A critical analysis of obesity prevention policies and strategies

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ABSTRACT

OBJECTIVES: Public health policies have been criticized for promoting a simplistic narrative that may contribute to weight bias. Weight bias can impact population health by increasing morbidity and mortality. The objectives of this study were to: 1) critically analyze Canadian obesity prevention policies and strategies to identify underlying dominant narratives; 2) deconstruct dominant narratives and consider the unintended consequences for people with obesity; and 3) make recommendations to change dominant obesity narratives that may be contributing to weight bias.

METHODS: We applied Bacchi's "what's-the-problem-represented-to-be?" (WPR) approach to 15 obesity prevention policies and strategies (1 national, 2 territorial and 12 provincial). Bacchi's WPR approach is composed of six analytical questions designed to identify conceptual assumptions as well as possible effects of policies.

RESULTS: We identified five prevailing narratives that may have implications for public health approaches and unintended consequences for people with obesity: 1) childhood obesity threatens the health of future generations and must be prevented; 2) obesity can be prevented through healthy eating and physical activity; 3) obesity is an individual behaviour problem; 4) achieving a healthy body weight should be a population health target; and 5) obesity is a risk factor for other chronic diseases, not a disease in itself.

CONCLUSION: The consistent way in which obesity is constructed in Canadian policies and strategies may be contributing to weight bias in our society. We provide some recommendations for changing these narratives to prevent further weight bias and obesity stigma.

KEY WORDS: Obesity; policy; public health; weight bias

La traduction du résumé se trouve à la fin de l'article.

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besity is a chronic disease characterized by abnormal or excessive fat accumulation to the extent that health is impaired. 1 Obesity has been identified as a public health issue that threatens to significantly impact population health.^{1,2} The impact of public health obesity prevention strategies has been evaluated,3 and criticized,4 and new models and frameworks continue to be proposed.⁵ These activities and commentary are necessary and contribute to the advancement of evidenceinformed public health solutions. Public health policies have been criticized for promoting a simplistic narrative that may contribute to weight bias in several countries, including Canada. 6-8 Specifically, the current public health obesity narrative promotes assumptions about personal irresponsibility and lack of willpower among people with obesity. These assumptions contribute to the beliefs that people with obesity and their children lack awareness and knowledge about healthy eating and physical activity and are to blame for the obesity epidemic.¹⁰

There is extensive research demonstrating the negative effects of weight bias. Weight bias can affect a person's mental health, interpersonal relationships, educational achievements and employment opportunities; it can lead to avoidance of healthpromoting behaviours, hinder weight management efforts, and increase overall morbidity and mortality. 11,12 There are several ways in which public health obesity policies may be unintentionally contributing to weight bias. 13 According to attribution theory, the belief that obesity is simply caused by unhealthy choices is associated with weight bias because individuals will attribute unhealthy behaviours to people who have obesity. 10 Similarly, social consensus theory stipulates that individuals look at how others (including policy makers) think about obesity to inform their own beliefs about obesity. 14 Beliefs, values and socio-political ideologies are also closely linked to an

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Conflict of Interest: A. Sharma declares that he receives consultancy fees from Novo Nordisk (Canada and Global Advisory Board for anti-obesity medication). He also declares receiving payment for development of educational presentations, including service on speakers' bureau. He has had travel/accommodations expenses covered or reimbursed in conjunction with consulting and speaker bureau activities as individual's views of the controllability of obesity and intolerance towards people with obesity. ¹⁵ Critical obesity scholars have also provided theoretical models to explain how the obesity discourse reinforces weight bias and perpetuates obesity stigma. ¹⁶ Together, these theories from the field of social-psychology and critical obesity research can inform future interventions to address weight bias.

Few studies have critically analyzed obesity prevention policies and strategies to assess whether they may be contributing to weight bias and obesity stigma. Traditional policy analysis approaches view public policies as solutions to social problems.¹⁷ In other words, a social problem exists and policy makers are viewed to be developing policy solutions to address it. This view implies that policy makers simply react to social problems and are not inherently involved in the shaping of social problems. There is an opportunity to critically analyze Canadian obesity prevention policies and strategies to explore how provincial and territorial governments may be constructing and reinforcing specific obesity narratives that contribute to weight bias. Previous critical policy studies have focused on Atlantic provinces. 10 Our study adds to the existing literature by including all Canadian provinces and territories. Deconstructing obesity prevention policies and strategies may also help to reveal assumptions that have shaped our shared narrative of obesity and reveal opportunities for change.

The objectives of this study are to: 1. critically analyze Canadian obesity prevention policies and strategies to identify underlying dominant narratives; 2. deconstruct these dominant obesity narratives and consider the unintended consequences for people with obesity; and 3. make recommendations to change dominant obesity narratives that may be contributing to weight bias.

METHODS

Our study is grounded in critical population health research, which aims to reduce health and social inequities by critically deconstructing concepts and relationships taken for granted in public health practice.¹⁸ In our analysis, we draw upon critical obesity research and theories such as post-structuralism feminism, healthism, and social stigma.16 Using Bacchi's "what's-theproblem-represented-to-be?" (WPR) approach, 17 we conducted a critical analysis of Canadian obesity prevention policies and strategies in order to understand what the prevailing obesity narrative is. Our objective was not to assess whether these policies and strategies have been effective. Instead, our goal was to engage in critical analysis to better understand how obesity prevention policies and strategies construct a specific narrative about obesity and people with obesity. Critically assessing how this narrative has been constructed can help us understand its possible effects on public health practice as well as its potential effects on people with obesity.

Bacchi's WPR approach is composed of six analytical questions. With the first question, we identified how obesity is problematized (i.e., how is obesity socially constructed to become the "truth" about obesity) in policies and strategies. Looking backwards from a specific policy solution, we asked what is the implied problem? For example, if a policy solution proposed to educate Canadians on healthy eating to prevent obesity, the implied problem could be lack of knowledge about healthy eating. Using the second question, we deconstructed obesity solutions to identify their

underlying assumptions. In question three, we identified epistemological and ontological assumptions behind each problematization and considered how this way of problematizing obesity has come about. Using the fourth analytical question, we considered silences in policies and strategies, recognizing that what is omitted and/or silenced in policies also contributes to the social construction of issues. In the fifth analytical question, we considered the effects that this problematization has on public health practice and people with obesity. Finally, applying the last analytical question in the WPR approach, we considered how this way of problematizing obesity is disseminated through coordinated practices to become the truth about obesity (i.e., our shared narrative of obesity).

We analyzed obesity prevention policies and strategies published by federal, provincial and territorial health authorities in Canada (Table 1). We began with an online search of policies publicly available on the Public Health Agency of Canada's (PHAC) website. Search terms included: obesity prevention AND federal OR provincial OR territorial policies OR frameworks OR strategies OR initiatives. We followed links available on the "Curbing Childhood Obesity: A Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights"2 page to other provincial and territorial health authorities' websites. On these websites, we found additional links to policy documents concerning obesity. We searched for government policy documents that focused primarily on obesity prevention. However, some provincial governments did not have specific obesity prevention policies. Rather, they outlined obesity prevention strategies as part of their overall wellness and health promotion policies. For provinces that lacked specific obesity prevention policies, we found links to government programs that provided obesity education and programming to the public. For example, in the Northwest Territories, we used the choosenwt.com program to apply Bacchi's WPR approach. We made PDF files of the website pages and downloaded any documents already in PDF format. The search was conducted between October 2014 and January 2015 and included obesity prevention policy and strategies developed between 2001 and 2014. In total, we collected and reviewed 15 policy proposals (1 national, 2 territorial and 12 provincial) (Table 1).

In Canada, the responsibility for health services (prevention and management) lies with provincial and territorial governments, explaining the low number of national policies and strategies. Saturation was reached when additional searches came up with the same links and documents. We selected policy texts in an openended manner, including government frameworks, reports, strategies and initiatives that have been proposed and/or implemented, allowing for a fuller picture of the problem representation. Most documents we reviewed discussed obesity prevention strategies and did not provide any evidence that these strategies had been implemented.

Using an Excel spreadsheet, we systematically coded the background sections and each policy solution or recommendation according to the six guiding questions of Bacchi's WPR approach. The final data file included 15 sheets, each listing the specific policy recommendations within each policy document and categorized according to each WPR question. There was significant overlap across policy documents, leading to duplication of answers for each WPR question. The final findings and analysis are therefore

Table 1.	Policy documer	nts examined,	the representation of obesity and solutions offer	ered to address obesity	
	Jurisdiction	Year	Policy/strategy document(s)	Representation of obesity (what's the problem represented to be?)	Solutions
1	Federal, Provincial and Territorial	2010	Curbing Childhood Obesity: A Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights (Public Health Agency of Canada). ²	Childhood obesity is a problem. Obesity is a complex social (environmental) and individual problem. Obesity is caused by unhealthy eating and physical inactivity. Obesity is a risk factor for chronic disease, which will increase health care costs and affect the Canadian economy. Healthy Weights Discourse	Changing the social and physical environment to support physical activity and healthy eating. Promoting healthy choice. Supporting healthy weight in children and youth.
2	Yukon	2012	Yukon Active Living Strategy (Yukon Community Services, Sport and Recreation Branch). ³²	Childhood obesity and inactivity are problematized. Obesity is caused by unhealthy eating and physical inactivity. Obesity is a risk factor for CD. Healthy Choice Narrative	Position physical activity as a crucial component of population health. Create environments that make choosing and engaging in more active lifestyles easier. Social marketing to shift attitudes and motivate behaviours that contribute to active healthier lifestyles.
3	Northwest Territories	2011	 a) Choose Website (choosenwt.com): Healthy Choices for Healthy Communities (A program of the Government of Northwest Territories)³⁶ b) Healthy Eating & Healthy Weight Guide (Choose Program) 	Unhealthy weight gain is a risk factor for chronic diseases. Obesity is caused by unhealthy eating and physical inactivity. Healthy Choice Discourse Health and Weight Narrative	"Choose" is the public face of the Healthy Choices Framework, a GNWT-wide approach to encouraging and supporting NWT residents to make healthy and safe choices, consistent with the 17 th Legislative Assembly's goal of fostering healthy, educated people.
4	British Columbia	2010 2012, 2013, and 2014	British Columbia Provincial Health Services Authority: Population & Public Health Program – Healthy Weights Website and related documents. 53,54,61 a) Recommendations for an Obesity Reduction Strategy for British Columbians (2010) (http://www.phsa.ca/population-public-health-site/ Documents/ORS_WG_FoodFINALReport Aug102010.pdf) b) From weight to well-being: Time for a shift in paradigms? (2013) c) British Columbia Healthy Families Strategy Policy Framework: A focused approach to chronic disease and injury prevention (2014) d) Northern Health Position on Health, Weight and Obesity: An Integrated Population Health Approach (2012)	Adult and childhood obesity is problematized. Obesity is a risk factor for chronic disease. Obesity is caused by social and individual factors. Paradigm Shift (from weight to health)	Recommendations in 2010 Tackling the obesogenic environment; Encouraging and increasing physical activity; Encouraging healthy food and beverage choices and discouraging less-healthy food and beverage choices; Enhancing health services; and Evaluating the effectiveness of initiatives and ongoing monitoring of obesity rates. Strategies in 2013–2014 Tackle weight bias, stigma, bullying and discrimination among professionals and in the public sphere. Support individuals and families to prevent or address weight-related issues. Address the determinants of mental and physical well-being for all, through five areas of particular relevance to weight-related issues.
5	Alberta	2011	Alberta Health Services Obesity Initiative: First-year highlights of obesity prevention and management initiative. ⁶³	Obesity is a complex social and individual problem. Obesity is a chronic disease. Focus on prevention and management.	Increasing access to health promotion and prevention initiatives for adults, children and at-risk populations. Invest considerable resources in raising capacity and expertise within primary care . Secondary bariatric care : Investments will be made to support secondary adult and pediatric care. Tertiary care (bariatric surgery) : The AHS Obesity Initiative aims to significantly increase surgical capacity by its fifth year.

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Table 1.	(Continued)				
	Jurisdiction	Year	Policy/strategy document(s)	Representation of obesity (what's the problem represented to be?)	Solutions
6	Ontario	2012	No Time to Wait: The Healthy Kids Strategy – Ontario's Healthy Kids Panel). ²⁵	Childhood obesity is a problem. Obesity is a risk factor for chronic disease. Obesity is a complex social and individual problem. Obesity is caused by unhealthy eating and physical inactivity. Paradigm Shift (from weight to health)	To meet its target of reducing childhood obesity by 20 per cent in five years, Ontario must set the bar high Ontario should focus on three areas that will make a significant difference in our children's weight and health: Strategy I: Start all kids on the path to health. We must provide the support young women need to maintain thei own health and start their babies on the path to health. Strategy II: Change the food environment. Strategy III: Create healthy communities.
7	New Brunswick	2009 and 2014	 a) Live well, be well: New Brunswick's Wellness Strategy – Summary Report 2009–2013. 33,43 b) Live well, be well: New Brunswick Wellness Strategy 2014–2021. Available at: http://www2.gnb.ca/content/dam/gnb/Departments/sd-ds/pdf/Wellness-MieuxEtre/NewBrunswickWellness Strategy2014-2021.pdf (Accessed November 28, 2017). 	Childhood obesity is a problem. Obesity is caused by unhealthy eating and physical inactivity. Obesity is a risk factor for chronic disease.	To improve the mental fitness and resilience of New Brunswickers To increase the rates of healthy eating among New Brunswickers To increase physical activity levels of New Brunswickers To promote tobacco-free living and increase the number of New Brunswickers To premote tobacco-free living and increase the number of New Brunswickers 2014–2021 Wellness Strategy The renewed wellness strategy recognizes that, in order to achieve sustained population-level improvements in wellness, the goals must be broader in scope than only addressing healthy lifestyle behaviours. Goals: Increase number of New Brunswickers with capacity to support healthy development and wellness. Increase number of settings that have conditions to support wellness.
8	Nova Scotia	2012	Thrive! A plan for a healthier Nova Scotia. A policy and environmental approach to healthy eating and physical activity. ²⁷	Childhood obesity is a problem. Obesity is a risk factor for chronic disease. Obesity is a complex social and individual problem. Healthy Choice Discourse Obesity is a symptom of the "obesogenic" environment in which we live. Obesity is caused by unhealthy eating and physical inactivity. Paradigm Shift (from weight to health)	Change the conversation from weight to health and shift the focus of our health-care systems from illness to wellness. Create environments that work to increase healthy eating and physical activity and reduce unhealthy eating and sedentary time. Directions: 1) Healthy start for children and families 2) Equip people with skills and knowledge for lifelong health 3) Create more opportunities to eat well and be active 4) Plan and build healthier communities
9	Prince Edward Island	2002	Prince Edward Island Strategy for Healthy Living. ⁵⁷	Obesity is a risk factor for chronic disease. Obesity is caused by unhealthy eating and physical inactivity. Healthy Choice Discourse Obesity is a symptom of the "obesogenic" environment in which we live.	Encourage and support Islanders to take measures to address the common risk factors that contribute to chronic disease (tobacco use, unhealthy diet, and physical inactivity). Goal #1: To slow the growth in the prevalence of preventable chronic disease in PEI (Action Area #1 – Addressing the Common Risk Factors/ Action Area #2 – Healthy Weights and Obesity) Goal #2: To reduce tobacco use and the harm it causes to the population of PEI Goal #3: To increase the number of Islanders who participate in regular physical activity to promote optimal health

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Table 1.	(Continued)				
	Jurisdiction	Year	Policy/strategy document(s)	Representation of obesity (what's the problem represented to be?)	Solutions
					Goal #4: To improve healthy eating habits that support good nutritional health Goal #5: To increase capacity for health promotion and chronic disease prevention
01	Newfoundland and Labrador	2001	Healthier Together: A strategic health plan for Newfoundland and Labrador. ⁴⁴	Obesity is a risk factor for chronic disease. Healthy Choice Discourse	Goal 1: Improve the health status of the population of Newfoundland and Labrador. A wellness strategy will be developed and implemented to support this goal. Objectives: Increase healthy behaviours and supports; Improve health outcomes and reduce negative impacts of select diseases; Improve healthy growth and development for children and youth. Targets: Decrease the percentage of adults in the province who are inactive from 64% to 54% by 2007. Decrease the proportion of the population who are overweight (Body Mass Index > 25) from 60% to 55% by 2007. Goal 2: Improve the capacity of communities to support health and well-being. Goal 3: Improve the quality, accessibility, and sustainability of health and community services.

presented in an integrated way by nesting the six guiding questions of Bacchi's WPR approach across policy documents.

Although the application of the WPR approach is systematic, it is important to acknowledge that researcher subjectivity can affect interpretation. The WPR approach also requires someone to have an in-depth knowledge about the issue at hand (in this case, obesity). As researchers using this approach, we had to think critically about how we conceptualize obesity and become aware of our own biases, values and experiences that we bring to this issue. For example, our understanding of food, physical activity, obesity and health is grounded in different epistemological contexts. The obesity research field is full of powerful discourses (e.g., medical, ethical, social, political) that are often silenced. As obesity researchers, we have been complicit in constructing these discourses.

We recognize there are many different perspectives and opinions about how to frame and discuss obesity and weight bias. However, we strongly believe that the fields of obesity and weight bias will benefit from further interdisciplinary research and practice. Although our weight bias perspectives are rooted in the framework of obesity as a chronic disease, a framework now adopted by the World Health Organization and other major obesity scientific organizations, 1,19-22 we also applied other non-obesity frameworks in our analysis. For example, we applied public health perspectives that recognize stigma as a fundamental driver of population health and health inequalities.²³ Similarly, our health promotion background helped us to critically consider the determinants of obesity and to shift our thinking towards social justice for everyone regardless of their weight or size. We also drew on non-obesity perspectives such as fat studies and feminist studies,²⁴ which challenged us to focus on health, not weight or size, and to consider the power relations that can come about through our obesity policies and practices. Critical fat studies perspectives have, for example, helped us to critically reflect on biased assumptions we have about weight, body size, obesity and health. Furthermore, using the lens of intersectionality helped us examine the effects of these biased assumptions on gender equality and social exclusion for people with obesity and for people who identify as fat.

Similarly, readers must apply the same critical reflection about their obesity knowledge and how it has come about. We wish to create a space for critical reflection among readers, practitioners and researchers alike. It is through this ongoing critical reflection that we may begin to see the opportunities for personal and professional learning, dialogue and social change.

RESULTS AND DISCUSSION

What's the problem represented to be?

Childhood Obesity Threatens the Health of Future Generations and Must Be Prevented

Childhood obesity was problematized in almost every obesity prevention policy and strategy. In the "Federal, Provincial and Territorial [FPT] Framework for Action to Promote Healthy Weights", childhood obesity was used to call for urgent cross-sectoral action because the epidemic is intensifying, creating significant health, social and economic implications for future generations, such as increased chronic diseases and health care costs.² This policy framework uses strong language to warn

Canadians that: "[...] if we do not reverse the trend of childhood obesity, today's children may have less healthy and possibly shorter lives than their parents." Most policies and strategies paint a similar picture calling for immediate action.

"Ontario is at a tipping point. If nothing changes – if we are not able to reverse the current weight trajectory – we will continue to see increases in unhealthy weights and in all the related health conditions. By 2040, up to 70 per cent of today's children will be overweight or obese adults and almost half our children will be an unhealthy weight. A much larger proportion of children will cross the line from being overweight to being obese, and the impact on their physical and mental health and well-being will be severe."

This dominant narrative contributes to our shared understanding of obesity as being bad for individuals, families, communities and society. All sectors of society are enlisted to govern themselves and act to reduce the burden of obesity. By concentrating on childhood obesity, this narrative asks parents to exercise discipline over their children's weight. The Ontario Healthy Kids Strategy positions parents as influencers of their children's weight:

"Parents told us that they are the ones who have the greatest influence on their child's health – including their weight. [This echoes] the findings of a national survey of Canadians: 98 per cent said parents should play a key role in addressing obesity and 71 per cent said children themselves should be involved." ²⁵

In this narrative, the discourse quickly became gendered. For example, a common solution to preventing childhood obesity was providing education to women about the impact of weight and health and the importance of exclusive breastfeeding for childhood obesity prevention.

"Educate women of child-bearing age about the impact of their health and weight on their own well-being and on the health and well-being of their children."²⁵

"For infants, breast milk provides the best first nutrition and helps protect against health problems later in life, including overweight and obesity, type 2 diabetes, high blood pressure and heart disease."²⁷

Although these policies and strategies presented breastfeeding as an evidence-based solution for childhood obesity prevention, a clear relationship is difficult to ascertain.²⁸ The information about the link between breastfeeding and subsequent child weight is presented in a lopsided way by excluding opposite evidence and additional considerations, such as the fact that some mothers are unable to breastfeed their babies. It is important to critically reflect on this dominant narrative, which rests on taken-for-granted assumptions about mother blame and fat shame.²⁹ Another assumption that prevailed in these policies and strategies is that preventing childhood obesity will reduce obesity in future generations of adults. This assumption does not take into consideration that there is significant individual variability in the tracking of childhood obesity into adulthood.³⁰ Finally, although the psychosocial impact of weight bias on children can have lasting effects into adulthood,³¹ weight-based bullying and stigma were rarely explicitly discussed in these policies and strategies.

Obesity Can Be Prevented Through Healthy Eating and Physical Activity We deconstructed policies and strategies further to understand how childhood obesity is problematized. The dominant narrative presented in these policies and strategies was that obesity is caused by two critical factors: unhealthy eating and lack of physical activity. This way of problematizing obesity provides the rationale for developing obesity prevention and wellness interventions. Most policy proposals used obesity to justify wellness strategies to promote healthy lifestyles.

"Unhealthy lifestyles have contributed to dramatic increases in obesity, and subsequently to the rise in the incidence of chronic conditions, which are now occurring much earlier in the lifespan ... I strongly encourage Yukoners and Yukon leadership to work together to create an environment where all Yukoners engage in active lifestyles and where integration of physical activity into everyday life benefits our personal, social and economic well-being. [Dr. Brendan Hanley, Yukon's Chief Medical Officer of Health]" 32

This narrative is highly simplified and not entirely evidencebased.³³ Although unhealthy eating and lack of physical activity contribute to obesity, the relationship between these two factors and obesity is very complex.⁵ We now know that energy balance is tightly regulated through mechanisms operated by the brain.²⁶ The perpetuation of this simplistic narrative in public health policies is problematic because the belief that obesity is simply caused by overeating and lack of physical activity is a key driver of weight bias.³⁴ This simplistic view of obesity also limits the type of policy solutions, focusing mostly on individual-level approaches rather than comprehensive population-level interventions. This is in spite of existing evidence demonstrating that single-component lifestyle interventions alone are not effective for long-term weight management.³⁵ Very few policy proposals we reviewed proposed changing the broader societal factors that have created obesity in the first place (e.g., food industry practices, agricultural policies, food pricing, social determinants of health, etc.).

Although policies and strategies discussed the social determinants of health (SDH), few solutions that considered the social aspects of health and body weight were proposed. Some policies identified children in low socio-economic status groups as being at higher risk and as potential targets for interventions. This narrative could contribute to further stigmatization of lower socio-economic groups as being unaware, uneducated, and confused about healthy lifestyles, and ultimately lacking morality. The following are some examples of how obesity and unhealthy lifestyles are moralized and reduced to individual choices in these policies and strategies:

"Active Living engages individuals in constructive leisure, which can reduce the incidence of self-destructive and anti-social behaviour." 32

"Here are some common barriers and possible solutions to overcome hurdles that may prevent you from taking the first step towards physical activity:

• 'I don't have enough time' – We all have the same amount of time in a day, it just depends on how we use it. Just 5 minutes a day is a great start.

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• 'I'm too tired' – When you are physically inactive you feel more tired. As you become more active you won't feel as physically tired. Try taking a short 5 minute walk the next time you are tired and you may be surprised with the energy it gives you."³⁶

The assumption is that healthy eating and active living can prevent social problems and that individuals have the moral responsibility to "choose" healthier lifestyles. 26 We must reflect upon how the "choose to eat less and move more" narrative can cast shame on individuals. Individuals experience shame and frustration for not being able to implement lifestyle change recommendations.9 We also know that the public negatively perceives strategies that imply personal responsibility for obesity.³⁷ Furthermore, individuals who feel stigmatized for their weight may engage in unhealthy behaviours and dangerous weight loss practices, impacting their health even more negatively.^{38–40} Similarly, public health messages that emphasize the role of good mothers in helping children make healthy choices, may invoke feelings of guilt among low-income mothers who do not experience the romanticized version of cooking family meals in the context of their stressful lives. 41 Thus, personal responsibility messages could inadvertently harm those who need support the most (thereby increasing health inequities).

Obesity Is an Individual Problem

Canadian obesity prevention policies and strategies presented obesity as a complex social and individual problem, but reduced the issue to a lack of information to make healthy choices.

"While it is unrealistic to expect that Ontario families will give up all pizza and fast food, stop ordering sugar-sweetened beverages and never eat cake or cookies, parents told us they would like opportunities to develop the knowledge, shopping skills and cooking skills to choose healthy foods most of the time, and to treat high-calorie non-nutritious foods as just that: occasional 'treats'. By providing more easy-to-understand information about nutrition where families make purchasing decisions, society can change the defaults and make healthy choices easier." ²⁵

Bacchi (2014) argues that policies are complex, located within a web of interconnected policies and often combine a range of strategies or solutions. This means that there might be more than one problem representation in the same policy. We found this to be true for Canadian obesity policies and strategies. Although obesity was represented to be a social issue (i.e., physical and social environmental causes of obesity), the solutions presented were framed within an individual level.

"We need a social marketing program to educate the public on healthy eating, active living, active transportation, sleep hygiene, and mental health (reduced stress). This will create healthier communities, reduce or eliminate broader social and health disparities that affect children's health and weight."²⁵

This narrative is consistent with what Boswell describes as the "Facilitated Agency" narrative of obesity in the United Kingdom and Australia, which calls for policy action in "education through health promotion campaigns and community interventions; food industry self-regulation and voluntary measures in relation to production and marketing of food" (p. 350).⁴² This narrative is used by "most

politicians, bureaucrats, food industry, weight loss and fitness industries, conservative non-profit organizations, community and celebrity activists, and is pervasive in government policies and documents" (p. 350). 42 Examples of Canadian policies and strategies based on the Facilitated Agency model include:

"Supporting individuals, organizations, and communities to feel connected, independent, and capable enables them to make healthier choices and take more responsibility for their personal wellness and the wellness of others." ⁴³

"Reducing children's exposure to the marketing of foods and beverages high in fat, sugar, and/or sodium will be key to decreasing consumption and assisting parents in making healthy choices with and for children."²

Even though obesity is framed as a social problem stemming from the physical and social environmental factors, the solutions are framed in individualistic terms. Individuals are seen as lacking education, awareness, self-discipline and willpower to resist the food environment, and as a result are making poor choices. Although there is a commitment to reducing inequities in most policies and strategies, the dominant focus is on developing interventions to fix or help disadvantaged populations in making healthy choices. The governments' concerns for our children's health can be perceived as benevolent and compassionate, but they can also reinforce power relations between citizens and governments. Furthermore, although these policies called for multi-sectoral collaboration and solutions, none of them provided specific guidelines for engaging in multi-sectoral partnerships, leaving the door open for interpretation in terms of what partners to engage, and when or how to engage them. There was also no discussion about potential conflicts of interest between partners or how to identify and resolve such issues. Finally, most policy documents talked about the need to engage the public or to create people-centered approaches. For example, the Newfoundland and Labrador Healthier Together Strategic Health Plan states:

"People-centered – the health and community services system regards the interests of people as the central priority when making decisions. The needs of individuals, families, and communities are identified and addressed by implementing a coordinated approach to service delivery and helping individuals participate in decision-making to improve their health and wellbeing."

Despite this commitment, there was no evidence that people with obesity were engaged in the development of these policy solutions. This could have unintended consequences, such as policies being unhelpful or irrelevant to the lived experiences of people with obesity. Ultimately, if the goal is to improve population health, public health policies should consider the lived experiences of people living with obesity or they will be ineffective. People with obesity who feel that unfair assumptions are being made about their lifestyles and their abilities may resist such public health policies. A

Achieving Healthy Body Weights Should Be a Population Health Target Canadian policies and strategies on obesity prevention essentially create two categories of individuals – those who have a "healthy weight" and those who have an "unhealthy weight". PHAC defines overweight as a Body Mass Index (BMI) between 25 and 29.9 and obesity as a BMI over 30 (BMI is calculated by dividing a person's weight (in kilograms) by height (in metres squared)). These ranges are used to categorize individuals as healthy or unhealthy and to set population health targets. Here are some examples of population health targets based on weight:

"Decrease the proportion of the population who are overweight (Body Mass Index > 25) from 60% to 55% by 2007 ... Increase the rate of babies born with a healthy birth weight." ⁴⁴ "In January 2012, the Ontario Government set a bold, aspirational target: reduce childhood obesity by 20 per cent in five years." ²⁵

The main assumption behind these weight targets is that BMI and/or body weight can tell us something about a person's health and their health behaviours. This assumption leaves the door open for potential judgements and social condemnation of children, youth and adults with a higher body weight, essentially perpetuating the idea that a healthy-weight individual signifies a morally worthy citizen who exercises discipline over his or her own body.

Most obesity experts agree that BMI by itself is an inadequate measure of an individual's health. 38,39 Although BMI is a useful tool in population studies, there is too much variability at the individual level to be able to make a direct link between a person's BMI and their health. Even at the population level, some individuals who fall within a BMI between 25 and 35 kg/m² are metabolically healthy. 47 The Canadian Obesity Network and other obesity scientific organizations are currently working on redefining obesity based on a more precise clinical definition that moves beyond BMI and is based on adequate clinical assessment. 48,49 It is essential that when we talk about obesity as a disease, we apply a definition that ensures we are only speaking about individuals where body fat is actually affecting their emotional, physical and/or functional health. The continued use of BMI in public health practice influences the public's understanding of obesity, as demonstrated by several studies assessing the public and media discourse on obesity. 50,51 The pursuit of a "healthy weight" has also led many Canadians with obesity to seek help within a flourishing commercial weight loss industry, which in many cases offers expensive, unregulated and untested weight loss methods.⁵²

Few policies and strategies questioned the link between weight and health. The British Columbia Provincial Health Services Authority's Population and Public Health Program questions weight-centric population health strategies by saying:

"Some people who are obese are metabolically healthy, while others of normal weight are metabolically unhealthy, as indicated, for example, by levels of insulin sensitivity, blood lipid profiles and blood pressure. Overweight and mild obesity have been found in some studies to be protective of health. Also, small amounts of weight loss can produce improvements in metabolic health without achieving an 'ideal' weight. Indeed, improvements to physical health can be made through changes in physical activity and diet in the absence of weight loss." ⁵³

Critically, this government report argues that traditional weightbased public health approaches have resulted in unintended consequences, such as the belief that weight loss is simple and that people who cannot achieve and sustain weight loss are failures. The concern that weight-centric population health goals have had unintended consequences, is echoed in British Columbia's Northern Health position statement on health, weight and obesity. The summer of the property of the summer of the property of the people who cannot achieve and sustain weight loss is simple and that people who cannot achieve and sustain weight loss is simple and that people who cannot achieve and sustain weight loss is simple and that people who cannot achieve and sustain weight loss are failures. The concern that weight-centric population health goals have had unintended consequences, is echoed in British Columbia's Northern Health position statement on health, weight and obesity.

This new narrative led the province of British Columbia to create a chronic disease and injury prevention policy framework rather than a childhood obesity prevention or wellness strategy. Similarly, Nova Scotia's policy calls for a paradigm shift and a focus on wellness and the creation of environments that are conducive to health and well-being. These examples demonstrate that, when public health changes its narrative, it can lead to changes in policy solutions. As these policy frameworks were only developed recently, it will be important to monitor their impact in terms of changes in public health practice and reduction of weight bias.

Obesity as Risk Factor for Chronic Diseases and Not a Disease in Itself

Although the WHO classifies obesity as a chronic disease (when excess or abnormal body fat affects health),^{55,56} the majority of policies and strategies we reviewed framed obesity as a risk factor for other chronic diseases, and not as a disease in itself. This framing of obesity as a risk factor and not a disease in itself is used, in part, to promote more prevention efforts to reduce the burden of other chronic diseases on Canadians.

"Atlantic Canadians ... are generally less healthy than central and western Canadians because we smoke more, drink more, exercise less, and carry more body weight. As a result, Atlantic Canadians have higher rates of chronic disease such as cancer, cardiovascular disease, chronic lung disease, diabetes and obesity." ⁵⁷

Within this discourse, obesity is seen as a behavioural or lifestyle risk factor that is modifiable through wellness and health promotion strategies. This is likely an attempt to balance health care spending, which (in general) is predominantly allocated towards the treatment of diseases. In Canada and the US, for example, <5% of health care spending is allocated towards prevention efforts. However, in the case of obesity, this is entirely a different situation, where in fact very little health care funding has been allocated for treatment and management. However, in the case of obesity, the care funding has been allocated for treatment and management.

The narrative of obesity as a risk factor is used to make the argument that "upstream" investments in population health that focus on disease prevention and health promotion will decrease demand for and the utilization of "downstream" health care services. The BC Northern Health policy, for example, argues that "from a population health perspective, prevention is an effective means of avoiding treating or managing obesity", referring to the cost-effectiveness of prevention approaches in the long term. 61

Bacchi (2014) warns that policies have the potential to create "dividing practices" by setting groups of people in opposition to one another. In this case, the representation of obesity as a modifiable risk factor may pit prevention and treatment professionals against each other, since medical professionals increasingly approach obesity as a chronic disease. From a

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chronic disease perspective, however, public health and medical professionals should work collaboratively to avoid conflicting messages for the public.⁶² The narrative of prevention can also silence the needs of Canadians affected by obesity.²¹ Apart from those put forward by the province of Alberta,⁶³ few public policies and strategies included even a mention of obesity treatment. Finally, although a few policies discussed the need to address weight bias and promote mental health and resilience, strategies to address these issues were vague.

CONCLUSION AND RECOMMENDATIONS

In our application of the WPR approach to Canadian obesity prevention policies and strategies, we identified five prevailing narratives that can have unintended consequences. First, these narratives create the opportunity for Canadian obesity policy recommendations to focus mainly on individual-based healthy eating and physical activity interventions. This has implications for our shared understanding of obesity, mainly by simplifying the causes of obesity as unhealthy eating and lack of physical activity and contributing to the belief that obesity can be controlled by individual behaviours. The conceptualization of obesity as a risk factor also has implications for policy recommendations, by prioritizing prevention strategies over treatment strategies and potentially alienating Canadians who already have obesity. These reductionist narratives also exclude the lived experiences and needs of people with obesity.

The WHO recognizes obesity as a chronic disease and there is evidence that obesity affects morbidity and mortality at the population level. Adopting a chronic disease framework for obesity means that both prevention and management strategies need to be implemented. Within this chronic disease context, public health needs to ensure that strategies do not have unintended consequences for individuals and populations. There is sufficient evidence demonstrating that weight bias and obesity stigma are fundamental drivers of health inequalities. Public health can leverage existing health promotion frameworks, such as the health for all policy framework and the global plan of action on social determinants of health, to address weight bias and obesity stigma. 66,67

Although we recognize that obesity is a public health issue, our critical analysis demonstrates that current public health policies and strategies: a) are not sufficiently comprehensive (i.e., are solely focused on prevention and mainly focused on children; exclude evidence-based management approaches; are not person-centered); b) are based on reductionist obesity models (i.e., models that cast shame and blame on individuals); and c) do not account for individual heterogeneity in body size and weight (i.e., generalize weight and health).

The final aim of our study was to make recommendations to change dominant obesity narratives that may be contributing to weight bias. Below are some recommendations based on our critical policy analysis.

 Provincial and territorial governments can establish weight bias as a relevant public health issue in the context of their actions to prevent and control non-communicable diseases and achieve health equity.

- 2. Public health policies and strategies can provide balanced information on weight and health and disseminate evidence that not everyone who has a higher body weight has obesity (i.e., the chronic disease). Using less generalizing strategies may help reduce the negative views of and moral judgements made with regard to people with obesity and people who live in larger bodies. While promoting and respecting body size diversity, it is also necessary to support people who have obesity. Public health can differentiate between individuals who live in larger bodies and those who have obesity.
- Creating "healthy" versus "unhealthy" weight categories labels groups by their size and/or weight and contributes to weight bias in our society. Population health outcomes need to go beyond BMI and body weight and focus on health outcomes.
- 4. Public health policy makers can also consider whether "obesity" needs to be mentioned at all in health promotion and wellness campaigns.
- 5. Public health has a responsibility to develop comprehensive prevention and treatment strategies to address obesity. Changing the narrative that obesity is a lifestyle risk factor may help mitigate the lack of evidence-based treatment services for people with obesity. 60,68 Although, healthy eating and physical activity strategies can be part of obesity policies, they should not be the only strategies to address obesity at the population level.
- 6. Public health policies and strategies can also leverage new obesity models that move beyond energy balance and do not solely position the responsibility on individual Canadians. In an era of people-centered health care, public health can engage people with obesity in the development of policies and strategies. Having active participation of individuals with obesity can help change negative attitudes and beliefs and facilitate the development of compassionate and equitable population health strategies.

We do not pretend to have the right solutions to avoiding unintended consequences of these narratives, but we wish to contribute towards a healthy and constructive dialogue by offering some potential recommendations. More research is needed to understand the impact that obesity policy narratives have on Canadians living with obesity.

Individuals affected by weight bias and obesity, researchers, and health care professionals have different perspectives and opinions about how to frame and discuss obesity and weight bias. There is currently not sufficient research to know whether treating obesity as a chronic disease will reduce weight bias and obesity stigma. Although emerging studies show some positive effects, ⁶⁹ more research is needed to determine whether having a better clinical definition for obesity as a chronic disease can reduce weight bias and stigma. ⁴⁹

We also recognize that the field of weight bias research includes different perspectives, generally driven from the fields of sociology, psychology and health care. Unfortunately, these perspectives are almost completely segregated, making it difficult to foster interdisciplinary research to address weight bias.²⁴ As public health scholars, we draw on all of these different research areas

in hopes of contributing to reflective public health research and practice. We do not feel that these weight bias perspectives are mutually exclusive; rather, we must work together to reduce weight bias and improve population health.

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RÉSUMÉ

OBJECTIFS: Les politiques de santé publique font l'objet de critiques lorsqu'elles encouragent un discours simpliste qui peut contribuer aux préjugés liés au poids. Ces préjugés peuvent influer sur la santé des populations en augmentant la morbidité et la mortalité. Les objectifs de notre étude étaient: 1) de faire une analyse critique des politiques et des stratégies canadiennes de prévention de l'obésité pour en extraire les discours dominants; 2) de déconstruire les discours dominants et d'en étudier les effets pervers pour les personnes obèses; et 3) de formuler des recommandations pour changer les discours dominants sur l'obésité qui peuvent contribuer aux préjugés liés au poids.

MÉTHODE: Nous avons appliqué le cadre d'analyse WPR (pour « What's the problem represented to be? ») de Bacchi à 15 politiques et stratégies de prévention de l'obésité (1 nationale, 2 territoriales et 12 provinciales). Ce cadre pose six questions analytiques pour mettre au jour les hypothèses conceptuelles et les effets possibles des politiques.

RÉSULTATS: Nous avons mis au jour cinq discours dominants qui pourraient déjà avoir des conséquences sur les démarches de santé publique et des effets pervers pour les personnes obèses: 1) l'obésité juvénile menace la santé des générations à venir et doit être évitée; 2) l'obésité peut être évitée par la saine alimentation et l'activité physique; 3) l'obésité est un problème de comportement individuel; 4) l'atteinte d'un poids santé devrait être une cible de santé des populations; et 5) l'obésité est un facteur de risque pour d'autres maladies chroniques et non une maladie en soi.

CONCLUSION : La constance avec laquelle l'obésité est envisagée dans les politiques et les stratégies canadiennes pourrait contribuer aux préjugés liés au poids dans la société. Nous présentons des recommandations pour changer ces discours afin de prévenir l'intensification des préjugés liés au poids et de la stigmatisation de l'obésité.

MOTS CLÉS: obésité; politique (principe); santé publique; préjugés liés au poids