Ontario’s Primary Care Diabetes Prevention Program

Implementation Manual
For Your Primary Care Organization

April 2017
Acknowledgements

The Primary Care Diabetes Prevention Program (PCDPP), using the Diabetes Prevention Program — Group Lifestyle Program™, was launched in 2011 by Ontario’s Ministry of Health and Long-Term Care (MOHLTC) to support Ontario’s Diabetes Strategy.

The Ontario’s Primary Care Diabetes Prevention Program — Implementation Manual for Your Primary Care Organization, contracted by the MOHLTC, was developed to support advancing priorities of the MOHLTC and the PCDPP initiative, in a collaborative effort among the Nutrition Resource Centre, the Physical Activity Resource Centre, and Ontario’s PCDPP demonstration sites.

The manual development process included leveraging an advisory committee of relevant subject-matter experts, including PCDPP Lifestyle Coaches, Master Trainers and program managers from across Ontario, MOHLTC advisors, and external primary care and health promotion experts. The advisory committee contributed practice-based experience with the PCDPP for content development through key informant interviews and helped to oversee, inform, and provide guidance on the manual development. Thank you to the following members of the advisory committee and the MOHLTC team for providing expertise and for their commitment to the process:

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Suggested Citation

Reference Disclaimer

Every effort has been made to trace the owners of the copyrighted materials and to make due acknowledgement. If situations are identified where this has not been achieved, please notify the developers of this manual so appropriate corrective action can be taken.

Content Disclaimer

The Ontario’s Primary Care Diabetes Prevention Program has been prepared for implementation under supervised conditions. Health care professionals should be careful to inspect facilities and equipment, and to recognize that participants’ fitness and skill levels are highly variable and adjustments to program activities may be necessary to meet the needs of all participants. The views expressed in the publication are the views of the contributors and do not necessarily reflect those of the Province.
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How to Use This Manual

Ontario’s Primary Care Diabetes Prevention Program — Implementation Manual for Your Primary Care Organization is a resource for administrators, decision-makers, and health care and allied professionals responsible for primary care diabetes prevention in Ontario communities.

The purpose of the manual is to introduce primary care organizations’ administrators and staff to Ontario’s Primary Care Diabetes Prevention Program and to support the effective and efficient implementation of the program by providing concrete examples, strategies, considerations, and testimonials — all from an Ontario context.

Ontario’s Primary Care Diabetes Prevention Program and this manual are based on the Group Lifestyle Balance™ program developed by the University of Pittsburgh Diabetes Prevention Support Center. This manual is not intended to replace these original materials. The additional content, examples, and strategies in this manual should be used to inform the planning and implementation of the program in Ontario.

The manual is divided into ten sections:

1. How to Use This Manual
2. Executive Summary
3. Program Overview
4. Program Logistics for Getting Started
5. Participant Recruitment and Promotion Strategies
6. Planning and Implementation
7. Implementation Considerations
8. Program Evaluation
9. Participant Outcomes and Lasting Change
10. Appendix: Supplementary Materials
Key components of the manual that reflect the PCDPP’s implementation in Ontario are featured in each section. Key components can be identified by the following icons:

**Pearls of Wisdom**: Showcase lessons learned by Master Trainers and Lifestyle Coaches from implementing the PCDPP in family health teams across Ontario

**Considerations**: Describe implementation considerations to promote participant health and safety during the PCDPP implementation

**Testimonials**: Relay experiential statements from Master Trainers, Lifestyle Coaches and participants from the PCDPP in Ontario

**Strategies to Take Action**: List practical strategies to enhance program implementation and positive outcomes
Executive Summary

Chronic disease is the leading cause of death and disability in Ontario, with the Auditor General of Ontario pointing to type 2 diabetes as one of the most common and costly diseases in Ontario.\(^1\)-\(^2\) Due to the exponential rise in diabetes rates in Ontario, the Government of Ontario has recognized the need for preventing diabetes as a public health priority.

The Case for Diabetes and Chronic Disease Prevention in Ontario

- Diabetes is a chronic disease that leads to a range of debilitating health complications and chronic conditions that are associated with premature death, such as cardiovascular disease.\(^1\)-\(^2\)
- Individuals with diabetes cost the health care system approximately twice as much as those without.\(^1\)
- In 2015, there were 1.5 million (estimated) Ontarians living with diabetes, costing the Ontario health care system $6 billion (estimated) annually.\(^3\)
- By 2025, there will be 2.3 million (estimated) Ontarians living with diabetes, costing Ontario’s health care system $7.7 billion (estimated) annually.\(^3\)
- At least 50% of diabetes can be prevented through structured lifestyle intervention programs focused on healthy eating and physical activity.\(^5\)-\(^6\)
- A moderate weight loss of 5% of an individual’s initial body weight can reduce the risk of developing diabetes by as much as 60% among individuals at risk.\(^6\)

Ontario’s Commitment to Diabetes and Chronic Disease Prevention

To address rising diabetes and chronic disease rates in Ontario and resulting health care costs, the Government of Ontario has committed to helping Ontarians lead
healthy lives by investing in programs and services that prevent type 2 diabetes and chronic diseases through Ontario’s Diabetes Strategy, launched in 2008.\(^7\)

Utilizing a comprehensive approach to chronic disease prevention, the Ontario government is supporting health promotion and prevention programming that targets common risk factors among a range of chronic diseases, such as diabetes, obesity, and cardiovascular disease.\(^8\)

The PCDPP was chosen by the Ontario government based on international evidence that supports this program model as a best practice in reducing the risk for diabetes onset, as well as for its focus on modifying common risk factors.

### Evidence Supporting Best Practice Diabetes Prevention Programming

Research evidence has shown that for individuals with prediabetes, almost 60% of diabetes onset can be prevented through intensive and structured lifestyle modification, such as healthy eating and moderate physical activity, which leads to a 5-7% weight loss from initial body weight.\(^6,9-10\) This result has been demonstrated in a number of international trials measuring the effectiveness of the Diabetes Prevention Program (DPP) in reducing the risk for type 2 diabetes onset, including the National Diabetes Prevention Program clinical trial and the Diabetes Prevention Program Outcomes Study (DPPOS).\(^9-13\)

The DPP clinical trial sought to determine which approach to diabetes prevention was most effective, while the DPPOS sought to test whether the results of the most effective approach could be sustained in the long-term. The main findings of these large-scale, landmark clinical trials include the following:

- **DPP clinical trial**: Results showed that an intensive lifestyle modification program, resulting in a 5-7% weight loss from initial body weight, was more effective in diabetes risk reduction (approximately 58%) than standard lifestyle modifications and treatment with the drug metformin or standard lifestyle modifications and treatment with placebo pills.\(^9-10,13\)

- **DPPOS** clinical trial: Results showed that intensive lifestyle modification, with a 5% weight loss from initial body weight, at the 10-year follow-up, resulted in\(^12\):
  - reduced rate of type 2 diabetes onset by 34% in adults ≤ 60 years of age and by 49% in adults ≥ 60 years of age
Findings from the DPP and DPPOS trials support the key messages for reducing the risk of developing diabetes as cited in the Diabetes Canada’s *2013 Clinical Practice Guidelines for Prevention and Management of Diabetes in Canada*, specifically, the recommendation to target a 5% weight loss of initial body weight through intensive and structured lifestyle modification programming, such as the programming outlined in the DPP.\(^{14}\)

The DPP has been adapted by the University of Pittsburgh Diabetes Prevention Support Center for use in the real world.\(^{15}\) The resulting best practice program was renamed Group Lifestyle Balance\(^{TM}\) (GLB).

**Ontario’s PCDPP Trial in Family Health Teams across Ontario**

From January, 2011, to March, 2013, the Government of Ontario carried out the PCDPP pilot project to test the effectiveness of the GLB program/curriculum with six family health teams (FHTs) across Ontario, located in both urban and rural areas. The six FHTs were:

- Municipality of Assiginack FHT
- Algonquin FHT
- Owen Sound FHT
- Markham FHT
- Mount Forest FHT
- East Elgin FHT

The PCDPP uses a group-based, comprehensive, GLB curriculum that targets healthy eating and physical activity through goal setting, motivation, and lifestyle management skills to meet the following specific objectives:

- Achieve a moderate weight loss (7% from initial body weight)
• Participate in moderate physical activity (minimum of 150 minutes/week)
• Engage in healthy eating habits

The PCDPP is delivered by Lifestyle Coaches, who are interdisciplinary health professionals trained to deliver the GLB curriculum consisting of:

• Group-based healthy lifestyle education
• Group-based and/or one-on-one goal setting sessions
• Supervised physical activity sessions

Results of Ontario’s PCDPP Demonstration Project

The FHTs were successful in implementing the PCDPP pilot as evidenced by the following results:

Table 2.1 — Results of Ontario’s PCDPP Demonstration Project

<table>
<thead>
<tr>
<th>Participants</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enrolled Participants (n = 1228)</td>
<td>Age of Participants</td>
</tr>
<tr>
<td>71% female</td>
<td>74% 50+ years</td>
</tr>
<tr>
<td>29% male</td>
<td>31% 65+ years</td>
</tr>
</tbody>
</table>

Risk Reduction: 5% weight loss reduces risk for diabetes by as much as 60%6
Though not directly evaluated, a wide range of positive health and quality of life outcomes were observed and reported by program staff, participants, and physicians at the FHT pilot sites.

Additional positive participant outcomes included, but were not limited to, the following:

- Increased self-esteem, self-efficacy, and confidence to make changes
- Increased and transferable self-management and behavioural skills
- Increased and transferable health, physical, and food literacy skills
- Increased mobility
- Pain reduction
- Improved bloodwork on a number of parameters (e.g., LDL cholesterol, blood pressure, blood glucose)
- Decreased reliance on/dosage of medication (e.g., diabetes medications)

Encouraged by these results, the original pilot site FHTs continue to use the PCDPP as their primary and secondary diabetes prevention program.

“One of the greatest features of the Group Lifestyle Balance Program is that it is a comprehensive modular approach to chronic disease prevention and management that is backed by science and proven through research. Trained Lifestyle Coaches guide patients through key concepts of mindfulness, moderation, and movement, and provide ongoing support that maintains momentum and motivation. With a focus on progress, not perfection, patients are actively involved in creating an individualized process that leads to their success.”

—Given, Lifestyle Coach
Benefit of the PCDPP to Your Organization

- The PCDPP is an evidence-based, turn-key program suitable for diabetes and metabolic syndrome prevention (including prediabetes, hypertension, dyslipidemia, and obesity), with easy start-up and resources available, including:
  - training, coaches, manual and participant handouts
  - Diabetes Prevention Support Center portal, providing administrative support and regular program updates to keep the program up-to-date with best practices
  - training/support by Ontario Master Trainers in person or via the Ontario Telemedicine Network

- Lifestyle Coaches can be any health care professional. A multidisciplinary team enhances and improves effectiveness.

- The PCDPP can be implemented within both FHT and community settings and is adaptable to suit your community’s needs. Collaboration can help reduce costs to the FHT and improve visibility and public relations within the community.

- The PCDPP has resulted in satisfaction among participants, administrators, physicians, and executive directors.

“In over 30 years of medical practice, I have never heard so many participants compliment a program that they have been involved in. Many people have told us that they have never felt better and have been very appreciative that they had been referred to the program. It has definitely reduced the number of people developing diabetes, and I would recommend the continuation of this program. For areas of Ontario in which the program is not currently available, I hope that it does become available very soon.”

—Bruce Stanners MD, FCFP, Dip Sport Med
PCDPP Training and Support in Ontario

The MOHLTC in Ontario has made a commitment to support organizations interested in offering the PCDPP across Ontario, currently offering Ontario-based training and support delivered by GLB Master Trainers from the original PCDPP pilot sites.

For more information about the PCDPP and Ontario-based training, refer to Program Logistics for Getting Started in this manual or contact:

Sarah Pink, RD, GLB Master Trainer — spink@mountforestfht.com

Diane Horrigan RN, GLB Master Trainer — dhorrigan@mountforestfht.com

Refer to Appendix: Supplementary Materials for an informational pamphlet about the PCDPP and a Frequently Asked Questions document.
Program Overview

Program Goals

The PCDPP program has been designed for adults who have been identified with, or are at risk for, prediabetes and/or metabolic syndrome. In Ontario, it has also been adapted and delivered to participants already diagnosed with type 2 diabetes to provide opportunities for secondary prevention as well as primary prevention.

The overall goal of the PCDPP is to help participants reduce their risk for diabetes onset and chronic disease complications through the following approaches:

- Increasing participants’ awareness and knowledge of type 2 diabetes risk factors and strategies to reduce these risks through healthy lifestyle changes
- Increasing participants’ regular healthy eating behaviours by providing them with healthy eating education, strategies to develop healthy dietary habits, and support to help them make and achieve weekly healthy eating goals
- Having participants safely and progressively increase their moderate physical activity (similar to brisk walking) to 150 minutes per week
- Encouraging participants to achieve and maintain moderate weight loss, aiming for a 5-7% reduction (from baseline or program initiation) from their overall body weight
- Empowering participants with knowledge, skills, motivation, and self-efficacy to make continued healthy eating and active living changes over the long-term
- Achieving participant improvements in a range of quality of life indicators, such as self-perceived quality of life, pain reduction, physical mobility, and mood

Through these activities, it is anticipated that participants’ risk for diabetes onset will be significantly reduced and their overall health improved.
Table 3.1 — Short-Term vs. Long-Term Participant Goals

<table>
<thead>
<tr>
<th>Short-Term Goals (6 months-1 year program enrolment)</th>
<th>Long-Term Goals (1-10 years post-program graduation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Increase awareness and knowledge of type 2 diabetes risk factors and strategies to reduce risk.</td>
<td>- Sustain awareness and knowledge of diabetes risk factors and strategies to reduce risk.</td>
</tr>
<tr>
<td>- Increase food literacy. - Increase regular healthy eating behaviours.</td>
<td>- Maintain regular healthy eating behaviours.</td>
</tr>
<tr>
<td>- Increase physical literacy. - Increase physical activity to ≥ 150 minutes/week of moderate activity.</td>
<td>- Maintain physical activity of ≥ 150 minutes/week.</td>
</tr>
<tr>
<td>- Decrease total body weight by 5-7% (from baseline).</td>
<td>- With continued lifestyle intervention, including dietary and physical activity modification, maintain weight loss of 5% from initial weight and sustain for up to 10 years.6</td>
</tr>
<tr>
<td>- Increase knowledge, skills, motivation, and self-efficacy to make continued healthy active living changes over the long term.</td>
<td>- Maintain long-term healthy eating and physical activity behaviours. - Reduce risk for onset of diabetes and/or risk for chronic disease complications and improve overall health and well-being.</td>
</tr>
<tr>
<td>- Achieve improvements in a range of quality of life indicators, such as increased flexibility, pain reduction, increased physical mobility, and improved mood.*</td>
<td>- Sustain quality of life.*</td>
</tr>
</tbody>
</table>

* Quality of life has not been directly measured but has been reported by participants and staff. Likewise, sustained/improved quality of life has not been measured but is an anticipated outcome that would accompany long-term healthy eating, physical activity, and weight loss.
Why Target 5-7% Weight Loss?

Weight loss can be much more difficult to achieve for certain individuals and a greater percentage of weight loss may be more challenging to maintain over the long term. In the GLB program, the goal for weight loss is 7% within 24 weeks as recommended by the University of Pittsburgh Diabetes Prevention Support Center (UPDPSC). This goal is evidence-based as demonstrated by clinical trials involving the DPP/GLB and shown to be safe, highly effective in risk reduction for type 2 diabetes, and more feasible to maintain in the long-term than 10% loss from initial body weight. As per the Diabetes Canada’s 2013 Clinical Practice Guidelines for the Prevention of Diabetes in Canada, the international evidence regarding structured lifestyle diabetes programs suggests that a loss of as much as 5% of baseline body weight is also effective in reducing the risk of progression of prediabetes to diabetes by approximately 60%. Therefore, the PCDPP has accepted a goal range for weight loss, as appropriate for the individual participant. It is advised that participants aim for a 7% weight loss from their initial body weight to be consistent with the GLB and PCDPP pilot program targets, but that they consider adjusting to a 5% weight loss from their initial weight as needed on an individual basis.

For more information and the rationale about participant goals and strategies to achieve them, refer to the GLB Manual of Operations (2011, page 2-1).

“We thought we were living and eating sensibly all our lives, but recently we had been steadily gaining weight and taking more medications to control BP, Cholesterol and impending or existing diabetes. After 10 months we have decreased medications, experiences less aches and pains, and increased our energy level. We think that there has been adequate time elapsed for us to have trained ourselves to live a new lifestyle.”

—John and Janet, participants
Target Population for Program Participants

Given the program goals outlined, the PCDPP is appropriate for and would be of benefit to adults at-risk for diabetes and other chronic conditions, to individuals that demonstrate a chronic disease risk factor that may be modified through healthy eating and active living, and to adults already living with a wide array of chronic conditions.

“Last August my [doctor] thought that I was overweight and recommended that I take your program. I was very skeptical and thought she was overreacting as I’d lost 20 lbs the year before. I reluctantly agreed and joined your program ... by November 22nd I had reached my goal weight (244.2 lbs) and was so motivated by the results that I continued to follow the program intensely. My weight is now 230 lbs, and my doctor’s nurse tells me my good cholesterol is good, my bad cholesterol is good, and my blood pressure is really good.”

—Bobby, participant

Expanding Eligibility for Maximum Impact on Chronic Disease Prevention

As a diabetes prevention program in Ontario, the PCDPP originally had a goal of reaching adults who were most at risk for developing diabetes. To help achieve this, recruitment of participants focused on adults at risk for diabetes and individuals diagnosed with prediabetes and/or metabolic syndrome. However, given that the program has proven to be beneficial to a much wider range of individuals, some PCDPP sites in Ontario have expanded eligibility to include individuals with a range of chronic disease risk factors that can be improved though a structured lifestyle behaviour program, individuals already diagnosed with diabetes and other chronic conditions, and individuals who are simply interested in gaining knowledge and skills and achieving a healthy lifestyle. Moreover, some sites have seen incredible successes, both in terms of program recruitment and participant outcomes, by instituting an open-door policy, which accepts participant self-referrals to the program and program graduates who wish to re-enter the program to continue to work towards healthy living goals and to support long-term, lasting change.
Program reach and eligibility criteria for participant recruitment and enrolment will depend on the target population that a primary care organization is trying to reach. When defining your target population for the PCDPP, the needs of the community and organization’s capacity and resources are key factors. For example, an organization may have sufficient resources to implement the PCDPP as both a healthy living program with an open-door policy to all individuals interested in participating, and also develop a strategy for targeted referrals. However, some primary care organizations may need to manage limited resources more closely and, therefore, should prioritize and target individuals from the community who are most at risk for developing diabetes and chronic diseases.

On the following page is a table that outlines suggested participant eligibility criteria depending on how a primary care organization defines its target population for the PCDPP and the type of program the primary care organization chooses to run (e.g., diabetes prevention, diabetes prevention/general healthy lifestyle program, diabetes prevention/healthy lifestyle program for living with chronic disease).

“I have a friend who lives in a big city and this year discovered she is prediabetic, but her introduction was a 2-hour session and that was it. She would have benefited so much more if this program was available to her…. I hope that this course continues to be available to others who would benefit in this important, educational program.”

—Verenna, participant
Table 3.2 — Suggested Eligibility Criteria by Type of Program

<table>
<thead>
<tr>
<th>Type of program</th>
<th>Diabetes prevention</th>
<th>Diabetes prevention and general healthy lifestyle program</th>
<th>Diabetes prevention and healthy lifestyle program for living with chronic disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eligibility criteria</td>
<td>(e.g., Those at highest risk for developing type 2 diabetes)</td>
<td>(e.g., Those at risk for diabetes and those interested in making changes for a healthier lifestyle)</td>
<td>(e.g., Those at risk for diabetes and those diagnosed with diabetes, cardiovascular disease)</td>
</tr>
<tr>
<td>Age &gt;18</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Prediabetes</td>
<td><em>Yes⁶, or they have moderate to high CANRISK score (≥ 21)</em></td>
<td>Yes⁶, but not limited to*</td>
<td>Yes⁶ or No*</td>
</tr>
<tr>
<td>Metabolic syndrome</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes or No</td>
</tr>
<tr>
<td>Diabetes</td>
<td>No</td>
<td>No</td>
<td>Yes or No</td>
</tr>
<tr>
<td>Overweight/obesity</td>
<td>Yes** <em>(Note: Those at healthy weight can participate, but aiming for Body Mass Index (BMI) below healthy range for age is not appropriate)</em></td>
<td>Yes** <em>(Note: Those at healthy weight can participate, but aiming for BMI below healthy range for age is not appropriate)</em></td>
<td>Yes** <em>(Note: Those at healthy weight can participate, but aiming for BMI below healthy range for age is not appropriate)</em></td>
</tr>
<tr>
<td>Self-referral to program</td>
<td>Yes or No — Screening may be required</td>
<td>Yes or No — Screening not required</td>
<td>Yes or No — Screening may be required</td>
</tr>
<tr>
<td>Graduates re-referring to program</td>
<td>TBD by primary care organization</td>
<td>TBD by primary care organization</td>
<td>TBD by primary care organization</td>
</tr>
<tr>
<td>Presence of any chronic disease risk factor that may be modified by lifestyle</td>
<td>TBD by primary care organization</td>
<td>TBD by primary care organization</td>
<td>TBD by primary care organization</td>
</tr>
</tbody>
</table>
* **Diagnosis of prediabetes**:  
  - Impaired fasting glucose: fasting plasma glucose = 6.1-6.9 mmol/L  
  - Impaired glucose tolerance: 2-hour plasma glucose in a 75 g oral glucose tolerance test = 7.8-11.0 mmol/L  
  - Prediabetes: HbA1c = 6.0-6.4%

** Classification of overweight/obesity**:  
  - BMI ≥ 25; or WC ≥ 102 cm in men, 88 cm in women; ranges vary according to ethnicity  
  - Note: For individuals ≥ 65 years, the “normal” range, or range with lowest risk for developing health problems, begins slightly above BMI 18.5 and extends into the “overweight” range

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**Participant Success and Safety in the PCDPP**

The PCDPP may not be successful or safe for all clients of your primary care organization, including individuals with:

- Any condition, health issue, or injury that would restrict a participant from safely engaging in regular, moderate intensity physical activity as determined by the primary care provider’s judgment  
- A pregnancy or planning a pregnancy in the next six months  
- Active alcohol or substance abuse that would affect successful participation as determined by the primary care provider’s judgment  
- End stage renal disease and on dialysis  
- A current diagnosis of cancer and undergoing treatment that prohibits participation as determined by the primary care provider’s judgment

It is highly recommended that the primary care provider(s) who refer(s) clients to participate in the program provide verbal and/or written confirmation from a physician that the client has been medically assessed and may safely participate in the physical activity component of the program. Discuss participant health and safety with your primary care team and consider developing a standardized clearance process or form for providers to complete when confirming patient eligibility and safety for the PCDPP.
Program Structure and Format

The PCDPP consists of group-based healthy lifestyle education, group-based and/or one-on-one goal setting sessions, and, when possible, supervised physical activity sessions led by Lifestyle Coaches who are health professionals and/or community members trained in the delivery of the Group Lifestyle Balance™ (GLB) lifestyle intervention curriculum.

The PCDPP uses the GLB format and curriculum (2011). The GLB’s program design is modelled closely after the original United States National Institute of Health Diabetes Prevention Program study. GLB is a structured 7 to 12-month, group-based, lifestyle behavioural intervention focused on helping participants adopt and maintain lifestyle skills related to modifiable risk factors, including weight loss, nutrition, and physical activity.

The PCDPP is delivered in a group-based format, with groups of 10 to 20 participants in each group. In Ontario, Lifestyle Coaches observed that smaller groups tended to have an enhanced group dynamic, with participants being able to participate more frequently in group discussions and feeling more connected to the group as a result.

The PCDPP consists of three phases. Phase one is the core phase, which engages participants for 12 sessions over 12 weeks. Immediately following the core phase is phase two, or the transition phase, which includes 4 sessions that can last from 4 to 8 weeks depending on the program schedule you choose. The third and final phase is the maintenance phase, which includes 6 sessions lasting a minimum of 12 weeks but can be spread over as many as 24 weeks.

Lifestyle Coaches from Ontario pilot sites have found that conducting the core phase weekly and the transition/maintenance phase biweekly, rather than monthly as suggested by the University of Pittsburgh Diabetes Prevention Support Center (UPDPSC), has improved retention rates. Ontario participants noted that they had a hard time committing to such a long program and are often lost in the maintenance phase when the frequency of group sessions decreases. For more strategies to improve retention, refer to the Planning and Implementation section.

“The classes are very informative and it is a good thing to have group sessions as we cheer each other on and share our thoughts and ideas…. I am proud of who I am and know now I am leading a healthier lifestyle.”

—Brenda, participant
PCDPP Adaptations to Support Lasting Change

Your organization is encouraged to continue providing support to program graduates beyond the duration of the program to promote continued, lasting change. One organization in Ontario’s PCDPP added an additional, optional session following the completion of the full GLB program. As described in Table 3.3, the final additional session focuses on food skills/literacy to support program graduates as they transition into a more independent role in their healthy living behaviours. This optional class aims to increase knowledge, skills, and resources around food safety, using/modifying recipes to prepare healthy food, and food preparation/cooking skills. Other sites have supported lasting change for participants by offering periodic “follow-up refresher” sessions and/or allowing program graduates to re-enter the program to continue to work towards goals or to maintain weight loss and healthy behaviours. For more strategies to support lasting participant change, refer to Participant Outcomes and Lasting Change section.

Below are two program schedules with differing timelines as options to consider in implementing the PCDPP at your primary care organization.

Table 3.3 – Program schedule options recommended by PCDPP versus UPDPSC

<table>
<thead>
<tr>
<th>Month</th>
<th>Schedule Recommended by the Ontario PCDPP</th>
<th>One-Year Group Lifestyle Balance™ Curriculum</th>
<th>Month</th>
<th>Schedule Recommended by the UPDPSC</th>
<th>One-Year Group Lifestyle Balance™ Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Weekly (4 per month)</td>
<td>1: Welcome to the GLB Program 2: Be a Fat and Calorie Detective 3: Healthy Eating 4: Move Those Muscles</td>
<td>1</td>
<td>Weekly (4 per month)</td>
<td>1: Welcome to the GLB Program 2: Be a Fat and Calorie Detective 3: Healthy Eating 4: Move Those Muscles</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5: Tip the Calorie Balance 6: Take Charge of What’s Around You 7: Problem Solving 8: Four Keys to Healthy Eating Out</td>
<td>2</td>
<td>Weekly (4 per month)</td>
<td>5: Tip the Calorie Balance 6: Take Charge of What’s Around You 7: Problem Solving 8: Four Keys to Healthy Eating Out</td>
</tr>
</tbody>
</table>
### Table 3.4 — Program schedule options recommended by PCDPP versus UPDPSC continued

<table>
<thead>
<tr>
<th>Month</th>
<th>Schedule Recommended by the Ontario PCDPP</th>
<th>One-Year Group Lifestyle Balance™ Curriculum</th>
<th>Month</th>
<th>Schedule Recommended by the UPDPSC</th>
<th>One-Year Group Lifestyle Balance™ Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Core Phase Sessions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Weekly (4 per month)</td>
<td>9: Slippery Slope of Lifestyle Change</td>
<td>3</td>
<td>Weekly (4 per month)</td>
<td>9: Slippery Slope of Lifestyle Change</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10: Jump Start Your Activity Plan</td>
<td></td>
<td></td>
<td>10: Jump Start Your Activity Plan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11: Make Social Cues Work for You</td>
<td></td>
<td></td>
<td>11: Make Social Cues Work for You</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12: Ways to Stay Motivated</td>
<td></td>
<td></td>
<td>12: Ways to Stay Motivated</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Transition Phase Sessions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Biweekly (2 per month)</td>
<td>13: Prepare for Long-Term Self-management</td>
<td>4</td>
<td>Biweekly (2 per month)</td>
<td>13: Prepare for Long-Term Self-Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14: More Volume, Fewer Calories</td>
<td></td>
<td></td>
<td>14: More Volume, Fewer Calories</td>
</tr>
<tr>
<td>5</td>
<td>Biweekly (2 per month)</td>
<td>15: Balance Your Thoughts</td>
<td>5</td>
<td>Biweekly or monthly</td>
<td>15: Balance Your Thoughts</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16: Strengthen Your Exercise Program</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Biweekly (2 per month)</td>
<td>17: Mindful Eating</td>
<td>6</td>
<td>Biweekly or monthly</td>
<td>16: Strengthen Your Exercise Program</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18: Stress and Time Management</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Biweekly (2 per month)</td>
<td>19: Standing Up for Your Health</td>
<td>7</td>
<td>Monthly</td>
<td>17: Mindful Eating</td>
</tr>
<tr>
<td></td>
<td></td>
<td>20: Heart Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Biweekly (2 per month)</td>
<td>21: Stretching: The Truth about Flexibility</td>
<td>8</td>
<td>Monthly</td>
<td>18: Stress and Time Management</td>
</tr>
<tr>
<td></td>
<td></td>
<td>22: Looking Back and Looking Forward</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Biweekly / Additional</td>
<td>23: Cooking Class: Food/cooking skills,</td>
<td>9</td>
<td>Monthly</td>
<td>19: Standing Up for Your Health</td>
</tr>
<tr>
<td></td>
<td></td>
<td>food safety, and using/modifying recipes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>to create healthy meals and snacks**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Monthly</td>
<td>20: Heart Health</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Monthly</td>
<td>21: Stretching: The Truth about Flexibility</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Monthly</td>
<td>22: Looking Back and Looking Forward</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3.4 has been adapted from the University of Pittsburgh Diabetes and Prevention Center *Group Lifestyle Balance™ Manual of Operations*, (2011) page 1-2. Note: The GLB program/manual has recently been revised and this outline has changed slightly with the new 2017 Diabetes Prevention Program GLB materials. Please see the most up-to-date GLB manual for the updated outline, which can be accessed through the University of Pittsburgh’s Diabetes Prevention Support Center.

**Session 23 is an additional session to transition to independent maintenance (not GLB curriculum)**

**Role of the Lifestyle Coach**

Lifestyle Coaches are group leaders or “preventionists” in the PCDPP. They are typically health care professionals with knowledge, experience, and expertise about diabetes and health promotion, particularly related to healthy eating and physical activity.

Lifestyle coaches play a vital role in helping participants achieve and maintain their healthy eating, physical activity, and weight loss goals. The knowledge, confidence, problem-solving skills, and other self-management skills that Lifestyle Coaches help participants build are critical to participants’ short- and long-term success with the program. Lifestyle coaches are expected to work with participants to identify their strengths, key success factors, and barriers to success and help them build on what works for them to maintain their participation and achieve their goals.

Lifestyle Coaches are required to work with participants in both group and one-on-one settings to promote and encourage the approaches that work best for individuals in achieving their healthy eating, physical activity, and weight goals, and keep participants in the program until curriculum completion.
Lifestyle Coach Strategies to Improve Participant Outcomes and Reduce Dropout Rates

Supportive Lifestyle Coach approaches may include, but are not limited to, the following:

- Contacting participants as needed to encourage them to continue in the program
- Providing tailored, individualized feedback on weekly journaling and homework
- Identifying participant strengths and building on these
- Helping participants to identify barriers to success and explore and implement approaches to overcome these
- Creating a personalized action plan to help each participant succeed in the program
- Using motivational interviewing and behaviour change theory tools (e.g., readiness for change questionnaire)
- Allowing for scheduling flexibility and accessible locations

For more lifestyle coach strategies to contribute to positive outcomes and retention, refer to the Participant Recruitment and Promotion Strategies section and the Planning and Implementation section.
Core Phase

During the core phase, the Lifestyle Coach will have at least weekly contact with each participant in a group setting. The core curriculum sessions will include a weight assessment, a review of self-monitoring records, the presentation of a new topic, ongoing identification of any personal barriers to weight loss and activity, and the development of an action plan/goals for the next session. The Lifestyle Coach is strongly encouraged to offer supervised physical activity sessions at least two times per week throughout the 12-week core curriculum. The Lifestyle Coach may also identify and refer participants to an affiliated or non-affiliated community program that offers safe physical activity when he or she is not facilitating any supervised activity sessions. All supervised activity sessions on your primary care organization’s property should be led by a PCDPP Lifestyle Coach or someone trained by a PCDPP Lifestyle Coach in the goals of the PCDPP’s lifestyle intervention. It is recommended, when possible, to have an exercise specialist lead physical activity sessions.

For more information about planning supervised physical activity sessions, refer to the Planning and Implementation section in this manual.

Transition Phase

The purpose of the transition phase is to encourage participants to practice the behavioural skills learned during the core phase more independently as the frequency of group and Lifestyle Coach support is reduced. Meetings occur biweekly rather than weekly during this phase. As with the core phase, the transition phase curriculum should include a weight assessment; ongoing identification of any personal barriers to healthy eating, physical activity, and weight loss; and the development of an action plan and goals for the next session. Continued supervised physical activity sessions or referral of participants to local physical activity resources is strongly encouraged.

Maintenance Phase

The maintenance phase provides participants with personal supports to reinforce the lessons learned in the core and transition phases, and empowers participants to maintain a healthy lifestyle during and after the maintenance phase. The maintenance phase lasts a minimum of 12 weeks and may continue for as long as 24 weeks. During the maintenance phase, Lifestyle Coaches are required to conduct follow-up sessions with participants and continue working with participants to help them achieve their program goals.

The Lifestyle Coach is required to offer each participant the option of meeting on a biweekly basis, either in a group session or an individual visit, for the duration of the maintenance phase.
Lifestyle Coach Training in Ontario

To become a Lifestyle Coach for the PCDPP, your staff must register and complete the Lifestyle Coach training developed by the University of Pittsburgh. In Canada, Lifestyle Coach training is currently available in Ontario and is supported by the Ministry of Health and Long-Term Care (MOHLTC).

The Ontario-based PCDPP/Group Lifestyle Balance™ training is a two-day training workshop led by Master Trainers in Ontario. Completing this training certifies you as a GLB Lifestyle Coach and equips you with the knowledge and understanding needed to run the PCDPP/Group Lifestyle Balance™ program. Training is available for any health care professional working in Ontario. After completing training, you will be registered with the University of Pittsburgh Diabetes Prevention Support Center (UPDPSC). This portal will give you access to all GLB materials and resources needed to start the GLB program within your organization, access to other Lifestyle Coaches running the GLB program, and notifications from the Diabetes Prevention Support Center program, including updates to the GLB program itself.

For more detailed information on program staffing and role expectations, refer to the Program Logistics for Getting Started section.
While there is no cost/fee for the two-day training session, the primary care organization may incur costs for staff time to participate. Additionally, for on-site training at your organization, the primary care organization will be billed for travel time, accommodations, and any meals needed by the Master Trainers. Training costs include all trainers’ preparation time and delivery of presentations. Primary care organizations will be responsible for the photocopying of manuals and any additional materials that may be needed. An electronic copy will be provided to you for printing. Master Trainers will look after coordinating enrolment with the UPDPSC.

Training options in Ontario include:

1. **On-site training:** All four Ontario Master Trainers will attend. For on-site training, primary care organizations will be billed for travel time, accommodations, and any meals needed by trainers. Training costs include all trainers preparation time and delivery of presentations. Primary care organizations will be responsible for photocopying of manuals and any additional materials that may be needed.

2. **Training via Ontario Telemedicine Network (OTN)/PC Videoconferencing (PCVC):** A benefit of this option is that there are no costs to the organization other than the materials needed. You will have to have OTN/PCVC access for two full days or consider four half-days of training. Primary care organizations will be responsible for photocopying of manuals and any additional materials that may be needed.

3. **One Master Trainer at the training site and the other Master Trainers via OTN/PCVC:** The training site must have access to OTN/PCVC. The Master Trainer on site will be able to provide PCVC access but will need a projector. For on-site training, primary care organizations will be billed for travel time, accommodations, and any meals needed by Master Trainers. Training costs include all trainers’ preparation time and delivery of presentations. Organizations will be responsible for photocopying of manuals and any additional materials that may be needed.
For more information or interest in PCDPP Lifestyle Coach Training, use the Master Trainer contact information provided below:

**Diane Horrigan**  
dhorrigan@mountforestfht.com  
Mount Forest Family Health Team  
525 Dublin Street  
Mount Forest, Ontario  
N0G 2L3  
519-323-0255 ext. 5081

**Sarah Pink**  
spink@mountforestfht.com  
Mount Forest Family Health Team  
525 Dublin Street  
Mount Forest, Ontario  
N0G 2L3  
519-323-0255 ext. 5085

**PCDPP Resources**

The PCDPP uses the standardized GLB program materials. After registering and completing the Lifestyle Coach training delivered by Master Trainers in Ontario or through the University of Pittsburgh, participants may register with the University of Pittsburgh Diabetes Prevention Support Center to gain access to the online portal. Through the online portal, Lifestyle Coaches can access all program manuals, presentations, participant handouts and additional resources free of charge. This portal has updated program content and additional supports, including bulletins, blog posts, and regular newsletters. It also provides a platform to network with health professionals who are registered Lifestyle Coaches from Canada and the United States.

Please note that the GLB materials are subject to the following Creative Commons License: Creative Commons - Attribution - Non-commercial - ShareAlike 3.0. Accordingly, the manual and materials may be downloaded, duplicated, transmitted, and otherwise distributed for educational or research purposes only,
provided proper credits are given to the University of Pittsburgh Diabetes Prevention Support Center and the Diabetes Prevention Program research team. Additionally, the use of the GLB manual and materials for commercial purposes is strictly forbidden without the permission or license of the UPDPSC.

The GLB Manual of Operations (2011) is the essential guide for Lifestyle Coaches to learn about, plan, and implement the program. It is comprehensive and provides a great depth of support, including:

- Guidelines for setting up and running the program as a whole, as well as individual sessions
- Descriptions and rationales for program goals and strategies to achieve them
- Key principles underlying the program that contribute to participants’ success
- Strategies for responding to adherence problems
- All session scripts for Lifestyle Coaches
- All participant handouts and a number of supplementary materials
- A leader’s log

The UPDPSC online portal also hosts a number of additional resources that can be helpful for participants at different stages of the program or times of the calendar year. It may be helpful to include handout reminders to yourself on your manual or leader’s copy and have extra copies of handouts with you at meetings to use when needed. Examples of useful handouts for participants include ones on curriculum topics, meal planning tools, tips for holidays and vacations, recipes, exercise sheets, and relaxation methods.

Additionally, the Native Lifestyle Balance (NLB) program has developed modified versions of the manual used in the United States National Institute of Health’s Diabetes Prevention Program (NIH DPP). The modified versions are entitled NLB Manual of Operations and NLB After Core Manual. The original NIH DPP manual was

“The GLB training with the whole manual to fall back on contributed to feeling confident…. GLB materials are step-by-step, all laid out and it tells you what to say. I felt organized and felt it was manageable.”

—Sarah, Lifestyle Coach and Master Trainer
modified by the Native Lifestyle Balance group to assist community members in implementing the curriculum in group settings. It was also adapted for use in Native American/American Indian communities to prevent and delay the onset of type 2 diabetes. NLB program materials have not been used in Ontario. GLB (2011) is the basis for the PCDPP in Ontario.

For more information about specific materials required to facilitate GLB (2011) sessions, refer to the Program Logistics for Getting Started section.

Ongoing Support and Mentorship

PCDPP Lifestyle Coaches will continue to receive ongoing support and mentorship from both Ontario’s PCDPP Master Trainers and the University of Pittsburgh Diabetes Prevention Support Center.

Following graduation from the Lifestyle Coach training in Ontario, you have access to Master Trainers for ongoing support and mentorship as your organization plans and implements its PCDPP. Please refer to the previous section on Lifestyle Coach Training in Ontario for contact information for Ontario’s Master Trainers.

Through the UPDPSC online portal at the University of Pittsburgh, Lifestyle Coaches can also connect with University of Pittsburgh’s Master Trainers and program administrators for ongoing support, information, program updates, and permission/opportunities to adapt program content to meet the needs of your group/community or setting. Additionally, you can join the Group Lifestyle Balance™ Preventionist Network to connect with and mutually support lifestyle coaches across North America.

Ontario’s Lifestyle Coaches Have Been Supported by the UPDPSC

The University of Pittsburgh’s Diabetes Prevention Support Center has been a valuable support to Lifestyle Coaches in Ontario in a number of ways since the implementation of the PCDPP in Ontario. For example, one organization gained permission from the UPDPSC to adapt the GLB program and tailor specific sessions to PCDPP groups of participants with diabetes.

Additionally, in Ontario, Master Trainers are currently working with the UPDPSC to revise the GLB manual materials to replace American content and reference values with Canadian content/reference values, where relevant.
Program Logistics for Getting Started

Participant Volume Expectations

The participant volume expectation per fiscal year is to be determined by the primary care organization, recognizing that smaller organizations may have limited capacity and/or reach compared to larger organizations. While PCDPP pilot sites were expected to enrol 180 participants in the program per year, it would be reasonable for smaller sites to aim for 60-100 participants per year based on community need and organizational resources.

Initiating and Running Groups throughout the Fiscal Year

There are a number of factors that may affect how your organization chooses to initiate and run its groups throughout the year, including PCDPP participant volume determined by your organization, designated FTEs/program staff to run the PCDPP, and participant barriers to attending sessions. In Ontario, each pilot site had a unique schedule based on such factors, and adaptations to PCDPP group schedules were made as time went on to improve retention, remove participant barriers for attending the program, and improve implementation. For examples of how sites have set up and run their programs in Ontario, refer to the Program Logistics for Getting Started section and the Staffing Model Examples found later in this section.

Staffing Your PCDPP

Your primary care organization will require the following roles to oversee, coordinate, and implement the PCDPP:

- **Program Manager**: to oversee the operation of the PCDPP, to provide leadership and support to lifestyle coaches, and to ensure the program is operated safely and meets performance outcomes
• **Lifestyle Coach:** to lead PCDPP group sessions, to provide instruction and feedback to participants on program content and activities, and to provide encouragement, support, and guidance to participants to motivate them and help them to meet program goals

• **Administration Support:** to assist with program coordination duties and carry out a range of administrative duties required to run the program

Depending on the size and structure of your organization, there may be one person for each role or one person may fulfill multiple roles. Larger organizations with higher participant volumes will likely require more than one Lifestyle Coach.

**Full-Time Equivalents Expectations**

The full-time equivalents (FTE) requirement to run the program, cumulatively, includes lifestyle coaching (e.g., instructing/facilitating sessions and supervised physical activity) and administration time. From the experience of the PCDPP pilot sites in Ontario, it is estimated that on average 1.0 FTE is required to support 180 participants, and approximately 0.5 FTE is required to support approximately 90 participants per fiscal year. At most PCDPP sites, the 1.0 FTE is typically divided between two Lifestyle Coaches, with or without administration staff support, with a participant volume expectation of 180 participants per year. Some organizations may have administration support while at other organizations Lifestyle Coaches are also required to perform administration duties. Examples of job description responsibilities for Lifestyle Coaches and administration support are provided below.

**Responsibilities of the Lifestyle Coach and Administration Support**

Duties and functions of the Lifestyle Coach include, but are not limited to:

• Becoming familiar with the GLB curriculum and course material
• Accessing curriculum and other resource material online (through the University of Pittsburgh Diabetes Prevention Support Center website, and adapting as necessary)
• Facilitating groups and delivering lifestyle education curriculum in group sessions
• Instructing and/or supervising physical activity sessions when possible (at least once a week during the core phase and at least once every two weeks during the transition and maintenance phases), including recording participant attendance, time, and type of exercise for each session

• Connecting with each participant individually during group sessions to discuss progress towards healthy lifestyle goals of the PCDPP. When this is not possible during the session, provide individual communication in participants’ weekly journals

• Reviewing weekly food and activity log books and providing individually tailored, positive statements to encourage participants on their progress

• Working with participants to identify any barriers to goal achievement and recommending practical approaches that may help them to overcome identified barriers and enable them to reach program goals

• Training staff to deliver and/or supervise physical activity sessions (if necessary)

• Conducting follow-up sessions (preferably face to face) with participants during transition and maintenance phases to discuss their progress towards the healthy lifestyle goals of the PCDPP. Help identify barriers to success and recommend practical approaches to overcome these barriers to help the participants work towards reaching the program goals and/or maintaining goals and behaviour in the long-term

• Measuring, recording, and updating participants’ status and progress (as recommended by the GLB program, utilizing suggested evaluation metrics)

• Communicating and sharing identified participant data measures with the province as requested

• Possessing current Standard First Aid and CPR certification

• Possessing a degree or diploma from an accredited institution in one or more health-related disciplines (e.g., registered dietitian, registered kinesiologist, physical therapist, occupational therapist, registered nurse, health promoter) and having experience in chronic disease prevention or management programs
Duties and functions of the administrative support include, but are not limited to:

- Setting up/enrolling participants in the program, assisting in provision of appropriate forms, etc.
- Filing primary care provider letters confirming participants’ eligibility
- Filing documents related to the Participation Agreement and data collection activities
- Filing and maintaining records of participants’ status and progress (measures to be supplied by the Lifestyle Coach)
- Scheduling sessions, meetings, and appointments and making reminder or check-in telephone calls when sessions are missed
- Assisting in development and distribution of program-related resources, advertisements, and other communications

**First Aid and Cardiopulmonary Resuscitation (CPR) Certification**

The person supervising the exercise sessions (either the Lifestyle Coach or a facilitator trained by the Lifestyle Coach) must have current Standard First Aid and CPR certification. At a minimum, Level A CPR certification from an accredited facility such as the Red Cross or St. John’s Ambulance is required. Additionally, the GLB Manual of Operations (2011) outlines safety issues and recommendations to minimize health and safety risks to participants that may result from physical activity (see Section 1.5 - Optional Supervised Group Activity).
Considerations for Staffing Interdisciplinary Lifestyle Coaches — Role, Eligibility, Qualifications

The Lifestyle Coach is instrumental to the success of participants in safely achieving their healthy eating, physical activity, and weight loss goals. It is, therefore, important to carefully consider the knowledge, skills, and qualifications of staff selected to be trained to fulfill this role. The GLB curriculum and leaders’ scripts are standardized and Lifestyle Coach training is comprehensive so that a wide range of individuals with diverse professional backgrounds can be trained to deliver content. However, the program itself is based on health behaviour change theory, principles, and strategies. Accordingly, health behaviour change is best supported by trained health care providers, allied health professionals, and/or health specialists with in-depth knowledge, skills, and expertise in health promotion, behaviour change strategies, nutrition/healthy eating, physical activity, and diabetes.

An interdisciplinary team contributes diversity with respect to the in-depth knowledge, expertise, experience, and ability to provide relevant, practical information to support participants with various components of the program. Specialists can augment the program with supplementary materials, tools, teaching methods, and program adaptations that are beneficial to participants’ learning and safety (e.g., a physiotherapist modifies activities for participants with physical disabilities). Examples of health care providers/health specialists suitable for Lifestyle Coach training include, but are not limited to, registered dietitians (RD), physiotherapists (PT), registered kinesiologists (R.Kin), and registered nurses (RN).

In order to be eligible to become a Lifestyle Coach for the PCDPP, staff must register for and complete the two-day Lifestyle Coach training developed by the UPDPSC and delivered by Master Trainers.

For more information, refer to the *Lifestyle Coach Training in Ontario* section.
Qualities to Look for When Hiring a Lifestyle Coach

Knowledge, skills, and qualities to look for when choosing Lifestyle Coaches for the PCDPP include, but are not limited to, the following:

- Strong communication, interpersonal, and group facilitation skills
- Ability to build strong relationships and supportive group dynamics to foster social support as a key behaviour change strategy and underlying principle
- Knowledge of basic nutrition, physical activity, health, and diabetes risk/prevention
- Knowledge of principles of behaviour change, health behaviour theory, and behaviour change strategies (e.g., goal setting, performance review, self-monitoring behaviour, individual tailored feedback, motivational interviewing)
- Ability to guide behaviour change using a non-prescriptive approach, which encourages participants to develop personal solutions
- Knowledge of principles of adult education and health communication
- Active listening and empathy skills
- Enthusiastic, positive, and motivational attitude
- Ability to work with diverse populations in a variety of community settings
- Ability to identify and help to prevent participant safety issues
- Ability to maintain confidentiality while also recognizing the need for referral and/or disclosure of information to appropriate primary care team member and/or program coordinator to ensure participants’ safety
- Ability to deliver the program in adherence to the PCDPP/GLB curriculum
- Organizational skills and ability to carry out administrative duties required to implement the PCDPP
Lessons Learned from an Interdisciplinary Approach to PCDPP Delivery in Ontario

In Ontario, the pilot sites had a wide range of health professionals and specialists offering an interdisciplinary approach in delivering the PCDPP. Lifestyle coaches and participants have reported a number of benefits of the interdisciplinary approach, including, but not limited to, the following:

- Interdisciplinary specialists augment program content with knowledge, skills, experience, and practical information, improving the program quality
- Healthy eating and physical activity specialists are able to provide specialized, tailored information to participants beyond the program basics
- Having multiple specialists as leaders and/or guest session leaders keeps sessions interesting for participants and helps participants better connect to content in sessions
- Interdisciplinary partners offer new spaces for program delivery (e.g., grocery store tour with dietitian, physical activity session led in private fitness centre), thereby enhancing the program
- Team Lifestyle Coaches can draw on one another’s strengths, expertise, educational/motivational strategies, and facilitation styles
- Team engagement and program promotion throughout the primary care organization is enhanced

The PCDPP is largely focused on improving healthy eating and physical activity behaviours. Accordingly, it was unanimously reported by pilot sites and by many participants that it was highly beneficial to have lifestyle coaches with healthy eating and physical activity expertise to provide in-depth, tailored information and responses to participants’ questions. Specifically, it is highly recommended to have a registered dietitian involved with the program to support the nutrition content as the program is very nutrition-focused. Additionally, the current program materials, related to healthy eating and nutrition, are based on American information and references, requiring translation to the Canadian context, which would be best
supported by a registered dietitian. Note: The GLB manual requires minor Canadian adaptations. In Ontario, Master Trainers can support the translation of Canadian content in the absence of a registered dietitian.

Table 4.1 — Topics Supported by Relevant Health Professionals/Specialists

<table>
<thead>
<tr>
<th>Topic</th>
<th>Health Professional or Health Specialist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nutrition</td>
<td>Registered dietitian</td>
</tr>
<tr>
<td>Healthy eating</td>
<td>Certified diabetes educator/registered dietitian</td>
</tr>
<tr>
<td>Food literacy/food skills</td>
<td>Note: For groups that include participants with diabetes, sessions on healthy eating and diabetes should be led by a dietitian or diabetes educator</td>
</tr>
<tr>
<td>Diabetes</td>
<td></td>
</tr>
<tr>
<td>Mindful eating</td>
<td></td>
</tr>
<tr>
<td>Physical activity</td>
<td>Registered kinesiologist</td>
</tr>
<tr>
<td>Modified physical activities for participants with physical disabilities/issues or chronic pain</td>
<td>Registered physical therapist, Occupational therapist</td>
</tr>
<tr>
<td>Emotional aspects of eating</td>
<td>Registered mental health therapist</td>
</tr>
<tr>
<td>Positive/negative thoughts</td>
<td>Social worker</td>
</tr>
<tr>
<td>Self esteem</td>
<td></td>
</tr>
<tr>
<td>Mindful eating</td>
<td></td>
</tr>
</tbody>
</table>

“I started this course 10 months ago on my 70th birthday and was wondering if I can do this and how hard it would be…. I have had two knee replacements and have had a small stroke and needed more exercise and to eat healthier. The information provided showed me that I could get the much needed exercise that I certainly needed and the tools to eat healthier. I am proud to say with the encouragement of our instructor who is a physiotherapist and who guided and encouraged me into a walking program … I just recently completed a 6.6 kilometre walk and try to walk or exercise 50-60 minutes most days.”

—Verenna, participant
If you are considering a non-health care professional as a Lifestyle Coach for the PCDPP, it is advisable to seek an individual with the qualifications described previously. Additionally, the use of guest speakers has helped to ensure quality programming when using non-health care professionals as Lifestyle Coaches. Your organization could bring in health professionals as guest presenters to lead relevant topics, such as healthy eating/nutrition or physical activity topics. For example, Ontario’s Lifestyle Coaches sought partnerships to bring in specialized health professionals at low or no cost to lead certain sessions, as well as to gain access to facilities outside of their organization (e.g., a dietitian from the Diabetes Education Centre and public health unit to provide healthy eating/diabetes education, a physiotherapist to lead physical activity sessions at a private clinic, physical activity specialists from community fitness centres to lead specific fitness activities and provide access to fitness equipment/machines in a community setting).

Suggestions for Cost Savings on Staffing That Maintains Program Quality Assurance

While it is highly recommended that health care providers deliver the PCDPP, at some sites around the world, community members who are not health professionals have been trained to deliver the GLB program effectively, providing cost savings to the organization to run the program on limited resources and/or to support program sustainability. For example, when the Diabetes Prevention Program was rolled out to YMCAs across the United States, the program was successfully implemented with only registered dietitians and registered kinesiologists as lifestyle coaches but has now moved to a more sustainable model that includes a more interdisciplinary approach (e.g., here is a sample roster of Lifestyle Coaches at a YMCA DPP and a sample job description). In Ontario, one pilot site successfully trained a teacher from the community to be a Lifestyle Coach for the PCDPP.
## Logistics and Staffing Model Examples

**Table 4.2 – Staffing Model Examples**

<table>
<thead>
<tr>
<th>Logistics &amp; Staffing</th>
<th>Example # 1 PCDPP Pilot Site Details</th>
<th>Example # 2 PCDPP Pilot Site Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant volume</td>
<td>160-180</td>
<td>160-180</td>
</tr>
<tr>
<td>Class size</td>
<td>10-20</td>
<td>10-20</td>
</tr>
<tr>
<td>Lifestyle coaches</td>
<td>Division of responsibility: 2 Lifestyle Coaches who co-lead all sessions for all groups and share admin duties (e.g., one instructs class and the other provides feedback on tracking journals and completes admin duties) Professional expertise: 1 registered dietitian and 1 registered nurse Guest speaker: physical activity specialist to lead supervised physical activity sessions</td>
<td>Division of responsibility: 2 Lifestyle Coaches who divide participants into 2 groups, where each lifestyle coach leads his or her own group (i.e., 1 Lifestyle Coach per session) Professional expertise: formerly for original pilot, 1 registered kinesiologist, 1 physiotherapist; currently 1 occupational therapist, 1 registered dietitian</td>
</tr>
<tr>
<td>FTEs</td>
<td>1.0 FTE (0.75 coaching, 0.25 admin)</td>
<td>1.0 FTE cumulative initially, now 0.5 FTE (photocopying outsourced)</td>
</tr>
<tr>
<td>Venue</td>
<td>GLB sessions: held in space at FHT and community spaces (e.g., M&amp;M Meat Shops office space) Physical activity sessions: held in FHT space, community gym space, and recreation centre/arena’s walking track</td>
<td>GLB sessions: meeting room with table and chairs at health unit and/or FHT - 2 rooms approximately 23 m², each room to offer 1 class, with class running at the same time Physical activity sessions: held in walking area at FHT space, resistance activity held in classroom or walking area (initially had physiotherapist partner who offered access to private clinic for physical activity sessions with access to cardio equipment, treadmills, elliptical trainers, stationary bikes, resistance equipment, etc.)</td>
</tr>
<tr>
<td>Equipment, materials, resources</td>
<td>Hard copy program materials/binders; additional handouts; physical activity equipment purchased (e.g., resistance bands, mats, free weights, exercise balls); flip chart and markers; no technology required; scale to assess weights</td>
<td>Flip chart and markers, hard copy materials/participant books/binders, scale to assess weights; plate/portion sizes/measuring cups, kitchen</td>
</tr>
<tr>
<td>Notes</td>
<td>Physiotherapy clinic offered in kind by partner but could get by without a fitness facility</td>
<td></td>
</tr>
</tbody>
</table>
Group Sizes

As the PCDPP is delivered in a group setting, class sizes should not exceed 20 participants. For example, 180 participants per year could translate into 9 groups of 20 participants, and 90 participants could translate into 5 or 6 groups of 15-18 participants.

It had been the experience in Ontario that pilot sites were able to run 1-2 Group Lifestyle Balance™ programs per quarter with 10-20 participants per group. This would mean that the GLB program could support a total of 40-160 participants per year for diabetes/chronic disease prevention.

The GLB program is designed for class sizes of 5-20 participants. At the majority of Ontario pilot sites, it has been observed that a group of around 10-15 participants provides the ideal group dynamic. It is suspected that this is because participants have more of an opportunity to connect with the group as a support system rather than having a more passive classroom role. Additionally, a group size of at least 10-15 participants provides a buffer to some participant dropout (e.g., 25%, which is expected with most group education programs) while still ensuring a group large enough to promote a positive group dynamic.

Timing of Sessions

When possible, it is recommended that weekly group sessions are offered at different times, such as during the day, evening, and/or over the weekend. Many Ontario FHTs had success utilizing this strategy, which allowed people who work alternating shifts to attend most sessions. If possible, you are encouraged to conduct a survey of participating individuals before the start of the program to determine interest and which days and times would be most convenient for them to attend.

— Bobby, participant
Timing Sessions to Improve Attendance and Retention

One Ontario organization reported that running two sessions per quarter with classes at different times (e.g., one daytime group and one nighttime group) helped improve session attendance and retention. For example, if participants have to miss their daytime session due to a personal reason, they may still attend the nighttime session with the other group that week. Holding sessions at different times also supports retention because often participants drop out after having missed sessions. Note that one organization also reported that allowing participants to attend various session times at their discretion created situations where some class sizes exceeded space and size capacity while other classes had very few participants. As such, it is recommended that participants be offered the opportunity to attend sessions at alternate times only when they are unable to attend the regular time they have signed up for. This should be discussed with the Lifestyle Coach ahead of time to ensure classes don’t exceed capacity.

Location and Space Required

The PCDPP is a group-based program delivered in person, so a suitable location(s) for program delivery include(s) any venue that can accommodate the group GLB sessions, supervised physical activity, and one-on-one meetings between lifestyle coach and participants. To deliver weekly educational sessions, you will need a room that will comfortably fit up to 20 adults. It is also recommended that the room have desks or tables for participants to work on as many class activities involve writing and there are sometimes many handouts to shuffle through.
PCDPP Should Be Delivered in Private Spaces

All GLB class sessions should be held in a private space as group discussions are sensitive in nature. Moreover, it is strongly recommended that weighing of participants be done in private, with only the Lifestyle Coach and participant, and that the results of weight assessments not be shared with other group members. The assessment of a participant’s weight must be presented as voluntary, at the discretion of the participant. For more information about promoting and monitoring patient health and safety and strategies to reduce weight stigma, refer to the Planning and Implementation section of this manual.

The space required for weekly supervised physical activity should be at least, large enough for participants to safely engage in brisk physical activity (e.g., an indoor or outdoor walking track, a mall, a park). Supervised activity sessions may also take place at exercise facilities, such as the YMCA; a private health club; or another unit/program at the primary care organization that has exercise equipment (e.g., treadmills in the cardiac program).

For further recommendations for Lifestyle Coaches regarding supervised program instruction and potential safety issues, please refer to the GLB Manual of Operations (2011, Section 1).

PCDPP Cost-Saving Space Solutions

In Ontario, it has been noted that space can sometimes be an issue. Some sites used their own classroom space while others found that their spaces weren’t quite big enough. The PCDPP in Ontario found partnering with other local community groups can help provide space solutions. Places of worship, public health units, municipality offices/buildings, and even businesses (e.g., private fitness and physical therapy clinics) may have space to offer at reduced charge or free of charge. Don’t hesitate to ask as this can build community buy-in for the program, reduce program costs, increase access for community members, and help program leaders to identify community members who are not current clients at
your primary care organization but are in need of services and support. Partnering with physical activity and/or recreation facilities can also help preserve program resources because space/equipment, fitness services, and/or supervised instruction may be offered in kind or at a reduced rate.

Room Layout

The Ontario PCDPP sites have noted that specific room layouts help support interaction among group members and are conducive to an engaged group dynamic and mutual support. The following are examples of how a Lifestyle Coach can prepare the room set-up for classroom sessions to enhance the group dynamic.

For smaller classes of 10-15 participants, the recommended layout for the group session/classroom would position participants’ tables in a “U” shape with the Lifestyle Coach facilitating the session from the front of the room.

For larger classes of 15-20 participants, the recommended layout for the group session/classroom would provide round tables with smaller groups of 4-6 participants at each table and the Lifestyle Coach facilitating from the front of the room and between tables during group discussions.

Session Materials and Equipment

The Lifestyle Coach will need the following basic materials and equipment, adapted from the GLB Manual of Operations (2011) to run group sessions:

- *Manual of Operations* for each leader
- Set of participant handouts for each participant
- *Keeping Track* booklet for each participant
- Three-ring binders or paper folders with flexible metal fasteners for participants’ session materials
- Pedometer for each participant
• Fat and calorie counters for each participant (Note: Some PCDPP sites have used similar tools that were more economical or free of charge.)

• Scale and tape measure for weight/waist circumference assessment provided by the program/organization

• Optional tools for portioning, measuring, and weighing foods for demonstration purposes (e.g., measuring cups, food scale, portion kit)

• Basic classroom materials: pens, pencils, calculators, flip chart, and markers

• Table space for participants, Lifestyle Coach and administration support on which to take notes

The above-mentioned list has the minimum requirements to run GLB sessions and, therefore, these items are included in the basic cost estimate to run the program. Organizations may already have access to additional supplementary resources and tools that can complement these basic materials and enhance the program for participants. Additionally, organizations may choose to purchase resources, tools, or equipment (e.g., physical activity equipment, a food portion model kit) for the program depending on organizational resources/capacity. Refer to the Planning and Implementation section of this manual for suggestions for supplementary materials that will help facilitate healthy eating and physical activity sessions.

Additionally, space and equipment (e.g., a secure laptop, a telephone/office) are required for administrative duties, such as data entry and coordinating follow-up sessions with the Lifestyle Coach and participants.

“As the weeks and months passed, I learned so many things that could and would change my life and how I live it. The information that was presented at each session was well laid out, informative and did not seem onerous at all. The resources were informative and when I needed reinforcement it was all there for me to reread and get back on track.”

—Verenna, participant
Estimated Costs

The estimated costs among Ontario’s PCDPP sites varied depending on a number of factors, such as:

- Participant volumes, which affected basic costs
- Luxury items purchased in addition to the basic materials needed
- Space rental versus space available free of cost
- Printing in-house versus contracting an external business to print materials
- Partnering with organizations to provide no-cost guest speakers to lead sessions
- FTEs and salaries to Lifestyle Coaches and administration support
- Resources budgeted for program promotion and participant recruitment
Managing Resources, Cost Savings, and Value-Adds Identified by PCDPP Sites

PCDPP sites in Ontario found that the program can be run with minimal resources when planning program start-up with a focus on basic fixed costs and resources already available to or within the organization. Additionally, cost savings on basic fixed costs are possible through community partnerships and leveraging community resources at low or no cost to the program. Luxury items can also come from leveraging organizational and community resources or through formal partnerships.

PCDPP sites also reported that the printing of session materials was a major expense, both in terms of printing costs and administrative time to perform printing duties. To reduce this cost, one site outsourced printing services while another site had participants contribute $10 per person for their printed materials.

Pilot sites listed a number of value-adds with the PCDPP program, including but not limited to, the following:

- The UPDPSC/GLB provides the use of standardized, up-to-date, ready-to-use, free-of-charge resources and ongoing support and mentorship
- The program is adaptable and can be implemented in a variety of ways/settings with cost savings in mind
- An open-door policy and participant self-referral to the program facilitate access to services as participants can also be referred to primary care providers within the organization
- High participant success, resulting in primary and secondary prevention, contributes to long-term cost savings for the health care system
- High participant satisfaction translates into participant success and word-of-mouth community recruitment
“[The value-add for our organization is that] it fits well with current primary care thinking around ‘upstreaming’ in terms of ensuring that we address early, the weight and fitness levels of people, ultimately, to avoid diseases like diabetes as well as heart disease and others. The program was already designed and this is also a cost saver…. Advertising to non-FHT patients enabled us to increase our FHT profile in the community.”

—Executive Director from PCDPP pilot family health team

In tables 4.3 and 4.4 on the following pages, PCDPP sites have outlined their estimated costs to run the program at their organizations, including estimates for basic costs versus luxury items.
Table 4.3 — Estimated Costs to Run the PCDPP at FHT for One Year (150 participants)

<table>
<thead>
<tr>
<th>Number of Participants in One Year</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Line Item</td>
<td>Description</td>
<td>Estimated Cost</td>
</tr>
<tr>
<td>Staff</td>
<td>FTEs for coaching and admin</td>
<td>$55,000/year</td>
</tr>
<tr>
<td>2 lifestyle coaches</td>
<td>0.75 FTE coaching</td>
<td></td>
</tr>
<tr>
<td>Program materials</td>
<td>Paper folders, chart paper, markers,</td>
<td>$80-$100/year</td>
</tr>
<tr>
<td>Program resources</td>
<td>Keeping Track booklet</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Handouts printed</td>
<td>$150/year</td>
</tr>
<tr>
<td></td>
<td>Calorie King books @ $10/participant</td>
<td>$400/year</td>
</tr>
<tr>
<td></td>
<td>DPP fat/calorie counter books printed</td>
<td>$1,500/year</td>
</tr>
<tr>
<td></td>
<td>Fitness equipment</td>
<td>$200-$300/year</td>
</tr>
<tr>
<td></td>
<td>Pedometers</td>
<td></td>
</tr>
<tr>
<td>Basic Line Cost</td>
<td>Description</td>
<td>Cost Savings</td>
</tr>
<tr>
<td>Items that supported the program</td>
<td>Canada’s Food Guide - free of charge from Health Canada</td>
<td>$50/year</td>
</tr>
<tr>
<td>but did not need to be purchased</td>
<td>Label reading handout - free of charge from HC</td>
<td></td>
</tr>
<tr>
<td>(e.g., FHTs owned equipment or</td>
<td>Recipe cards - free of charge from healthy food organizations (e.g., lentils.ca)</td>
<td></td>
</tr>
<tr>
<td>resources supplied/provided free of cost by partners)</td>
<td>DASH diet tear-offs - free of charge from</td>
<td></td>
</tr>
<tr>
<td>Total Basic Costs</td>
<td></td>
<td>$57,830-$58,150</td>
</tr>
<tr>
<td>Total Cost Savings</td>
<td></td>
<td>$50 per/year</td>
</tr>
</tbody>
</table>

Table continued on next page.
Table 4.3 — Estimated Costs to Run the PCDPP at FHT for One Year (150 participants), continued

<table>
<thead>
<tr>
<th>Luxury Line Item</th>
<th>Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitness equipment</td>
<td>Fitness equipment (e.g., weights, mats, resistance bands, etc.) (one time purchase) Physical activity specialist and exercise room</td>
<td>$1200 $1,400/month</td>
</tr>
<tr>
<td>Food demo costs</td>
<td>Equipment, food, and educational support resources/recipe cards</td>
<td>$500/year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Luxury Line Cost Savings</th>
<th>Description</th>
<th>Cost Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items that supported the program but did not need to be purchased (e.g., FHTs owned equipment or resources supplied/provided free of charge by partners)</td>
<td>Yoga classes (2/participant) donated by YMCA Consider using online tools and apps to track healthy eating and physical activity instead of the calorie counting books; cost savings would be $10/participant</td>
<td>$3,000/year $1,500/year</td>
</tr>
<tr>
<td>Total Luxury Costs</td>
<td></td>
<td>$20,500/first year</td>
</tr>
<tr>
<td>Total Luxury Cost Savings</td>
<td></td>
<td>$4,500/year</td>
</tr>
</tbody>
</table>

*Note estimated costs are shown in Canadian dollars.*
Table 4.4 – Estimated Costs to Run the PCDPP at FHT for One Year (180 participants)

<table>
<thead>
<tr>
<th>Number of Participants in One Year</th>
<th>180</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Basic Line Item</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Estimated Cost</strong></td>
<td></td>
</tr>
<tr>
<td>180</td>
<td></td>
</tr>
<tr>
<td><strong>Staff</strong></td>
<td></td>
</tr>
<tr>
<td>RD 0.5 FTE</td>
<td></td>
</tr>
<tr>
<td>RN 0.5 FTE</td>
<td></td>
</tr>
<tr>
<td>FTEs for coaching and admin</td>
<td></td>
</tr>
<tr>
<td>RD 0.5 FTE (coaching)</td>
<td>$82,000/year</td>
</tr>
<tr>
<td>RN 0.5 FTE (coaching)</td>
<td></td>
</tr>
<tr>
<td>Program materials</td>
<td></td>
</tr>
<tr>
<td>Chart paper, markers, tape, pens,</td>
<td>$200/year</td>
</tr>
<tr>
<td>memory sticks, etc.</td>
<td></td>
</tr>
<tr>
<td>Program resources</td>
<td></td>
</tr>
<tr>
<td>Keeping Track booklet (photocopying</td>
<td>$27.17</td>
</tr>
<tr>
<td>at 12¢/page)</td>
<td></td>
</tr>
<tr>
<td>Handouts printed (based on 180</td>
<td>$4,890/year</td>
</tr>
<tr>
<td>participants; not all complete</td>
<td></td>
</tr>
<tr>
<td>program)</td>
<td></td>
</tr>
<tr>
<td>Calorie King books @ $10/participant (initial cost; re-purchase books as needed with profit of sold books; no need to order this many as not all participants will purchase)</td>
<td>$1,800</td>
</tr>
<tr>
<td>Fitness equipment</td>
<td></td>
</tr>
<tr>
<td>Pedometers (initial purchase cost ($11 each x 30)</td>
<td>$330</td>
</tr>
<tr>
<td>Additional items?</td>
<td></td>
</tr>
<tr>
<td><strong>Basic Line Cost Savings</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Description</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Cost Savings</strong></td>
<td></td>
</tr>
<tr>
<td>Items that supported the program</td>
<td></td>
</tr>
<tr>
<td>not need to be purchased (e.g.,</td>
<td></td>
</tr>
<tr>
<td>FHTs owned equipment or resources</td>
<td></td>
</tr>
<tr>
<td>supplied/provided free of cost</td>
<td></td>
</tr>
<tr>
<td>by partners)</td>
<td></td>
</tr>
<tr>
<td>Photocopier</td>
<td></td>
</tr>
<tr>
<td>Canada’s Food Guide - free of</td>
<td></td>
</tr>
<tr>
<td>charge from Health Canada</td>
<td></td>
</tr>
<tr>
<td>$3,000</td>
<td></td>
</tr>
<tr>
<td>$50/year</td>
<td></td>
</tr>
<tr>
<td><strong>Total Basic Costs</strong></td>
<td></td>
</tr>
<tr>
<td>$83,800-$84,800</td>
<td></td>
</tr>
<tr>
<td><strong>Total Cost Savings</strong></td>
<td></td>
</tr>
<tr>
<td>$3,050</td>
<td></td>
</tr>
</tbody>
</table>

Table continued on next page.
Table 4.4 — Estimated Costs to Run the PCDPP at FHT for One Year (180 participants), continued

<table>
<thead>
<tr>
<th>Luxury Line Item</th>
<th>Description</th>
<th>Estimated Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fitness equipment</td>
<td>Resistance bands (for demo in front of class; only 1 band needed since usually do not have class use the bands; only 1 band needed since usually do not have class use the bands)</td>
<td>$20–30</td>
</tr>
<tr>
<td>Food demo costs</td>
<td>Raisins for mindful eating exercise, recipes (additional printing costs), food models (from RD’s office)</td>
<td>$500</td>
</tr>
<tr>
<td>Additional items</td>
<td>Flyers sent out via Canada Post -3 times/year</td>
<td>$800/ year</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Luxury Line Cost Savings</th>
<th>Description</th>
<th>Cost Savings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Items that supported the program but did not need to be purchased (e.g., FHTs owned equipment or resources supplied/ provided free of charge by partners)</td>
<td>Food models, ‘diabetes’ plate, fat test tube models, fat model 5 lbs. Motivations Fitness has offered introductory gym memberships to our PCDPP clients for a rate of $90.40 (taxes included) for 3 months</td>
<td>From RD office</td>
</tr>
</tbody>
</table>

| Total Luxury Costs          |                                                                                                                                             | $1,330/first year |
| Total Luxury Cost Savings   |                                                                                                                                             | $0/year          |

*Note estimated costs are shown in Canadian dollars.*
Participant Recruitment and Promotion Strategies

Recruitment through Referrals

The way in which your organization intends to run the PCDPP (e.g., diabetes program, healthy living with chronic disease, general healthy living program) and your target population will form the basis for the development of a recruitment plan for your program.

There are many ways an organization can recruit PCDPP participants. One of the main strategies employed by all pilot sites in Ontario is through referrals to the program. Depending on the pilot site, the PCDPP accepts referrals from within the primary care organization, referrals from external partners/organizations, and self-referrals.

Internal Referrals

Your organization is a key resource for accessing potential participants for your program. Both at the start of the PCDPP and periodically as you continue to run the program, it will be important to educate your colleagues so they become referral staff for the program. Education should include an overview of the program, criteria for program eligibility, and target population, as well as effective strategies to encourage potential clients to participate in the program.

Strategies to Enhance Your Internal Referral System

Ontario’s PCDPP sites have found that a major barrier to an internal referral system was having tightly defined eligibility criteria for the program and reliance on physicians as the sole gatekeepers to refer potential participants to the program. Moreover, physicians noted that they are often inundated with requests for referrals to multiple programs with different criteria for each program. Opening up program eligibility and allowing for participant self-referral can help to prevent lulls in your internal referral system by making it easy for physicians to refer any client that they think would benefit or who would be interested in participating in a healthy lifestyle program. (continued on next page)
External Referrals

Internal referral should not be the only approach to program recruitment. There may be community members who would benefit from the PCDPP but are not current clients of your organization and may be missed by relying solely on an internal referral system. Consequently, it is important to also consider adopting strategies for identifying and accepting external referrals, or referrals from community partners/organizations. To implement an external referral system for your PCDPP, it is important to target key community partners/organizations to whom you can promote
your program and provide education about it, the criteria for participant eligibility, target population, and various strategies to encourage community members to participate in the program. Referrals from external partners may be made to either the Lifestyle Coach(es) and/or the physician(s) at your organization.

**Strategies to Enhance Your External Referral System**

In Ontario’s PCDPP, most sites worked with a range of external partners to gain broad access to their target population and implement an external referral system. The external referral approach was particularly effective when PCDPP sites adopted an open-door policy and allowed participants to self-refer to the program. For example, promotional materials distributed in community locations directed participants to the program. PCDPP sites identified key external partners who could help promote and refer community members to the program, including, but not limited to, the following:

- Local hospitals and family physician clinics
- Family health teams, community health centres, and public health units
- Diabetes education centres
- Aboriginal health access centres
- Private physiotherapy and allied health clinics
- Health care providers’ professional networks
- Fitness organizations and facilities (e.g., YMCA, local gym, recreation centre)
- Community organizations and businesses (e.g., workplaces, public library)

Additionally, PCDPP sites found it helpful to host an open house, a PCDPP information and orientation session with food/snacks provided, where community members could come to the organization and learn about the program from Lifestyle Coaches.
Self-Referrals

Many of Ontario’s PCDPPs now allow community members to self-refer to the program. This means that any community member who is interested in participating in the PCDPP can contact program coordinators directly to enrol.

Self-Referral Is a Key Strategy for Program Recruitment

In Ontario, PCDPP sites noted that allowing for an open-door policy to the program, permitting community members to self-refer to the program and program graduates to re-enter the program, was a key strategy to support consistent recruitment. This strategy helps to broaden access to the target population and prevent lulls in referral flow to the program.

Moreover, the PCDPP in Ontario had such high participant satisfaction that the word of mouth for the program was consistently strong across all pilot site communities. Consequently, PCDPP participants and program graduates have become program ambassadors who promote the program to the community and facilitate community self-referrals to the program.

Recruitment through Diabetes Risk Screening

Since the PCDPP is primarily a diabetes prevention program, recruitment of participants should aim to target those most at risk for developing diabetes. A quick and easy way to identify risk for diabetes is to have the health care providers at your organization use/provide a risk identification tool with their clients and to offer a risk identification tool on your organization’s website and at health/program promotion events.

The Canadian Diabetes Risk Assessment (CANRISK) questionnaire was created by the Public Health Agency of Canada. The CANRISK tool is a statistically valid tool, suitable
for diabetes risk assessment of the Canadian adult population and can be downloaded directly from the Public Health Agency of Canada website.

Although individuals may easily self-administer the CANRISK questionnaire to identify their personal risk score for developing diabetes, it is important to note that risk assessment tools cannot diagnose diabetes. Therefore, it is important that the results of the risk assessment/risk score be validated by a professional with a background in health sciences, such as a primary care physician, registered nurse, or registered dietitian, to confirm the client’s risk. Lifestyle Coaches can encourage potential participants to self-administer this questionnaire to determine their diabetes risk score and review the results with them at your primary care organization to discuss benefits of participation in the program and referral to a primary care physician.

**Referring At-Risk Individuals to a Primary Care Physician**

For participants identified as being at “moderate risk” or higher, as determined by the results of a CANRISK assessment, it is strongly recommended that they be referred by a Lifestyle Coach to their primary care provider to discuss their CANRISK results and diabetes risk. A primary care physician can further assess the participant to determine his or her overall risk, conduct diagnostic tests for diabetes, and implement any necessary interventions. Additionally, primary care providers can refer and encourage at-risk clients to participate in the PCDPP.
Lessons Learned and Strategies for PCDPP Promotion and Recruitment

Below is a list of key lessons learned from implementation in Ontario and strategies to support recruitment and promotion of the PCDPP:

- Recruitment takes time to plan and implement, and it is normal to have last-minute registration.
- Recruitment/promotion strategies may require trial and error. What works for one community or population may not work for another.
- Documenting the source of recruitment/referral can help you better understand what works for your community.
- Keeping an ongoing list of referrals is helpful to help you determine when you have enough participants to start a group.
- Dedicated administration time can help manage referrals, recruitment, and promotion.
- The PCDPP can be promoted internally in your organization (e.g., posters, flyers, lobby announcements, e-newsletters, on organization’s website).
- The PCDPP can be promoted externally in the community through media, advertisements, and various communication channels (e.g., community flyers, paid advertisements, print media/newspapers, social media, on websites, e-mails, e-newsletters, posters).
- The PCDPP can be promoted at community events (e.g., PCDPP orientation session or lunch-and-learn session for community members to come and learn about the program, workplace wellness health fairs).
- The CANRISK identification tool can be used with your clients, offered on your organization’s website, provided by community partners, and offered at community events to help identify at-risk participants and as part of your referral system.
- Colleagues at your organization, physicians, health care provider interns, and program participants/graduates can be trained and encouraged to act as program ambassadors or champions to support recruitment.
- Active promotion and education about the program to internal staff at your primary care organization and to external partners can facilitate internal and external referrals to the program.
- The EMR system can be searched to identify at-risk clients who can be referred to the program by primary care providers at your organization.
- Opening up participant eligibility, allowing self-referral and having an open-door program, is key to a consistent flow of referrals and reduced/eliminated recruitment challenges.
- Presenting the program as a free or low-cost healthy living program, which provides safe approaches to healthy living and weight loss, appears to have a positive influence on potential participants.
- Emphasizing that the program is a community-based initiative that is tailored to the specific community appears to encourage community buy-in and uptake.
Planning and Implementation

Retention Challenges and Solutions

During Ontario’s PCDPP pilot phase (2011-2012), the cumulative retention rate for the core phase of the program was high with, overall, 76% of enrolled participants completing the first 12 weeks of the program. However, participants began to drop out during the maintenance phase with only 45% of enrolled participants graduating from the program, completing the core, transition, and maintenance phase (i.e., nine months total). Retention, or participant dropout, is a common challenge across health promotion programs. It is important to understand why a program is losing participants and engage in continuous program improvements to reduce attrition and improve retention.

The PCDPP pilot sites identified a number of challenges that contributed to participant dropout and/or absences from program sessions, including but not limited to, the following:

- **Referral gaps created issues with retention:** PCDPP sites reported that sometimes they did not have enough participants to start a group. Then they would lose interested participants by the time they were ready to initiate a core session.

- **Length/timing of the program throughout the year:** PCDPP sites reported that the timeline suggested by the University of Pittsburgh (12 months) was too long in duration for participants to commit to. A common challenge was losing retired participants who travel south for the winter and were not able to complete the full program. Additionally, certain times of the year (e.g., tourist season or harvest season) can limit participants’ availability to participate due to increased number of working hours.

- **Frequency of classes during the maintenance phase:** The University of Pittsburgh’s schedule suggests maintenance sessions be offered biweekly or monthly during the transition phase and monthly during the maintenance phase, which stretches the duration of the program up to 12 months. With monthly sessions, PCDPP sites would often lose participants if they had to miss one session because it would be another month until the next session.
• **Timing of sessions offered throughout the week:** The time during the week (e.g., daytime, evening, weekend) that the sessions were offered was an important factor. There are many reasons why participants cannot attend a session during a certain time (e.g., work shifts, travel out of town for job, work day job/night job, take care of young children, rely on a family member to provide transportation, don’t like to drive at night).

• **Weather:** Weather can be a factor that can reduce attendance and lead to decreased retention as participants may not want to drive or participate in education or physical activity sessions in bad weather.

• **Physical activity support:** PCDPP participants reported that they felt more committed to participating in supervised physical activity sessions with hands-on instruction and support, specifically by a physical activity specialist.

• **Healthy eating and nutrition support:** PCDPP participants reported that they received more in-depth, tailored healthy eating information and responses to questions when sessions were led by registered dietitians.

• **Group size:** With a larger group, there is less of a group dynamic and less one-on-one support for individuals. Some people do not like the group format and prefer one-on-one support, while others are very satisfied with the group setting. Dropout can also affect the group dynamic, particularly in the maintenance phase, and potentially contribute to a decrease in participant satisfaction with the program.

• **Participants’ personal/social circumstances:** Participants can experience a wide range of personal factors or circumstances (e.g., sickness or death of a family member, lack of support from family, increased workload) that cause participants to miss sessions and/or decrease their motivation to continue in the program.
PCDPP Strategies to Increase Attendance and Retention

In Ontario, PCDPP sites found that by understanding why participants had to miss a session or dropped out of the program, they were able to modify how their program was implemented and apply strategies to increase attendance and retention. It is recommended that you periodically check in with participants regarding the reasons for their absence and their satisfaction with the program and to perform continuous quality improvements to the program to maintain retention rates. Strategies that were used to increase attendance and reduce participant dropout rates in the PCDPP included, but were not limited to, the following:

- Emphasizing an upfront commitment to the program by participants by asking them to sign a group pledge to make healthy changes and complete the PCDPP
- Making sessions fun by augmenting the program with a variety of Lifestyle Coaches/ guest speakers, teaching strategies, and community settings
- Having physical activity specialists deliver the content where appropriate
- Having healthy eating specialists deliver the content where appropriate
- Conducting an initial survey/needs assessment to plan program logistics, timing, and strategies that meet the needs of the population/demographics
- Offering sessions at different times throughout the week (e.g., daytime, evenings, weekends) and allowing participants to join a make-up session at another time if they can't make it at their usual time
- Increasing the frequency of transition and maintenance phase sessions to biweekly rather than monthly so that participants have more frequent support and the length of the program is reduced to 9 months rather than 12 (see PCDPP suggested schedule in Program Logistics for Getting Started section)
- Preparing backup plans for conditional factors that are barriers to attendance (e.g., recommend/ lead indoor physical activities on days when the weather is bad, recommend physical activity modifications for participants with disabilities and/or chronic pain)
- Identifying the needs/preferences of participants, such as learning styles, preference for group or one-on-one interaction, personal abilities (e.g., physical, cognitive)
- Following up with participants who miss a session to encourage them to return for the next session and providing them with material missed during a group session
- Offering remote options for individuals who will be away for one or more sessions (e.g., e-mail, phone call, online modules/Ontario Telemedicine Network)
- Encouraging family participation/social support and inviting family and friends to an orientation session or to join the program
- Using the University of Pittsburgh’s DVDs as options for participants who miss sessions to catch up on program materials (Note: DVDs support only the first 12 sessions in the core session phase and are not in the current order that the program is administered)
Planning Healthy Eating Sessions

As the PCDPP/GLB curriculum is largely based on healthy eating, nutrition content, and behaviour change, it is strongly recommended that a registered dietitian be trained as a Lifestyle Coach and/or used to deliver key sessions that cover healthy eating and nutrition information. Additionally, it should be noted that because the program originated in the United States, some of the healthy eating and nutrition content in the core curriculum contains information, references, and dietary guidance that is appropriate for the American context but would need to be adapted to the Canadian context for appropriate delivery in Ontario. This is something that a dietitian can support. It is expected that the next version of the GLB Manual of Operations (2011) will include the Canadian healthy eating and nutrition updates.

Registered dietitians have in-depth knowledge and expertise related to healthy eating and nutrition for the general population, as well as for individuals with health conditions and special dietary needs. All the PCDPP sites reported that it was beneficial to both the participants and the program team to have a dietitian on the team to support the program. Participants in the PCDPP have many questions about healthy eating, nutrition, and weight loss for which dietitians can provide in-depth, tailored responses and information.

Benefits of Incorporating Registered Dietitians as Lifestyle Coaches

PCDPP Lifestyle Coaches outlined a number of benefits and supplements that registered dietitians contributed to PCDPP program delivery in Ontario, including, but not limited to, the following:

- Translating American healthy eating/nutrition information, references, and dietary guidance into appropriate Canadian information
- Providing in-depth healthy eating/nutrition knowledge beyond basic concepts in the GLB curriculum
- Offering in-depth, knowledgeable responses and practical solutions to participants’ healthy eating and weight loss questions/challenges and being able to tailor information/responses based on participants’ health conditions and dietary needs (continued on next page)
As mentioned in the *Program Logistics for Getting Started* section, the basic items for healthy eating and nutrition are minimal, and, therefore, the majority of the resources, tools, and supplementary materials mentioned were provided by the participating dietitians in kind, at no cost to the program. It would be helpful to look at the resources, tools, and materials that your organization already has that could supplement the healthy eating sessions and, where possible, include a dietitian either from your organization or a partnering organization to help plan and lead healthy eating sessions and contribute supplementary materials.

PCDPP sites in Ontario have also developed additional sessions for the maintenance phase that support participants’ transition into a more independent period of self-management of healthy eating behaviours. Some ideas for additional and/or guest sessions include:

**Benefits of Incorporating Registered Dietitians as Lifestyle Coaches, continued**

- Leading University of Pittsburgh-approved, adapted classes for participants with diabetes on healthy eating/nutrition and basic carbohydrate counting
- Applying health promotion, behaviour change, and nutrition communication strategies to increase participants’ knowledge and influence positive changes in healthy eating behaviour
- Providing evidence-based, tailored, and practical feedback on participants’ food journals
- Providing diabetes education beyond basic awareness of risk and prevention strategies
- Offering sources for additional credible healthy eating/nutrition information (e.g., dietary guidance information in Canada and websites for healthy eating information and recipes)
- Providing instruction on a range of supplementary healthy eating/nutrition topics and information (e.g., DASH diet, Mediterranean diet, Craving Change program’s materials/topics, nutrition facts tables, food/cooking skills, healthy recipes, choosing healthy meals, healthy eating on a budget, sugars and sweeteners, choosing lower fat foods, specific eating plans such as the 1200 and 1800 kcal eating plans)
• Grocery store tours with registered dietitians to help participants navigate the grocery store to make healthy choices, plan healthy weekly menus, and practice reading nutrition facts tables on products

• Cooking classes to teach food/cooking skills, food safety, and using/modifying recipes to create healthy meals and snacks

• Inviting a dietitian from a Diabetes Education Centre to provide diabetes education and to lead tailored sessions for participants with diabetes

In the absence of dietitian support at your organization/program, do not hesitate to engage community partners that have dietitians since they may be able to offer in-kind dietitian support for your healthy eating and nutrition sessions. Also, note that the *Eating Well with Canada’s Food Guide* and the corresponding booklet *A Resource for Educators and Communicators* can be ordered free of charge from Health Canada.

For resources and consultation support services to assist you in planning healthy eating sessions, visit the [Nutrition Resource Centre](#).

### Planning Physical Activity Sessions

You are strongly encouraged to include supervised physical activity sessions in addition to scheduled GLB class sessions to help participants reach their goals. This activity can be in the form of walking groups or other exercise classes depending on the skills, knowledge, and ability of your staff as well as access to fitness facilities/equipment. The time spent on supervised physical activity is estimated to be about two hours per week per group and four hours per week when running two classes per quarter. The PCDPP in Ontario has also found that offering both morning and evening groups has helped with attendance to supervised physical activity and increased positive participant outcomes. Just as there are issues that lead to participant absences and dropouts during program sessions, there are many reasons why a participant may not be able to attend any one given physical activity session, so providing an alternative time helps remove barriers to participation.

As mentioned in the *Program Logistics for Getting Started* section, the minimum space/venue requirement for physical activity sessions is a location in which participants can safely engage in brisk physical activity (e.g., walking on a track, in a park, or in a shopping mall). Pedometers are the only basic item for physical
activity that is required to be provided by the PCDPP. However, some organizations choose to invest in exercise equipment for this portion of the program as well. This would be considered an optional/luxury expense. Exercise equipment may include:

- Mats
- Exercise balls
- Resistance bands
- Free weights

There are also supplementary physical activity resources available to download, at no cost, through the University of Pittsburgh and the Physical Activity Resource Centre for Public Health, including:

- Getting to Know Your Pedometer packet
- Resistance Training packet
- Stretching packet

Do not hesitate to partner with local businesses and municipalities to leverage and use space, equipment, resources, and staff to support your physical activity portion of the PCDPP.

### Providing Low or No-Cost Options for Physical Activity

It is important to recognize that not all participants may be able to afford private fitness facilities or activities. Therefore, many of the Ontario-based programs have partnered with local fitness organizations or businesses to provide these sessions and gain free or low-cost access to fitness facilities and equipment. Partnerships looked different across the province but included opportunities such as:

- Free classes for PCDPP participants (instructor time may be covered under the PCDPP budget in some cases)
- Free or low-cost use of space and equipment (offered in kind by fitness and recreation facilities or through the PCDPP at the primary care organization)
- Free trial passes and/or reduced membership/class rates at community recreational facilities
- Training a physiotherapist as a Lifestyle Coach and hosting physical activity sessions in a private physical therapy clinic
It is also strongly advisable to use a physical activity specialist (e.g., registered kinesiologist, physiotherapist, occupational therapist) to lead supervised activity sessions. Such specialists have in-depth knowledge and expertise that improve program quality by providing advanced instruction and demonstration of tailored activities to accommodate participants with disabilities, mobility issues, and/or chronic pain and by implementing safety considerations. Specialists are also best positioned to answer physiological and physical activity questions from participants. Moreover, PCDPP participants reported that they found it beneficial and felt better supported when activity sessions were led by a specialist.

For resources and consultation support services to assist you in planning physical activity sessions, visit the [Physical Activity Resource Centre](#).
Implementation Considerations

The PCDPP is based on a best practice program that has been adapted, tested, and implemented safely and successfully in numerous primary care and community-based settings around the world. The GLB program supports are comprehensive and will serve to help your organization’s staff to immediately begin to plan and implement the PCDPP. To successfully implement this program in a real-world setting, it is important that you aim to enhance positive outcomes for participants while ensuring their health and safety and minimizing undue risks for harm.

You are, therefore, encouraged to refer to the GLB Manual of Operations (2011) specifically, the following information:

- Safety issues and recommendations to reduce risk for harm related to physical activity sessions
- Recommendation for Lifestyle Coaches to report health and safety issues, which are outside the scope of the program and/or Lifestyle Coach’s professional practice, to the appropriate health professional at your primary care organization (e.g., mental health disorders, clinical eating disorders)
- Recommendation for Lifestyle Coaches to source and arrange for free or low-cost community resources that contribute to the achievement of program goals and health equity (e.g., fitness, healthy eating, transportation, child care) to help all participants meet program goals regardless of economic status
- Recommendation that your primary care organization screens for programs and services in the community that can be offered or referred to beyond the PCDPP to support clients of lower socio-economic status
- Recommendations around providing information about safe weight loss goals and a safe pace of weight loss for participants
Considering Behaviour Change Theory and Strategies

The PCDPP, using GLB, is based on theory-based, health behaviour change strategies that target healthy eating and physical activity.

*Table 7.1 — How the PCDPP Integrates Behaviour Change Theory and Strategies*

<table>
<thead>
<tr>
<th>PCDPP Role</th>
<th>Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCDPP encourages</td>
<td>• Participant goal-setting</td>
</tr>
<tr>
<td></td>
<td>• Self-monitoring of health behaviours (i.e., healthy eating and physical activity)</td>
</tr>
<tr>
<td></td>
<td>• Developing self-management skills</td>
</tr>
<tr>
<td>PCDPP aims</td>
<td>• To motivate and empower individuals with knowledge, skills, and confidence to make lifestyle changes that positively influence their health and well-being</td>
</tr>
<tr>
<td>Lifestyle Coaches and program managers can support relapse prevention and lasting change</td>
<td>• Through individual and group discussions that are solution-focused to overcome barriers to healthy behaviour</td>
</tr>
<tr>
<td></td>
<td>• By providing individualized, tailored feedback to participants</td>
</tr>
<tr>
<td></td>
<td>• Through motivational interviewing</td>
</tr>
<tr>
<td></td>
<td>• By training program staff in motivational interviewing and applying behaviour change strategies to further motivate and support participant outcomes</td>
</tr>
</tbody>
</table>
Preventing and Managing Unintended Consequences of Behaviour Change Strategies

Behaviour change strategies are theory-based, considered to be best practice in diabetes prevention programming, and shown to be effective, specifically in influencing healthy eating and physical activity. However, there is always the potential for the implementation of any health promotion program not to go as planned and to pose risk for harm. For example, the GLB program encourages participants to set weekly goals around behaviour change. It could be very discouraging for participants if their efforts do not lead to their expected goals. This could, potentially, lead to low self-esteem, low self-confidence or be damaging emotionally/psychologically. The Lifestyle Coach can play a role in preventing these types of unintended consequences. In the PCDPP, the Lifestyle Coach is trained in self-management principles and in providing positive encouragement and feedback in these circumstances that focuses on the successes of the participants and guides participants to develop realistic goals and problem-solving solutions to meet goals.

Lifestyle Coaches have reported that it is not uncommon for participants to identify their own symptoms of depression and anxiety. This unintended consequence is particularly apparent during/following the discussion in Session 9 about the lapse, relapse, and collapse cycle as participants recognize that they have a difficult time managing negative thoughts. In such situations, Lifestyle Coaches should be prepared to refer a participant to a mental health professional to support the participant in achieving overall health and well-being.

Another unintended consequence of self-monitoring behaviour in food and/or activity journals is the potential for disordered eating or excessive physical activity. The program encourages participants to monitor steps with a pedometer and to record dietary intake in food journals so that they become aware of their behaviours and make solution-focused plans to achieve positive changes to these behaviours. The food journal focuses participants on what they consume and can cause participants to become fixated or obsessed with their dietary intake. If you observe that a participant appears to be overly focused on self-monitoring intake and/or appears to be drastically regulating food intake as a result of self-monitoring his or her behaviour, it is strongly recommended that you consult a registered dietitian and/or a physician at your organization. Likewise, if a participant becomes overly focused on physical activity and appears to be exercising excessively, it would be prudent for you to consult a physician on your team. For more information about disordered eating, visit the National Eating Disorder Information Centre website.

Introducing self-monitoring tools may help some but can at times cause undue stress to others. It is strongly advised that these tools be provided as an option — a few of many tools in a toolbox — and that participants should feel free to complete records or partial records at their discretion or not to use the tools at all. Additionally, it is recommended that the Lifestyle Coaches offer an open-door policy for participants who would like to use the tools and discuss progress in private with the Lifestyle Coach and/or to check in regarding how they are feeling about using the tools.
For more information about implementing behaviour change strategies and other best/promising practice in diabetes prevention programming, refer to Guidelines for Implementing Promising Practices in Diabetes Prevention.

“I have been very hard on myself for not being able to control all the aspects of my diabetes, the lifestyle coaches are willing to listen and offer many different ways of trying to help with the issues that I have. They are super encouraging no matter what I do - whether good or bad. They finally made me aware that I can’t control everything, but they also made me aware that everyone falls and the best thing to do is get right back up and take ownership of it no matter what it was, and just remember that next time I’m in that situation I can try something different to be successful. Lifestyle coaches can find the positive no matter what the situation and help you see it!”

- Wendy, PCDPP participant

Considering Weight Loss and Weight Stigma

Rationale for a Weight Loss Goal

Weight loss of 7% from initial body weight is an important goal for participants of the program. This has been supported by evidence regarding the relationship of weight loss to risk reduction for diabetes and cardiovascular disease. As described in the GLB Manual of Operations (2011), previous studies testing lifestyle interventions on diabetes risk reduction have shown a dose-response relationship between the scale of weight loss for at-risk individuals and decreased blood glucose/improved cardiovascular risk factors. Some studies have chosen 10% as a goal for weight loss, but in the DPP clinical trial, 7% was selected as the percentage that represents the recommended rate of weight loss of 1-2 pounds per week for a participant for the 24-week DPP/study period.
Weight loss can be much more difficult to achieve for certain individuals than others, and a greater percentage of weight loss may be more challenging to maintain over the long term. Given that the goal of the program is not only to achieve weight loss but to maintain it in the long term, a 7% loss has been shown repeatedly to be safe and highly effective in risk reduction for type 2 diabetes and more feasible to maintain in the long-term than a 10% loss from initial body weight.

As per the Diabetes Canada’s 2013 Clinical Practice Guidelines for the Prevention and Management of Diabetes in Canada, the international evidence regarding structured lifestyle diabetes programs suggests that a loss of as much as 5% of baseline body weight is also effective to reduce the risk of progression of prediabetes to diabetes by approximately 60%. Consequently, the PCDPP has accepted a goal range for weight loss as appropriate for the individual participant. It is advised that participants aim for 7% weight loss from initial body weight, to be consistent with the DPP/GLB and PCDPP pilot program targets, but consider adjusting their goal to 5% weight loss as needed on an individual basis.

“
It has definitely reduced the numbers of people developing diabetes, and I would recommend the continuation of this program. For areas of Ontario in which the program is not currently available, I hope that it does become available soon.”

—Bruce Stanners, MD, FCFP

Weight Is One of Many Risk Factors Addressed in the PCDPP

As mentioned above, weight is an important risk factor for diabetes and many other chronic diseases. Therefore, the program aims to reduce risk and improve other health parameters demonstrated in the literature to be associated with weight loss.
Ensuring Participant Safety during Weight Loss

The PCDPP targets an increase in healthy eating and physical activity behaviours, which can lead to changes in body weight for the participant. As outlined in the GLB manual, a recommended safe rate of weight loss would be 1-2 pounds per week over a 24-week period. Additionally, the GLB manual outlines instances when participants may continue to lose weight after meeting their goal and circumstances, where it may not be safe for participants to continue to lose weight as they may have reached their “Minimum Recommended Weight for Height.” (Note: Recommendations are conveniently summarized in a table in the participants’ handouts for Session 1 (GLB Manual of Operations, 2011), and the recommendations are based on a Body Mass Index/BMI of 21 kg/m²).

Lifestyle Coaches are instrumental in monitoring and promoting each participant’s safety as his or her body changes as a result of the program. Lifestyle Coaches should ensure that the rate of weight loss AND the weight loss goal for each participant is safe and appropriate. Depending on the type of program your organization runs, the 5-7% weight loss goal may not be appropriate for all participants. For example, in a healthy living program, not all participants may need to lose weight because they may have a Weight-for-Height that is considered the least risk of developing health problems according to the Canadian Guidelines for Body Weight Classification in Adults.
Promoting and Monitoring Participant Safety during Weight Loss

- Receive verbal or written confirmation from a primary care provider at your organization that the participant may safely participate in the PCDPP
- Measure the participants’ body weight, height, and waist circumference at the program initiation and refer to the Canadian Guidelines for Body Weight Classification in Adults to assess the participants’ risk for health problems associated with body weight and waist circumference
- Use participants’ BMI classification and the “Minimum Recommended Weight for Height” table in the GLB manual to assess whether the 7% goal is safe or needs to be modified
- Modify participants’ goal for weight loss as needed on an individual basis
- Monitor participants’ weight weekly to ensure rate of weight loss is safe (1-2 pounds per week)
- Monitor participants’ weight weekly to ensure it has not gone below the minimum BMI threshold of 21 kg/m² for adults less than 65 years of age
- For participants 65 years or older, the normal BMI range begins above the 18.5 threshold that is set for adults less than 65 years, so the “Minimum Recommended Weight for Height” and minimum BMI threshold for older adults should be increased (Consult your team as needed)
- When in doubt regarding a safe weight loss goal or rate for weight loss, consult a registered dietitian or primary care provider on your team
- Refer participants to their primary care providers for reassessment with weight loss and to ensure medication dosages are appropriate and safe for their current weight
- Refer participants to a registered dietitian or primary care provider if they have dipped below the minimum weight/BMI threshold and are at risk for malnutrition and developing health problems
Strategies to Reduce Weight Bias and Stigma

Individuals living with excess weight or obesity are commonly subject to bias, discrimination, and harassment, based on their body size, from a diverse range of individuals across public settings. This phenomenon is known as “weight bias” or “weight stigma.”

Weight bias is “the negative weight-related attitudes, beliefs, assumptions and judgments toward individuals who are at the ends of the weight spectrum. Weight bias does tend to be experienced differently by those who are overweight and obese. These attitudes are often manifested by false and negative stereotypes which cast large individuals as being physically unattractive, lazy, unmotivated, less competent, non-compliant, lacking self-discipline, and sloppy.”

Weight stigma is “the possession of some attribute or characteristic — such as excess weight or being underweight — that is devalued in a particular social context.”

For the individual faced with weight bias and stigma, there are a range of negative social interactions and barriers that are commonly experienced. Such experiences have a negative impact on physical and mental health, such as low self-esteem, low self-confidence, body dissatisfaction, poor mental health, disordered and maladaptive eating, and sedentary behaviour. Research has shown that weight stigma is also a chronic physiological stressor to the individual, which increases cardiometabolic risk.

It is important to acknowledge that stigma also exists in the health care setting. Understanding, recognizing, and preventing weight stigma in your organization is important to promoting positive outcomes and reducing risk for harm among participants and clients. You are encouraged to talk to your team about weight bias and stigma in order to implement strategies to reduce stigma, increase participants’ access to health services, and create positive, non-judgmental interactions with PCDPP participants.

For more information and training for health care providers to address bias and stigma in health care, visit the Balanced View and UConn Rudd Center for Food Policy & Obesity websites.
For strategies to reduce weight bias and stigma experienced by participants and clients in your organization, refer to Obesity Action Coalition’s guide “*Weight Bias in Healthcare — A Guide for Healthcare Providers Working with Individuals Affected by Obesity*.”

### Positive Approaches to Address Weight Change as an Outcome in the PCDPP

- As weight change is an outcome for the program, the weight loss goal is approached as a clinical outcome versus participant outcome.
- Weight loss is an indice used measure population change as a result of the program (i.e., as a marker of healthy lifestyles that include increased physical activity and healthy eating), NOT to measure success of the participant in terms of individual change.
- Clearly explain to participants that weight is a risk factor and that a weight change in small amounts (i.e., 5–7%) has been shown to impact clinical outcomes (e.g., reduce diabetes risk) but weight loss is not necessarily a marker of success with the PCDPP.
- Weight can be used as a program evaluation tool rather than individual change assessment.
- Ensure that participants know that weekly weight assessment is voluntary, and do not pressure them to engage in weekly weigh-ins.
- Always weigh participants in private, with only the Lifestyle Coach present, or, if they prefer, participants can monitor their weight at home.
- When discussing the weight loss goal, it is important to inform participants that weight is something to pay attention to because it is a risk factor, but emphasize that weight is only one of many modifiable risk factors addressed by the PCDPP, and that by changing eating and physical activity behaviours, they are positively influencing their health even if their weight does not change.
- Discuss with participants that weight is influenced by many factors, such as genetic, social, environmental, and health history. Focusing on weight as a marker of change does not assess the individual as a person (continued on next page).
Positive Approaches to Address Weight Change as an Outcome in the PCDPP, continued

- When interacting with participants, focus on changes in behaviours, NOT changes in weight.
- Do not bring the previous week’s weight measurements to the current session.
- Never discuss weight changes with the participant.
- When a participant knows his or her weight has changed, shift the focus from weight to behaviours and problem solving.
- Try not to celebrate losses in weight, and if weight losses come up for discussion in the group, redirect the conversation back to actions, behaviours, and goals that the participants are working on.
- Share with participants Mike Evans’s video [23 and ½ hours: what is the single best thing we can do for our health?](http://example.com) to emphasize behaviour for prevention.
- Consider tracking and eating assessment tools as optional to further reduce the focus on weight.
- When participants have an unrealistic expectation around weight loss or a misunderstanding around calories/calorie counting, educate them about the pros and cons of calorie counting and build knowledge and skills that move participants towards healthy behaviour changes.
- The principle of self-management that underlies the program promotes positive reinforcement, motivation, and encouragement to build self-confidence and self-esteem.
- Educate your staff who are referring potential participants to the program about the objectives of the program (including weight loss goals) and how to discuss weight as a risk factor for diabetes and other chronic diseases and weight loss with their clients/patients. Consistent messages help clients buy into support of healthy behaviours as opposed to focusing on weight loss goals as a primary outcome.
- Raise awareness on your team about weight bias and stigma. Offer education sessions and identify flags in your office setting that may trigger stigma or bias.
- Ontario’s Master Trainers instruct Lifestyle Coaches about strategies to reduce stigma and specific session adaptations and approaches that offer a weight-neutral and less calorie-focused approach.
Always remind participants that excess weight is a risk factor just like smoking, poor diet, and inactivity. The challenge with weight is that it is related to non-modifiable risk factors, such as genetics. When it is difficult for a participant to lose weight, the focus on it as a sole outcome can lead to further negative thoughts, slips, and reduced self-efficacy. Help participants see that lifestyle change is about the progress they make on changing their behaviours and other factors (e.g., their thoughts, behaviours, and environment) as these have an impact on their health.

“What I tell people in the program... the people that are successful in the program are the ones that maintain their physical activity and are diligent with their eating... but I always say all foods can fit into your life; you can still indulge here and there but you have to be a little more careful. But it is important to pay attention to your weight because if you don’t it can climb and climb.... Instead of focusing on weight loss you could stop the gain.”

—Lifestyle Coach

“If you have a person with high body weight who is a couch potato and a person with high body weight who exercises improving their fitness and healthy eating ... that person who is engaging in healthy behaviours is much farther ahead in prevention of health problems than the non-fit person.”

—Lifestyle Coach
Program Evaluation

Rationale for Evaluating the PCDPP at Your Organization

Program evaluation may often be dismissed or postponed due to limited organizational resources. However, the importance of evaluating your health promotion program cannot be understated. There are many reasons to evaluate a program, which include, but are not limited to, the following:

- Testing a hypothesis, contributing to the body of knowledge, and relating outcomes of the program to comparable interventions outlined in the literature
- Assessing the program for its ability to meet goals and objectives
- Understanding the strengths and weaknesses of the program components to inform changes or program enhancements
- Measuring the participants’ experience, perception, or satisfaction with the program
- Engaging in continuous quality improvement and establishing quality assurance benchmarks
- Providing a basis for public and fiscal accountability and/or funding agreements and opportunities

In Ontario, the PCDPP demonstration project underwent a real-world trial for which a comprehensive evaluation study was conducted by Prairie Research Associates to systematically measure the effectiveness and feasibility of the PCDPP. In addition, the results could be compared to those of similar interventions conducted internationally using the DPP/GLB program to prevent diabetes among at-risk adults.

During and following the pilot phase, the original PCDPP sites collected a range of indicators that were outlined in an agreement between the MOHLTC and the FHT at the PCDPP pilot sites. Your organization would not be required to measure or report on the indicators that were or are still being collected by PCDPP pilot sites in Ontario. However, if your organization is interested in comparing your results with those of the PCDPP pilot sites across Ontario or other jurisdictions across North America, the indicators currently being collected are provided below.
across Ontario or other jurisdictions across North America, the indicators currently being collected are provided below.

Data and Information Collected through Ontario’s PCDPP Pilot Sites

To ensure PCDPP data is comparable across PCDPP sites in Ontario, it is encouraged that an organization consider collecting, at a minimum, the data that is currently being collected at PCDPP pilot sites, as outlined below:

- Number of participants enrolled
- Number of sessions attended by participants
- Date of session for each program phase (core, transition, maintenance)
- Number of participants attending 50% of sessions/program
- Number of participants attending 75% of sessions/program
- Number of participants achieving 5% weight loss (from baseline)
- Number of participants achieving 7% weight loss (from baseline)
- Number of participants completing 150 minutes of moderate physical activity per week

It is also strongly recommended that PCDPP programs measure healthy eating knowledge and/or behaviour. For example, some PCDPP sites have measured:

- Number of vegetable and fruit servings consumed daily
- Change in knowledge of healthy eating concepts and strategies
- Confidence to make changes related to healthy eating behaviours

Ontario’s Master Trainers and Lifestyle Coaches also recommend looking at other attributes that appear to be important participant outcomes of the PCDPP, including:

- Quality of life (e.g., pain, flexibility, mobility, self-perceived quality of life)
- Motivation
• Self-efficacy
• Goal setting
• Participant satisfaction
• Participant dissatisfaction

Additionally, with structured and intensive lifestyle intervention programs, it would be beneficial to collect follow-up data to determine progression to diabetes onset and percentage of diabetes risk reduction.

**Mandatory Data Collection for the PCDPP at Your FHT**

As per the MOHLTC’s *Policy and Procedure Manual for Diabetes Education Programs Funded to Serve Adult Clients*, PCDPP programs in Ontario’s FHTs will be required to collect and report on the indicators outlined in Section 4.1.3.3 (sections of the quarterly activity report), including:

• Staff resources
• Clients served
• New referrals to the program by source
• Clinical interactions with clients
• Cancellations and no shows
• Wait times
• Other actives and events

For more information and tools to support planning and evaluation of your diabetes prevention program, refer to *Guidelines for Implementing Promising Practices in Diabetes Prevention*.

*For supplementary evaluation tools, refer to the Appendix: Supplementary Materials.*
Participant Outcomes and Lasting Change

This section looks at sustainability, both of the PCDPP and of positive participant outcomes in the long term.

Program Sustainability

For the PCDPP to be sustainable in your community and in Ontario, there are a few key things to consider.

Community Buy-in

Community members have to want to participate in this program. One way to increase buy-in is by grooming community champions from the pool of PCDPP graduates. There’s no better example of the program than a community member who is living proof that it works.

Partnering with local business, community, and primary care organizations in the region is another way to increase community buy-in and spread the word about the program. Bringing in guest speakers and hosting the meetings in community settings, such as a local library or community centre, are great ways to integrate the program into the community. Additionally, many PCDPP sites sought media coverage and used advertisements to broaden the reach of promotion efforts throughout the community.

Support from Primary Care Organization’s Management Team

To successfully bring the PCDPP to your community, you need support from your primary care organization. Management needs to be supportive in order to provide you with the resources and tools you need to successfully implement the program. Use the program resources and this manual to ensure that they understand the program is evidence-based, has been evaluated for effectiveness, and is a ready-to-use, turn-key program that is easily activated with minimal resources.
Ongoing Support from the University of Pittsburgh Diabetes Prevention Support Center

The University of Pittsburgh Diabetes Prevention Support Center is there to support you. The GLB resources and supports are available and regularly updated. For more information, refer to the Program Overview section in this manual.

Ongoing Collaboration and Sharing between Master Trainers and Lifestyle Coaches

Lifestyle Coaches are instrumental to the sustainability of the PCDPP. It is important that you are able to connect with Ontario’s Master Trainers and other Lifestyle Coaches to share strategies and ideas, and to support one another in finding solutions to challenges. Finding opportunities to connect and to support and mentor new Lifestyle Coaches will contribute to a strong foundation for the PCDPP in Ontario. For more information, refer to the Program Overview section in this manual.

Sustainability of Participant Outcomes

Positive Participant Outcomes Observed across PCDPP Sites

As mentioned earlier in the manual, the PCDPP includes both short- and long-term objectives for participants related to healthy eating, physical activity, and weight loss. These goals are foundational to the program, and most participants who enroll in the PCDPP will have these goals in mind as they progress throughout the program. However, in Ontario, PCDPP lifestyle coaches, primary care organization staff, and participants have observed and reported a range of quality of life and positive health outcomes for the participants beyond the main program goals and expected outcomes. Consequently, the PCDPP aims to achieve improvements on a range of quality of life/health indicators for participants (e.g., self-perceived quality of life, pain reduction, physical mobility, mood and clinical parameters) and encourages that PCDPP sites consider measuring such positive outcomes.
Participants at PCDPP sites have experienced (anecdotally) the following benefits:

- Increased self-esteem, self-efficacy, and confidence to make changes
- Increased and transferable self-management and behavioural skills that facilitate making healthier life choices that influence multiple health factors and health outcomes
- Increased and transferable health, physical, and food literacy skills
- Increased mobility
- Pain reduction
- Improved bloodwork on a number of parameters (e.g., LDL cholesterol, blood pressure, blood glucose)
- Decreased reliance on/dosage of medication (e.g., diabetes medications)
- Feeling healthier and more energetic
- Being better able to participate in family and social life (e.g., increased stamina when playing with their children, ability to join their friends for a hike)
- Perceived longevity (e.g., health has improved so that they feel they will be around to see their child get married or for the birth of a grandchild)
- Social support through increased connections to peers, PCDPP group, community, and community organizations
- Positive mental health and well-being
- High participant satisfaction with the program, with constant positive feedback and word-of-mouth promotion to the community

“\[I feel much healthier, my golf game has improved, my best friend now calls me ‘Twiggy’ and I am very excited about the upcoming hockey and football seasons.\]”
—Bobby, participant

Supporting Lasting Change in Participants

Transitioning from a guided, structured program to self-directed lifestyle management can be difficult for some participants. It is important to stress throughout the program that the information and skills taught during the program are meant to increase their confidence and ability to lead a healthy, active life after graduation. As a major focus in the maintenance phase, it is helpful to continue to encourage participants to think critically about the skills they are learning through the program and to plan how they will continue to use them on their own outside of the program. Lifestyle Coaches are strongly encouraged to stay connected with participants until graduation and to follow up afterwards to ensure these self-management lessons and skills have been adopted.
Lifestyle Coaches are strongly encouraged to stay connected with participants until graduation and to follow up afterwards to ensure these self-management lessons and skills have been adopted.

### Strategies to Support Lasting Participant Change with Participants after Program Graduation

- **Stay Connected**: Encourage participants to start a support group (online via social media or in person) to stay connected during and after the program. They can continue to share their challenges and successes and support one another in maintaining a healthy lifestyle.

- **Connect with Community**: Connect participants with resources and supports within the community. Encourage them to sign up for programs at local community centres, recreation centres, and public libraries. Encourage participants to join or start their own walking groups to help them to continue to make healthy choices and stay connected with the community.

- **Develop a Plan**: At the end of the program, ask participants to write an exit card outlining where they want to be one year, five years, and ten years after they complete the program. For each goal, have them write three to five things that they will do to achieve that goal.

- **Invite People Back**: Open up the program to repeat participants. Some participants benefit from taking the program more than once. Make sure participants know that they are welcome to repeat the program if they feel it would help them.

- **Write a Letter**: Have participants write a letter to themselves that includes encouragement to stay motivated and on track with the program goals. Keep the letters and mail them to participants one year after they complete the program. Alternatively, have participants keep their letters and open them one year later or when they need the encouragement.

- **Host an Open House**: Host an open house every year, or more often, inviting past participants to meet new potential participants. This has the double benefit of keeping your organization in touch with past participants while also acting as a recruitment event for upcoming program cycles. (continued on next page)
Conclusion

Success looks different for different people. Some people meet the targets and are happy to maintain their new lifestyle. Others will exceed the targets. Still others may find it difficult to maintain change and positive gains given their own circumstances. While this program has specific weight loss and physical activity goals, it is also important to recognize the impact of the process on individual participants. It you can help them start to adopt healthier behaviours in one or more areas of their lives, stick with the process, and make it work for them, then you have had a positive impact and contributed to an improvement in their overall health.
References


13. Thorpe KE, Yang Z. Enrolling people with prediabetes ages 60-64 in a proven weight loss program could save medicare $7 billion or more. Health Affairs. 2011;30(9):1673-1679.
References, continued


Appendix: Supplementary Materials

1. **PCDPP Informational Flyer**: This flyer provides an overview of the PCDPP in Ontario, including results of the pilot and training information.

2. **PCDPP Frequently Asked Questions**: This document provides information responding to frequently asked questions regarding the PCDPP in Ontario.

3. **Evaluation Tool - Healthy You Questionnaire**: This short questionnaire was developed by the Mount Forest Family Health Team, a PCDPP pilot site in Ontario, to assess the effectiveness of the PCDPP, specifically measuring healthy eating and physical activity.

4. **Evaluation Tool - Evaluation Group Form**: This questionnaire was developed by the Center and North Wellington Diabetes Network to assess group-based programming which is similar to the PCDPP (e.g., cooking classes, group diabetes education).

5. **Evaluation Tool - Health Related Quality of Life Measure**: This validated questionnaire can be used to measure quality of life and is used by Hamilton Family Health Team.

6. **Evaluation Tool - World Health Organization Quality of Life (WHOQOL): BREF**: This validated questionnaire was developed by the World Health Organization to assess an individuals’ perceived quality of life, health, other areas of life. While the tool includes 30 items, your organization may consider a small selection of aspects to measure quality of life. 

   **Note:** For permission to use and/or translate WHOQOL-100 and/or WHOQOL-BREF questionnaires, please fill in the user-agreement form below and return a signed copy to Ms. Sibel Volkan (whogol@who.int) at the World Health Organization. 

   **User-agreement form:** [http://www.who.int/entity/mental_health/publications/whogolbref_user_agreement.pdf](http://www.who.int/entity/mental_health/publications/whogolbref_user_agreement.pdf)

7. **Evaluation Tool - Craving Change Program - Self-Efficacy Scale**: This validated evaluation tool was developed for the Craving Change program to assess eating self-efficacy. Note: The eating self-efficacy scale is available for public use, however, the Craving Change program itself is a licensed program.
What is the benefit of the PCDPP to your FHT?

- Evidenced-based, turn-key program suitable for diabetes and metabolic syndrome prevention (including prediabetes, hypertension, dyslipidemia, and obesity), with easy start-up and resources available including:
  - Training, coaches manual and participant handouts;
  - Diabetes Prevention Support Center Portal, providing administrative support and regular program updates to keep program up-to-date with best practices; and
  - Ontario Master Trainers available to train and provide support in person or via Ontario Telemedicine Network.
- Lifestyle coaches can be any health care professional. A multidisciplinary team enhances and improves effectiveness.
- Can be implemented within both FHT and community settings and is adaptable to suit your community needs. Collaboration can help reduce costs to FHT and improve visibility and public relations within the community.
- Proven satisfaction among participants, administrators, physicians and executive directors.

Where can I get more information?
For more information about the Primary Care Diabetes Prevention Program and training opportunities, contact:

Sarah Pink RD, GLB Master Trainer at spink@mountforestfht.com; or
Diane Horrigan RN, GLB Master Trainer at dhorrigan@mountforestfht.com

The PCDPP was developed to support the Diabetes Strategy of the Government of Ontario. The Nutrition Resource Centre and Physical Activity Resource Centre are pleased to support this initiative of the Ministry of Health and Long-Term Care in Ontario.

References


“One of the greatest features of the [GLB] program is that it is a comprehensive modular approach to chronic disease prevention and management that is backed by science, and proven through research. Trained Lifestyle Coaches guide patients through key concepts of mindfulness, moderation, and movement, and provide ongoing support that maintains momentum and motivation. With a focus on progress, not perfection, patients are actively involved in creating an individualized process that leads to their success.”

Given Cortes, Lifestyle Coach
DIABETES IN ONTARIO

What is the Magnitude of Diabetes in Ontario?
- 1.5 million Ontarians living with diabetes\(^1\)
- $6 billion is the annual cost to the Ontario healthcare system\(^1\)
- 2.3 million Ontarians are expected to be living with diabetes by 2025, costing an estimated $7.7 billion annually\(^1\)

How is the Government of Ontario Taking Action?
- In 2008, the Government of Ontario announced a comprehensive Diabetes Strategy to help address the rising incidence and prevalence of diabetes.
- The Ministry of Health and Long-Term Care in Ontario has launched and implemented the PCDPP in Ontario.
- The PCDPP is an evidence-based, structured lifestyle intervention program, in six Family Health Team pilot sites across Ontario since 2011.

"It has definitely reduced the number of people developing diabetes, and I would recommend the continuation of this program. For areas of Ontario in which the program is not currently available, I hope that it does become available very soon."
Bruce Stanners MD, FCFP, Dip Sport Med

Can Diabetes be prevented?
A large body of evidence shows that for individuals with prediabetes:
- More than 50% of diabetes can be prevented through structured lifestyle intervention programs focused on healthy eating and physical activity.\(^2\)
- Healthy eating (lower calorie and fat consumption) and increased, regular physical activity predicts moderate weight loss.\(^2\)
- Moderate weight loss of 5% of initial body weight can reduce risk progression by as much as 60%.\(^3\)
- For every kilogram of weight loss there is a predicted 16% reduction of risk for the onset of diabetes.\(^2\)

What is the Primary Care Diabetes Prevention Program (PCDPP)?
- The Primary Care Diabetes Prevention Program is a comprehensive group-based and community-based lifestyle program, based on an internationally recognized, best practice program, called Group Lifestyle Balance™ (GLB).
- GLB has repeatedly shown both short- and long-term effectiveness in reducing risk for development of type 2 diabetes among at-risk and/or individuals with prediabetes.\(^3,4,5\)
- The PCDPP program is delivered by Lifestyle Coaches; interdisciplinary health professionals trained to deliver the GLB curriculum consisting of:
  - Group-based healthy lifestyle education;
  - Group-based and/or 1-on-1 goal setting sessions; and
  - Supervised physical activity sessions.

What are the Weight Loss Results of the PCDPP Pilot (2011)?

<table>
<thead>
<tr>
<th>Participants</th>
<th>Enrolled Participants</th>
<th>71% Female</th>
<th>29% Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of Participants</td>
<td>74% 50+ years</td>
<td>31% 65+ years</td>
<td></td>
</tr>
<tr>
<td>Retention</td>
<td>76% completed core phase</td>
<td>45% completed maintenance phase</td>
<td></td>
</tr>
<tr>
<td>Outcomes</td>
<td>Weight Loss</td>
<td>51% achieved 5% weight loss</td>
<td>36% achieved &gt; or = 7% weight loss</td>
</tr>
</tbody>
</table>

Risk Reduction: 5% weight loss reduces risk for diabetes onset by as much as 60%

What are the Participant Successes from the PCDPP Pilot?
- Weight loss
- Reduction in medications
- Decreased pain
- Decreased blood pressure
- Increased energy and stamina
- Comprehension of GLB healthy living curriculum
- Satisfaction with PCDPP program and lifestyle coaches

“We thought we were living and eating sensibly all our lives, but recently we had been steadily gaining weight and taking more medications to control BP, Cholesterol and impending or existing diabetes. After 10 months we have decreased medications, experienced less aches and pains, and increased our energy level. We think that there has been adequate time elapsed for us to have trained ourselves to live a new lifestyle.”
John and Janet, Participants
Ontario’s Primary Care Diabetes Prevention Program

Frequently Asked Questions

**Q: What is the Magnitude of Diabetes in Ontario?**
- In 2015 - 1.5 million Ontarians living with diabetes (estimated) ¹
- In 2015 - $6.0 Billion in costs the Ontario healthcare system annually (estimated)¹
- In 2025 - 2.3 million Ontarians to be living with diabetes (estimated)¹
- In 2025 - $7.7 Billion in costs to Ontario healthcare system annually (estimated)¹

**Q: Can Diabetes be Prevented?**
A large body of evidence shows that, for individuals with prediabetes (impaired glucose tolerance):

- 50% or more diabetes can be prevented through structured lifestyle intervention programs focused on healthy eating and physical activity.²

- Healthy eating and increased, regular physical activity predicts moderate weight loss.²

- Moderate weight loss of 5% of initial body weight can reduce risk progression by as much as 60%.³

- For every kilogram of weight lost there is a predicted a 16% reduction of risk for the onset of diabetes.²

**Q: How is the Government of Ontario Taking Action?**
- In 2008, the Government of Ontario announced a comprehensive Diabetes Strategy to help address the rising incidence and prevalence of diabetes in Ontario.

- The Ministry of Health and Long-Term Care in Ontario has launched and implemented the Primary Care Diabetes Prevention Program (PCDPP) in Ontario.
The PCDPP is an evidence-based, structured lifestyle intervention program, in six Family Health Team pilot sites across Ontario, beginning in 2011.

**Q: What is the PCDPP using Group Lifestyle Balance™?**
- The PCDPP is a comprehensive group- and community-based lifestyle program, based on an internationally recognized, best practice program, called Group Lifestyle Balance™ (GLB) from the University of Pittsburgh.

- GLB has repeatedly shown both short- and long-term effectiveness in reducing risk for development of type 2 diabetes among at-risk individuals and/or individuals with prediabetes.\(^3,4,5\)

- The PCDPP program is delivered by Lifestyle Coaches; interdisciplinary health professionals trained to deliver the GLB curriculum consisting of:
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  - Supervised physical activity sessions.

**Q: What are the Weight Loss Results of the PCDPP Pilot (2011)?**

<table>
<thead>
<tr>
<th>Participants</th>
<th>Enrolled Participants (n = 1228)</th>
<th>71% Female</th>
<th>29% Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of Participants</td>
<td>74% 50+ years</td>
<td>31% 65+ years</td>
<td></td>
</tr>
<tr>
<td>Retention</td>
<td>76% completed core phase</td>
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</tr>
</thead>
<tbody>
<tr>
<td>Risk Reduction</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>
Q: What are the Participant Successes from PCDPP Pilot?

- Weight loss
- Reduction in medications
- Decreased pain
- Decreased blood pressure
- Increased energy and stamina
- Comprehension of GLB healthy living curriculum
- Satisfaction with PCDPP program and lifestyle coaches

Q: What is the Benefit of the PCDPP to your Family Health Team?

- Evidence-based, turn-key program, suitable for diabetes and metabolic syndrome prevention (including prediabetes, hypertension, dyslipidemia, and obesity), with easy start-up and resources available, including:
  - Training, coaches, manual and participant handouts;
  - Diabetes Prevention Support Center Portal, providing administrative support and regular program updates to keep program up-to-date with best practices; and
  - Ontario Master Trainers are available to provide support in person or via the Ontario Telemedicine Network.

- Lifestyle coaches can be any health care professional. A multidisciplinary team enhances and improves effectiveness.

- Can be implemented within both FHT and community settings and is adaptable to suit your community needs. Collaboration can help reduce costs to FHT and improve viability and public relations within the community.

- Proven satisfaction among participants, administrators, physicians and executive Directors.

Q: Where can I get more information?

For more information about the program and training opportunities, contact:

Sarah Pink RD, GLB™ Master Trainer - spink@mountforestfht.com

Diane Horrigan RN, GLB™ Master Trainer - dhorrigan@munforestfht.com
Q: What do Physicians and Lifestyle Coaches Say about the PCDPP?

Bruce Stanners MD, FCFP, Dip sport Med

“In over 30 years of medical practice, I have never heard so many participants complement a program that they have been involved in. Many people have told us that they have never felt better and have been very appreciative that they had been referred to the program.

It has definitely reduced the number of people developing diabetes, and I would recommend the continuation of this program. For areas of Ontario in which the program is not currently available, I hope that it does become available very soon.”

Given Cortes, Lifestyle Coach

“One of the greatest features of the [GLB] program is that it is a comprehensive modular approach to chronic disease prevention and management that is backed by science, and proven through research. Trained Lifestyle Coaches guide patients through key concepts of mindfulness, moderation, and movement, and provide ongoing support that maintains momentum and motivation. With a focus on progress, not perfection, patients are actively involved in creating an individualized process that leads to their success.”

References

Healthy You Pre Questionnaire

Name: __________________________

This very short questionnaire is just to be used to assess the effectiveness of our program. We will only be evaluating the progress of the group and not individuals to send to the ministry as part of our statistics.

For the next two questions please circle the answer that best represents what you are doing right now.

1. On average how many servings of fruit and vegetables combined do you currently consume per day. One serving is ½ cup or enough that you could hold in one hand or the size of a tennis ball.

   0-2 servings  2-4 servings  4-6 servings  6-8 servings  8 servings or more
   (0- 1 cup)  (1 cup -2 cups)  (2 cups to 3 cups)  (3 cups to 4 cups)  (4 cups or more)

* For example: You usually have 1 apple, 1 banana and one handful of vegetables at dinner you would likely have between 2-4 servings of fruit and vegetables per day.

2. On average how many minutes of moderate to intense activity do you currently do in a week? Moderate to intense activity is any activity at a similar pace of a brisk walk or greater intensity.

   0-30 minutes  30-60 minutes  60-90 minutes  90-120 minutes  120-150 minutes  150 minutes or more.

*For example if you walk for 20 minutes 3 times per week that would be 60 minutes. You could choose 60-90 minutes if you feel like you do this consistently or even do some extra things in addition to your walk most of the time. You might also choose 30-60 minutes if you feel like you don’t consistently make it out for 3 walks a week and sometimes only do 2, or 40 minutes of walking.
Please Help Us Evaluate our Services

Session: ________________________
Date: ________________________

1. I learned something new today that I can do to help me manage my health.
   (make healthier food, make medication changes, increase activity, BG monitoring, etc)
   Yes______  No________

2. This session helped me gain confidence in my ability to incorporate healthy eating and/or activity to help keep me healthy, (or helped my ability to maintain healthy changes that I have already made)
   Yes______  No________

3. Set a goal ....In the next week, I plan to:
   __________________________________________
   __________________________________________
   __________________________________________

What did you like most about today’s class: __________________________________________

What would you change about today’s session: __________________________________________

Would you recommend this to a friend:        Yes______  No________

Thank you for your feedback
Health Related Quality of Life Measure

The Hamilton Family Health Team is committed to evaluating our group programs to ensure we are offering high quality programming. Part of our evaluation is finding out if our groups are making a difference in the lives of our patients. To do this we are using a four question scale called the Health Related Quality of Life Measure. The information we collect will be used only for the purpose of evaluating the group you are involved in. It will be kept confidential. You do not have to answer the questions if you don’t wish to.

I understand the purpose and will answer these questions: Yes___ No___

1. Would you say that in general your health is (circle one):
   a. Excellent
   b. Very good
   c. Good
   d. Fair
   e. Poor

2. Now thinking about your physical health, which includes physical illness and injury, for how many days during the past 30 days was your physical health not good?
   Number of days _____

3. Now thinking about your mental health, which includes stress, depression, and problems with emotions, for how many days during the past 30 days was your mental health not good?
   Number of days _____

4. During the past 30 days, for about how many days did poor physical or mental health keep you from doing your usual activities, such as self-care, work, or recreation?
   Number of days _____

Thank you for completing this questionnaire.

(The measure was created by the U. S. Center for Disease Control and Prevention)

First Name Only____________________________ Date ___________________
### Equations for computing domain scores

<table>
<thead>
<tr>
<th>Domain</th>
<th>Equations</th>
<th>Raw score (4-20)</th>
<th>Transformed scores (0-100)</th>
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</thead>
<tbody>
<tr>
<td>Domain 1</td>
<td>((6-Q3) + (6-Q4) + Q10 + Q15 + Q16 + Q17 + Q18)</td>
<td>=</td>
<td></td>
</tr>
<tr>
<td>Domain 2</td>
<td>(Q5 + Q6 + Q7 + Q11 + Q19 + (6-Q26))</td>
<td>=</td>
<td></td>
</tr>
<tr>
<td>Domain 3</td>
<td>(Q20 + Q21 + Q22)</td>
<td>=</td>
<td></td>
</tr>
<tr>
<td>Domain 4</td>
<td>(Q8 + Q9 + Q12 + Q13 + Q14 + Q23 + Q24 + Q25)</td>
<td>=</td>
<td></td>
</tr>
</tbody>
</table>

* Please see Table 4 on page 10 of the manual, for converting raw scores to transformed scores.
ABOUT YOU
Before you begin we would like to ask you to answer a few general questions about yourself: by circling the correct answer or by filling in the space provided.

What is your gender? Male Female
What is your date of birth? Day / Month / Year
What is the highest education you received? None at all Primary school Secondary school Tertiary
What is your marital status? Single Married Living as married Separated Divorced Widowed
Are you currently ill? Yes No
If something is wrong with your health what do you think it is? ____________________ illness/ problem

Instructions
This assessment asks how you feel about your quality of life, health, or other areas of your life. Please answer all the questions. If you are unsure about which response to give to a question, please choose the one that appears most appropriate. This can often be your first response.

Please keep in mind your standards, hopes, pleasures and concerns. We ask that you think about your life in the last two weeks. For example, thinking about the last two weeks, a question might ask:

<table>
<thead>
<tr>
<th>Do you get the kind of support from others that you need?</th>
<th>Not at all 1</th>
<th>Not much 2</th>
<th>Moderately 3</th>
<th>A great deal 4</th>
<th>Completely 5</th>
</tr>
</thead>
<tbody>
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<td>Do you get the kind of support from others that you need?</td>
<td>Not at all 1</td>
<td>Not much 2</td>
<td>Moderately 3</td>
<td>A great deal 4</td>
<td>Completely 5</td>
</tr>
</tbody>
</table>

You should circle the number that best fits how much support you got from others over the last two weeks. So you would circle the number 4 if you got a great deal of support from others as follows.

You would circle number 1 if you did not get any of the support that you needed from others in the last two weeks.
Please read each question, assess your feelings, and circle the number on the scale for each question that gives the best answer for you.

<table>
<thead>
<tr>
<th>1(G1)</th>
<th>How would you rate your quality of life?</th>
<th>Very poor</th>
<th>Poor</th>
<th>Neither poor nor good</th>
<th>Good</th>
<th>Very good</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 (G4)</td>
<td>How satisfied are you with your health?</td>
<td>Very dissatisfied</td>
<td>Dissatisfied</td>
<td>Neither satisfied nor dissatisfied</td>
<td>Satisfied</td>
<td>Very satisfied</td>
</tr>
</tbody>
</table>

The following questions ask about **how much** you have experienced certain things in the last two weeks.

| 3 (F1.4) | To what extent do you feel that physical pain prevents you from doing what you need to do? | Not at all | A little | A moderate amount | Very much | An extreme amount |
| 4(F11.3) | How much do you need any medical treatment to function in your daily life? | Not at all | A little | A moderate amount | Very much | An extreme amount |
| 5(F4.1) | How much do you enjoy life? | Not at all | A little | A moderate amount | Very much | An extreme amount |
| 6(F24.2) | To what extent do you feel your life to be meaningful? | Not at all | A little | A moderate amount | Very much | An extreme amount |

The following questions ask about **how completely** you experience or were able to do certain things in the last two weeks.

| 7(F5.3) | How well are you able to concentrate? | Not at all | A little | A moderate amount | Very much | Extremely |
| 8 (F16.1) | How safe do you feel in your daily life? | Not at all | A little | A moderate amount | Very much | Extremely |
| 9 (F22.1) | How healthy is your physical environment? | Not at all | A little | A moderate amount | Very much | Extremely |
| 10 (F2.1) | Do you have enough energy for everyday life? | Not at all | A little | Moderately | Mostly | Completely |
| 11 (F7.1) | Are you able to accept your bodily appearance? | Not at all | A little | Moderately | Mostly | Completely |
| 12 (F18.1) | Have you enough money to meet your needs? | Not at all | A little | Moderately | Mostly | Completely |
| 13 (F20.1) | How available to you is the information that you need in your day-to-day life? | Not at all | A little | Moderately | Mostly | Completely |
| 14 (F21.1) | To what extent do you have the opportunity for leisure activities? | Not at all | A little | Moderately | Mostly | Completely |
The following questions ask you to say how **good or satisfied** you have felt about various aspects of your life over the last two weeks.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Very dissatisfied</th>
<th>Dissatisfied</th>
<th>Neither satisfied nor dissatisfied</th>
<th>Satisfied</th>
<th>Very satisfied</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 (F9.1)</td>
<td>How well are you able to get around?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th>Never</th>
<th>Seldom</th>
<th>Quite often</th>
<th>Very often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 (F8.1)</td>
<td>How often do you have negative feelings such as blue mood, despair, anxiety, depression?</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

Did someone help you to fill out this form?....................................................................................................................

How long did it take to fill this form out?....................................................................................................................

Do you have any comments about the assessment?

............................................................................................................................................................................................

............................................................................................................................................................................................

THANK YOU FOR YOUR HELP
Mount Forest FHT - Craving Change Program

Eating Self Efficacy Scale

Name: __________________

For numbers 1-25 please rate the likelihood that you would have difficulty controlling your overeating in each of the situations listed on the next pages, using this scale:

1  2  3  4  5  6  7
No difficulty controlling eating  Moderate difficulty controlling eating  Most difficulty controlling eating

For example, if you thought you had great difficulty controlling your eating when you are at parties, you might complete the following situation this way:

Overeating at Parties  1  2  3  4  5  6  7

Please complete every item by circling your response. How difficult is it to control your:

1. Overeating after school or work?

2. Overeating when you feel restless?

3. Overeating around holiday time?

4. Overeating when you feel upset?

5. Overeating when tense?

6. Overeating with friends?

7. Overeating when preparing food?

8. Overeating when irritable?

9. Overeating as part of a social occasion dealing with food- like a restaurant or party?

10. Overeating with family members?

11. Overeating when annoyed?
12. Overeating when angry?
   1 2 3 4 5 6 7

13. Overeating when you are angry at yourself?
   1 2 3 4 5 6 7

14. Overeating when depressed?
   1 2 3 4 5 6 7

15. Overeating when you feel impatient?
   1 2 3 4 5 6 7

16. Overeating when you want to sit back and enjoy some food?
   1 2 3 4 5 6 7

17. Overeating after an argument?
   1 2 3 4 5 6 7

18. Overeating when you feel frustrated?
   1 2 3 4 5 6 7

19. Overeating when tempting food is in front of you?
   1 2 3 4 5 6 7

20. Overeating when you want to cheer up?
   1 2 3 4 5 6 7

21. Overeating when there is a lot of food available to you (fridge is full)?
   1 2 3 4 5 6 7

22. Overeating when you feel overly sensitive?
   1 2 3 4 5 6 7

23. Overeating when you feel nervous?
   1 2 3 4 5 6 7

24. Overeating when you are hungry?
   1 2 3 4 5 6 7

25. Overeating when you are anxious or worried?
   1 2 3 4 5 6 7

Scoring: Eating Self Efficacy: Score:________________________
To obtain an overall Eating Self Efficacy score, sum scores for each question and divide by 25. The higher the score (will range from 1-7) indicates less eating self-efficacy or more problematic eating.

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