Childhood Healthy Weights Intervention Initiative

Our Journey

March 2014
Childhood Healthy Weights Intervention Initiative: Our Journey

The Childhood Obesity Foundation’s vision is children and youth of Canada free of chronic diseases that ensue from obesity. Over the past few years, the Childhood Obesity Foundation has focused primarily on prevention and health promotion strategies. Together with partners from across Canada, we have worked to implement programs such as Screen Smart, Sip Smart, Living Green, Healthy and Thrifty (LiGHT), Healthy Beginnings, and Healthy Food and Beverage Sales in Municipal Recreation and have also supported a number of other initiatives. To read more about our work, visit childhoodobesityfoundation.ca.

We are very pleased to now be partnering with the BC Ministry of Health, BC Recreation and Parks Association, YMCA of Greater Vancouver, Centre for Healthy Weights at BC Children’s Hospital, Provincial Health Services Authority, regional health authorities, participating YMCA and municipal recreation centres, HealthLink BC and the Physical Activity Line to add targeted healthy weight intervention programs for children and teens.

Canada is confronting an epidemic of unhealthy weights amongst children and youth with over 30% of teens being either overweight or obese. The majority of these children will graduate into adulthood either overweight or obese and this fact holds true even for overweight children as young as five years of age. Overweight and obese adults rarely revert to a healthy weight and in fact most continue to gain excessive weight. They are therefore at increased risk for type two diabetes, heart disease, stroke and cancer. An obese 40 year old can expect to die seven years earlier than a healthy weight peer.

It is imperative that British Columbia take a comprehensive approach including promotion, prevention and intervention for children and teens who are departing from a healthy weight trajectory. In response to this public health challenge the Province of British Columbia has created the Childhood Healthy Weights Intervention Initiative. Through this Initiative, many families now have access to free programs that have shown success in helping children, teens and their families increase healthy eating and physical activity behaviours that promote healthy weights. The Childhood Obesity Foundation is proud to bring all of our stakeholders up to date on our progress and success so far, and to give you a sense of what to expect in the coming months.

The COF Board and staff join me in extending our sincere appreciation to all of our partners, project staff and program delivery teams around the province who have worked so hard over the past two years to bring healthy weight intervention programs to so many BC communities. Thank you for your tremendous effort and commitment, and we look forward to our ongoing collaboration towards the best possible health for BC children and teens.

Dr. Tom Warshawski, Pediatrician, Chair
Childhood Obesity Foundation
# Table of Contents

Childhood Healthy Weights Intervention Initiative: Our Journey ........................................ i

Executive Summary........................................................................................................ iii

1. Introduction ..................................................................................................................... 1

2. Background .................................................................................................................... 1

3. Shapedown BC ............................................................................................................... 6

4. MEND (Mind, Exercise, Nutrition, Do It!) ................................................................. 10

5. Telehealth ..................................................................................................................... 15

6. What We Have Learned .............................................................................................. 15

7. Our Journey Continues .............................................................................................. 16

8. Selected References .................................................................................................. 18

9. Childhood Obesity Foundation—Contact Us .............................................................. 19
EXECUTIVE SUMMARY

The Childhood Obesity Foundation (COF) is extremely proud to be working in partnership with the British Columbia (BC) Ministry of Health on the Childhood Healthy Weights Intervention Initiative ("the Initiative") to develop, implement and evaluate a family-focused childhood healthy weights intervention program. Launched April 5, 2013, the three interventions – Shapedown BC, MEND (Mind, Exercise, Nutrition, Do It!) and telehealth – provide evidence-based support for families with children and teens ages five to 17 who are departing from a healthy weight trajectory. The three interventions focus on overall health and well-being rather than on weight-based outcomes.

Currently, MEND is offered in 17 sites and Shapedown BC is available in five communities that also offer MEND programming. MEND works well with children and families who are ready to make some lifestyle changes and able to participate in group activities. Since April 2013, 242 children have participated in MEND. Children and teens who are dealing with weight-related health and social issues benefit from Shapedown BC’s comprehensive, multi-disciplinary support. Since January 2013, 160 children have participated in a Shapedown BC group session. DietitianServices@HealthLinkBC and the Physical Activity Line provide telehealth services to families who cannot access an in-person program, or who need additional support. Planning is underway for a new integrated telehealth intervention and a cultural and language adaptation of Shapedown BC for the ethnic Chinese population.

The Initiative is currently part-way through three of four program cycles included in the evaluation. At the conclusion of cycle four in Spring 2014, the Initiative’s process and outcome evaluation efforts will culminate in a comprehensive evaluation report that will inform a business case which will include options and recommendations to sustain these types of programs into the future. An interim evaluation report produced in November 2013 focused on cycle one Shapedown BC and MEND group interventions (delivered April to June 2013). Overall, the Shapedown BC and MEND program interventions have been well received; they are meaningful to and meet the needs of participating families. While it was too early for significant quantitative results, participants’ self-reported changes (for example, through homework and participant surveys) were consistent with the programs’ intended outcomes. Overall, Shapedown BC and MEND programs were implemented with fidelity (as intended).

Obesity rates in Canadian teens have tripled in 25 years¹. We at COF recognize that addressing a challenge of this magnitude warrants a collaborative approach. Over the past two years, we have developed linkages with key delivery partners including the Centre for Healthy Weights at BC Children’s Hospital (Provincial Health Services Authority), regional health authorities, YMCA of Greater Vancouver, BC Recreation and Parks Association (BCRPA), participating YMCA and municipal recreation centres, HealthLink BC and the Physical Activity Line. There are early indications that the Initiative’s initial outcomes related to healthy lifestyles are consistent with those intended for the program and will contribute to the Initiative’s desired ultimate outcomes: healthier BC children and youth, reduced levels of chronic disease and decreased direct and indirect health care costs.

¹ Prevalence of Canadian child OW and OB compared between 1978/9 and 2004 statcan.gc.ca/pub/82-003-x/2005003/article/9277-eng.pdf
1. INTRODUCTION

One year ago the Childhood Obesity Foundation (COF) was poised to launch an innovative, three-pronged strategy to take steps to address the rising rates of childhood obesity—32% of Canadian children and youth are overweight or obese. The Childhood Healthy Weights Intervention Initiative (“the Initiative”) was launched in Spring 2013. As of January 2014, 402 children and their families have participated in 41 group intervention programs. These programs are reportedly resulting in healthier eating, increased physical activity and reduced screen time…and the children are having fun!

COF is extremely proud to be working in partnership with the British Columbia (BC) Ministry of Health on this three-year Initiative to develop, implement and evaluate a family-focused childhood healthy weights intervention program. The Initiative is funded by the Province of BC and supports Healthy Families BC, the government’s public health strategy that focuses on leadership, prevention and health improvement for British Columbian families and their communities.

The Initiative provides evidence-based support for families with children and teens who are departing from a healthy weight trajectory. It builds on the success of Shapedown BC and BC’s telehealth options (DietitianServices@HealthLinkBC and the Physical Activity Line), and leverages Alberta’s positive experience with MEND (Mind, Exercise, Nutrition, Do It!).

This report describes COF’s exciting journey over the past two years. It introduces the three interventions along with our partners and stakeholders who have been instrumental in getting new programming underway in numerous BC communities. And, this report shares program-specific highlights, lessons learned and our plans for the coming year.

Many thanks to our partners in the Initiative, including members of our Advisory Committee, the Centre for Healthy Weights at BC Children’s Hospital, Provincial Health Services Authority (PHSA), regional health authorities, YMCA of Greater Vancouver, BC Recreation and Parks Association (BCRPA), participating YMCA and municipal recreation centres, HealthLink BC and the Physical Activity Line, as well as all the stakeholders across BC who are working collaboratively to prevent and manage childhood obesity.

2. BACKGROUND

How and why did we get involved?

Over the last decade there has been a growing body of evidence pointing to the benefits of intervention programs for families with children and teens who are departing from a healthy weight trajectory. In many jurisdictions, parents seeking help to increase their families’ healthy eating and

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2 Proportion of OB and OW children in Canada between 2009 and 2011 (32%), statcan.gc.ca/pub/82-625-x/2012001/article/11712-eng.pdf
3 Refer to report Tables One and Two. Includes one BC Children’s Hospital group session prior to launch.
4 Refer to report Tables One and Two. Includes one BC Children’s Hospital group session prior to launch.
physical activity behaviours have had limited access to support services. BC was an early leader in this area, launching Shapedown BC at BC Children’s Hospital’s Centre for Healthy Weights in 2006.

An opportunity for more comprehensive action to address this gap emerged with the Federal/Provincial/Territorial Ministers’ of Health commitment in 2010 to champion strategies to identify the risk of overweight and obesity in children and address it early. Child Health BC, PHSA, took the lead in developing a health-focused care pathway and a structured approach for the identification, care and management of overweight and obese children and youth. COF was approached by the Ministry of Health to build and steward a province-wide family-focused childhood healthy weights intervention program, and started planning in May 2012.

What is the Childhood Healthy Weights Intervention Initiative?

This province-wide Initiative is intended to develop, implement and evaluate a family-focused childhood healthy weights intervention program. The three components are Shapedown BC, MEND and telehealth. These programs are described later in the report.

How far along are we?

Childhood obesity is not a simple matter. And there are no quick fixes. The Initiative is the culmination of a vision shared by COF and our stakeholders who see value in working together to take concrete steps to prevent and manage childhood obesity. With the support of our Advisory Committee and partners, we developed the project concept, plan and infrastructure and the first Shapedown BC and MEND programs were successfully implemented in less than a year.

The Initiative is currently part-way through three of four program cycles included in the evaluation. At the conclusion of cycle four in Spring 2014, the evaluation efforts that have been integral to the Initiative since its early planning stages will culminate in a comprehensive evaluation report that will inform COF’s development of options and recommendations to sustain these types of programs into the future. With our current funding, we will be able to offer MEND programming through Fall 2014 and we will support Shapedown BC through Winter 2015.

Timeline and Key Milestones

<table>
<thead>
<tr>
<th>Vision</th>
<th>Planning &amp; Development</th>
<th>Implementation</th>
<th>Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2012</td>
<td>Cycle 1</td>
<td>Cycle 2</td>
<td>Cycle 3</td>
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<tr>
<td>Winter 2013</td>
<td>Cycle 5</td>
<td>Cycle 6</td>
<td>Cycle 7</td>
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<tr>
<td>Spring 2014</td>
<td>Shapedown BC</td>
<td>MEND</td>
<td>Shapedown BC</td>
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<tr>
<td>Fall 2014</td>
<td>Evaluation Report</td>
<td>Business Case</td>
<td></td>
</tr>
<tr>
<td>Winter 2015</td>
<td>Ongoing</td>
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</tbody>
</table>

DietitianServices@HealthLinkBC & Physical Activity Line
Although out of scope for the overarching evaluation, over the long term the intervention programs are intended to contribute to three ultimate outcomes: healthier BC children and youth; reduced chronic disease; and, reduced direct and indirect health care costs. The intent is to achieve these outcomes within five to ten years—beyond the current timeframe of the Initiative.

**How are Shapedown BC and MEND similar?**

In both Shapedown BC and MEND, parents and caregivers join their children for a mix of fun learning and activity sessions targeting behavior change, and also engage in parent and caregiver-only discussion. Examples of topics include: healthy eating, goal setting, self esteem, parenting and how to be active as a family. All graduating Shapedown BC and MEND families are offered a free three month recreation pass.

**What’s the difference between Shapedown BC and MEND?**

This is a question we are often asked. As an early intervention program, MEND works well with children and families who are ready to make some lifestyle changes and able to participate in the group activities. Children and teens who are dealing with weight-related health and social issues often need some individualized support and follow-up to be successful. These families benefit from Shapedown BC’s comprehensive, multi-disciplinary support, which includes individual as well as group intervention.

Each program has its own referral, screening and eligibility provisions that ensure the program suits the needs of children and their families. Some children may be eligible for both programs. Currently, MEND is offered in 17 sites around the province. Vancouver, Surrey/Langley, Prince George, Kamloops and Nanaimo have both MEND and Shapedown BC. In these communities Shapedown BC and MEND program staff can help families access the program that best suits their needs.

Parents are encouraged to learn more about their options by visiting [childhoodobesityfoundation.ca](http://childhoodobesityfoundation.ca) or contacting Shapedown BC or MEND programs in their communities. **Referral guidelines** have been developed to assist physicians and other health professionals in demonstration communities in deciding whether to make a referral to Shapedown BC (in communities where it is available) or to encourage a family to pursue MEND.

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5 The Shapedown BC team consists of a dietitian, mental health professional, physician, exercise specialist and administrative assistant.
How does telehealth fit?

Telehealth provides another intervention option, particularly for families who cannot access an in-person program, or who need additional support. Both DietitianServices@HealthLinkBC and the Physical Activity Line offer specialized pediatric nutrition services and healthy weights coaching. Shapedown BC and MEND are providing families with information about these resources. Information about new telehealth developments is provided later in this report.

How are the programs integrated?

Our approach offers multiple pathways for families to follow, including moving back and forth between services depending on need. Shapedown BC, MEND and telehealth are most effective if families also have access to supportive community and clinical environments that contribute to families’ success during and after the program. Although the Initiative targets intervention programs
to children with weight-related issues, the focus is on overall health and well-being rather than on weight-based outcomes. Partners and service providers are sensitive to the issue of weight bias and its links to poor mental health and well-being.

How are we spreading the message about the Initiative?

Over the past year, significant effort has gone into spreading the message about these new programs. Since the Initiative was announced on April 5, 2013, promotional activities have included poster and flyer campaigns, Google and Facebook advertisements, targeted correspondence and visits to physician’s offices and schools, stakeholder presentations, newsletters, media outreach and conferences.

In May 2013, COF hosted a well-received stakeholder webinar attended by over 75 participants, and is planning a similar event in the near future. COF will be proud to share our experiences regarding the Initiative during a workshop at the Chronic Disease Prevention Alliance of Canada conference on April 9, 2014, in Ottawa, Ontario.
How will we know if the Initiative is successful?

We at COF, and our partners, have a keen interest in determining whether the Initiative is achieving its intended goals. As evidence-based programs, MEND and Shapedown BC are expected to yield positive results in BC. A comprehensive evaluation that examines process and outcomes will inform us about what is working and where there is room for improvement. A comprehensive final evaluation report will help us plan for the future. The *Childhood Healthy Weights Intervention Initiative Cycle One Evaluation Report* was produced in November 2013. It focused on group interventions delivered from April to June 2013. These interim findings are highlighted below in sections three (Shapedown BC) and four (MEND) of this report, along with more recent cycle two and cycle three developments. Later in the Initiative, a cultural and language adaptation of Shapedown BC and a new telehealth healthy weights intervention service will be implemented and evaluated.

3. SHAPEDOWN BC

**A Shapedown BC Family’s Journey**

“Me and my husband would like to thank the Shapedown staff for helping our child in reaching a health goal. Before Shapedown, our child weighed 205 pounds and our family doctor recommended a cholesterol medication. We have a medical family history of diabetes and heart disease (as a matter of fact we lost a child to due to congenital heart disease) and now we are afraid that our other child’s health is also at risk. This is why we were referred to your program. Because of Shapedown’s guidance and positive way of encouraging teens to make a lifestyle change our child now weighs 171 pounds and is much happier. Our child gained a lot of self-confidence, self esteem, is more sociable and is excelling academically. Even my husband and I lost a significant amount of weight because of healthy eating and an exercise routine. We all go to YMCA together to exercise and participate in their programs for “our bonding time” as a family. We wish for the Shapedown program to continue what you are doing to help children and teens live a healthy and happy lifestyle. You all made a big difference in our life.”

- Shapedown BC parent

**What is Shapedown BC?**

Shapedown BC is an evidence-based, comprehensive weight management program that helps children and teens and their families recognize and overcome challenges to active living and healthy eating. Children between six and 17 years old with a BMI >97 percentile for age or >85 percentile for age with co-morbidities or other complex medical or social profiles are eligible. A medical referral is required.

The Shapedown BC team consists of a dietitian, mental health professional, physician, exercise specialist and administrative assistant. A comprehensive multidisciplinary assessment ensures a family’s readiness to fully participate and be successful. The intervention is available to families as

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6 This testimonial was edited for brevity and to maintain participant anonymity.
7 Select references demonstrating Shapedown BC evidence are presented in report section eight.
either individual counselling, group programs, or as a modified group program. Group interventions (up to 15 participants per group) are age clustered for children age six to eight, nine to 11, 12 to 13 and 14 to 17 years. Follow-up support is available to all participants.

Shapedown BC operates under a license from the Province of BC. The BC Centre for Healthy Weights at BC Children’s Hospital (PHSA) has offered Shapedown BC since 2006 and is participating in the Initiative as a program site. The Centre for Healthy Weights is also the provincial coordination centre for Shapedown BC. Prior to the Initiative, the Centre for Healthy Weights had already engaged with Fraser Health and Island Health to examine a possible expansion to those health authorities. This contributed to a high degree of readiness.

What have we achieved to date?

COF is pleased to support the expansion of Shapedown BC, including a number of program enhancements. Early in the Initiative, the BC Centre for Healthy Weights reviewed and refined all the Shapedown BC program materials. Together with the YMCA of Greater Vancouver, a new Shapedown BC physical activity curriculum was developed, and has been incorporated into all programs.

Over the last few months, a concept and plan for a cultural and language adaptation of Shapedown BC for the ethnic Chinese population has been developed by BC Centre for Healthy Weights in partnership with Vancouver Coastal Health. Stakeholder consultations are now complete. The goal is to be ready for the first intake assessments by Summer 2014.

Another major achievement has been upgrading the Shapedown BC database. Among other enhancements, the database now enables private and secure remote access from all health authorities and data sharing with BC Children’s Hospital for ongoing clinical and program management purposes.

The Initiative has seen Shapedown BC successfully implemented in four new sites by regional health authorities in partnership with a local YMCA or municipal recreation centre. Health authorities have engaged local partners and staff, and have undertaken a full range of program planning, set up and promotion activities. All the new Shapedown BC teams as well as some staff from partner organizations, such as DietitianServices@HealthLinkBC, have completed the program delivery training. Between January 2013 to January 2014, 160 children participated in a Shapedown BC group session.

“Between January 2013 to January 2014, 160 children participated in a Shapedown BC group session.”

8 Modifications of the Shapedown BC 10-week group program are occasionally offered to meet the needs of families who are unable to participate in the group program due to the child’s developmental, behaviour or learning needs. The modifications may involve working with parents as the agents of change, or combinations of individual and group sessions, with or without the children involved.

9 This report uses the general term “participant” for both Shapedown BC and MEND evaluation reporting. Participants in Initiative programs may include children, siblings, parents, other family members and friends. Where possible, the report identifies more specific terminology, such as children and parents. At times the terms parent and caregiver are used interchangeably.
Delivering clinically appropriate, quality programming is of premier importance to the Shapedown BC staff and their partners. With the support of the Centre for Healthy Weights, a number of quality assurance measures have been taken to ensure all Shapedown BC programs are of the highest standard and to best support children and teens and their families.

Table One lays out some of our major implementation milestones.

**Table One: Shapedown BC Implementation Overview**

<table>
<thead>
<tr>
<th>Shapedown BC Implementation</th>
<th>Completed</th>
<th>Under-way</th>
<th>Planned</th>
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<tbody>
<tr>
<td>Year</td>
<td></td>
<td>2013</td>
<td>2014</td>
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<tr>
<td>Quarter</td>
<td>Jan-Mar</td>
<td>Apr-Jun</td>
<td>Jul-Aug</td>
</tr>
<tr>
<td>Intervention Cycle</td>
<td>ONE</td>
<td>TWO</td>
<td>THREE</td>
</tr>
<tr>
<td>Program training (2-day workshops delivered)*</td>
<td>Island Health and Fraser Health</td>
<td>Interior Health and Northern Health</td>
<td></td>
</tr>
<tr>
<td>Staff trained</td>
<td>50 health authority, recreation centre and other partner staff participated in one or more types of training: program delivery, physical measurements, database management and / or activity curriculum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Groups (includes BCCH)</td>
<td>1</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Children participating (includes BCCH)</td>
<td>160 children participated in Shapedown BC group sessions</td>
<td></td>
<td></td>
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<tr>
<td>Individual consultations (includes BCCH)</td>
<td>64 individual consultations were provided by dietitians and mental health specialists</td>
<td></td>
<td></td>
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<tr>
<td>Recreation passes (includes BCCH)</td>
<td>About 50 graduating families received free 3 month recreation passes (or equivalent)</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>5</td>
<td></td>
<td>7</td>
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*Note: Program planning, set up and promotion initiated in the months preceding.*

Successes in expanding Shapedown BC are the result of a comprehensive implementation plan that relied on stakeholder engagement and collaborative planning and monitoring processes. As evaluation information became available e.g., findings from internal stakeholder interviews, results were disseminated into Shapedown BC’s continuous quality improvement practices. Examples of Shapedown BC’s responses to evaluation feedback include developing an ‘office in a box’ to streamline administration. More details on Shapedown BC outcomes will be provided in the final evaluation report.
What have we learned so far through the evaluation?

Our first interim evaluation report examined 10-week cycle one group interventions at the Centre for Healthy Weights, BC Children’s Hospital (PHSA), and two of the new sites (Fraser Health and Island Health) during Spring 2013. Currently, these three health authorities are delivering their third cycle of group interventions, and Interior Health and Northern Health are in their first cycle. Select highlights from cycle one are discussed below.

Almost all (98%) of the Shapedown BC participants who completed feedback forms were satisfied with their group intervention.

Shapedown BC participant satisfaction

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Overall satisfaction

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>20%</th>
<th>40%</th>
<th>60%</th>
<th>80%</th>
<th>100%</th>
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<tbody>
<tr>
<td>Agree</td>
<td>38%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strongly agree</td>
<td>60%</td>
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Source: Participant Feedback Forms (n = 42)

Internal stakeholders, such as Shapedown BC staff, also expressed satisfaction with the programs. They commented that there was a general sense that participating families were pleased.

Participation ranged from eight to 16 children per program. Two-in-three (61%) of the children registered in cycle one completed at least 70% of the sessions. In total, 33 children were registered in Shapedown BC cycle one programs (attended at least one session) at all three sites.

Changes families made (self-reported) while attending the program are consistent with the program’s intended outcomes. They include increased healthy eating and physical activity and decreased screen and sedentary time. Other changes staff and participants noted include improved family dynamics, children making more of their own choices and children establishing new friendships with participating children.

Most of the program participants who completed feedback forms agreed that the information provided by the program was helpful for

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10. 42 participants completed feedback forms.

11. The Initiative will report on cumulative outcome measures once the Shapedown BC database’s reports become available.
staying on track with their Shapedown BC goals. In total, 93% of participants found the information provided about diet and nutrition helpful, and 88% found the information on activity and exercise helpful.

Ratings of Shapedown BC information on diet and nutrition and activity and exercise

![Bar chart showing ratings of Shapedown BC information on diet and nutrition and activity and exercise]

Source: Participant Feedback Forms (n = 42)

4. MEND (MIND, EXERCISE, NUTRITION, DO IT!)

A MEND Family’s Journey

“I just saw an 8 year old girl and her father. Together they completed the MEND program and loved it. Now both have embraced healthier lifestyles and both are on healthier weight trajectories.”

- Physician

What is MEND?

MEND is an evidence-based12 early intervention program from the United Kingdom. It is intended for families with children with a BMI > 85 percentile for age and no contraindications for participating in physical activity or group sessions. The program is provided by participating YMCA and municipal recreation centres and delivered by trained leaders with recreation and/or health backgrounds.

MEND is a 10-week group program offered to children and their families age five to seven (MEND 5-7) and seven to 13 (MEND 7-13). The MEND group intervention can accommodate 15 children per program delivery cycle. MEND 7-13 was the only program offered during cycle one and cycle two. MEND 5-7 is being introduced during cycle three. The MEND team consists of a programmer (or program manager) and theory leader – sometimes one person for both roles – and an exercise leader and program assistant.

12 Select references demonstrating MEND evidence are presented in report section eight.
Healthy Weight Partnership, Inc. has licensed the programs to COF to establish, manage and deliver MEND in BC during the Initiative. In 2011, MEND was adapted to align with Canadian dietary and policy guidelines and is currently being further customized for use in BC.

What have we achieved to date?

COF is proud to support the largest implementation of MEND in Canada to date. Together with the BCRPA and YMCA of Greater Vancouver, and their host agencies, we had the first programs underway in five communities in less than a year. At the time of this report, MEND has been introduced to 17 sites throughout BC, as shown on the map on page 4.

To make this happen, MEND host agencies have recruited staff, engaged local stakeholders, managed logistics and marketed the program widely in their communities. Since the launch in Spring 2013, 242 children have participated in a MEND program.

An implementation of this size requires a lot of behind the scenes activity, support and coordination. Along the way we have:

- Established provincial and local partnerships,
- Developed and implemented a province-wide delivery model and site selection process (taking into account geographic distribution, urban/rural, program delivery capacity, community need),
- Reviewed and localized program and marketing materials to ensure reasonable fit within a BC context,
- Managed equipment and materials distribution,
- Delivered training to all MEND staff, and
- Provided ongoing implementation and quality assurance support, including regular conference calls and site visits.

MEND HOST AGENCIES

City of Abbotsford
Strathcona Regional District
Kamloops Community YMCA-YWCA
YMCA of Okanagan
Township of Langley
City of Nanaimo
Regional District of Central Kootenay
YMCA of Northern BC
District of Saanich
City of Terrace
Strathcona Community Centre Association
YMCA of Greater Vancouver
City of New Westminster
YMCA-YWCA of Greater Victoria
Some of the milestones for the MEND implementation are outlined in Table Two.

Table Two: MEND Implementation Overview

<table>
<thead>
<tr>
<th>MEND Implementation</th>
<th>Completed</th>
<th>Underway</th>
<th>Planned</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year</td>
<td>2013</td>
<td>2014</td>
<td>2014</td>
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<tr>
<td>Quarter</td>
<td>Jan-Mar</td>
<td>Apr-Jun</td>
<td>Jul-Aug</td>
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<td></td>
<td>ONE</td>
<td>TWO</td>
<td>THREE</td>
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<td></td>
<td>Apr-Jun</td>
<td>Jul-Aug</td>
<td>Sep-Dec</td>
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<tr>
<td></td>
<td>THREE</td>
<td>FOUR</td>
<td></td>
</tr>
<tr>
<td>Intervention Cycle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start-up (# communities)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ONE</td>
<td>TWO</td>
<td>THREE</td>
</tr>
<tr>
<td></td>
<td>APR-JUN</td>
<td>JUL-AUG</td>
<td>SEP-DEC</td>
</tr>
<tr>
<td></td>
<td>THREE</td>
<td>FOUR</td>
<td></td>
</tr>
<tr>
<td>Program management training (1½ days)</td>
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<tr>
<td>MEND 7-13 training (3 days)</td>
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<tr>
<td>MEND 5-7 training (2 days)</td>
<td></td>
<td></td>
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<tr>
<td>Staff trained</td>
<td>Over 85 MEND staff participated in one or more types of training: program management (17), MEND 7-13 (67), MEND 5-7 (22), physical measurements</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MEND 5-7 programs</td>
<td>1</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>MEND 7-13 programs</td>
<td>5</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>Children participating</td>
<td>242</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recreation passes</td>
<td>92 graduating families received free 3 month recreation passes (or equivalent)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

COF’s successes in introducing MEND to 17 BC sites over the past year are attributed to high stakeholder engagement and collaborative planning and monitoring processes. As evaluation information became available results were incorporated into MEND’s continuous quality improvement efforts. Examples of MEND strategies introduced in response to evaluation feedback include adapting the delivery of the exercise curriculum to best suit participants’ needs and interests.

What have we learned so far through the evaluation?

Here are select highlights from our first interim evaluation report, which examined the MEND 7-13 cycle one group intervention delivered in our first five communities: Kelowna, Vancouver, Township of Langley, Prince George and Saanich.

Overall, feedback received from families and staff about MEND 7-13 was positive. Almost all (88%) of the responding 26 parents and caregivers stated that MEND 7-13 definitely, or almost

“it is a very positive program and a useful tool to kick-start a healthy family.”

- MEND Participant
definitely, met their family’s expectations, while 75% of children said they had either ‘quite a bit’ or ‘a lot’ of fun on MEND. Additionally, internal staff rated MEND’s approach of combining psychology, exercise and nutrition as either good (60%) or very good (40%)\(^\text{13}\).

**MEND 7-13 met my family's expectations**

![Circle graph showing the percentage of respondents who met their family's expectations.](image)

*Source: Parent Satisfaction Surveys (n = 26)*

**Child satisfaction: "Did you have fun on MEND 7-13?"**

![Circle graph showing the percentage of respondents who enjoyed the program.](image)

*Source: Child Satisfaction Surveys (n = 28)*

\(^{13}\) Source: Theory Leader Summary Feedback Form.

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**Facilitators to participation** included that the program was free, that siblings were involved, site location, and positive group dynamics, among other factors.

**Barriers to participation** included readiness to commit to healthier lifestyles, the time commitment required to participate in an intervention, and schedule conflicts.

*Childhood Healthy Weights Intervention Initiative, Cycle One Evaluation Report*

"It is a great program that includes children to improve their health."

- MEND Participant
Due to the project’s timeline, program set up, marketing and recruitment activities occurred simultaneously over an approximate six week period—half the time recommended in MEND program guidelines. Despite a compressed recruiting phase, collectively, the five MEND sites successfully enrolled 45 participants. Approximately three-quarters (76%) of the 42 registered MEND participants continued on to participate in over 80% of all sessions.

According to parent and caregiver feedback, the delivery style of the program was generally considered acceptable. Further, parents and caregivers gave high ratings to the information provided by MEND 7-13.

**Parent and caregiver ratings of the information provided by MEND 7-13**

*Was the information given in sessions...*

<table>
<thead>
<tr>
<th>Question</th>
<th>4</th>
<th>5 (Definitely)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy to understand?</td>
<td>31%</td>
<td>69%</td>
</tr>
<tr>
<td>Culturally suitable for your family?</td>
<td>39%</td>
<td>58%</td>
</tr>
<tr>
<td>Respectful of your family’s financial situation?</td>
<td>31%</td>
<td>69%</td>
</tr>
<tr>
<td>Enough for you to build a healthy lifestyle?</td>
<td>42%</td>
<td>58%</td>
</tr>
<tr>
<td>Easy to act upon?</td>
<td>35%</td>
<td>65%</td>
</tr>
</tbody>
</table>

*Source: Parent Satisfaction Surveys (n = 26)*

NB: Responses were on a 5 point scale with 1 as not at all and 5 as definitely.

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14 For MEND, registered is defined as enrolled and attended at least one session.
Health outcomes that are being measured for the evaluation include dietary habits, physical activity and fitness and psychological indices. The early results from the first program cycle are consistent with MEND’s intended outcomes. More details on these outcomes will be provided in the final evaluation report.

5. Telehealth

The Initiative is moving forward on enhancing specialized pediatric services and healthy weights coaching currently provided by DietitianServices@HealthLinkBC and by the Physical Activity Line. This will involve integrating and expanding these services to offer coordinated and on-going nutrition and physical activity counselling, in partnership with mental health specialists and family physicians. Services will be provided by telephone and email.

A feasibility study was undertaken to refine the concept for this component of the Initiative. Work is now underway to develop educational resources, counselling protocols, administrative systems, and stakeholder communications. The goal is to launch the telehealth service in Fall 2014 with staff co-located at HealthLink BC and hours of operation adjusted to meet family needs. An evaluation of the first two years of service to approximately 100 families will be conducted by the University of British Columbia Physical Activity Promotion and Chronic Disease Prevention Unit. The telehealth service will help give those living in rural and remote communities in BC access to much needed supports to keep their families healthy.

6. What We Have Learned

Over the past two years, the Initiative has grown from an idea shared amongst like-minded people who wanted to take action against childhood obesity to a province-wide, integrated undertaking. During this time, we have enjoyed many successes and overcome many challenges. We’ve learned a few lessons along the way. A process evaluation undertaken to learn from our experiences during cycle one found that, despite their differences, Shapedown BC and MEND had many similar experiences during the Initiative’s inaugural cycle. These common findings, along with program-specific observations, are discussed below.

Overall, the Shapedown BC and MEND program interventions have been well received; they are meaningful to and meet the needs of participating families. While it is too early for significant quantitative results, participants’ self-reported changes (for example, through homework and participant surveys) are consistent with the programs’ intended outcomes.

Start-up and registration was challenging for both Shapedown BC and MEND. The project timeline was very ambitious, resulting in staff planning and executing at the same time. One of the impacts was limited enrollment. Nevertheless, inaugural cycles were a success due to the tremendous efforts of team members who drew upon and forged personal and professional linkages between agencies.
As this Initiative progresses, Shapedown BC and MEND delivery teams are bringing these programs to life at the local level.

Recruitment has been a challenge for both programs. A few Shapedown BC and MEND sites have had to cancel or modify group interventions. Province-wide communications strategies have been implemented to complement and reinforce local marketing efforts. In communities that offer both Shapedown BC and MEND, we are beginning to see evidence of cross-program referrals and promotional activities.

Factors that affected families’ access to Shapedown BC and MEND programs include: awareness of programs and referral processes, characteristics of programs offered, and other family and work (time) commitments.

During cycle one, having families complete assigned homework and track their goals was an issue for both programs. Since then, steps have been taken to better support families and encourage participation e.g., providing incentives like entering the names of Shapedown BC families who complete their home work into a draw for rewards such as gift certificates.

Sixty-one percent of children registered in Shapedown BC completed\(^{15}\) the program. For MEND, the completion rate\(^ {16}\) was 76%.

Overall, Shapedown BC and MEND programs were implemented with fidelity (as intended). However, some adaptations were made to the delivery of the exercise curriculum for reasons such as group composition, and to better engage children who displayed limited interest in participating. Both programs have introduced measures to ensure quality assurance. Examples include in-person site visits and regular staff meetings with provincial leads.

We learned that families were most positive about healthy eating and physical activity content. Parents, caregivers and children enjoyed opportunities where they could interact and engage with others in the class. New friendships were established as people found others who have been on a similar journey to achieve and maintain healthy lifestyles.

7. OUR JOURNEY CONTINUES

Obesity in Canadian teens has tripled in 25 years\(^ {17}\). We at COF recognize that addressing a challenge of this magnitude warrants a multi-stakeholder, province-wide, collaborative intervention strategy. Over the past two years, we are pleased to have developed linkages with key delivery partners including the Centre for Healthy Weights at BC Children’s Hospital, regional health authorities, HealthLink BC and the Physical Activity Line, YMCA of Greater Vancouver, BCRPA, and participating YMCA and municipal recreation centres.

The Initiative is now part-way through three of four program cycles included in the evaluation. We have made good progress towards meeting our key objectives to expand Shapedown BC to all health authorities and to introduce MEND to BC. Programs are now available in all health authority catchments. To date, Shapedown BC is available in five community sites and MEND is offered in 17. Families are learning about the existing healthy weights support offered by

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\(^{15}\) Shapedown BC considers children who attended over 70% of the sessions to have completed.

\(^{16}\) MEND considers children who participate in over 80% of the sessions to have completed.

\(^{17}\) Prevalence of Canadian child OW and OB compared between 1978/9 and 2004 statcan.gc.ca/pub/82-003-x/2005003/article/9277-eng.pdf
DietitianServices@HealthLinkBC and the Physical Activity Line. We are excited about the planning underway for new elements of the Initiative including an integrated telehealth intervention and a cultural and language adaptation of Shapedown BC for the ethnic Chinese population.

We are pleased that all Shapedown BC and MEND sites that signed on to date have continued to provide programs, and are slated to deliver interventions for cycle four in Spring 2014. These same sites have expressed interest in continuing on with the demonstration project. With our current funding, we will continue to support MEND through Fall 2014 and Shapedown until Winter 2015.

A comprehensive final evaluation report is slated for public release in Fall 2014. Both programs will continue to incorporate evaluation learnings into ongoing program modifications. A business case including recommendations for sustainability is being prepared and will be submitted to the Province of BC at the end of the project. There are early indications that the Initiative’s initial outcomes are consistent with those intended for the program and will contribute to the Initiative’s desired ultimate outcomes: healthier BC children and youth, reduced levels of chronic disease and decreased direct and indirect health care costs.

“A business case including recommendations for sustainability is being prepared...”
8. **SELECTED REFERENCES**

**General References**


Childhood Obesity Foundation - childhoodobesityfoundation.ca
    Shapedown BC - childhoodobesityfoundation.ca/shapedownbc
    MEND - childhoodobesityfoundation.ca/MEND


Curbing childhood obesity: A federal, provincial and territorial framework for action to promote healthy weights - phac-aspc.gc.ca/hp-ps/hl-mvs/framework-cadre/index-eng.php

DietitianServices@HealthLinkBC - healthlinkbc.ca/healthyeating


Overweight and obesity among children and youth - statcan.gc.ca/pub/82-003-x/2005003/article/9277-eng.pdf

Physical Activity Line - physicalactivityline.com

Promoting Healthy Weights - phsa.ca/HealthProfessionals/Population-Public-Health/PromotingHealthyWeights.htm

Referral Guidelines for MEND and Shapedown BC - childhoodobesityfoundation.ca/admin/files/files/ines_for_Healthcare_Professionals_Aug_1_2013_0.pdf

**Shapedown BC Evidence**


MEND Evidence


9. **Childhood Obesity Foundation—Contact Us**

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