

## MARKETING MIX KAO ČIMBENIK RAZVOJA EPIDEMIJE PRETILOSTI U DJECE

Vatroslav Zovko<sup>1</sup>

<sup>1</sup>Hrvatsko društvo za farmakoekonomiku i ekonomiku zdravstva, Zagreb

### Sažetak

Pretilost djece ima izuzetno rastući trend i izazov je današnjice u kojem prednjače razvijene zemlje zapadne hemisfere. Zdravstveni regulatori širom svijeta imaju različite pristupe ovome problemu – od javno zdravstvenih kampanja do stroge regulacije ili zabrane oglašavanja prehrambenih proizvoda djeci. Većina se radova na ovu temu fokusira na tzv. marketing miks, dok se drugi elementi u kontekstu konzumacije nezdrave hrane i njenog potencijalnog utjecaja na epidemiju pretilosti kod djece nepravredno zanemaruju.

Ovim se radom definira pojam marketing miksa te se analiziraju elementi marketing miksa koji se upotrebljavaju u marketinškim aktivnostima prodaje proizvoda maloj djeci. Svaki je element opisan zajedno s utjecajem na konzumaciju nezdrave hrane u populaciji djece te su prikazane moguće strategije kojima različite države nastoje utjecati na smanjivanje konzumacije nezdrave hrane. Napravljen je i kritički osvrt na takve strategije vezano za njihov uspjeh u prevenciji rasta epidemije pretilosti u djece. Zaključno, autor naglašava da je potrebno napraviti dodatna istraživanja kako bi se napravila analiza utjecaja svih elemenata marketing miksa na konzumaciju nezdrave hrane u dječjoj populaciji.

**Ključne riječi:** pretilost, marketing miks, nezdrava hrana, djeca, javno zdravstvo

## MARKETING MIX AS A DRIVER OF OBESITY EPIDEMIC IN CHILDREN

Vatroslav Zovko<sup>1</sup>

<sup>1</sup>Croatian Society for Pharmacoeconomics and Health Economics, Zagreb

### Abstract

Obesity in children become a worldwide epidemic, especially in developed world. Health care authorities all over the world have different approaches to obesity issues that range from public health campaigns to more restrictive approach to strictly regulate or ban advertising campaigns of foods marketed to children. Most of paper address only one marketing mix tool – promotion. Other tools are neglected in the context of non-healthy food consumption and potential impact to obesity epidemic in young children.

This paper defines marketing mix and analyzes marketing mix tools used in marketing of food and beverage aimed at young children. Each tool is described with the impact to non-healthy food consumption among children together with possible strategies aimed to control non-healthy food consumption that are implemented in various countries and settings. These strategies are challenged related to their success in preventing obesity epidemic in young children. In conclusion, it is argued that future investigation is needed that would consider the impact of entire marketing mix to consumption of non-healthy food in young children.

**Keywords:** obesity, marketing mix, non-healthy foods, children, public health

### Introduction

Obesity in children is rising public health issue that was widely recognized as a major global problem the same as malnutrition in children as od beginning of 21<sup>st</sup> century (The Lancet, 2001). The estimate for 2016 was that there are over 41 million obese children in the world with the trend that the number of obese infants and young children globally will increase to 70 million by year 2025 (WHO, 2017).

Risk factors that contribute to development of obesity in children can be divided into three large groups: child risk factors, family characteristics and environmental factors (Sahoo et al., 2015). Child risk? factors are comprised of dietary intake, physical activity, and sedentary behavior. Family characteristics include parenting style and parent's lifestyle that are related to exposure to healthy foods, mealtime structure, frequency of eating out, watching TV while eating and authoritative feeding. It is important to stress

that physical activity and sedentary behavior are also closely related to family characteristics. For instance, Anderson and Butcher notice that more and more parents are driving their children to school for various reasons (i.e., they perceive that walking to school is too risky, due to traffic or the threat of possible predators) (Anderson and Butcher, 2006). Environmental factors include school policies, demographics, work-related demands, and, especially, governmental and social policies.

Furthermore, Story et al. (2002) stress that adolescent eating behaviors are influenced at four levels: individual or intrapersonal influences that refer to psychological and biological factors, social environment that refers to family and peers, community settings that refers to schools, fast food restaurants and local food stores, and macrosystem that refers to mass media, marketing and advertising, social and cultural norms (Story et al., 2002). Dipti et al. (2013) developed “developmental ecological model of contributors to overweight and obesity in childhood”, that divided contributors from macro to micro level:

- Culture and societal characteristics
- State and national characteristics
- Local community/organizational characteristic
- Familial characteristics
- Child characteristics
- Genetic/biological characteristics

In that manner, public health initiatives that are focused on prevention of obesity in the late childhood (school-aged children) and adolescence usually are without any significant success because they do not take into consideration all risk factors, and neglect the fact that eating behaviors are already formed by school age (Birch and Ventura, 2009). In general, it can be stated that society as a factor is overtaking first place as a major factor that drives obesity epidemic. In that manner, public health efforts to obesity prevention should be more focused on pricing strategy of various foods, availability of energy-dense foods and beverages, marketing of energy-dense foods and drinks and decreasing the use of cars (Better Health Channel, 2018).

### **Marketing mix – definition**

Marketing is frequently understood as a process of selling goods and services. The American Marketing Association defines marketing as “an activity, set of institutions and processes for creating, communicating, delivering and exchanging offerings that have value for customers, clients, partners and the

society at large” (American Marketing Association, 2013). Usually, marketing strategy and all marketing activities are driven by customers. Main goal in marketing process of each organization is making a decision which customers to serve and consequently how to manage customers and demand (Armstrong et al., 2017).

Set of action that company uses to promote its product or service in the market is called marketing mix. Marketing mix tools are divided into four broad categories, called 4Ps (Armstrong et al., 2017):

- Product that refers to need-satisfying offering on the market
- Price that refers to the amount that the company will charge for the offering
- Place that refers to location or the way how will the offering be available to potential customers
- Promotion that refers to communication with their potential customers

The basic idea is that the company has all 4Ps of marketing mix under control. Therefore, the way that company controls and implements its 4Ps is referred to as a marketing strategy.

### **Product – core cause of childhood obesity epidemic**

Obesity is related to overconsumption of junk food. It is sort of slang that has different meaning in different countries. In general, junk food can be defined as the food with little nutritional value and high amount of fats, sugar and salt. (Mhaske and Patel, 2013) It is based on so-called “bad calories”.

Food and beverage products are strictly regulated with national legislation regarding production, imports and marketing. Legislative framework is primarily focused on health safety issues but is not limiting the content of foods. In other words, various countries require that marketed food and beverage should have sufficient information about the food contents as required by consumer protection acts.

Public health initiatives related to production of various food and beverage products are limited. The only exception of this rule is in the case of foods for infants and small children (food and beverage that has that kind of declaration) that, in case of European Union, strictly regulates composition and information requirements of infant formula and follow-on formula, processed cereal-based food and baby food, food for special medical purposes and total diet replacement for weight control (EU, 2013).

Public health initiatives regarding food and beverage production can be aimed at stricter information requirements (i.e. larger letters with important

composition information and eventually health warning hazards similar to those on cigarettes). Such initiatives are predominantly political issue as industrial lobby is fighting against more transparent information labels on their products. Best example is genetically modified foods that in Europe must be labeled as GM if it has more than 0.9% of authorized genetically modified content (EU, 2003), in Japan and Taiwan if it has more than 5% of authorized genetically modified (ICF GHK, 2013) while in the United States producers can voluntarily label their foods indicating whether they have or have not been derived from genetically engineered plants (FDA, 2018). In other words, public health initiatives should insist on more detailed and more accessible information about the product contents. In regard to children such initiatives are of questionable success. They are closely related to parents' decision to buy specific products and their health consciousness.

#### **Price – making non-healthy food affordable**

Price is a second part of marketing mix. It directly affects to marketing strategy and positioning of the product related to market segment. Through pricing producers try to cover their costs, make profits and reach company's objectives. Pricing related to junk food is dependent upon company's goals. Rule of the thumb is that price of foods to children shouldn't be too high making them affordable to wider customer base as assumption is that children don't have high purchasing power or their purchasing power is dependent upon their parents.

According to survey made by Money Advice Service (2017) in group of children 4 – 6 years of age only 10% make money related decisions on their own (Money Advice Service, 2017). Children are less price sensitive than adults because they on average cannot perceive real value for money until they reach 8-10 years of age when they develop the capacity to estimate the value of transaction (Guerrero and Cairns, 2017). It can be concluded that price is not a crucial part of marketing mix that leads to increased consumption of non-healthy foods.

#### **Promotion - advertising of food and beverage in child population**

Majority research of influence of marketing to children eating behavior and food consumption is focused on only one category of marketing mix – promotion with the emphasis on advertising. Consequently, most of the national and public health policies aimed at

control of obesity stress the actions that limit or ban promotional activities.

Marketing promotion and advertising differ because marketing refers to the whole process of selling goods and services while promotion is one tool of marketing mix by which companies coordinate communication channels and persuasion activities aimed at selling products. Goals of promotion are fulfilled through promotional mix that includes the following elements: advertising, direct marketing, digital/internet marketing, sales promotion, publicity/public relations and personal selling (Belch & Belch, 2017, pg. 16). Advertising, as an element of promotional mix, represents “any form of non-personal presentation and promotion of ideas, goods and services usually paid for by an identified sponsor” (Dominic in Terkan, 2014). What advertising distinguishes from other forms of communication in the promotional mix is that advertising represents any form of non-personal paid form of communication. Marketing and advertising are often used as a synonym in relation to marketing activities aimed toward children. Therefore, majority of efforts related to control marketing campaigns aimed at child population are focused on means of non-personal communication – advertising activities. The estimate is that in the US children watch on average 16,000 TV commercials a year (Watson, 2014). The aim of such exposure to commercials in child population is twofold: to create demand for existing products and to nurture future consumers. Advertising of food and beverage to children poses serious ethical dilemmas. To understand advertisements individual should be able to distinguish commercial advertisement from regular program. Furthermore, in the case that individual is able to make such differentiation he should be able to understand that advertised content is biased and not necessarily truthful. It must be noted that children below ages 4 – 5 are especially vulnerable segment of population as they cannot distinguish commercial program from regular one. In later stage of their life (after 4-5 years of age) such differentiation is exclusively based on affective or perceptual cues. American Psychological Association (APA) task force concluded “that advertising targeting children below the ages of 7–8 years is inherently unfair because it capitalizes on younger children's inability to attribute persuasive intent to advertising. As a result of this limitation, children below this age comprehend the information contained in television commercials uncritically, accepting most advertising claims and appeals as truthful, accurate, and unbiased.” (Wilcox et. al, 2014).

As children are vulnerable population prone to manipulation, there are many concerns that food advertisements are one of causes of obesity epidemic in children (Calvert, 2008). Livingstone was even more direct and concluded that food promotion, especially on TV, acts as one of factors leading to unhealthy eating habits, selection of unhealthy foods and ultimately to increased obesity among children (Livingstone, 2006). This statement was further confirmed by study made by Cairns et al. in 2012 where they concluded that overall “food promotion does influence food choices at category and brand level”.

That situation is recognized in many countries around the globe as they apply different strategies to fight childhood obesity. Initial, and still prevalent approach of public health initiatives is to fight producers of unhealthy foods with the same means – through advertisements that communicate the importance of healthy eating and healthy life style. But there is one major obstacle to such approach – the budget. According to Deloitte, approximately 24% of total budget in consumer packaged goods industry is spent on marketing (Moorman, 2017). In the US alone, food industry spent over 1.6 billion \$US on child- and teen-targeted marketing (Harris and Graff, 2012). In comparison, Croatian health care system spends only 6.1% of total health care budget on collective services that includes public health initiatives in general (OECD, 2017). Regarding budget, public health services cannot win over in promotional activities against the industry.

So what are available strategies? Basically they can be categorized in two groups; one group of strategies relates to indirect participation of producers in coverage of health care costs induced by consumption of unhealthy foods and beverages. Similar approach is taken relating to cigarettes; in case of Croatia there is certain amount of excise duties that is imposed on each package of cigarettes. In foods that kind of approach can be taken in relation to sugar or fat content in specific product; the more there is sugar or fat in the food the higher is the excise duty. But, as one study related to fast food consumption and body mass index (BMI) points out, the intake of animal fats and total caloric intake doesn't seem to be directly related (De Vogli et al., 2014). Therefore, this approach should be taken with caution and further investigation is needed to ensure positive effects of excise duties.

The other strategies relate to advertising itself. There are several available options:

- clearly notifying that there are potential health

- risks with overconsumption of certain foods,
- imposing self-regulation mechanisms upon the industry
- restricting advertising to small children, up to 12 years of age.

Notification of potential risks with overconsumption should not rely on textual warnings, they should include images that can be potentially disturbing to children as to avert them to buying unhealthy foods. So far, there is no known strategy in any country that would include that kind of communication with children in relation to food and beverage.

Self-regulation refers to situation where an industry, rather than government regulates its own advertising activities. Mechanisms imposed by government upon the industry usually relates to mandatory surveillance and reporting on advertising practices of producers and marketers of non-healthy foods to authorities. Such approach is taken in Australia (Obesity Policy Coalition, 2018). This approach can be successful when interests of industry and children are on a common ground (Mackay, 2009) which is rarely a case as majority of advertising is for unhealthy products.

Restrictive advertising to young children is applied in some countries. One of the countries that pioneered that approach is Sweden that completely banned advertising aimed at children up to 12 years of age, as early as of 1991. They even tried to push such legislation in 2001 on EU level but without the success (Lembke, 2018). Other countries that banned advertising to children are Quebec and Norway, while UK, Greece, Denmark and Belgium restricted advertising activities to children (The Economist Intelligence Unit, 2017). Due to new media (the Internet) this kind of approach can have limited success.

One consequence of promotional activities that is important to mention is development of pester power among young children. Pester power can be defined as ability that children gain “to badger their parents into purchasing items they would otherwise not buy” (Huang CY et al., 2016). Pester power children mostly demonstrate in supermarkets where they are successful in 50% of their requests on average. And majority of such requests are aimed at purchasing soft drinks, cookies and candies (Wiling, 2011).

### **Place – making food accessible**

Place is a final part of marketing mix. It refers means of distribution of the product and how the product will be available to its customers. In today's world,

place can be divided into physical place that refers to standard shops, marketplaces, vending machines etc. and virtual place that exploits advantages of digital technologies. In the context of young children, for making product available, industry is focused on physical place.

Marketplaces are mainly out of parental and community control regarding the assortment of non-healthy foods and beverages. Positioning of non-healthy products is usually discretionary decision of marketplace and distributor. Vending machines represent big distribution channel for sweets and soft drinks. Frequently they can be found in all public places, including health care facilities. In some countries, vending machines in school system are also allowed making non-healthy food more accessible to young children. Also, some school cafeterias offer foods with high caloric and low nutritional value (i.e. soft drinks). This kind of accessibility potentially can increase the obesity problem because according Anderson and Butcher “a 10percentage point increase in the proportion of schools in the county that offer junk foods leads to a 1 percent increase in BMI” (Anderson and Butcher, 2006). Later RAND study disputed this findings (Datar and Nicosia, 2009) but authorities in most Western countries are reluctant to make non-healthy food readily available to young children in their school systems.

## Conclusion

Health care authorities are under constant pressure to control increasing healthcare costs that are in large consequence of unhealthy lifestyle. Food and beverage industry with their marketing activities focused at young children pursues two general goals: to increase sales of their products and to raise and educate their future customers. This kind of marketing strategy consequently leads to development of unhealthy life style, not just among children, but in entire population.

Most popular public health interventions are focused to promotional activities but because they are underfunded, health care systems are losing battle against food industry in prevention of obesity epidemic. To be successful, health authorities should examine entire marketing mix, in order to systematically promote healthy eating habits and ensure decrease of obesity prevalence in young children. In other words, the promotional activities should be supported by national production and pricing policies that would assist control of availability of non-healthy foods to vulnerable population such as children.

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