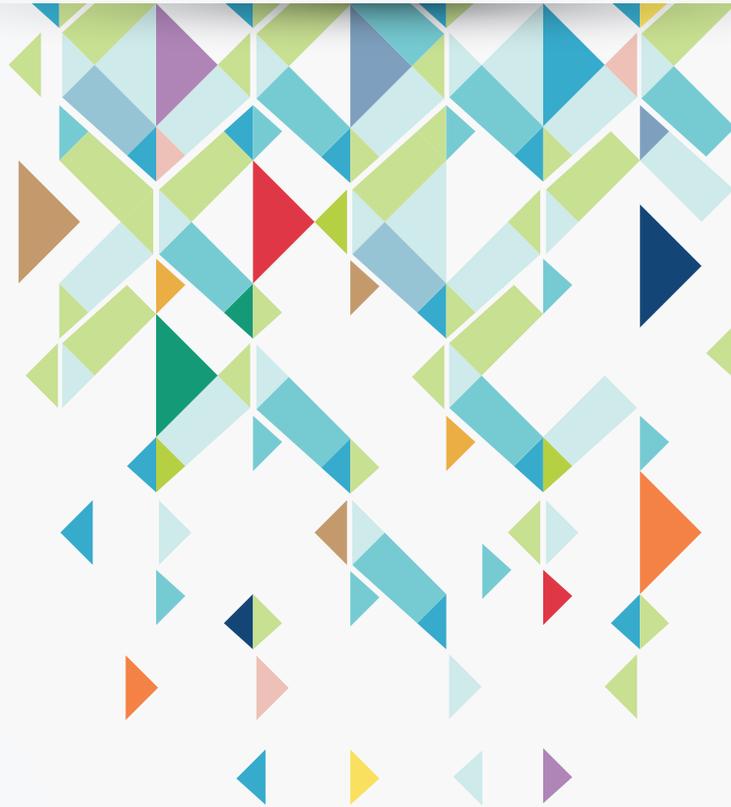
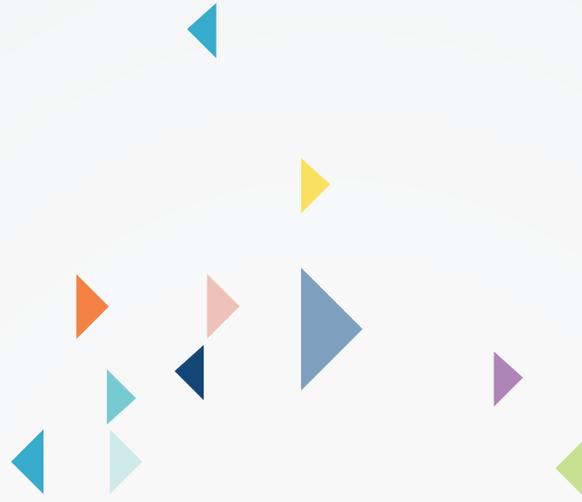


British Columbia's Continuum for the Prevention, Management, and Treatment of Health Issues Related to Overweight and Obesity in Children and Youth





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The Childhood Obesity Foundation, a Canadian registered charity and a leading Canadian authority on issues related to childhood obesity, is dedicated to identifying, evaluating and promoting best practices in healthy nutrition and physical activity to reduce the prevalence of childhood obesity.

www.childhoodobesityfoundation.ca

Child Health BC, an initiative of BC Children's Hospital, is a network of provincial partners which include leaders from all health authorities, key child-serving ministries, health professionals, and provincial partners all working collaboratively to build an integrated, accessible system of health services for children and youth of BC. Child Health BC is funded by a commitment from BC Children's Hospital Foundation with Overwaitea Food Group as the lead benefactor. www.childhealthbc.ca

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Background

In general, Canadians are among the healthiest people in the world, and British Columbia is often considered the healthiest province in Canada.¹ However, despite encouraging reports that British Columbians are more physically active and consume more fruits and vegetables than Canadians in many other provinces,² rates of obesity among children in the province continue to rise.³

Over the past 30 years, the rates of overweight and obesity have been climbing in affluent countries around the world.⁴ More than half of Canadians are overweight or obese.⁵ Approximately 30 percent of Canadian children, and in British Columbia specifically, over 26 percent of youth aged 12 to 17, are overweight or obese.⁶ Overweight and obese children are already experiencing chronic diseases and conditions, such as type 2 diabetes, historically seen only in adults.⁷ Obese children have an eighty percent or higher probability of becoming obese adults.⁸ Emerging evidence also indicates that an unhealthy weight increases the risks to an individual's overall health and mental well-being.⁹ In addition, obesity follows a gradient pattern based on socio-economic status; people with lower income levels tend to have higher rates of obesity than those who have higher incomes.¹⁰



It is increasingly clear that the issue of overweight and obesity is a complex phenomenon deeply entrenched in our social and cultural fabric.¹¹ While it is understood that there may be value in considering a focus on improved metabolic health for people of all weights, sizes and shapes through healthful eating and moderate physical activity, this document presents population and individual initiatives which address the health issues that are related to overweight and obesity. The focus is on supporting populations and individuals to be actively engaged in lifestyles that optimize their mental and physical well-being. The goal is to achieve the healthiest weight one can while living the healthiest lifestyle possible. This approach is often characterized as “health-centred” and actions are grounded in health promotion principles that are oriented towards well-being.

In British Columbia, there are currently multiple efforts to create supportive environments that increase access to physical activity and healthy eating where children live, learn and play. The Continuum includes elements that promote physical activity and healthy eating for all children and youth, weight surveillance and identification of children and youth leaving their optimal weight trajectories, early intervention for those who are at-risk, and management and specialized treatment for those who are overweight or obese and experiencing complications. While these initiatives promote healthy living for all children and youth, there is also a need to address impacts on health related to overweight and obesity in children and youth. This Continuum recognizes that we must all work together to ensure that BC's children and youth have the best possible opportunities to live a long and healthy life.



The Ministry of Health, Childhood Obesity Foundation, and Child Health BC have identified a need to better communicate and integrate promotion, prevention, identification and treatment efforts. This document presents examples of provincial programs and initiatives to explain the elements across the Continuum from activities that promote healthy weights to initiatives that address overweight and obesity related health issues.



In this document the term Continuum refers to the coordinated and comprehensive approach for implementation of programs and services required to support promotion of healthy weights to the treatment of overweight and obesity related health issues in children and youth in BC.

A healthy weight is defined as a body composition that positively contributes to an individual's overall health, well-being, and quality of life over their lifespan. A healthy weight is different for each individual. Healthy weight reduces the risk and occurrence of and supports the management of weight related diseases and health problems.¹²

Purpose of British Columbia's Continuum

The Continuum represents BC's approach for the promotion of healthy weights and management of overweight and obesity related health issues in children and youth. It is intended that the Continuum will enhance the coordination and integration of current efforts, and will encourage conversation around considerations and directions for future growth.

Background Documents

Two key documents were used to inform the development of the Continuum:

- 1) **Weight Management for Children and Youth in BC**¹³ and
- 2) **Strategic Approach for the Promotion of Healthy Weights Among Children and Youth in British Columbia**¹⁴

Weight Management for Children and Youth in BC (Final Report, March 18 2013 Child Health BC) provides a summary of a Child Health BC Consensus Meeting held on March 29, 2012. Child Health BC brought together representatives from key partner groups such as primary care, acute care and public health, as well as community-based organizations, social service programs and schools, to determine the key components of a health focused care pathway for overweight and obese children and youth in BC.

The *"Pathway for the Identification, Assessment and Management of Overweight and Obese Children and Youth"* and the 3 Stage Approach were developed using feedback from participants at the Consensus Meeting. The information outlined in the 3 Stage Approach provides health care providers with actions that support the management and treatment of overweight and obese children in British Columbia.

The **Strategic Approach for the Promotion of Healthy Weights among Children and Youth in British Columbia**, was completed in December 2012 with funding from the Childhood Obesity Foundation. This report was informed by an extensive environmental scan of current initiatives across the province and was guided by relevant research based literature about 'what works' in the promotion of healthy weights among children and youth. The report presents key considerations to strengthen and guide the coordinated implementation of provincial strategies and initiatives to promote healthy weights in children and youth in BC. Additional sources were used to inform this report and are referenced.

About the Continuum



The vision and implementation of an integrated and coordinated Continuum encourages action from all partners “starting from where we currently are” and building.

It is understood throughout the Continuum that healthy weight is supported by individuals, families and communities that hold beliefs, attitudes and values, and engage in behaviours which facilitate health and well-being.

The Continuum comprises six elements that together provide a comprehensive approach to promoting and supporting healthy weights for all children and youth in British Columbia.

The Continuum provides a common language for all health professionals and other partners working across these six elements in order to facilitate productive dialogue and partnership. The Continuum enables partners to understand how the work they are doing both contributes to the work others are doing and to the overall goal of promoting healthy weights and reducing overweight and obesity in children and youth.

The Continuum aligns with federal, provincial and local efforts to address the increasing rates of childhood overweight and obesity. At the federal level, in 2010 the Federal, Provincial, and Territorial (F/P/T) Ministers of Health agreed to make childhood obesity a collective priority. They endorsed the F/P/T Framework for Action to Promote Healthy Weights (Public Health Agency of Canada, 2010). In March 2011, a national dialogue on healthy weights among children called Our Health Our Future (Public Health Agency of Canada, 2011) was launched.¹⁵ At the provincial level, the Continuum builds on previous efforts, such as the Recommendations for an Obesity Reduction Strategy for British Columbians (2010) led by the Obesity Reduction Strategy Task Force of BC.



Population Health

Goal – to create social and environmental conditions that lead to improved health and well-being for all children and youth, while also reducing vulnerabilities, risks and health disparities

Prevention

Goals – include supporting healthy behaviours through building knowledge about healthy choices and creating supportive environments for physical activity, healthy eating and positive mental health

Identification

Goal – to identify weight related issues as early as possible to improve the probability of positive long term outcomes

Early Intervention

Goal – to provide interventions as early as possible to improve the probability of long term successful outcomes

Weight Management

Goals – encompasses individualized goal setting and involvement of the family to eliminate or reduce long-term impairments, disabilities and complications

Specialized Treatment

Goals – to manage specific co-morbidities to eliminate or reduce long term impairments, disabilities and complications



Elements of the Continuum

The **six elements** across the Continuum are: **Population Health, Prevention, Identification, Early Intervention, Management** and **Specialized Treatment**.

This report provides descriptions of each of the six elements including goals and target populations. Work currently underway in each element is summarized and a few examples of provincial initiatives are provided to highlight the work done in each element. Possibilities for future growth in each element are also included.

The Continuum includes both universal and targeted approaches. Universal approaches that support and promote healthy weights through healthy lifestyles for all children and youth in BC are the focus of the Population Health and Prevention elements. Approaches in the Continuum shift to individual or targeted interventions in the Identification, Early Intervention, Weight Management, and Specialized Treatment elements.

Resources and services supporting all elements in the Continuum include Health Link BC, Dietitian Services at Health Link BC and the Physical Activity Line (PAL).



Population Health

In the Continuum, **Population Health** encompasses actions addressing the broader determinants of health such as changing social and environmental conditions.

The goal of this element is to create social and environmental conditions that lead to improved health and well-being for all children and youth, while also reducing vulnerabilities, risks and health disparities. Provincial efforts support the implementation of healthy public policies and programs that address the social determinants of health and focus on the physical, social and cultural forces that shape the environments where children and youth live, learn and play. Examples of such efforts are: PlanH and the Community Food Action Initiative.

Barriers to access for vulnerable populations can be physical, attitudinal, financial, geographic, sociological, or systemic obstacles.

POPULATION HEALTH INITIATIVE HIGHLIGHTS

PlanH

PlanH, a partnership initiative between BC Healthy Communities Society and Healthy Families BC, supports local government engagement and partnerships across sectors for creating healthier communities through policies, plans and collective action. PlanH provides tools and supports for local governments to learn about building healthy communities, to connect with health authorities and other partners, and to be innovative in the development of policies, plans and partnerships. PlanH addresses three critical themes that address the social and environmental conditions that lead to improved health and well-being, including: healthy people, healthy society, and healthy environments. Focusing on these three themes aims to influence the air we breathe, the type of housing we live in, the food we can access, availability of green space, and how safe and connected we feel to our neighbourhoods.

Community Food Action Initiative (CFAI)

The CFAI was the first provincial initiative in Canada to recognize and financially support community-led solutions to increase food security. These solutions include community gardens, farmers' markets, community planning, support for local food production, healthy food for public buildings, creation of community capacity, community food assessments, and development of local food charters and policies. CFAI is a partnership between the Provincial Health Services Authority (PHSA), five regional health authorities and the Ministry of Health.

While there has been attention to the physical and environmental factors influencing health related behaviours, there are fewer efforts to address the social, economic and cultural influences on weight related health issues. Recent research revealing the complexity of the factors that influence obesity and other weight issues advocates for a multi-sectoral approach in order to ensure a system of integrated efforts at the individual, community and sector levels. (*Strategic Approach for the Promotion of Healthy Weights Among Children and Youth in British Columbia*, December 2012, Childhood Obesity Foundation).

Prevention

Prevention of Overweight and Obesity, in the Continuum, includes all actions related to the **promotion** of healthy eating, physical activity and positive mental health and the **prevention** of overweight and obesity and related illness.

Goals for this part of the Continuum include supporting healthy behaviours both through building awareness and knowledge about healthy choices and efforts to create supportive environments that enhance opportunities for physical activity, healthy eating, and positive mental health.

Healthy Families BC, the Province of British Columbia's chronic disease prevention and health promotion strategy, utilizes this approach to address major risk and protective factors across key settings. Healthy Families BC provides a best practices framework for promoting health by encouraging actions province wide at all levels through common goals and common strategies. Healthy Families BC, together with other provincial, regional, and local initiatives, provide a comprehensive approach to promoting health and healthy weights among children and youth.

PREVENTION INITIATIVE HIGHLIGHTS

Farm to School

Farm to School, administered by the Public Health Association of BC, connects schools with local farms in order to provide students with access to fresh, local produce regularly during the school day. Farm to School aims to improve student nutrition and to provide students with opportunities to learn about foods and the local food system.

Live 5-2-1-0

The 5-2-1-0 message is evidence-based and is endorsed by the Canadian Pediatric Society. Live 5-2-1-0 offers four simple rules to help kids and families adopt healthy habits every day – Enjoy 5 or more fruits and vegetables a day; Power down – no more than 2 hours of screen time per day; Play actively – at least one hour a day; Choose healthy – 0 sugar sweetened drinks. In BC the SCOPE (Sustainable Childhood Obesity Prevention through Community Engagement) initiative endorses the LIVE 5-2-1-0 message, and provides expertise, support and tools to build community partnerships to create healthy environments for kids to LIVE 5-2-1-0.

Efforts in the area of **Prevention** have largely focused on addressing physical activity and healthy eating through the creation of supportive environments. However, there has been limited consideration of the association between overweight and obesity and mental health concerns, such as: depression, social isolation, discrimination, and reduced quality of life. Research shows that all areas of health, including emotional, psychological, social and physical, need to be addressed for optimal health and well-being.^{12, 14}



Identification

Identification includes actions aimed at early identification of children and youth leaving their optimal growth trajectories. The primary goal of identification is to identify weight related issues as early as possible to improve the probability of positive long term outcomes.

The Federal, Provincial and Territorial Framework for Action to Promote Healthy Weights identified British Columbia as the champion jurisdiction to lead the implementation of growth monitoring using World Health Organization (WHO) growth charts distributed to health care providers in child health clinics and in physicians' offices. An online training module for physicians and health authority staff was developed to increase uptake and utilization of the growth monitoring tools.

The Pathway for the Identification, Assessment and Management of Overweight and Obese Children and Youth developed at the Interprofessional Consensus Meeting organized by ChildHealth BC in March 2012. It was created to support and inform the care provider's understanding of appropriate assessment and referral protocols for children and youth who are leaving their normal weight trajectory.

The Pathway is a decision-making tool, utilizing growth monitoring and lifestyle assessment, to inform the identification and assessment of overweight or obesity and support the clinician in decision making through a staged approach spanning the elements of Early Intervention, Weight Management, and Specialized Treatment in the Continuum. This approach describes options for the management and treatment of an overweight or obese child or youth, accounting for the presence or absence of co-morbidities. Children and youth are first supported through minimally intensive interventions close to home, and then referred to more intensive interventions, possibly outside of the community if needed.

The Pathway for the Identification, Assessment and Management of Overweight and Obese Children and Youth provides a structured approach for the identification and assessment to support the care and management of overweight and obese children and youth in BC to address related complications and improve long term health outcomes.

It is recognized that certain aspects of the Pathway need to be provided by appropriately trained health professionals and some components may only be provided by a physician.

In the area of **Identification** a need exists to establish a consistent approach to using evidence-based tools to identify weight related health issues in children.



Shifting from a weight-centred to a health-centred approach means that practitioners accurately measure health using BMI or weight alongside other health indicators. For example, the Care pathway uses a combination of BMI and lifestyle assessment to determine the intervention required. This approach needs to be tested in a practice setting to determine the effectiveness in supporting healthcare providers in their management of children and youth with health issues due to overweight and obesity.

Early Intervention

If a child or youth has been identified as crossing BMI percentiles upwards and potential health risks have been identified through a lifestyle assessment, as well as a health and family history, actions can be taken in the **Early Intervention** element of the Continuum. Goals of this element are to provide interventions as early as possible to improve the probability of longterm successful outcomes. An example of an Early Intervention would be a child or youth participating in a **MEND** program.¹⁶

MEND, a partnership between the BC Ministry of Health and the Childhood Obesity Foundation, is a community based program for children who are working with their families towards a healthy lifestyle and a healthy weight. MEND programs are available in many BC communities at YMCA and BC Recreation and Parks Association community centres. This free program provides healthy lifestyle learning and activity sessions for children aged 5-7 and 7-13 and their families.

The Childhood Healthy Weights Intervention Initiative, a partnership initiative of the BC Ministry of Health, Provincial Health Services Authority and the Childhood Obesity Foundation, supports both Early Intervention and Weight Management through the Mind, Exercise, Nutrition, Do It! (MEND) and Shapedown BC programs. The initiative also supports all elements of the Continuum by providing enhanced telehealth supports through Dietitian Services at Healthlink BC's 811 service and the Physical Activity Line's toll free service (1-877-725-1149).

Current approaches to Early Intervention include many individual community efforts. While these activities are important it would be beneficial to also consider a program(s) that could be implemented across the province. BC has begun to do this through the MEND program but other ways to access children and youth, especially in rural and remote areas, should also be considered such as web or app based programs.



Weight Management

In the Continuum, **Weight Management** refers to comprehensive multi-disciplinary interventions with individualized goal setting and involvement of the family to eliminate or reduce long-term impairments, disabilities and complications. The Weight Management element reaches any child or youth who is overweight or obese with or without co-morbidities who is in need of more motivational intervention and may require specialist or sub-specialist care which may not be available locally.¹⁷

Shapedown BC is a multidisciplinary weight management program that provides medical, nutritional, and psychological support for children and youth aged 6-17 years who are working with their families to recognize and overcome challenges to active living and healthy eating. Recently, the Shapedown BC program has expanded to all health authorities across the province.

In this element of the Continuum efforts may be expanded to shift the approach for Weight Management across the province to a consistent evidence-based practice to manage children and youth identified as overweight or obese.

Specialized Treatment

The Continuum also includes **Specialized Treatment** of specific co-morbidities or life-threatening complications. The goal of this element is to eliminate or reduce long term impairments, disabilities and complications. The services and care provided within this element include specific interventions for co-morbidities that require treatment from a specialist or sub specialist such as a geneticist, gastroenterologist, endocrinologist, or sleep specialist.

The area of Specialized Treatment requires further assessment and consideration. Currently, children and youth who require specialist and subspecialist services based on their identified health need are referred as required. Provincially there is a need to consider an integrated approach of care for the children and youth that require specialized treatment services.

Considerations

A conclusive list of recommendations for future action is not described in this report; however, a few key considerations are outlined to support stakeholders in using the Continuum.

- Healthcare providers and other stakeholders are encouraged to identify where their work fits within the Continuum and to work collaboratively with other stakeholders who are working in the same or other elements of the Continuum. This will increase knowledge and awareness of the programs, resources, and initiatives available in each of the elements of the Continuum and help to identify where gaps may exist. This will also increase understanding of how a stakeholder's activities in one element of the Continuum may affect activities in the other elements of the Continuum.
- Efforts should be made, when possible, for programs, resources and initiatives to be available to children, youth and their families throughout BC.
- Regular monitoring and evaluation of programs, resources and initiatives is important to identify areas of improvement, required program changes, and successes.
- Finally, acknowledgement of the importance of weight bias and stigma education and training for health care professionals who are addressing weight issues with children, youth and their families is needed to ensure that there are no unintended negative consequences associated with the delivery of services and programs.



Summary

It is intended that this report, and the future considerations presented, will inform provincial discussion, decisions and actions to strengthen work across the Continuum of Care for promoting and supporting healthy weights, and for treating overweight and obesity, in children and youth. A conclusive list of considerations is not described in this report but an informed starting point is provided for dialogue about future directions and actions.



This overview of the dedicated efforts across the Continuum of Care for promoting and supporting healthy weights, and for treating overweight and obesity, in children and youth in BC demonstrates the leadership and exemplary practices currently underway throughout the province by multiple stakeholders. The potential exists, across the Continuum of Care, to increase communication, strengthen relationships, and to successfully pursue collective action among all whose work has an influence on children's health. Continued coordination of efforts across the Continuum, informed by the considerations presented, will only increase our capacity to promote and support healthy weights, and treat the critical issue of overweight and obesity related health issues for all children and youth, the future of British Columbia.

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