 years are now overweight or obese — 24 million more than in 2000 — and prevalence is expected to increase another 20% over the next decade.<sup>1,2</sup> For preschool-aged children, prevalence has also risen 60% since 1990, with 43 million preschoolers now affected and a further 92 million at risk.<sup>3</sup>
- Low- and middle-income countries have experienced the most rapid rise in prevalence.<sup>4</sup> In Latin America, for example, overweight and obesity now affect 15-20% of children and adolescents in Colombia, a quarter to a third in parts of Brazil, and well over a third in Mexico and Chile.<sup>2,5</sup>
- Even at a young age, obesity has serious health consequences, harming nearly every organ system and disrupting hormones that control blood sugar and normal development.<sup>4,6-9</sup>
- Carrying excess weight during childhood and adolescence can take a serious social and psychological toll, with increased risks for depression, anxiety, low self-esteem, peer bullying, eating disorders, or poor performance in school.<sup>10-16</sup>
- Without intervention, children with obesity are likely to face overweight and obesity as teenagers and adults.<sup>7,17-20</sup> They are also more likely to develop diseases such as diabetes, heart disease, and cancer at a younger age and face shorter life expectancies.<sup>4,6,9,20-25</sup>

### A Major Cause: Marketing to Children

- The World Health Organization and other major health organizations worldwide point to children's exposure to pervasive, unhealthy food marketing as a significant risk factor for childhood obesity.<sup>8,26,31-36</sup>
- Foods and drinks are promoted to children more than any other product type and in far greater proportion than to adults.<sup>17</sup>
- Children are exposed every day to food marketing where they live, learn, and play — on TV, at school and sports practice, in stores, at the movies, on mobile devices, and online.<sup>27,36-38</sup>
- In the United States, children ages 2–11 view roughly 13 ads a day for foods, beverages, and restaurants on TV, and 12- to 17-year-old adolescents see 16.5.<sup>39</sup>
- A 2019 study of TV advertising in 22 countries around the world found, on average, four times more ads for unhealthy foods and drinks than healthy ones during all TV and 35% more unhealthy food ads during children's peak viewing times.<sup>40</sup>
- While TV has historically been the medium of choice to reach children, marketing via newer online, mobile, viral, and social media has increased considerably in recent years.<sup>28,36,41,42</sup>
- The majority of promoted food products are calorie-dense and nutrient-poor, with added sugar, saturated fat, and sodium well above recommended levels (e.g., sugary breakfast cereals, soft drinks, candy, salty snacks, and fast foods).<sup>4,26,27,36-38,43-46</sup>
- Children are repeatedly exposed to marketing that portrays eating unhealthy foods in unlimited quantities as fun, cool, and exciting, and ultimately having only positive outcomes.<sup>38,47</sup>
- Food, beverage, and restaurant industries spend billions of dollars every year to reach children with targeted marketing and millions lobbying against laws that might prevent them from doing so, demonstrating the value they see in the child market.<sup>37,45,48-51</sup>

Television remains the most popular vehicle for reaching children, but marketers increasingly use more integrated, cross-media campaigns that include:<sup>26-30</sup>

- Promotional packaging
- Point-of-purchase displays
- Product placements
- Video games
- Immersive, interactive online and mobile environments, e.g.,
  - Social media
  - Advergaming
  - Branded applications
- Viral marketing
- In-school marketing
- Sponsorship of charity events
- Athletic sponsorships

## Food Marketing Leads to Poor Diet and Obesity

- Marketing to children can have lifelong consequences, as childhood eating habits and preferences persist into later life, and the risk of overweight children becoming overweight adults is estimated to be at least twice that of normal-weight children.<sup>17</sup>
- Children are extremely vulnerable to food marketing. Developmentally, they are highly impressionable, cannot yet recognize advertising intent, lack nutritional knowledge, and are motivated by immediate gratification rather than long-term consequences.<sup>34,36,47</sup>
- Food companies target children:
  - To entice them to spend their own money on promoted products,
  - To exercise influence over what parents buy (via “pester power” or purchase requests), and
  - To cultivate brand loyal early in life, resulting in lifelong financial rewards for companies.<sup>4,26,36,47,59-62</sup>
- An extensive body of research consistently shows that:
  - Marketing increases children’s awareness, recognition, and recall of brands and begins to affect them as early as preschool.<sup>4,26,36,47,62-65</sup>
  - Repeated exposure to marketing forges positive brand associations and preferences — not just for promoted products, but for entire categories of junk food.<sup>26,38,62,66-68</sup>
  - Time spent watching TV and exposure to unhealthy food advertisements on TV are associated with children consuming more fast food,<sup>69</sup> more of the advertised foods (which are overwhelmingly unhealthy), and more calories.<sup>70-73</sup>
  - Marketing creates and reinforces social norms around what foods are good to eat and how and when to consume them — often depicted outside of mealtimes, away from the table, and in unlimited quantities.<sup>38,47</sup>
  - Cues such as eye-level placement, appealing product packaging, and toy giveaway displays in grocery stores and restaurants increase both children’s immediate desire to purchase an item and “pestering” of their parents’ to buy it for them.<sup>26,62</sup>
  - Children consume more of promoted products and develop lasting preferences for them that play a role in forming their self-identity and lifelong eating habits.<sup>26,47,62,67,74,75</sup>

### POWER OF MARKETING:

#### Techniques used to appeal to children<sup>26,52-56</sup>

- **Endorsements** by celebrities, athletes, licensed characters, or branded spokes-characters
- **Tie-ins** (to popular toys, movies, or TV shows)
- **Purchase incentives** such as competitions or free toys
- **Animation** and kid-friendly graphics and sound effects
- **Anthropomorphized** food/beverage products
- **Downloads** such as screensavers, wallpapers, coloring pages, and e-cards
- Use of **child actors**

#### Emotional and product appeals to children<sup>26,53-55,57,58</sup>

- Fun
- Cool
- Happiness
- Fantasy
- Humor
- Action-adventure
- Kids-only
- Unique/new
- Taste/texture

## The Need for Comprehensive Marketing Restrictions

- Children’s near-constant exposure to marketing for foods and drinks that misalign with their recommended diet is inherently unfair and exploitative, and it undermines parent, school, community, and government efforts to raise healthy children and prevent overweight, obesity, and costly disease.<sup>4,76</sup>
- The United Nations Convention on the Rights of the Child — ratified as international law by nearly every country in the world — affirms that children have a fundamental right to a healthy childhood, free from economic exploitation.<sup>4,77</sup>
- Many countries, including Brazil, Colombia, Mexico, and South Africa also specifically guarantee children’s basic rights in their constitution, including that children must be properly nourished and protected against exploitation, and that the rights of children take absolute priority.<sup>78-81</sup>
- Protecting children and adolescents from unhealthy food marketing is a cost-effective way to improve their chances of living a long, healthy life while also to reducing the mounting health care costs associated with noncommunicable diseases worldwide.<sup>30,82</sup>

- Global leaders including the World Health Organization,<sup>4,29</sup> Pan American Health Organization,<sup>31</sup> European Union,<sup>83</sup> and World Cancer Research Fund,<sup>84</sup> among others,<sup>36,68,85</sup> unequivocally recommend protecting children from exposure to unhealthy food marketing as a crucial step in stopping the rise of childhood obesity — by restricting or banning marketing targeting or viewed by children, by improving the nutritional profile of promoted products, or by both means.

## Example of Strong Regulation: Chile

Chile has enacted the most comprehensive set of policies to date aimed at improving population diet and reducing chronic diseases,<sup>86-88</sup> including a tax on sugary drinks, implemented in 2014,<sup>89</sup> and two complementary laws requiring front-of-package warning labels and restricting marketing for unhealthy products that do not meet specific nutrition criteria:

- **The Chilean Food Advertising and Labeling Law** (implemented June 2016),<sup>90,91</sup> wherein products with added sugar, salt, or saturated fat that also exceed set limits for calories, saturated fat, sugar, and sodium content are required to carry highly visible front-of-package warning labels and are prohibited from marketing to children under 14 years of age using:
  - Themes or promotional strategies that appeal to children in any form of marketing, regardless of audience, media, or location (e.g., fun or fantasy themes, cartoon characters, animation, children’s music, child actors, or situations representing children’s daily life),
  - Free gifts or toys, contests, interactive games, or apps that could attract children’s attention.

Advertising is prohibited during broadcast programs or on websites either targeting children or with >20% child audience, and promotion and sales of these products is not allowed in schools.

- **Advertising ban** (implementation July 2019),<sup>92</sup> that will restrict *any* advertising of the above products between 6:00 a.m. and 10:00 p.m. on television or cinema. This strengthens the earlier marketing restrictions that focused only on children’s broadcast media and seeks to remove junk food advertising that had shifted from children’s dedicated TV programs into to other programming that was also viewed by children (e.g., family prime time TV).<sup>93</sup>

As recommended by the World Health Organization,<sup>94</sup> these policies address both children’s **exposure** to unhealthy food marketing and the **power** of that marketing to influence their food preferences, purchase requests, and consumption. These laws also elegantly utilize front-of-package warning labels both as visual aids to inform consumers and as indicators of those products which are harmful to children’s health and thus should not be marketed in ways or places that reach children.

### Early evidence from Chile:

In the first year post-implementation:

- The percentage of breakfast cereal packages using child-directed strategies dropped significantly from 36% to 21%, with a greater decrease among less healthy cereals that failed to meet the regulatory nutrition criteria (43% before implementation vs. 15% after).<sup>95</sup>
- The percentage of TV ads promoting unhealthy foods and drinks (ie, products that failed to meet the policies’ nutrition criteria) decreased significantly from 42% pre-regulation to 15% post-regulation. In addition, the percentage of ads for unhealthy products that used child-directed appeals dropped significantly from 44% to 12%.<sup>96</sup>
- Preschoolers’ and adolescents’ exposure to TV advertising for junk foods decreased significantly by an average of 44 and 58%, respectively. Their exposure to junk food advertising that featured child-directed appeals (e.g., cartoon characters) also dropped by 35% and 52%, respectively.<sup>93</sup>
- Despite declines in children’s exposure to ads for products high in added sugar, sodium, or saturated fat, children who regularly watched TV still viewed child-oriented ads for these “high in” foods and drinks during broadcasting outside of dedicated children’s TV programming.<sup>93</sup>



PRE-REGULATION

POST-REGULATION

- Marketing restrictions, in conjunction with other Chilean health regulations (the sugary drink tax and front-of-package warning labels), appear to have contributed to a roughly 24% drop in sugary drink purchases in the year following implementation.<sup>97</sup>
- Researchers have found large reductions in the sugar and sodium content of foods that did not meet the law's nutrition criteria, suggesting that companies are reformulating products to contain lower amounts of nutrients of concern and thus avoid carrying warning labels or restricted marketing.<sup>98</sup>

## Keys to Effective Food Marketing Regulation

Effective regulations should address the types of foods and beverages regulated, the channels or platforms through which they are marketed (e.g., television, digital media, schools, sponsorships, etc.), and the audiences reached. Key concepts for developing effective regulations include the following:

- **Partial measures are ineffective.** Industry will find ways to avoid restrictions and has the resources to achieve the same reach to consumers through alternative channels.<sup>99,100</sup>
- **Industry self-regulation does not work.** Provisions are often weak, participation is voluntary, and enforcement and penalties are not strong enough to ensure compliance.<sup>40,99,100</sup>
  - For example, countries with voluntary industry self-regulatory schemes have been found to have more TV advertising for unhealthy foods during children's peak viewing times than countries with no policy at all.<sup>40</sup>
- **Rigorous enforcement with real penalties is critical.** Compliance can be maximized only if marketers perceive that they are likely to be caught and face meaningful penalties.<sup>94,99,100</sup>

## Conclusion – Implications for Policy

- As seen with tobacco regulations, evidence indicates that 1) partial measures are ineffective and easy for industry to work around; 2) industry self-regulation does not work; and 3) rigorous regulations with real enforcement and consequences are necessary to reduce children's exposure to harmful food and beverage marketing.
- More and stronger statutory policies are needed with wide coverage across all marketing channels and clear nutritional standards.<sup>88,100,101</sup> Policymakers should consider:
  - Adopting strict, standardized nutrient profiling definitions to determine which products are unhealthy and thus should not be promoted to children (as in PAHO's new Nutrient Profile Model,<sup>102</sup> or as implemented in Chile<sup>103</sup> and the United Kingdom<sup>104</sup>);<sup>4,31,99,105</sup>
  - Prohibiting use of health and nutrient claims on products deemed too unhealthy to market to children.<sup>106-108</sup>
  - Using more inclusive definitions of "child audience" (i.e., increasing age cut-offs and/or reducing child audience percentage cut points for advertising restrictions) and expanding TV restrictions beyond narrow windows of "children's viewing hours";<sup>31,99,105,109,110</sup>
  - Expanding restrictions to better cover non-traditional media such as social media, online advergames, and more indirect and stealth marketing tactics that target children;<sup>4,29,31,99,111</sup>
  - Cooperating between countries to minimize the impact of cross-border marketing;<sup>4,94</sup> and
  - Establishing independent regulatory bodies to monitor and hold non-compliant companies accountable.<sup>4,31,99,105,112</sup>
- Better protecting children from harmful food and beverage marketing through strong, statutory action is a crucial and correct step towards reversing the trends of childhood obesity and securing the health of the next generations.

1. Lobstein T, Jackson-Leach R. Planning for the worst: estimates of obesity and comorbidities in school-age children in 2025. *Pediatric Obesity*. 2016;11(5):321-325.
2. Ng M, Fleming T, Robinson M, et al. Global, regional, and national prevalence of overweight and obesity in children and adults during 1980–2013: a systematic analysis for the Global Burden of Disease Study 2013. *The Lancet*. 2014;384(9945):766-781.
3. de Onis M, Blossner M, Borghi E. Global prevalence and trends of overweight and obesity among preschool children. *Am J Clin Nutr*. 2010;92(5):1257-1264.
4. World Health Organization. *Consideration of the evidence on childhood obesity for the Commission on Ending Childhood Obesity: report of the ad hoc working group on science and evidence for ending childhood obesity*. Geneva, Switzerland 2016.
5. Rivera JA, de Cossio TG, Pedraza LS, Aburto TC, Sánchez TG, Martorell R. Childhood and adolescent overweight and obesity in Latin America: a systematic review. *The Lancet Diabetes & Endocrinology*. 2014;2(4):321-332.
6. Harvard School Of Public Health. Child Obesity: Too Many Kids Are Too Heavy, Too Young. Obesity Prevention Source Web site. <https://www.hsph.harvard.edu/obesity-prevention-source/obesity-trends/global-obesity-trends-in-children/#References>. Accessed July 19, 2016.
7. Wang Y, Lobstein T. Worldwide trends in childhood overweight and obesity. *International Journal of Pediatric Obesity*. 2006;1(1):11-25.
8. Ebbeling CB, Pawlak DB, Ludwig DS. Childhood obesity: public-health crisis, common sense cure. *The Lancet*. 2002;360(9331):473-482.
9. Daniels S. Complications of obesity in children and adolescents. *International Journal of Obesity*. 2009;33:S60-S65.
10. Morrison KM, Shin S, Tarnopolsky M, Taylor VH. Association of depression & health related quality of life with body composition in children and youth with obesity. *Journal of affective disorders*. 2015;172:18-23.
11. Halfon N, Larson K, Slusser W. Associations between obesity and comorbid mental health, developmental, and physical health conditions in a nationally representative sample of US children aged 10 to 17. *Academic pediatrics*. 2013;13(1):6-13.
12. Schwimmer JB, Burwinkle TM, Varni JW. Health-related quality of life of severely obese children and adolescents. *Jama*. 2003;289(14):1813-1819.
13. Taylor VH, Forhan M, Vigod SN, McIntyre RS, Morrison KM. The impact of obesity on quality of life. *Best practice & research Clinical endocrinology & metabolism*. 2013;27(2):139-146.
14. Neumark-Sztainer D, Story M, Hannan PJ, Perry CL, Irving LM. Weight-related concerns and behaviors among overweight and nonoverweight adolescents: implications for preventing weight-related disorders. *Archives of pediatrics & adolescent medicine*. 2002;156(2):171-178.
15. Griffiths LJ, Wolke D, Page AS, Horwood J. Obesity and bullying: different effects for boys and girls. *Archives of disease in childhood*. 2006;91(2):121-125.
16. Lumeng JC, Forrest P, Appugliese DP, Kaciroti N, Corwyn RF, Bradley RH. Weight status as a predictor of being bullied in third through sixth grades. *Pediatrics*. 2010;125(6):e1301-e1307.
17. Singh AS, Mulder C, Twisk JW, van Mechelen W, Chinapaw MJ. Tracking of childhood overweight into adulthood: a systematic review of the literature. *Obes Rev*. 2008;9(5):474-488.
18. Freedman DS, Khan LK, Serdula MK, Dietz WH, Srinivasan SR, Berenson GS. Racial differences in the tracking of childhood BMI to adulthood. *Obesity research*. 2005;13(5):928-935.
19. Serdula MK, Ivery D, Coates RJ, Freedman DS, Williamson DF, Byers T. Do obese children become obese adults? A review of the literature. *Preventive medicine*. 1993;22(2):167-177.
20. Power C, Lake J, Cole TJ. Review: Measurement and long-term health risks of child and adolescent fatness. *International Journal of Obesity & Related Metabolic Disorders*. 1997;21(7).
21. World Health Organization. Childhood overweight and obesity. Global Strategy on Diet, Physical Activity and Health Web site. <http://www.who.int/dietphysicalactivity/childhood/en/>. Accessed July 19, 2016.
22. Sun SS, Liang R, Huang TTK, et al. Childhood Obesity Predicts Adult Metabolic Syndrome: The Fels Longitudinal Study. *The Journal of Pediatrics*. 2008;152(2):191-200.e191.
23. Must A, Strauss RS. Risks and consequences of childhood and adolescent obesity. *International Journal of Obesity & Related Metabolic Disorders*. 1999;23.
24. Reilly JJ, Kelly J. Long-term impact of overweight and obesity in childhood and adolescence on morbidity and premature mortality in adulthood: systematic review. *International journal of obesity*. 2011;35(7):891-898.
25. Olshansky SJ, Passaro DJ, Hershow RC, et al. A potential decline in life expectancy in the United States in the 21st century. *New England Journal of Medicine*. 2005;352(11):1138-1145.
26. Cairns G, Angus K, Hastings G, Caraher M. Systematic reviews of the evidence on the nature, extent and effects of food marketing to children. A retrospective summary. *Appetite*. 2013;62:209-215.
27. Palmer E, Carpenter C. Food and Beverage Marketing to Children and Youth: Trends and Issues. *Media Psychology*. 2006;8(2):165-190.
28. Montgomery KC, Chester J. Interactive food and beverage marketing: targeting adolescents in the digital age. *J Adolesc Health*. 2009;45(3 Suppl):S18-29.
29. World Health Organization, Regional Office for Europe. *Tackling food marketing to children in a digital world: trans-disciplinary perspectives*. Copenhagen, Denmark 2016.
30. The Economist Intelligence Unit. The Impacts of Banning Advertising Directed at Children in Brazil. <http://criancaeconsumo.org.br/biblioteca/the-impacts-of-banning-advertising-directed-at-children-in-brazil/>. Published 2017. Accessed May 10, 2019.
31. Pan American Health Organization. *Recommendations from a Pan American Health Organization Expert Consultation on the Marketing of Food and Non-Alcoholic Beverages to Children in the Americas*. Washington, DC 2011.
32. Centers for Disease Control and Prevention. Childhood Obesity Causes & Consequences U.S. Department of Health and Human Services. <https://www.cdc.gov/obesity/childhood/causes.html>. Published 2015. Accessed August 2, 2016.
33. Lobstein T, Jackson-Leach R, Moodie ML, et al. Child and adolescent obesity: part of a bigger picture. *The Lancet*. 2015;385(9986):2510-2520.
34. Swinburn BA, Sacks G, Hall KD, et al. The global obesity pandemic: shaped by global drivers and local environments. *The Lancet*. 2011;378(9793):804-814.
35. Gearhardt AN, Bragg MA, Pearl RL, Schvey NA, Roberto CA, Brownell KD. Obesity and public policy. *Annu Rev Clin Psychol*. 2012;8:405-430.
36. McGinnis JM, Gootman JA, Kraak VI. *Food marketing to children and youth: threat or opportunity?* : National Academies Press; 2006.
37. Federal Trade Commission. *A Review of Food Marketing to Children and Adolescents: Follow-Up Report*. 2012.
38. Harris JL, Pomeranz JL, Lobstein T, Brownell KD. A crisis in the marketplace: how food marketing contributes to childhood obesity and what can be done. *Annu Rev Public Health*. 2009;30:211-225.
39. Rudd Center For Food Policy & Obesity. *Trends in Television Food Advertising to Young People: 2013 Update*. 2014.
40. Kelly B, Vandevijvere S, Ng S, et al. Global benchmarking of children's exposure to television advertising of unhealthy foods and beverages across 22 countries. *Obesity Reviews*. 2019.
41. Common Sense Media. *Advertising to Children and Teens: Current Practices*. 2014.
42. Cheyne AD, Dorfman L, Bukofzer E, Harris JL. Marketing sugary cereals to children in the digital age: a content analysis of 17 child-targeted websites. *J Health Commun*. 2013;18(5):563-582.
43. World Health Organization. *Set of recommendations on the marketing of foods and non-alcoholic beverages to children*. 2013. 1095-8304.
44. Kelly B, Halford JC, Boyland EJ, et al. Television food advertising to children: a global perspective. *American Journal of Public Health*. 2010;100(9):1730-1736.
45. Matthews AE. Children and obesity: a pan-European project examining the role of food marketing. *The European Journal of Public Health*. 2008;18(1):7-11.
46. American Heart Association. Children should eat less than 25 grams of added sugars daily. 2016. <http://newsroom.heart.org/news/children-should-eat-less-than-25-grams-of-added-sugars-daily>. Accessed August 29, 2016.
47. Harris JL, Brownell KD, Bargh JA. The Food Marketing Defense Model: Integrating Psychological Research to Protect Youth and Inform Public Policy. *Soc Issues Policy Rev*. 2009;3(1):211-271.
48. Hawkes C. *Marketing Food to Children. The Regulatory Framework Geneva: World Health Organization*. 2004.
49. Simon M. Can Food Companies Be Trusted to Self-Regulate-An Analysis of Corporate Lobbying and Deception to Undermine Children's Health. *Loy LAL Rev*. 2006;39:169.
50. Duff Wilson, Roberts J. Special Report: How Washington went soft on childhood obesity. 2012. <http://www.reuters.com/article/us-usa-foodlobby-idUSBR83Q0ED20120427>.
51. Hawkes C. Regulating and litigating in the public interest: regulating food marketing to young people worldwide: trends and policy drivers. *American Journal of Public Health*. 2007;97(11):1962-1973.
52. Weber K, Story M, Harnack L. Internet food marketing strategies aimed at children and adolescents: a content analysis of food and beverage brand web sites. *J Am Diet Assoc*. 2006;106(9):1463-1466.
53. Kunkel D, Gantz W. Children's television advertising in the multichannel environment. *Journal of Communication*. 1992;42(3):134-152.
54. Lewis M, Hill A. Food advertising on British children's television: a content analysis and experimental study with nine-year olds. *International Journal of Obesity & Related Metabolic Disorders*. 1998;22(3).
55. Kunkel D, Mastro D, Ortiz M, McKinley C. Food marketing to children on U.S. Spanish-language television. *J Health Commun*. 2013;18(9):1084-1096.
56. LoDolce ME, Harris JL, Schwartz MB. Sugar as part of a balanced breakfast? What cereal advertisements teach children about healthy eating. *Journal of health communication*. 2013;18(11):1293-1309.
57. Hedden L, King L, Kelly B. Art of persuasion: an analysis of techniques used to market foods to children. *J Paediatr Child Health*. 2011;47(11):776-782.
58. Moon YS. How food ads communicate 'health' with children: a content analysis of Korean television commercials. *Asian Journal of Communication*. 2010;20(4):456-476.
59. Boyland EJ, Whalen R. Food advertising to children and its effects on diet: review of recent prevalence and impact data. *Pediatr Diabetes*. 2015;16(5):331-337.
60. Story M, French S. Food advertising and marketing directed at children and adolescents in the US. *International Journal of Behavioral Nutrition and Physical Activity*. 2004;1(1):1.

61. Huang CY, Reisch LA, Gwozdz W, et al. Pester power and its consequences: do European children's food purchasing requests relate to diet and weight outcomes? *Public Health Nutr.* 2016;1:1-11.
62. Kelly B, King M, Lesley, Chapman M, Kathy, Boyland E, Bauman AE, Baur LA. A hierarchy of unhealthy food promotion effects: identifying methodological approaches and knowledge gaps. *American journal of public health.* 2015;105(4):e86-e95.
63. Tatlow-Golden M, Hennessy E, Dean M, Hollywood L. Young children's food brand knowledge. Early development and associations with television viewing and parent's diet. *Appetite.* 2014;80:197-203.
64. Roberto CA, Baik J, Harris JL, Brownell KD. Influence of licensed characters on children's taste and snack preferences. *Pediatrics.* 2010;126(1):88-93.
65. Smith R, Kelly B, Yeatman H, Boyland E. Food Marketing Influences Children's Attitudes, Preferences and Consumption: A Systematic Critical Review. *Nutrients.* 2019;11(4):875.
66. Robinson TN, Borzekowski DL, Matheson DM, Kraemer HC. Effects of fast food branding on young children's taste preferences. *Archives of pediatrics & adolescent medicine.* 2007;161(8):792-797.
67. Sadeghirad B, Duhane T, Motaghipisheh S, Campbell NR, Johnston BC. Influence of unhealthy food and beverage marketing on children's dietary intake and preference: a systematic review and meta-analysis of randomized trials. *Obes Rev.* 2016.
68. Hastings G, Stead M, McDermott L, et al. Review of research on the effects of food promotion to children. *London: Food Standards Agency.* 2003.
69. Taveras EM, Sandora TJ, Shih MC, Ross-Degnan D, Goldmann DA, Gillman MW. The Association of Television and Video Viewing with Fast Food Intake by Preschool-Age Children. *Obesity.* 2006;14(11):2034-2041.
70. Gilbert-Diamond D, Emond J, Lansigan R, et al. Television food advertisement exposure and FTO rs9939609 genotype in relation to excess consumption in children. *International Journal of Obesity.* 2016.
71. Emond JA, Lansigan RK, Ramanujam A, Gilbert-Diamond D. Randomized Exposure to Food Advertisements and Eating in the Absence of Hunger Among Preschoolers. *Pediatrics.* 2016:e20162361.
72. Wiecha JL, Peterson KE, Ludwig DS, Kim J, Sobol A, Gortmaker SL. When children eat what they watch: impact of television viewing on dietary intake in youth. *Archives of Pediatrics & Adolescent Medicine.* 2006;160(4):436-442.
73. Utter J, Scragg R, Schaaf D. Associations between television viewing and consumption of commonly advertised foods among New Zealand children and young adolescents. *Public health nutrition.* 2006;9(05):606-612.
74. Folkvord F, Anschutz DJ, Nederkoorn C, Westerk H, Buijzen M. Impulsivity, "advergaming," and food intake. *Pediatrics.* 2014;133(6):1007-1012.
75. Halford JC, Boyland EJ, Hughes G, Oliveira LP, Dovey TM. Beyond-brand effect of television (TV) food advertisements/commercials on caloric intake and food choice of 5-7-year-old children. *Appetite.* 2007;49(1):263-267.
76. Folkvord F, Anschutz DJ, Boyland E, Kelly B, Buijzen M. Food advertising and eating behavior in children. *Current Opinion in Behavioral Sciences.* 2016;9:26-31.
77. United Nations. Convention on the Rights of the Child. <http://www.ohchr.org/EN/ProfessionalInterest/Pages/CRC.aspx>. Published 1989. Updated 2002. Accessed August 3, 2016.
78. The Comparative Constitutions Project. Mexico's Constitution of 1917 with Amendments through 2015. Comparative Constitutions Project. [https://www.constituteproject.org/constitution/Mexico\\_2015.pdf](https://www.constituteproject.org/constitution/Mexico_2015.pdf). Published 2016. Accessed August 15, 2016.
79. The Comparative Constitutions Project. Colombia's Constitution of 1991 with Amendments through 2013. Oxford University Press, Inc. [https://www.constituteproject.org/constitution/Colombia\\_2013.pdf](https://www.constituteproject.org/constitution/Colombia_2013.pdf). Published 2016. Accessed August 15, 2016.
80. The Comparative Constitutions Project. Brazil's Constitution of 1988 with Amendments through 2014. [https://www.constituteproject.org/constitution/Brazil\\_2014.pdf](https://www.constituteproject.org/constitution/Brazil_2014.pdf). Published 2016. Accessed August 15, 2016.
81. Constitute Project. Explore Constitutions. <https://www.constituteproject.org/search?lang=en>. Published 2016. Accessed August 22, 2016.
82. Brown V, Ananthapavan J, Veerman L, et al. The potential cost-effectiveness and equity impacts of restricting television advertising of unhealthy food and beverages to Australian children. *Nutrients.* 2018;10(5):622.
83. European Union. *Action Plan on Childhood Obesity 2014-2020.* 2014.
84. World Cancer Research Fund International. NOURISHING Framework: Restrict food advertising and other forms of commercial promotion. <http://www.wcrf.org>. <http://www.wcrf.org/sites/default/files/Restrict-advertising.pdf>. Published 2016. Accessed August 18, 2016.
85. National Preventative Health Taskforce. *Taking Preventative Action – A Response to Australia: The Healthiest Country by 2020 – The Report of the National Preventative Health Taskforce Australia* 2010.
86. Vergara E, Henao LA. Chile seeks to fight obesity with new food labeling law. *The Big Story.* 2016. <http://bigstory.ap.org/article/f9b43cf296a546a09ef1c1d5e3fec01/chile-seeks-fight-obesity-new-food-labeling-law>. Accessed September 1, 2016.
87. Bess S. New regulations in Chile restrict Food Advertising to Children. *Global Advertising Lawyers Alliance.* 2015. <http://www.themarketingsite.com/news/40975/new-regulations-in-chile-restrict-food-advertising-to-children>. Accessed September 1, 2016.
88. Taillie LS, Busey E, Stoltze FM, Dillman Carpentier FR. Governmental policies to reduce unhealthy food marketing to children: A narrative review. *Nutrition reviews.* 2019;77(11):787-816.
89. Biblioteca del Congreso Nacional de Chile. Ley Núm. 20.780 [Law number 20.780]. In: *Salud Md*, ed2014.
90. Biblioteca del Congreso Nacional de Chile. Ley Núm. 20.869 [Law number 20.869]. In: *Salud Md*, ed2015.
91. Corvalán C, Reyes M, Garmendia ML, Uauy R. Structural responses to the obesity and non-communicable diseases epidemic: the Chilean Law of Food Labeling and Advertising. *Obesity Reviews.* 2013;14:79-87.
92. Biblioteca del Congreso Nacional de Chile. Ley Núm. 20.606 [Law number 20.606]. In: *Salud Md*, ed2015.
93. Dillman Carpentier FR, Correa T, Reyes M, Taillie LS. Evaluating the impact of Chile's marketing regulation of unhealthy foods and beverages: pre-school and adolescent children's changes in exposure to food advertising on television. *Public Health Nutrition.* 2020;23(4):747-755.
94. World Health Organization. *A framework for implementing the set of recommendations on the marketing of foods and non-alcoholic beverages to children.* 2012.
95. Mediano Stoltze F, Reyes M, Smith TL, Correa T, Corvalán C, Carpentier FRD. Prevalence of child-directed marketing on breakfast cereal packages before and after Chile's Food Marketing Law: A pre-and post-quantitative content analysis. *International journal of environmental research and public health.* 2019;16(22):4501.
96. Correa T, Reyes M, Taillie LS, Corvalán C, Dillman Carpentier FR. Food Advertising on Television Before and After a National Unhealthy Food Marketing Regulation in Chile, 2016–2017. *American Journal of Public Health.* 2020(0):e1-e6.
97. Taillie LS, Reyes M, Colchero MA, Popkin B, Corvalán C. An evaluation of Chile's Law of Food Labeling and Advertising on sugar-sweetened beverage purchases from 2015 to 2017: A before-and-after study. *PLOS Medicine.* 2020;17(2):e1003015.
98. Reyes M, Taillie LS, Popkin B, Kanter R, Vandevijvere S, Corvalán C. Changes in the amount of nutrient of packaged foods and beverages after the initial implementation of the Chilean Law of Food Labelling and Advertising: a nonexperimental prospective study. *PLOS Medicine.* Forthcoming.
99. Galbraith-Emami S, Lobstein T. The impact of initiatives to limit the advertising of food and beverage products to children: a systematic review. *Obes Rev.* 2013;14(12):960-974.
100. Swinburn B, Sacks G, Lobstein T, Rigby N, Baur LA. Short communication: The 'Sydney Principles' for reducing the commercial promotion of foods and beverages to children. *Public health nutrition.* 2008;11(9):881-886.
101. Chambers SA, Freeman R, Anderson AS, MacGillivray S. Reducing the volume, exposure and negative impacts of advertising for foods high in fat, sugar and salt to children: A systematic review of the evidence from statutory and self-regulatory actions and educational measures. *Prev Med.* 2015;75:32-43.
102. Pan American Health Organization. *Pan American Health Organization Nutrient Profile Model.* 2016.
103. Global Agricultural Information Network. *Chile's New Nutritional Labeling Law.* 2015.
104. United Kingdom Department of Health. *Nutrient Profiling Technical Guidance.* 2011.
105. Kraak VI, Vandevijvere S, Sacks G, et al. Progress achieved in restricting the marketing of high-fat, sugary and salty food and beverage products to children. *Bull World Health Organ.* 2016;94(7):540-548.
106. García AL, Morillo-Santander G, Parrett A, Muro AN. Confused health and nutrition claims in food marketing to children could adversely affect food choice and increase risk of obesity. *Archives of Disease in Childhood.* 2019;archdischild-2018-315870.
107. Whalen R, Harrold J, Child S, Halford J, Boyland E. The health halo trend in UK television food advertising viewed by children: the rise of implicit and explicit health messaging in the promotion of unhealthy foods. *International journal of environmental research and public health.* 2018;15(3):560.
108. Perry A, Chacon V, Barnoya J. Health claims and product endorsements on child-oriented beverages in Guatemala. *Public health nutrition.* 2018;21(3):627-631.
109. Harris JL, LoDolce M, Dembek C, Schwartz MB. Sweet promises: Candy advertising to children and implications for industry self-regulation. *Appetite.* 2015;95:585-592.
110. Griffith R, O'Connell M, Smith K, Stroud R. The potential impacts of banning television advertising of HFSS food and drink before the watershed. *Institute for Fiscal Studies.* 2019.
111. UNICEF. *Exploratory study of marketing and advertisement of unhealthy food and beverages targeted to children in Latin America and the Caribbean.* 2015.
112. Swinburn B, Kraak V, Rutter H, et al. Strengthening of accountability systems to create healthy food environments and reduce global obesity. *The Lancet.* 2015;385(9986):2534-2545.