
Counteracting obesity: developing a policy framework to guide action

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Summary

Objectives: The purpose of this paper is to stimulate further debate regarding possible courses of policy action aimed at preventing obesity. Gostin's¹ framework for classifying anti-obesity legal interventions is tested and extended to incorporate non-legislative policy initiatives to include a comprehensive array of policy actions available to deal with obesity.

Methods: A web search of the literature has been conducted. Initiatives from USA, Canada and the European Union were discussed in terms of their objectives and fit with the framework.

Results: Gostin's framework¹ was found to be a useful tool in organizing all the initiatives (legislative and non-legislative). However, sometimes a broader definition of the category was needed. As well, in some categories, few initiatives were implemented to date and several new categories have to be added to the framework to classify all the existing initiatives.

Conclusions: The theoretical developed framework will assist new initiatives assess possible courses of action as well as countries or organizations that have already implemented some measures identify what else can be done to effectively fight overweight and obesity.

Key words: Obesity – Anti-obesity policy – Theoretical framework.

About one-third of adults in the USA² and Canada³ and one-quarter of adults in the UK⁴ are overweight or obese. Experts agree that obesity increases a person's risk of serious illness including cardiovascular diseases, diabetes and some forms of cancer.⁵ Since the negative consequences of obesity are serious enough to require significant government expenditures,⁶ and obesity is largely preventable,⁷ governments and other or-

ganizations have started developing various initiatives as appropriate responses to counteract obesity. The purpose of this paper is to stimulate further debate regarding possible courses of action aimed to prevent obesity, by extending a theoretical framework useful in guiding new initiatives attacking this significant social threat. Recommendations are provided.

Gostin¹ discusses how laws can be used to control the increasing trend toward obesity. He proposes eight categories of legislation and regulation, as follows:

- (1) disclosure – require food manufactures and restaurants to disclose nutritional contents;
- (2) tort liability – litigate against deceptive practices, false claims, and unreasonably hazardous products;
- (3) surveillance – provide data for monitoring population health, feedback, action alerts, and clinical recommendations;
- (4) regulation of food marketing to children and adolescents – regulate media, web, “advergames”, character licensing, and stealth marketing;
- (5) taxation – impose higher taxes on calorie-dense, nutrient-poor foods;
- (6) school and workplace policies – remove vending machines and provide healthier menus, more physical activity, and nutritional/physical education;
- (7) the “built” environment and zoning – enact zoning laws to limit prevalence of fast food outlets, expand recreational opportunities, and encourage healthier lifestyles; and
- (8) food prohibitions – require companies to remove certain ingredients that pose health hazards.

Although Gostin's¹ proposed framework considers only legislative and regulatory intervention, his classification can be successfully used as a framework for non-regulatory initiatives as well. For example, *the 2006 Canadian Clinical Practice Guideline on the Management and Prevention of Obesity*

in *Adults and Children*⁸ recommends a comprehensive set of clinical practice guidelines that involve recording and tracking measures of height, weight, and waist circumference in adults and children. This non-regulatory recommendation can fit into the surveillance category of the framework (3) proposed by Gostin¹. Similarly, many of the initiatives already in place, in one or more jurisdictions or countries, could be easily placed into one or several of the categories proposed by Gostin.¹ Therefore, this paper uses and extends Gostin's framework to classify the interventions reviewed, regardless of their legislative or regulatory status (see Table 1). Since most of the initiatives include several different prevention and promotion strategies and overlap in some areas, the proposed extended framework provides a clear view of what has been done so far in the world in terms on preventing obesity, what is similar and what is unique in each initiative, and should inform policy-makers of the best courses of action to be followed by future initiatives.

Methods

This research involved conducting a content analysis of English-language anti-obesity policy documents posted on the Internet. We searched for keywords including “obesity,” “nutrition,” “bills,” “regulations,” “legislation,” as well as “guidelines,” “platforms,” “charters,” and “action plans.” We also searched health-related government websites such as the US Department of Health and Human Services, Health Canada, World Health Organization, as well as academic papers. The selected initiatives developed in the USA, Canada and the European Union are discussed in terms of the extended framework.

Results

USA

In the USA, a targeted initiative toward obesity led by the U.S. Department of Health and Human Services is *the Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*.⁹ The Call is committed to several overarching principles such as: assisting Americans to achieve balanced healthful eating and involve in regular physical activity; identifying appropriate interventions to prevent and treat overweight and obesity; and encouraging environmental changes that help prevent overweight and obesity. The Surgeon General's Call⁹ covers most of the eight categories proposed by Gostin:¹ disclosure (1) (i.e., raise consumer awareness about reasonable food and beverage portion sizes), surveillance (3) (i.e., study

the effects of weight reduction programs on health outcomes), regulation of food marketing to children and adolescents (4) (i.e., provide professional education for media professionals on policy areas related to diet and physical activity), school and workplace policies (6) (i.e., educate teachers, staff, and parents about the importance of school physical activity and nutrition programs and policies), and the “built” environment (7) (i.e., the creation and implementation of public policy related to the provision of safe and accessible sidewalks, walking and bicycle paths, and stairs). Gostin's categories of tort liability (2), taxation (5), and food prohibitions (8) are not included within this document (see Table 1).

Numerous nutrition and physical activity bills attempting to fight obesity have been adopted in the USA between 2001 and 2006.¹⁰ We have classified these bills following the framework suggested by Gostin,¹ with the addition of a new category.

The first group of enacted bills calls attention to the issues associated with overweight and obesity, establishing task forces and assigning duties among task force members or stipulating a continuation of the task forces' activity and authorizing research regarding prevention and control of behaviours that lead to becoming overweight and obese. This group of bills fits into the categories of disclosure and sharing of information (1) and surveillance (3) within our extended framework. A second group of bills promotes school-based programs to prevent obesity and promote healthy eating and healthy lifestyles. This group of bills fits into the school and workplace legislation (6) category proposed by Gostin.¹ Stipulations include: providing money for school-based programs to promote children's physical activity; enabling teachers to implement quality physical education programs into a curricula; promoting teaching techniques that will encourage students to learn and implement lifelong physical activity participation; establishing statewide nutritional standards for school meals and; regulating the sale of foods and beverages in schools. Bills regulating school food and beverages could also be considered to fit into the framework's categories of regulation of food marketing to children and adolescents (4) as well as food prohibitions (8). In addition to bills dealing with nutrition and physical activity, several states stipulate that report cards be sent home to parents that include a student's health status, body mass index and explanation of health effects of body mass index, nutrition, and physical activity. This initiative fits into the surveillance (3) category within the framework.

A third category of bills enacted in the USA includes stipulating coverage for specified treatments of morbid obesity. Several states enacted bills requiring insurers, non-profit health service plans, managed care organizations, and health maintenance organizations to provide coverage for specified surgical

Table 1. Interventions to control obesity.

Intervention	Definition/ Purpose	Examples/ Comments
Disclosure to the consumer; ¹ extended to include sharing information (1)	Requires sharing information so that best practices can be developed and shared with others. ¹⁴ Requires food manufacturers and restaurants to disclose nutritional contents. ¹	All the documents cited in this paper have sharing information as one of their main objectives. <i>The European Union Platform on Diet, Physical Activity, and Health</i> ¹⁴ stipulates measures regarding labeling. The USA, Canada, and some European countries have already adopted legislation requiring food manufacturers and restaurants to disclose nutritional contents.
Tort liability ¹ (2)	Litigate against deceptive practices, false claims, and unreasonably hazardous products. ¹	Some stipulations made in the <i>UK Physical Activity, Nutrition and Obesity Action Plan</i> ¹⁹ attempt to ensure that false claims and hazardous practices and products are not being used due to proper training.
Surveillance ¹ (3)	Provide data for monitoring population health, feedback, action alerts, and clinical recommendations. ¹	All the initiatives described stipulate the need for research and monitoring population health (especially in schools), as well as clinical recommendations.
Regulation of food marketing to children and adolescents ¹ (4)	Regulate media, Web, advergames, character licensing, and stealth marketing. ¹	<i>The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity</i> , ⁹ the <i>2006 Canadian Clinical Practice Guideline on the Management and Prevention of Obesity in Adults and Children</i> , ⁸ the <i>European Charter on Counteracting Obesity</i> ¹⁵ and legislation in the USA discuss this issue.
Taxation ¹ (5) extended	Impose higher taxes on calorie-dense, nutrient-poor foods, ¹ to be used for improved labeling and to provide tax relief for sports activities.	A law in France ²⁰ requires food marketers to either add a health message to ads for any manufactured product or pay a tax equivalent to 1.5 percent of their annual ad budget to a national institute promoting healthier living.
School and workplace policies ¹ (6)	Remove vending machines and provide healthier menus, more physical activity, and education. ¹	All the initiatives discussed in this paper propose different measures that fit into this category. Our review shows many laws imposing rules in schools recently passed in numerous states in the USA.
The "built" environment / zoning ¹ (7)	Enact zoning laws to limit prevalence of fast foods, expand recreational opportunities, and encourage healthier lifestyles. ¹	All the programs described propose measures that fit into this category.
Food prohibitions ¹ (8)	Require companies to remove certain ingredients that pose health hazards. ¹	<i>The European Union Platform on Diet, Physical Activity, and Health</i> ¹⁴ stipulates product reformulation (lowering the content of fat, sugar, and salt), as well as regulating food products available in canteens.
Stipulations regarding treatment of obesity (proposed new category) (9)	Specify details regarding treatment of obesity.	<i>The 2006 Canadian Clinical Practice Guidelines on the Management and Prevention of Obesity in Adults and Children</i> ⁸ and the <i>UK Physical Activity, Nutrition and Obesity Action Plan</i> ¹⁹ have stipulations regarding treatment of obesity. Several bills passed in the USA refer to coverage for treatment of morbid obesity.

treatment of morbid obesity, as recognized by the National Institutes of Health. This category of bills does not seem to fit within the classification proposed by Gostin.¹ Therefore, we extended Gostin's framework by proposing a new category of initiatives entitled "treatment of obesity" which specify details regarding treatment of obesity (9). Other bills that could be classified into this category include those which make it unlawful for any physician to prescribe, dispense, or administer amphetamine for the exclusive treatment of obesity. However, it could be argued that these types of bills could probably also fit into the tort liability category (2) (see Table 1).

It should be noted that in terms of implementation and evaluation of anti-obesity interventions in the USA, little information was found. For example, regarding the "built" environment (7), according to a report by the Centers for Disease

Control and Prevention and Research Triangle Institute International,¹¹ until 2005, seventy percent of environmental changes were aimed at influencing physical activity. A large portion of these initiatives included developing trails and sidewalks to make walking and biking safer and more accessible, as well as building areas for sport activities. Regarding school and workplace policies (6), the same document discusses initiatives aimed at nutrition, such as changing a school food program to include more locally grown foods, replacing soda vending machines with water/sports drink machines, developing community gardens, and implementing local farmers' markets.¹¹ No information regarding the actual effects of these implemented changes on preventing and controlling obesity was found, and it may, indeed, be premature to assess any effects.

Canada

The main objective of *The 2006 Canadian Clinical Practice Guidelines on the Management and Prevention of Obesity in Adults and Children*⁸ is to establish a process for developing evidence-based recommendations to guide the management and prevention of obesity, identify gaps in knowledge and care, disseminate information, assist in public health policy development, and inform an agenda for future research to improve the standards of care.¹² The guidelines provide 72 recommendations, including:

- Encouraging kids to cut back on energy-dense snack foods that are high in fat and sugar (disclosure) (1);
- Implementing a national surveillance system to record and track measures of height, weight, and waist circumference in adults and children, and screening overweight and obese adults for eating disorders (surveillance) (3);
- Treatment of obesity-related comorbidities and health risks (stipulations regarding treatment of obesity) (9);
- Assessing readiness to change and barriers to weight loss, restricting television, video, and computer screen time (school and workplace policies) (6); (the “built” environment) (7);
- Limiting children’s exposure to harmful food advertising (regulation of food marketing to children) (4); and
- Encouraging the adoption of an energy-reduced diet and regular physical activity as the first treatment option for overweight and obese adults and kids, as well as considering appropriate pharmacotherapy or referral for bariatric surgery, or both^{8, 12, 13} (stipulations regarding treatment of obesity) (9).

No mention of tort liability (2), food prohibitions (8), or taxation measures (5) was found in this document (see Table 1). Indeed, although there are substantial on-going discussions regarding anti-obesity legislation in Canada, only a few legislative measures are actually in effect, and these legislative measures tend to be implemented at the provincial level.

European Union

*The European Union Platform on Diet, Physical Activity, and Health*¹⁴ is an agreement that is meant to address the obesity epidemic and to share information so that best practices can be developed among member states. The broad objective of the platform fits into the disclosure and sharing information category (1) in our extended framework. European Union members hope that the platform will help coordinate initiatives across member states by identifying a number of initial fields where action is already being taken, including:

- Providing consumers with information, healthy lifestyle education campaigns, and labeling initiatives (disclosure and sharing of information) (1);

- Physical activity promotion, availability of healthy food options, and healthy portion sizes (the “built” environment) (7);
- Implementation of marketing and advertising principles (regulation of food marketing) (4);
- Composition of foods and product reformulation to lower the content of fat, sugar and salt (food prohibitions) (8); and
- Change of product assortment in canteens and vending machines (school and workplace policies) (6).

Although disclosure and sharing of information (1) seems to be the most important objective of the *European Union Platform on Diet, Physical Activity, and Health*,¹⁴ specific measures could also be considered to fit into several other categories proposed by Gostin¹ as shown. No mention of tort liability (2) or taxation measures (5) was found (see Table 1). *The European Charter on Counteracting Obesity*,¹⁵ approved by health ministers from 53 countries at the WHO European Ministerial Conference on Counteracting Obesity (November 2006),¹⁶ calls for “comprehensive action on obesity. The vision is to shape societies in such a way that healthy lifestyles related to diet and physical activity are the norm, health goals are aligned with those related to the economy, society, and culture, and healthy choices are made easier and more accessible for individuals. The measures could fit into several categories of initiatives proposed by Gostin¹. Indeed, disclosure (1) and surveillance of data (3) are stipulated. The Charter also considers media (4), as well as school and workplace policies (6) and the “built” environment (7). No mentioning of tort liability (2), food prohibitions (8) or taxation measures (5) was found (see Table 1).

Also in Europe, our search revealed action plans on food and nutrition programs in Belgium, France, Norway, UK, Scotland, the Netherlands¹⁷ and Denmark¹⁸. We present below the *UK Physical Activity, Nutrition and Obesity Action Plan*¹⁹ that has the following main objectives:

- To increase awareness and understanding of the health benefits of good nutrition and regular physical activity (disclosure and sharing of information) (1);
- To ensure that local information on activity, nutrition, and obesity is used to target future interventions (disclosure and sharing of information) (1);
- To increase the uptake and range of health promotion interventions that improve nutrition and increase activity in a number of settings, such as schools, parks, and sports facilities (school and workplace) (6); (the “built” environment) (7);
- To integrate activity and nutrition advice and support into routine clinical care (treatment of obesity) (9);

- To develop and implement an integrated care pathway for the management of overweight and obesity, including service for morbid obesity (treatment of obesity) (9);
- To ensure that developments are supported by a trained workforce and are coordinated locally/linked with city wide activities (disclosure) (1); (tort liability) (2); (stipulations regarding treatment of obesity) (9).

It should be noted that although disclosure and sharing information (1) constitute the main purposes of the *UK Action Plan*,¹⁹ stipulations regarding other categories are also covered in detail. However, no intervention regarding regulation of food marketing (4), taxation (5) and food prohibitions (8) were present.

Anti-obesity legislation that fits into the school and workplace category (6) has been developed in several European countries including Hungary, Estonia, Latvia,²⁰ and the UK.²¹ As well, legislation regarding regulation of food marketing (4) to children and adolescents is in place in Sweden and Ireland.²² Finally, France requires food marketers to either add a health message to ads for any manufactured product or pay a tax equivalent to 1.5 percent of their annual ad budget to a national institute promoting healthier living.²¹ This law can fit into the categories of both disclosure (1) and taxation (5).

Discussion

Our review revealed strategies in the USA, Canada, and the European Union aimed at counteracting the obesity epidemic, which focus on sharing information among governments and public health advocates fighting obesity as well as disclosing information to the consumer (1). Although Gostin's¹ framework contained disclosure of information to the consumer (1) as a first possible legal intervention, we extended this category

to include sharing information, so that best practices can be developed and shared with others. Surveillance (3), school and workplace (6), and the "built" environment (7) are some other categories proposed by Gostin¹ for legislation that were very well covered by the majority of the reviewed legislative and non-legislative initiatives. Other countries should continue implementing interventions in these categories.

Regarding regulation of food marketing to children and adolescents (4), several published initiatives address this issue. Fewer initiatives relate to the other categories in the framework, however. Indeed, interventions regarding tort liability (2), taxation (5), food prohibitions (8), and/or treatment of obesity (9) are just sporadically taking place in the world.

Future research should consider evaluating present initiatives to determine their effectiveness. However, at this time, most initiatives aimed at counteracting obesity are so new that it is premature to evaluate their effects. Nevertheless, this expanded framework is compelling because it can categorize interventions considered or implemented to date. Based on this assessment of Gostin's framework, and following the example of the countries which have already invested resources into fighting obesity, countries that are just begin address this issue should start by implementing interventions regarding disclosure and sharing information (1), as well as surveillance (3). The next logical step would be to intervene in schools and workplaces, (6) as well as working on the "built" environment (7).

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