

# CARDIOPREVENT<sup>®</sup> PROGRAM

AN EVIDENCE-BASED, THEORY DRIVEN GLOBAL CARDIOVASCULAR RISK  
REDUCTION PROGRAM SUPPORTED BY HEALTH BEHAVIOUR COACHING



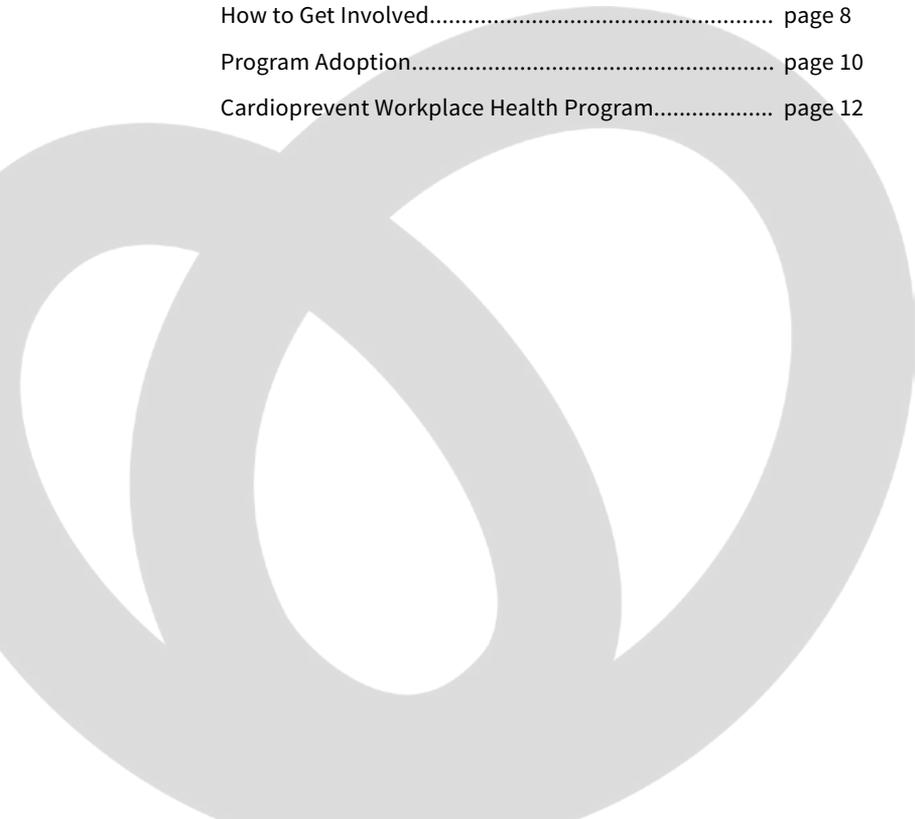
  
UNIVERSITY OF OTTAWA  
HEART INSTITUTE  
INSTITUT DE CARDIOLOGIE  
DE L'UNIVERSITÉ D'OTTAWA

**CardioPrevent<sup>®</sup>**  
Heart Health Program

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## AT A GLANCE

The CardioPrevent® program provides an evidence-based, tailored primary prevention cardiovascular health program for patients at a moderate to high risk of developing cardiovascular disease (CVD). During the year long program, CardioPrevent health coaches will guide and support patients through a customized program plan based on their personal risk factor profile using cognitive-behavioural and behaviour change strategies.

## GOAL

To lower the risk of developing CVD in individuals who may be at a moderate to high risk.

## OBJECTIVES

1. To support health care providers through the deployment of CVD preventive care models to support lifestyle screening, behavioural counseling, and community linkages.
2. To improve accessibility to CVD risk screening and risk management through community outreach.

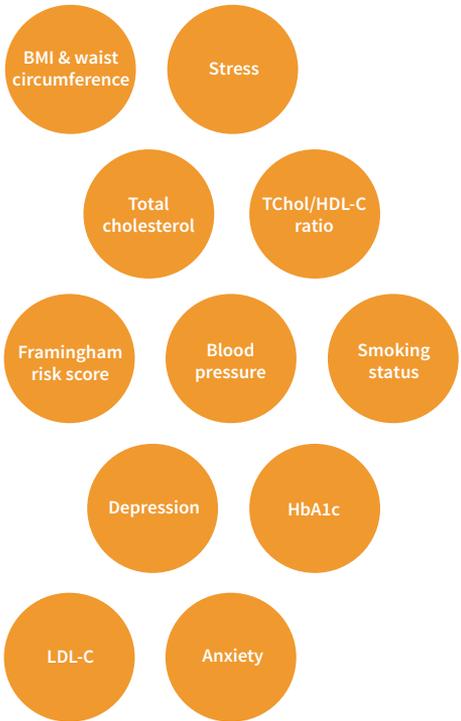
## ALIGNMENT WITH ONTARIO'S PATIENTS FIRST: ACTION PLAN FOR HEALTH CARE

The CardioPrevent program supports primary care providers, the hub of Ontario's health care system, and a key priority in Ontario's Action Plan for Health Care. The intervention promotes healthy behaviours and supports lifestyle changes that will reduce chronic disease risk and improve patient quality of life.

Health Quality Ontario indicates that to strengthen Quality Improvement Plans in Patient Experience, more organizations need to implement evidence-based strategies such as promotion of self-management in health behaviours.

## IMPACTS

### REDUCTIONS IN:



### INCREASES IN:



## BACKGROUND

The development and progression of subclinical atherosclerosis begins from as early as the second decade of life. Since the burden of atherosclerosis increases over time, this long pre-clinical phase provides a window of opportunity for risk prediction and cardiovascular disease prevention.

The cornerstone of CVD prevention is the favourable modification of risk factors. Nine modifiable risk factors have been shown to have a consistent association with CVD risk, including:

- Lipid/lipoprotein levels
- Smoking
- Hypertension
- Diabetes
- Abdominal obesity
- Psychosocial factors
- Dietary factors
- Physical inactivity
- Alcohol consumption

Patients and the medical community often focus on medications as a first-line strategy to stabilize or favourably modify risk factors such as hypertension, dyslipidemia, and/or diabetes. However, the most proximal risk factors for CVD are health behaviours, including poor dietary habits, physical inactivity, and cigarette smoking. Notably, these unhealthy lifestyle practices strongly influence blood pressure, lipid/lipoprotein levels, and glucose-insulin homeostasis. Accordingly, modifying unhealthy behaviours is critical to addressing the foundational causes of CVD.





## THE NEED

Primary care settings are important to CVD prevention efforts because more than 90% of patient interactions with the health care system occur here. This is where screening for risk factors can occur and where lifestyle and medical interventions to control risk factors can be initiated.

### HOWEVER:

- Prevention needs are usually perceived as non-urgent so they are often not addressed and therefore go un-assessed and un-treated.
- Clinicians often lack the knowledge, skills, and support systems to quickly and easily provide a range of different behavioural counseling interventions.
- Physicians report spending an average of only 8 minutes counseling their patients on lifestyle change annually.
- When lifestyle changes are required, primary care providers typically rely on health information and their professional status to convince patients to change.
- Physicians do not rate themselves as very effective in their ability to help patients prevent and manage risk factors.
- In clinical settings, many prevention management activities (e.g., lifestyle screening, behavioural counseling, linkages with community resources) fall outside the scope and culture of clinical medicine.
- Health-behaviour models suggest more effective methods for helping patients accomplish behaviour change goals and compliance with risk reducing treatments.

## THE PROGRAM

The CardioPrevent program is a global risk reduction program that is based on seven years of research, a Randomized Controlled Trial and Family Heart Health pilot, conducted through the University of Ottawa Heart Institute by a multi-disciplinary team of clinicians and behavioural scientists.

CMAJ

RESEARCH

### Effect of an intervention to improve the cardiovascular health of family members of patients with coronary artery disease: a randomized trial

Robert D. Reid PhD MBA, Lisa A. McDonnell MSc, Dana L. Riley PhD, Amy E. Mark PhD, Lori Mosca MD PhD, Louise Beaton MSc, Sophia Papadakis PhD MHA, Chris M. Blanchard PhD, Heidi Mochari-Greenberger PhD RD, Patricia O'Farrell RN, George A. Wells PhD, Monika I. Stojanec D'Angelo PhD, Andrew L. Pipe MD



### An evaluation of CardioPrevent: a technology-enabled, health-behavior change program for the global reduction of cardiovascular risk

Stephanie A. Prince, Robert D. Reid, Andrew L. Pipe, and Lisa A. McDonnell

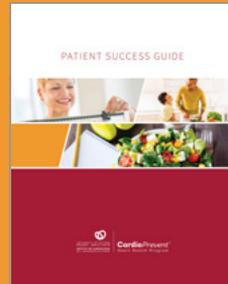
*Outreach Facilitators support and work with primary care practices to introduce systematic processes to screen at-risk individuals who can then be linked into the CardioPrevent Program.*

### To be eligible patients must be:

- 18 years of age or older
- Referred by physician or nurse practitioner
- Be at moderate to high risk of developing CVD (based on Framingham Risk Score)
- Have no known CVD or cerebrovascular disease

## WHAT IS INCLUDED?

- Complete cardiovascular risk factors screening.
- Personalized programming and education tailored to individual risk factors supported by behavioural-based counseling.
- Patient success guide with worksheets to support counseling sessions.
- Risk factor education kits to support learning and risk factor management.
- Linkages to services to help the patient meet their personal goals.
- Regular follow-up support and guidance from a dedicated Health Coach.
- Re-assessment of their cardiovascular risk profile at 6 and 12 months.





*“The best part of the program was the regular contacts with my health coach. They helped keep me focused, on track and able to raise and resolve issues in a very timely manner.”*

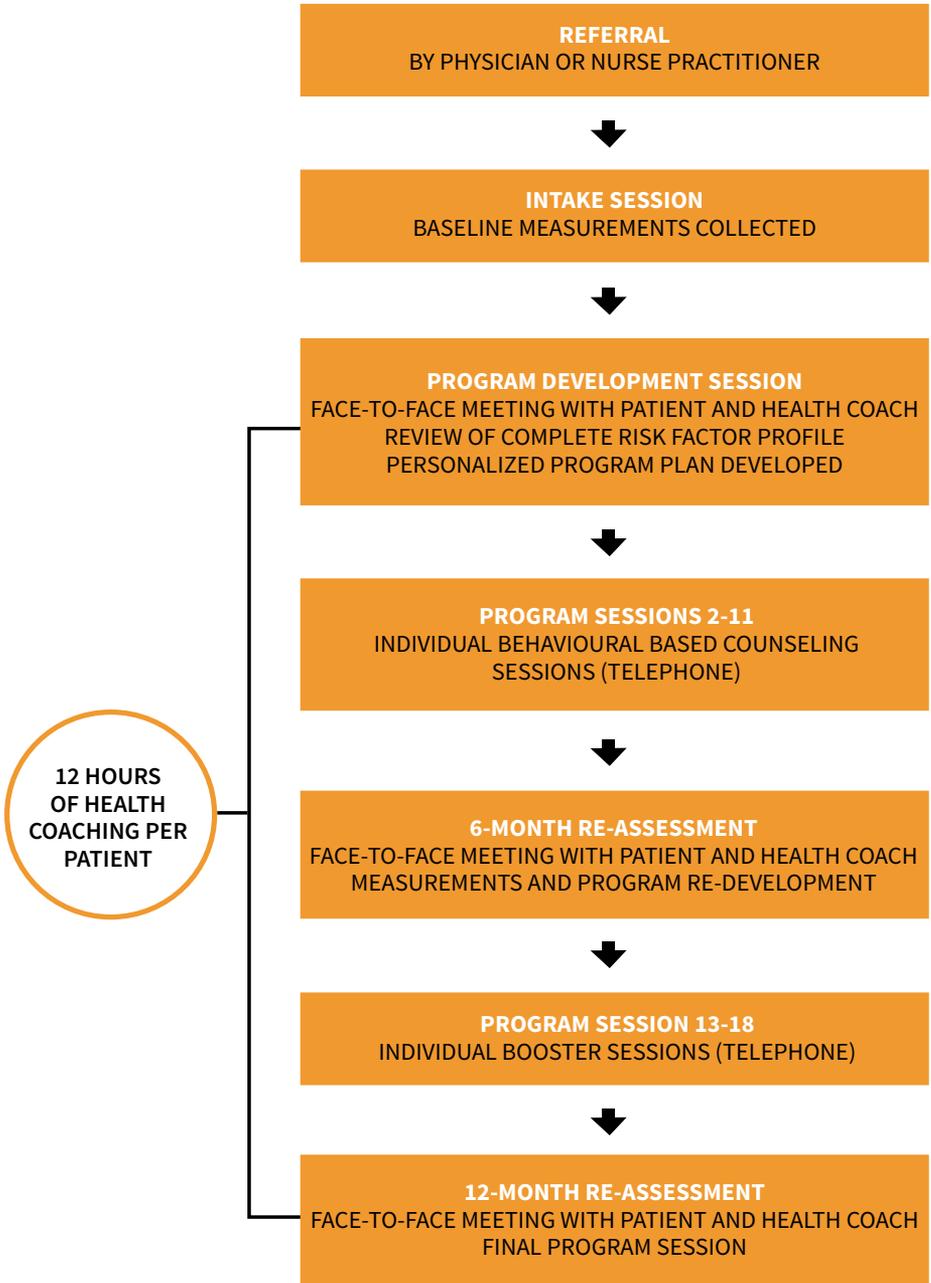
**Male participant, June 2017**



*“I feel that this program has helped me to take a good look at my life and lifestyle to make the changes needed to prevent a heart attack or stroke. It has given me a healthy future and the knowledge that I needed to know so that I can improve my risk factors and lead a better life.”*

**Female participant, October 2015**

## HOW IT WORKS



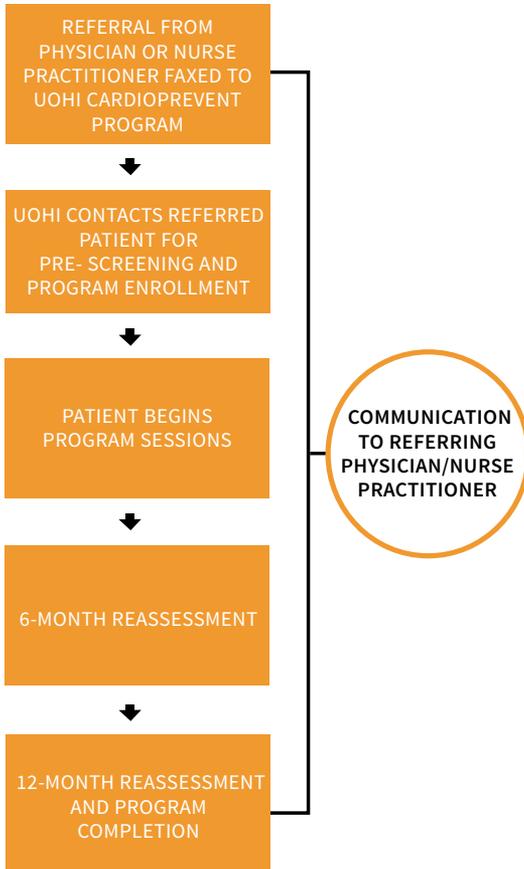
## HOW TO GET INVOLVED

We offer two ways for primary care practices to become involved in the CardioPrevent program.

### 1. REFERRAL TO UOHI CARDIOPREVENT PROGRAM

Outreach facilitators will provide support to assist practices with systematic screening of patients to identify at risk individuals who can then be referred to the CardioPrevent Program at UOHI.

Health Coaches from the UOHI CardioPrevent team will provide the program counseling sessions to patients and progress updates to referring physicians/nurse practitioners.





## 2. PROGRAM ADOPTION

With this “train the trainer” approach CardioPrevent can be integrated into your practice.

*Includes:*

### A) OUTREACH FACILITATION

Facilitation services include the assistance of an Outreach Facilitator specialized in risk factor management and program integration from the UOHI CardioPrevent Program.

### B) PROGRAM MANUALS AND PATIENT MATERIALS

Licensed practices and organizations will receive complete details of the program protocol with step-by-step instructions in the form of an operating manual and health coach manual.

- **Operating Manual:** A guide outlining program processes related to screening, assessment and follow-up. Templates for all program forms are included.
- **Health Coach Manual:** Detailed scripts for each module and all 19 sessions. Each module provides background information and content with references based on current, best-practice evidence and behavioural change counseling strategies.
- **Patient Success Guide:** A resource guide for patients related to the program session that includes self-management skills and worksheets to align with the health coaching scripts.
- **Risk Factor Education Kits:** Information on nine modifiable CVD risk factors and one general information document addressed in the program. Education Kits are provided to patients upon beginning program, and assigned readings by the health coach are issued throughout the program as necessary.

OUTREACH  
FACILITATION  
SUPPORT





**C) HEALTH COACHING & PATIENT MANAGEMENT SYSTEM TRAINING**

New health coaches, will participate in a workshop concerning delivery of the CardioPrevent program, counseling principles, mechanics of program delivery and the behaviour change techniques used in the coaching sessions with patients. Administrative staff and health coaches will also receive training concerning the use of the patient management system.

**D) WEB-BASED PATIENT MANAGEMENT SYSTEM**

An automation system designed to support administrative outputs for health coaches. Patients complete online surveys, at baseline and follow up assessments (6 and 12 months) through a secure web link, in which the data is automatically transferred to the patient management system.

**E) ANNUAL REPORTS**

Annual reports will be provided indicating site specific outcomes compared to total aggregated data of all sites offering the CardioPrevent program. Reports will include average results for baseline, 6 and 12-months, and comparison values for baseline to 6-months and baseline to 12-months on all collected measures.

## CARDIOPREVENT WORKPLACE HEALTH PROGRAM

### THE NEED

A large and expanding body of health research shows that employees with multiple modifiable risk factors cost more than other workers and that increasing healthy behaviours and decreasing health risks are associated with cost savings.

### THE BENEFITS

Employers offering health promotion programs benefit from: enhanced corporate image, increased employee morale, greater employee retention, reduced absenteeism, and higher on the job productivity.

### THE SOLUTION

The University of Ottawa Heart Institute CardioPrevent® team provides facilitation services to organizations wanting to improve the health of their employees.

Implementation models are selected depending on the needs, capacity, qualifications, wants and process flow of the implementation site.

#### **Full Adoption:**

With this train the trainer approach, CardioPrevent will be run at the site, by site employees who have been trained by UOHI staff.

***Includes:*** outreach facilitation, program manuals, patient materials, health coach training, web- based patient management system, annual reports

#### **Service Delivery:**

Identified individuals from the site will be linked to UOHI for health coaching.

***Includes:*** outreach facilitation, patient materials, health coaching provided by UOHI, annual reports





**HEALTH RISK APPRAISAL**

Biometric screening  
Risk level determination



**RISK FACTOR PROFILE AND WELLNESS PLAN**

Individual, customized profiles and plans



**BEHAVIOURAL CHANGE PROGRAM**

12 hours of health coaching per patient over 12 months



**REASSESSMENT: HEALTH RISK APPRAISAL**

Biometric screening at 6 and 12 months

FOR MORE INFORMATION AND HOW TO GET INVOLVED  
WITH THE CARDIOPREVENT PROGRAM PLEASE CONTACT:

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