

# Understanding Key Influencers' Attitudes and Beliefs About Healthy Public Policy Change for Obesity Prevention

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**Objective:** As overweight and obesity is a risk factor for chronic diseases, the development of environmental and healthy public policy interventions across multiple sectors has been identified as a key strategy to address this issue.

**Methods:** In 2009, a survey was developed to assess the attitudes and beliefs regarding health promotion principles, and the priority and acceptability of policy actions to prevent obesity and chronic diseases, among key policy influencers in Alberta and Manitoba, Canada. Surveys were mailed to 1,765 key influencers from five settings: provincial government, municipal government, school boards, print media companies, and workplaces with greater than 500 employees. A total of 236 surveys were completed with a response rate of 15.0%.

**Results:** Findings indicate nearly unanimous influencer support for individual-focused policy approaches and high support for some environmental policies. Restrictive environmental and economic policies received weakest support. Obesity was comparable to smoking with respect to perceptions as a societal responsibility versus a personal responsibility, boding well for the potential of environmental policy interventions for obesity prevention.

**Conclusions:** This level of influencer support provides a platform for more evidence to be brokered to policy influencers about the effectiveness of environmental policy approaches to obesity prevention.

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## Introduction

Overweight and obesity is a growing public health concern across the world, with more than 1.4 billion adults and 40 million children exceeding standards for healthy weights (1), placing them at risk for chronic diseases (1). In Canada, overweight and obesity are at historically high levels in all age groups (2,3). Recent measured data showed over half of adults and over one-quarter of children and adolescents in Canada were classified as overweight or obese (4) with associated direct healthcare costs over \$6 billion annually (5).

There is increasing recognition that overweight and obesity is primarily driven by changing environments (1). “Obesogenic” environments arise from the complex interactions between social, economic, and environmental factors that promote sedentary lifestyles and the

overconsumption of energy-rich and nutrient-poor foods (6). For instance, a community’s built environment (7-10), the lack of access to physical activity facilities (11), high costs of fresh produce and nutrient-dense foods (12), increased portion sizes (13,14), and the marketing of unhealthy food and beverages to children (15,16) are all environmental correlates that impact the rapidly rising rates of obesity (17).

Despite the growing body of evidence indicating that environmental factors influence obesity rates, strategies to address obesity are still dominated by biomedical models of health that focus on education and treatment (18). However, individually focused behavioral interventions are least likely to be effective or sustainable in reducing and preventing the prevalence of obesity at a population level (19). Rather, the development of environmental and healthy public policy

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interventions across multiple sectors has been identified as a key strategy that is more far-reaching than education alone (1,11,19). For instance, experience from tobacco control has shown that public policy is a powerful tool that can affect behavior change at a population level, by implementing changes in the surrounding environment and altering structural and social norms (17,19,20).

With respect to overweight and obesity prevention, environmental and systems-based approaches could address the underlying causes of overweight and obesity by modifying social norms around nutrition and physical activity through policy change. For example, like many other chronic diseases, the prevalence of overweight and obesity is higher among more disadvantaged populations, such as those with lower socioeconomic status (SES) (19). These populations are more likely to be surrounded by obesogenic environments, yet have fewer opportunities and resources to overcome environmental barriers to healthy eating and active living (19). Environmental and policy approaches can address the health inequities between advantaged and disadvantaged populations by systemically changing physical and social environments to make healthy eating and physical activity the “easier choice” for all, and embedding these changes into accepted norms (19,21). Perhaps associated with the successes in tobacco control for cancer prevention, various health organizations, including the World Cancer Research Fund and the U.S. National Cancer Institute have thus called for policy action in obesity as a strategy for the prevention of cancer and other chronic diseases (17,18,22).

Policy-makers and decision-makers at multiple levels (municipal, provincial/state, federal) are key players in reviewing, recommending, implementing, and supporting policies that impact the public’s health (23). These individuals can be greatly influenced by the media, who have a prominent role in disseminating information to the public and influencing policy change (23,24). Similarly, school board decision-makers and workplace management teams play a large role in influencing the community environment and are important potential targets for policy interventions (25-27). In order to appropriately target policy action around obesity, it is important to gain a better understanding of what these key decision-makers and influencers know about obesity prevention. Understanding attitudes toward potential policy actions can provide insight as to which interventions are most likely to garner support. This can inform health policy advocates of plausible strategies that foster the adoption of obesity prevention policies.

In view of this, we developed a survey to assess attitudes and beliefs regarding health promotion principles and the priority and acceptability of policy actions to prevent chronic diseases among key influencers in Canada. The survey explores the acceptability and priority of policy actions around four specific behavioral risk factors for chronic diseases; physical activity, healthy eating, tobacco use, and alcohol misuse. This article will present key findings for obesity and those factors implicated in obesity (i.e., healthy eating and physical activity).

## Methods

### Survey content

Content for the survey was adapted from validated instruments previously used in tobacco control and alcohol policy surveys (23,28-

31). The survey covered four behavioral chronic disease risk factors: tobacco use, alcohol misuse, (un)healthy eating/food, and physical (in)activity. Only results most relevant to determinants of obesity, healthy eating, physical activity, are reported here.

The first section of the survey covered organizational *roles and responsibilities*. Respondents were asked to indicate if their organization had MAJOR, SOME, or NO RESPONSIBILITY for each *program and policy* activity listed, including those that (a) encourage healthy eating habits, (b) encourage people to be physically active, and (c) protect people’s freedom to make decisions for themselves.

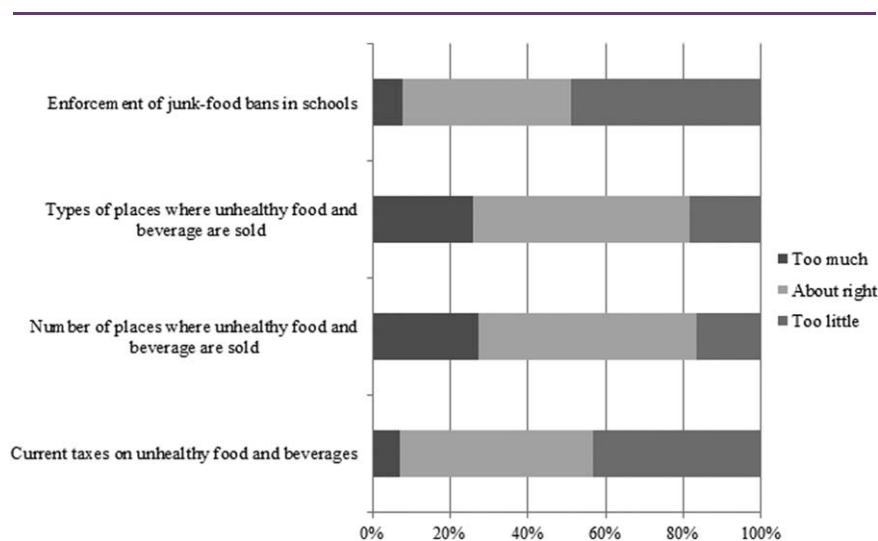
Given the wide range of potential policy approaches for increasing healthy eating and physical activity behaviors (e.g., improving the built environment, public education, improving access, etc.), influencers were asked to indicate their level of support for each. Section two addressed potential policy approaches broadly categorized under three policy types: those that address individual responsibility for behaviors, those that modify environments, and those that focus on economic levers. Individual-level policies aim to modify behaviors by providing information, guidelines and education to the public about healthy eating and physical activity, placing emphasis on individual responsibility for change. Those policies that focus on environments seek to change population-level behaviors through altering the physical and social environments in schools, workplaces, or communities. Economic policies focus on financial levers (e.g., taxes and subsidies), around healthy eating and physical activity. Table 2 lists and categorizes all policy approaches surveyed. Participants were asked to indicate their responses on a four-point Likert scale (ranging from strongly support to strongly oppose) with the option to indicate “don’t know” We also asked opinions on current levels of regulation for obesity-related policies (Figure 1).

Section three, understanding the provincial environment, asked respondents to indicate whether they have had contact (four-point response scale from A LOT to NONE) with interest groups supporting or opposing policy in the last 2 years (Figure 2).

Section four, understanding different viewpoints, asked respondents to indicate their opinions about who is responsible for an individual’s health. Participants were asked to indicate their responses on a four-point scale (ranging from strongly agree to strongly disagree) to items relevant to each of the risk factors covered in the survey. Items included: (a) When someone has a problem with (obesity) it is their responsibility to deal with it, and (b) When someone has a problem with (tobacco) it is society’s responsibility to deal with it. Our analysis included all risk factors so that viewpoints on obesity could be compared with viewpoints on tobacco and alcohol with a longer history of policy interventions.

### Sample

The sample included key policy influencers from five settings in Alberta and Manitoba, Canada. Alberta was chosen as a policy coalition had recently been formed to advocate for policies relevant to obesity and chronic disease prevention; the survey helped compile baseline perspectives of local influencers. Manitoba was chosen as a comparison province as it represented the most demographically and geographically similar province in Canada. Influencers were chosen based on our perceptions of their ability to change or influence



**Figure 1** Policy influencers' views on current levels of regulation for the obesity-related policies.

policy at provincial levels or lower. The settings included (a) provincial government (all elected members of the legislative assembly and senior bureaucrats), (b) municipal government (mayors and chief administrative officers or equivalent), (c) school boards (superintendents and school board chairs), (d) print media companies (editor or health reporter), and (e) workplaces with greater than 500 employees (president or health and wellness manager). Workplaces represented six sectors (construction; health care and social assistance; manufacturing; oil, mining and gas; professional and scientific services; and, retail).

administered paper survey including information letter was mailed to a census sample (total identified population) of 1,765 influencers in Alberta ( $n = 1,243$ ) and Manitoba ( $n = 522$ ). Participants had the option of completing either a paper copy and mailing it to the researchers in the self-addressed postage paid envelope, or a password protected online version of the survey. Non-responders were sent two reminders. All participants were asked to complete the survey from the perspective of their role in their respective organization.

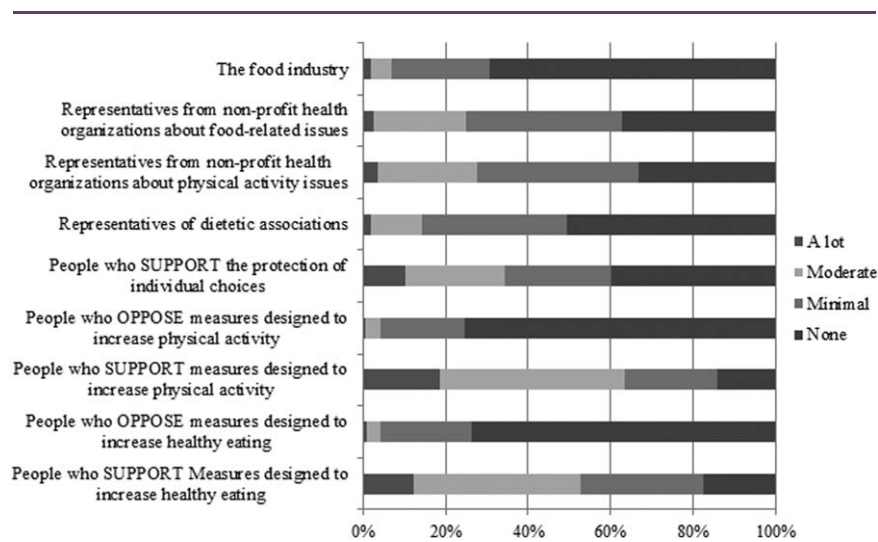
Ethics approval was obtained from the Human Research Ethics Boards (HREB) Panel B at the University of Alberta.

### Data collection

Addresses for key influencers were obtained through searching of websites (for provincial and municipal government, school boards, and print media) and purchasing a contact list for workplaces. A self-

### Data analysis

Statistical analyses were conducted using SPSS version 18. Univariate summary statistics reported are percentages of respondents indicating



**Figure 2** Level of contact between policy influencers and other influential groups.

**TABLE 1** Unadjusted response rates from each sector by province

Sector	Alberta		Manitoba		Total	
	Surveys mailed	Surveys completed (%)	Surveys mailed	Surveys completed (%)	Surveys mailed	Surveys completed (%)
Government (municipal/provincial)	355	84 (23.7)	195	23 (11.8)	550	107 (19.5)
Workplaces	633	43 (6.8)	209	15 (7.2)	842	58 (6.9)
School boards	129	40 (31.0)	74	14 (18.9)	203	54 (26.7)
Print media	119	16 (13.4)	44	1 (2.3)	163	17 (10.4)
<b>TOTAL</b>	<b>1236</b>	<b>183 (14.8)</b>	<b>522</b>	<b>53 (10.2)</b>	<b>1758</b>	<b>236 (13.4)</b>

a range of responses for each question. Reported results are for those respondents who had an opinion about an issue (i.e., “don’t know” responses were excluded from calculations). Analyses presented in this article were conducted on data pooled across provinces (i.e., Alberta and Manitoba), as the purpose of this article is to describe baseline perceptions of policy influencers and there were few differences between provinces (data not shown), pooling enabled a larger number of respondents in total.

## Results

Of the 1,765 surveys mailed, 191 were undeliverable and returned. A total of 236 surveys were completed, with 183 surveys completed by influencers from Alberta and 53 from Manitoba. The final response rate was 13.4%. Response rates from each sector are indicated in Table 1. While response rates from school boards were highest of all sectors, the highest proportion of respondents was from government (45.3%). By sector, online surveys were completed by 19.6% of government, 10.3% of workplaces, 20.7% of school boards, and 11.8% of print media respondents.

## Roles and responsibilities

Respondents were asked to indicate the level of responsibility in their organization for obesity prevention programs and policies. This question measured the priority accorded to activities such as the promotion of healthy eating, physical activity, and personal freedoms across the various sectors’ organizational mandates. With respect to program or policy activities that encourage healthy eating habits, 67.7% and 71.2%, respectively, believe that their organization has at least some responsibility. More respondents viewed physical activity as a responsibility, with 85.9% and 92.5% indicating at least some responsibility, in program or policy activities, respectively, that encourage physical activity. When asked about program and policy activities that protect people’s freedom to make decisions for themselves, 78.6% and 79.2%, respectively, believe that their organization has at least some responsibility.

## Policy approaches

Table 2 divides the levels of endorsement for different policy approaches from most to least. Conceptualizing the proposed policy as an innovation and the level of endorsement garnered from policy influencers signifying readiness for adoption, the cut-off values for levels of endorsement were derived from Rogers’ Diffusion of Innovations Theory which has been used previously (32) as a theoretical foundation for understanding policy adoption among municipalities.

Policies were categorized ranging from “very strong endorsement,” corresponding to the innovator category, to “very weak endorsement,” which corresponds to the laggards category of Rogers’ five adopter categories (i.e., innovators, early adopters, early majority, late majority, and laggards).

Results indicate that policies with overall very strong endorsement consist mainly of those aimed at individual responsibility for behaviors, such as providing programs to educate the general public. There was strong endorsement of policies aimed at changing some (predominantly school) environments such as mandatory daily physical education requirements in all schools. However, despite having endorsement overall, fewer respondents indicated “strongly support” for workplace physical activity policies, incentives, and facilities, changing the design of our neighborhoods and communities to encourage informal physical activity in daily life, and mandating policies for school nutrition programs. Policies with overall weak influencer endorsement consist mainly of those that affect economic measures and legislative environments. Policies that were least “strongly supported” included banning obese people from eating at fast food restaurants (included as a less desirable policy as an indicator of weight bias), holding producers of unhealthy foods liable for health care associated with obesity, and restricting the use of elevators for trips three floors or less for special use only. Up to 15.9% of influencers indicated “strong support” for other policies with overall weak endorsement, such as taxing unhealthy food and beverage purchases.

Figure 1 illustrates how influencers view current levels of regulation for current obesity-related policies. Just over half of the respondents indicated there is about the right level of regulation in place for enforcing school “junk” food bans, controlling where foods can be sold, and taxes on unhealthy foods. However, more influencers felt that there was too little action currently taken on enforcing junk food bans in schools and taxing unhealthy food and beverages, in comparison to regulating the number and type of places where unhealthy food and beverages are sold.

## Understanding the provincial environment

Figure 2 illustrates the level of contact that influencers have had with individuals or organizations involved in physical activity or food-related issues over the last 2 years.

Influencers surveyed have been in the most contact with those who support measures designed to increase physical activity and healthy

**TABLE 2** Support for policy approaches targeting obesity-related risk behaviors, categorized by policy type

Policy	Policy category	% Somewhat support (n)	% Strongly support (n)	% Total level of support (n)
<i>Very strong endorsement (&gt;97.5%)</i>				
Provide programs to educate the general public about the importance of regular physical activity	Individual responsibility	36.4 (83)	62.7 (143)	99.1 (226)
Provide programs to educate the general public about how to make healthy food choices	Individual responsibility	34.1 (77)	64.6 (146)	98.7 (223)
<i>Strong endorsement (84%-97.5%)</i>				
Improvements to physical education curriculum guidelines in all schools	Individual responsibility/(school) environments	32.4 (71)	65.3 (143)	97.7 (214)
Mandatory daily physical education or physical activity requirements in all schools	(School) environments	28.1 (64)	67.1 (153)	95.2 (217)
Enhance the quantity and quality of green spaces in all neighborhoods	(Community) environments	43.3 (97)	51.3 (115)	94.6 (212)
Implement transportation policies designed to promote physical activity through safe routes, cycle facilities, adequate lighting, etc.	(Community) environments	49.3 (111)	43.1 (97)	92.4 (208)
Mandate policies for school nutrition programs	(School) environments	48.5 (110)	42.3 (96)	90.8 (206)
Change the design of our neighborhoods and communities to encourage informal physical activity in daily life	(Community) environments	48.7 (108)	40.5 (90)	89.2 (198)
Ban the use of trans fat in all food products	(Legislative) environments	38.6 (83)	48.8 (105)	87.4 (188)
Provide incentives for workplaces to develop physical activity policies and access to physical activity facilities for workers	(Workplace) environments/economics	50.7 (115)	35.2 (80)	85.9 (195)
<i>Moderate endorsement (50%-83.9%)</i>				
Fund media campaigns to educate the public about increasing physical activity and reducing screen time	Individual responsibility	50.7 (113)	32.3 (72)	83.0 (185)
Restrict sugar-sweetened drinks and other unhealthy foods from vending machines in schools and all public buildings	(School and community) environments	40.8 (93)	41.2 (94)	82.0 (187)
Provide screen time guidelines for all children under 16, including toddlers	Individual responsibility	47.6 (89)	32.6 (61)	80.2 (150)
Mandatory calorie listing on restaurant menus	(Legislative) environments	41.9 (91)	32.7 (71)	74.7 (162)
Subsidize programs that encourage people to be physically active	Economics	40.2 (90)	34.4 (77)	74.6 (167)
Remove sales taxes on all physical activity equipment	Economics	40.4 (90)	33.6 (75)	74.0 (165)
Prohibit advertising and promotion of unhealthy foods and beverages to children under the age of 16	(Legislative) environments	35.5 (78)	37.7 (83)	73.2 (161)
Mandate priority space for healthful foods and beverages in grocery stores and cafeterias in workplaces and schools	(School and community) environments	44.4 (99)	27.0 (60)	71.3 (159)

TABLE 2. (continued).

Policy	Policy category	% Somewhat support (n)	% Strongly support (n)	% Total level of support (n)
Change building and community design standards to discourage sedentary activity	(Community and legislative) environments	51.5 (102)	19.2 (38)	70.7 (140)
Tax credits or monetary incentives for people who are involved in PA	Economics	38.5 (87)	31.4 (71)	69.9 (158)
Tax credits for purchasing locally grown healthy food	Economics	32.2 (69)	29.4 (63)	61.7 (132)
Tax unhealthy food and beverage purchase	Economics	35.4 (79)	22.0 (49)	57.4 (128)
Zoning to increase the number of small grocery stores that people can walk to in every neighborhood	(Community and legislative) environments	40.9 (83)	14.3 (29)	55.2 (112)
<i>Weak endorsement (16%-49.9%)</i>				
Ban all traffic in high-use pedestrian areas during peak hours to support active (walking, cycling) or public transportation	(Community and legislative) environments	38.2 (81)	10.9 (23)	49.1 (104)
Subsidize the purchase of healthy foods and beverages	Economics	31.8 (70)	15.9 (35)	47.7 (105)
Regulate portion sizes in food outlets and on pre-packaged food and beverages	(Legislative) environments	25.2 (54)	12.2 (26)	37.4 (80)
Restrict the use of elevators for trips three floors or less for special use only (e.g. by disabled persons with baby strollers, etc.)	Environments	25.4 (55)	8.3 (18)	33.6 (73)
Zoning to limit the number of fast food restaurants per square kilometer	(Community and legislative) environments	19.4 (42)	11.5 (25)	30.9 (67)
Hold producers of unhealthy foods liable for health care costs associated with obesity	Legislative/economics	24.2 (51)	6.2 (13)	30.3 (64)
<i>Very weak endorsement (&lt;16%)</i>				
Ban obese people from eating at fast food restaurants	(Stigmatizing) individual responsibility	1.4 (3)	0.5 (1)	1.8 (4)

eating and, conversely, have been in the least contact with those who oppose such measures.

(for healthy eating and physical activity) to one-third (obesity, alcohol, and tobacco) viewed the responsibility as both personal and societal.

### Understanding different viewpoints

Table 3 shows respondents' appraisal of personal and societal responsibility for common chronic disease risk behaviors. Consistently, the majority of respondents viewed all risk behaviors as personal responsibilities (for alcohol slightly <50%), while one-fifth

### Discussion

Our survey found, consistent with public opinion, that a majority of policy influencers view obesity as a case of personal responsibility

TABLE 3 Respondents' appraisal of personal and societal responsibility for risk behaviors

	ONLY personal (%)	ONLY societal (%)	BOTH personal and societal (%)	NEITHER personal nor societal (%)	Don't know or No response (%)
Alcohol	111 (47.0)	8 (3.4)	93 (39.4)	9 (3.8)	15 (6.4)
Obesity	131 (55.5)	4 (1.7)	81 (34.3)	6 (2.5)	14 (5.9)
Tobacco	140 (59.3)	2 (0.8)	76 (32.2)	4 (1.7)	12 (5.9)
Physical activity	163 (69.1)	4 (1.7)	49 (20.8)	7 (3.0)	13 (5.5)
Healthy eating	149 (63.1)	10 (4.2)	49 (20.8)	16 (6.8)	12 (5.1)

(18,33,34). Unfortunately, such opinions have influenced public health policies over the years, and decision-makers have been reluctant to implement policies with social resistance in fear of seeming paternalistic (18). Instead, public health policies surrounding obesity have remained embedded in biomedical paradigms of health, whereby strategies are targeted at individual behavior change, such as weight management or encouraging people to make the “right” choices (18). Reflective of individualistic perspectives, among respondents from the current survey, there is nearly universal support for individual-focused policy approaches. Strongly supported policy approaches seek to educate the public about the consequences of unhealthy behaviors and ways in which they can make healthier choices.

Support for some environmental change policies was also high; for instance, implementing transportation policies to promote physical activity was among those policies most strongly supported. However, while it is easy to support a policy in principle, policy adoption, or implementation may require a higher level of commitment, calling for particular attention to the proportion of influencers who *strongly* (vs. *somewhat*) support a policy. Interestingly, among the policies that received strong overall endorsement, the proportion of those who specified *strongly support* for each particular policy ranged greatly. For example, “mandatory daily physical education or physical activity requirements in all schools” received a significant majority (67.1%) of “strongly support” responses, while “implementing transportation policies designed to promote physical activity . . .” received only 43.1% strong support, even though both policies garnered over 90% endorsement. Such differences could reflect a perceived difference between supporting a policy ‘in principle’ and investing in policy implementation. Physical education requirements are concrete, bounded and relatively easy to monitor. Transportation policies require significant infrastructure investment, and policies cross jurisdictional boundaries, making this policy choice more complex and likely more expensive.

While some environmental policies were strongly supported by influencers, restrictive environmental policies requiring legislative change, such as “zoning restrictions on the number of fast food outlets,” received the weakest endorsement. While a systematic review of policy interventions addressing correlates of chronic diseases found that economic policies in tobacco control were among those with the strongest evidence for effectiveness (11), in this survey, economic policies that include taxing obesity-related unhealthy products or subsidizing the cost of healthy behaviors received weak support. Interestingly, subsidies to encourage healthier choices were less favored than taxes that discourage consumption. Considering that taxes are a source of revenue for the government, these perspectives are not surprising. Of note, in one of the provinces studied (Alberta) there is a long standing history of low taxes, including no provincial sales tax. As such, calls for use of taxes to influence behavior are not well received by policy-makers, and is not well supported by the public. Considering that the largest proportion of respondents to the survey represented government, low support for taxation is expected.

With respect to views on current levels of regulation for obesity-related policies, influencers were more likely to express a need for greater regulation on the enforcement of junk food bans in schools and taxing of unhealthy foods and beverages than regulating the number or types of places where they are sold. This further empha-

sizes the individualistic attitudes that favor penalizing the individual (e.g., only individuals who purchase unhealthy foods will be taxed) instead of creating less obesogenic environments that are more likely to affect change at a population level. The influence of industry and “free market” principles may also be at play here. Particularly in Alberta there is a strong culture of rugged individualism, personal freedoms and market justice.

Endorsement of individual approaches to obesity prevention, suggests that influencers currently take a similar stance with obesity-related policies as they took during the early stages of tobacco control (17). However, the need to move from a focus on individual behavior to collective environmental action was a lesson learned from tobacco control that could bode well for obesity-related policies (20). While there are differences between tobacco control and obesity, the need for decision-makers to be aware of the evidence-based effectiveness of policies addressing the social, economic and environmental aspects associated with obesity, presents many opportunities for policy advocacy efforts (11,17,19).

It is imperative for researchers to continue brokering evidence regarding the importance of policy change in obesity prevention. Although there is sufficient evidence indicating that obesity, dietary, and physical activity behaviors, are risk factors for chronic diseases, the importance and effectiveness of environmental and economic policies affecting these behaviors needs to be communicated to those who influence policy decisions (35). Increasing the interaction and exchange between researchers and policy-makers can promote and garner support for the use of evidence-based policies (35). In addition, adapting communication methods for influencers, such as policy briefs (17) and evidence-based reviews or summaries outlining best practices (11), have also been cited as effective ways of circulating evidence to garner greater support for effective policy interventions. Taking lessons from a well-developed advocacy approach, such as tobacco control, may assist with advancing the obesity prevention policy agenda.

Building allegiances to promote change where current support is highest may help move policy agendas forward. Communities, non-governmental, and non-profit organizations, as well as other health advocates can be valuable resources to help increase knowledge about obesity among influencers (23). More than 83% of influencers surveyed have been in contact with individuals that support measures designed to increase physical activity and healthy eating. Yet, less than 65% have been in contact with representatives from health organizations supporting these issues. Harnessing the reputation and influence of health organizations may be a powerful advocacy strategy. As these organizations can have a valuable role in sponsoring or conducting evidence-based research specific to obesity and its related risk factors, developing mutually beneficial relationships is essential in implementing effective policy research agendas (17).

Despite the need to provide greater evidence for the effectiveness of population-based policy approaches in obesity prevention, a key finding from the current survey indicates that action may still be possible without a major shift in focus from obesity as a personal to societal responsibility. Interestingly, obesity and tobacco are on equal footing with respect to influencer’s appraisals of societal versus personal responsibility. Considering the success of environmental and economic policies in tobacco control in Canada, including

the conservative province of Alberta, having influencers view obesity on par with tobacco bodes well for the future of policy support for obesity prevention. High levels of support for environmental change policies in the prevention of obesity among politically conservative influencers traditionally resistant to environmental policies is evidence of shifting beliefs (34). This shift is promising, as it presents opportunities for developing an evidence base on effectiveness of policies as population-level policies addressing the obesity epidemic are implemented and evaluated as “natural experiments.”

## Strengths and limitations

Few studies to date have examined the attitudes and beliefs of policy influencers toward obesity-prevention strategies. The classification of policy approaches into categories (individual, environmental, and economic) was a key strength of the analysis. Findings provided clear insight into the types of obesity prevention strategies most supported by influencers. This provides health advocates with an important understanding of the appetite for policy change, suggesting priorities for advocacy where “quick wins” may provide momentum. Researchers may also glean insight into the need for evidence to justify policy, including the need to collect evidence of effectiveness when policies are implemented.

A low overall response rate may not have captured the complete view of all influencers. Results may also have been biased by a greater number of responses from influencers who have been in contact with people supporting physical activity and healthy eating. Therefore, reported levels of support for obesity-prevention policies may be overestimated. The inclusion of alcohol misuse and tobacco use findings can provide comparative context for obesity policy results by providing an overview of how influencers perceive and prioritize approaches for different risk behaviors, some have a long history of policy action.

## Conclusion

A survey assessing the attitudes and beliefs of policy influencers toward strategies that address obesity revealed that respondents were most supportive of individually focused policies and some environmental approaches. More restrictive environmental and economic policies were weakly supported. Influencers view obesity and tobacco similarly with respect to influencer’s appraisals of societal versus personal responsibility, indicating potential for environmental policies. These results provide a platform for harnessing the reputation and influence of non-profit health organizations as partners in advocacy. As policies are implemented, greater evidence about the effectiveness of environmental and economic strategies may be brokered to promote evidence-based decision-making around obesity prevention policies. ○

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## References

1. World Health Organization. Obesity and overweight: fact sheet No. 311. [WWW document]. URL: <http://www.who.int/mediacentre/factsheets/fs311/en/index.html>; 2014. Accessed Jul 2014.
2. Tjepkema M. *Measured Obesity: Adult Obesity in Canada: Measured Height and Weight. Analytical Studies and Reports*. Ottawa: Statistics Canada; 2005.
3. Shields M. *Overweight and Obesity Among Children and Youth*. Ottawa: Statistics Canada; 2006, pp. 27-42.
4. Statistics Canada. *Canadian Health Measures Survey: Cycle 1 Data Tables 2007 to 2009*. Ottawa: Ministry of Industry; 2010.
5. Anis AH, Zhang W, Bansback N, Guh DP, Amarsi Z, Birmingham CL. Obesity and overweight in Canada: an updated cost-of-illness study. *Obes Rev* 2010;11(1):31-40.
6. World Health Organization. *Obesity: Preventing and Managing the Global Epidemic*. Geneva: World Health Organization; 2000.
7. Institute of Medicine. *Does the Built Environment Influence Physical Activity: Examining the Evidence*. Washington, DC: Institute of Medicine; 2005.
8. Frank LD. Land use and transportation interaction - Implications on public health and quality of life. *J Plan Educ Res* 2000;20(1):6-22.
9. Morland K, Diez Roux AV, Wing S. Supermarkets, other food stores, and obesity: the atherosclerosis risk in communities study. *Am J Prev Med* 2006;30(4):333-339.
10. Powell LM, Slater S, Mirtcheva D, Bao Y, Chaloupka FJ. Food store availability and neighborhood characteristics in the United States. *Prev Med* 2007;44(3):189-195.
11. Brownson RC, Haire-Joshu D, Luke DA. Shaping the context of health: a review of environmental and policy approaches in the prevention of chronic diseases. *Annu Rev Public Health* 2006;27:341-370.
12. Drewnowski A, Specter SE. Poverty and obesity: the role of energy density and energy costs. *Am J Clin Nutr* 2004;79(1):6.
13. Young LR, Nestle M. The contribution of expanding portion sizes to the US obesity epidemic. *Am J Public Health* 2002;92(2):246-249.
14. Nielsen SJ, Popkin BM. Patterns and trends in food portion sizes, 1977-1998. *JAMA* 2003;289(4):450-453.
15. McGinnis JM, Gootman JA, Kraak VI (eds). *Food marketing to children and youth: Threat or opportunity?* Washington, DC: The National Academies Press; 2005.
16. French SA, Story M, Jeffery RW. Environmental influences on eating and physical activity. *Annu Rev Public Health* 2001;22:309-335.
17. McKinnon RA, Orleans CT, Kumanyika SK, et al. Considerations for an obesity policy research agenda. *Am J Prev Med* 2009;36(4):351-357.
18. Greener J, Douglas F, van Teijlingen E. More of the same? Conflicting perspectives of obesity causation and intervention amongst overweight people, health professionals and policy makers. *Soc Sci Med* 2010;70(7):1042-1049.
19. Swinburn B, Egger G. Preventive strategies against weight gain and obesity. *Obes Rev* 2002;3(4):289-301.
20. Yach D, McKee M, Lopez AD, Novotny T. Improving diet and physical activity: 12 lessons from controlling tobacco smoking. *BMJ* 2005;330(7496):898-900.
21. World Health Organization. *Ottawa Charter for Health Promotion*. Ottawa: World Health Organization; 1986, pp. 1-4.
22. World Cancer Research Fund/American Institute for Cancer Research. *Policy and Action for Cancer Prevention. Food, Nutrition, and Physical Activity: A Global Perspective*. Washington, DC: American Institute for Cancer Research; 2009.
23. Cohen JE, de Guia NA, Ashley MJ, Ferrence R, Northrup DA, Studlar DT. Predictors of Canadian legislators’ support for tobacco control policies. *Soc Sci Med* 2002;55(6):1069-1076.
24. Asbridge M. Public place restrictions on smoking in Canada: assessing the role of the state, media, science and public health advocacy. *Soc Sci Med* 2004;58(1):13-24.
25. Wechsler H, Devereaux RS, Davis M, Collins J. Using the school environment to promote physical activity and healthy eating. *Prev Med* 2000;31(2):S121-S137.
26. Story M, Kaphingst KM, Robinson-O’Brien R, Glanz K. Creating healthy food and eating environments: policy and environmental approaches. *Annu Rev Public Health* 2008;29:253-272.
27. Beresford SA, Bishop SK, Brunner NL, et al. Environmental assessment at worksites after a multilevel intervention to promote activity and changes in eating: the PACE project. *J Occup Environ Med* 2010;52(Suppl 1):S22-S28.
28. Canadian Partnership Against Cancer. *Environmental Scan of Primary Prevention Policies and Activities in Canada: Part 1 - Policies and Legislation*. Toronto: Canadian Partnership Against Cancer; 2009.
29. Haley H, Sidanius J. The positive and negative framing of affirmative action: a group dominance perspective. *Pers Soc Psychol Bull* 2006;32(5):656-668.
30. Karasek R, Brisson C, Kawakami N, Houtman I, Bongers P, Amick B. The Job Content Questionnaire (JCQ): an instrument for internationally comparative assessments of psychosocial job characteristics. *J Occup Health Psychol* 1998;3(4):322-355.
31. Zuck NC. *Decision Latitude, Self-Determination, and Participation in Workplace Health Promotion Programs*. Edmonton: University of Alberta; 2000.
32. Nykiforuk CI, Eyles J, Campbell HS. Smoke-free spaces over time: a policy diffusion study of bylaw development in Alberta and Ontario, Canada. *Health Soc Care Community* 2008;16(1):64-74.
33. Oliver JE, Lee T. Public opinion and the politics of obesity in America. *J Health Polit Policy Law* 2005;30(5):923-954.
34. Niederdeppe J, Robert SA, Kindig DA. Qualitative research about attributions, narratives, and support for obesity policy, 2008. *Prev Chronic Dis* 2011;8(2):A39.
35. Campbell DM, Redman S, Jorm L, Cooke M, Zwi AB, Rychetnik L. Increasing the use of evidence in health policy: practice and views of policy makers and researchers. *Aust N Z Health Policy* 2009;6:21.