Operational Standards

Outpatient Cardiovascular Rehabilitation Programs

Care for Adults

January 2026

Ontario Health

Foreword from Ontario Health Leadership

Cardiovascular rehabilitation is one of the most effective interventions we have in improving survival, function, and quality of life for people living with cardiovascular disease. These new standards are designed to support every cardiovascular rehabilitation program in Ontario to deliver care that is both accessible and of the highest quality. We recognize that programs across the province operate in different contexts, with varying resources and participant populations. These standards are intended to set a clear, evidence-informed foundation that all programs can build on, while allowing for flexibility in how they are achieved.

We want to acknowledge the cardiovascular rehabilitation community, over 60 individual sites and the dedicated health care teams within, for their continued dedication to providing high quality care to each participant. With your continued commitment, we strive to deliver the best possible care for the people we serve.

Sincerely,

Dr. Harindra Wijeysundera, MD, PhD
Cardiac Provincial Lead, Ontario Health

Cathy Cattaruzza, Vice President, CorHealth
Acute and Hospital-Based Care, Ontario Health

Foreword from the Co-Chairs

We are very grateful to Ontario Health for acknowledging and promoting the importance of systematic prevention and rehabilitation programs as a core component of the cardiovascular care continuum in the province of Ontario. These standards are one piece of a much bigger picture: the ongoing work to make sure that every person who needs cardiovascular rehabilitation in Ontario can access it, and that every program delivers the highest-quality care possible.

These standards are supported by a provincial measurement strategy that will allow us to track participant outcomes and guide continuous quality improvement. Together, these efforts will help us achieve our two main goals: getting more people into cardiovascular rehabilitation and ensuring that the care they receive meets the highest standards.

Working Group members defined what high-quality cardiovascular care in a rehabilitation program should look like in Ontario. Many enthusiastic professional volunteers contributed hundreds of valuable hours over the last several months to very thoughtful idea generation, lively discussion, and debate, and then careful writing and editing to arrive at this final document. We are deeply grateful for their contributions. We would also like to thank the members of the Secondary Review Panel for their expertise and insights.

We are proud of what we have built together and confident in what we can accomplish next.

Sincerely, Co-Chairs,

Paul Oh, MD, MSc, FRCPC

Kyle Baysarowich, MHA, R.Kin

Table of Contents

Outpatient Cardiovsacular Rehabilitation

Cardiovascular rehabilitation programs provide evidence-based care through an interprofessional team approach. Programs aim to reduce modifiable cardiovascular risk factors and improve overall health through development of self-management strategies. Typically delivered over 12 weeks or more, these programs offer structured support to participants and their families. Participants receive individualized targeted interventions, which may include exercise, psychosocial support, nutrition and smoking cessation counselling, behavioural change, and goal setting support. Care delivery can be provided on-site, virtually, or through a combination of both approaches to best meet participant needs.

Participant Eligibility

People at high risk for cardiovascular disease, or those with a diagnosed cardiovascular condition have been shown to benefit from cardiovascular rehabilitation. There may be some variation in the cardiovascular risk level and referring diagnoses of participants accepted into programs across the province. Local programs should clearly communicate their individual eligibility criteria to participants, caregivers, and referring providers. Typically, cardiovascular rehabilitation programs provide care for people with the following conditions, events or procedures: [1-13]

- Coronary artery disease
  - Myocardial infarction
  - Coronary artery revascularization (e.g., post percutaneous coronary intervention or coronary artery bypass surgery)
  - Stable atherosclerotic heart disease
  - Other coronary artery conditions (e.g., microvascular angina, vasospastic angina, ischemia without obstructive coronary artery disease, myocardial infarction with non-obstructive coronary arteries, spontaneous coronary artery dissection).
- Heart failure:
  - Chronic heart failure (New York Heart Association (NYHA) class I-III) with reduced or preserved ejection fraction
  - Cardiomyopathy
- Valve disease:
  - Post surgical valve intervention
  - Post percutaneous valve intervention
- Cardiovascular devices:
  - Post implantation of cardiac devices (e.g., pacemaker, Implantable Cardioverter Defibrillator (ICD), ventricular assist device)

- Myocarditis
- Congenital heart disease
- Heart transplant
- Arrhythmia (e.g., atrial fibrillation)
- Multiple cardiovascular risk factors but without established cardiac disease

Evidence also supports the benefits of cardiovascular rehabilitation for individuals with peripheral arterial disease (PAD) and cerebrovascular disease, and these groups may be accepted into some cardiac rehabilitation programs across the province. However, some aspects of care may require adaptation to address the unique needs of these populations. This document is primarily focused on participants with cardiac conditions; therefore, specific guidance for PAD and cerebrovascular disease populations is not included in these standards.

Scope and Purpose

These standards apply at the program level rather than at the level of individual sites or delivery locations. A single cardiovascular rehabilitation program may operate across multiple sites or use a blended model of virtual and in-person care with people and resources distributed across locations; in such cases, the standards should be interpreted as applying to the program overall. These standards refer to the care provided to eligible participants ages 18 years and older who are receiving care in an outpatient program.

These standards provide an overview of the expectations for outpatient cardiovascular rehabilitation programs in Ontario. They are part of Ontario Health's larger objective to ensure that cardiovascular rehabilitation is readily accessible and delivered effectively by an interprofessional team with a focus on assessments leading to individualized care that improves participant outcomes. The goal of these standards is to ensure programs understand what care they should be offering, based on evidence and expert consensus.

Local Quality Improvement Measures

Programs can use the ***'How Success of Your Program Can be Measured"*** sections as a tool to evaluate progress toward meeting each standard and to support local quality improvement activities.

Summary of Standards

The standards are organized into four key sections: *Participant Safety*, covering emergency preparedness and safe program delivery; *Program Structure and Accountability*, outlining the foundational elements for equitable, coordinated care; *Cardiovascular Risk Reduction*, detailing core clinical content to address modifiable risk factors; and *Measurement and Quality Improvement*, focusing on standardized data collection to drive system oversight and improvement.

Section 1: Participant Safety

Standard 1: Emergency Response: Programs have documented emergency response policy and procedures, and on-site external defibrillators that are rapidly accessible during cardiopulmonary resuscitation.

Standard 2: Risk Assessment: A risk assessment is performed on every participant before they engage in program exercise. Results of the risk assessment are shared with the participant and their care team to promote safe exercise participation.

Standard 3: Safe Exercise Supervision: Programs provide supervised exercise classes and have a process for determining a safe supervision model during these classes.

Section 2: Program Structure and Accountability

Standard 4: Equity and Inclusion: Programs tailor services to increase access and retention and improve the effectiveness of care for equity-deserving populations.

Standard 5: Leadership and Team Structure: Programs have leadership consisting of a designated Program Lead and Medical Director. Programs also have interprofessional team members, either through internal staffing or referrals to external providers.

Standard 6: Program Eligibility Assessment: Programs have clearly documented eligibility criteria used to screen participant referrals. Programs notify the referring healthcare professional if the participant is deemed ineligible.

Standard 7: Initial Contact: Eligible participants are contacted within 2 weeks of referral to confirm interest in participation and schedule an intake assessment.

Standard 8: Intake and Care Plan: Programs perform intake assessments on all participants, initiated within 6 weeks of referral, or as soon as the participant is available. The information gathered during the intake assessment is used to develop the individualized care plan.

Standard 9: Communication with Most Responsible Provider: Programs communicate relevant information to the participant's Most Responsible Provider.

Standard 10: Discharge Plan: Programs share a discharge plan with all participants within 1 month of program completion.

Section 3: Cardiovascular Risk Reduction

Standard 11: Education on Modifiable Cardiovascular Risk Factors: Programs provide all participants with education on modifiable cardiovascular risk factors.

Standard 12: Exercise Prescription: Programs ensure that all participants receive individualized exercise prescriptions and are supported in progressing throughout the duration of the program.

Standard 13: Nutritional Needs: Programs screen all participants for nutritional needs and provide them with education materials developed by a Registered Dietitian. Participants with additional complex nutritional issues are referred to a Registered Dietitian for individualized assessment and counselling.

Standard 14: Tobacco Use: Programs assess every participant for tobacco use. Current users are offered smoking cessation interventions either within the program or through referral.

Standard 15: Psychosocial Health: Programs screen all participants for symptoms of depression and anxiety-related concerns. Participants who screen positive are offered supports, resources, and if needed, care from a health care professional with expertise in mental health for further assessment and treatment.

Standard 16: Appropriate Medication Use: Programs ask all participants about their knowledge and concerns with taking prescribed medications and education is provided as needed. Participants are encouraged to report medication issues and changes to the program team. If any complex medication concerns are identified, participants are supported to connect with an appropriate healthcare professional.

Section 4: Measurement and Quality Improvement

Standard 17: Measurement Strategy: Programs participate in the provincial measurement strategy for cardiovascular rehabilitation by collecting and submitting data based on the defined minimum data set.

Standards in Detail

Section 1: Participant Safety

Programs prioritize participant safety by ensuring emergency preparedness, and by making exercise participation as safe as possible for participants. These standards work together to minimize adverse events and promote safe participation in program activities, whether delivered on-site or virtually.

Standard 1: Emergency Response

Programs have a documented emergency response policy and procedures, and on-site external defibrillators that are rapidly accessible during cardiopulmonary resuscitation.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14]

Definitions:

Emergency Response Policy and Procedures: Components include:

- A process for ensuring staff are trained and maintain their skills on cardiopulmonary resuscitation (CPR), including external defibrillator use (e.g., documented certifications for each staff member, mock codes and practice implementing emergency response protocols)
- A process for documenting and managing Do Not Resuscitate (DNR) orders
- A protocol for regularly inspecting and maintaining emergency equipment including defibrillators
- A protocol for deciding if external emergency services are required
- If the program offers virtual care, the emergency response policy and procedures include:
  - Safety considerations for participants receiving virtual care
  - A process for reaching emergency contacts if an adverse event occurs during a virtual session
  - Protocols for addressing an adverse event during a virtual session including how and when to involve external emergency services

External Defibrillator: An external device used to shock and reverse ventricular fibrillation. There are manual external defibrillators and automated external defibrillators (AEDs).

Rapidly accessible: The external defibrillator must be rapidly accessible in any area where the program delivers care. This may require multiple external defibrillators depending on the size and layout of the facility. Programs operating across multiple sites must ensure this standard is met at each location.

How to Know if You're Meeting This Standard

- Your program has a documented emergency response policy and procedures that all staff are trained on
- There are easily accessible external defibrillator(s) at each location

How Success of Your Program Can be Measured

- Presence of a documented emergency response plan
- Presence of on-site external defibrillator(s)

Standard 2: Risk Assessment

A risk assessment is performed on every participant before they engage in program exercise. Results of the risk assessment are shared with the participant and their care team to promote safe exercise participation.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14] | The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Risk Assessment: All participants receive an individualized exercise prescription (see Standard 12 for the definition of ***exercise prescription***). Before starting their prescription, participants are assessed for their potential risk of developing a serious complication (e.g., a fall, cardiac arrest, arrhythmia etc.) while exercising. Information is gathered from a variety of sources (e.g., from medical records, referral notes, intake assessment, physical assessments etc.) and the following domains are evaluated when determining a participant's total risk during exercise:

- Cardiovascular considerations – such as presence of ischemia, arrhythmias, heart failure, and high or low blood pressure and heart rate.
- Falls considerations – including balance, mobility, gait pattern, use of mobility aids, joint conditions, and frailty.

- General factors that could impact exercise participation – for example, vision or hearing loss, hypo- or hyperglycemia, changes in cognition or memory, hernias, musculoskeletal conditions and foot problems.

How to Know if You're Meeting This Standard

- Every participant undergoes a documented risk assessment before starting exercises

How Success of Your Program Can be Measured

- Percentage of participants taking part in exercise therapy that have had a risk assessment

Standard 3: Safe Exercise Supervision

Programs provide supervised exercise classes and have a policy or procedure for determining a safe supervision model during these classes.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14] | The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Safe supervision model: Programs have a documented process for ensuring that participants exercise in a way that allows staff to appropriately address potential serious complications that may occur during classes. Programs have a documented policy or procedure to demonstrate that the following occur during exercise sessions:

- Staff to participant ratio is adjusted to match participant risk levels, ensuring higher-risk individuals receive greater oversight
- Strategies are used for effectively grouping participants based on functional status
- Other factors, including program space, availability of prompt assistance, and delivery model (virtual vs. on-site) are considered in staffing decisions
- Staff can easily access participant information and are familiar with known risks and conditions

How to Know if You're Meeting This Standard

- Your program has a documented process for determining staff-to-participant ratios and supervision models during exercise

- Participants are monitored appropriately, with staffing adjusted based on risk level and clinical status
- Key factors like space, emergency access, and delivery model (virtual vs. on-site) are considered in staffing decisions

How Success of Your Program Can be Measured

- Your program has a documented safe exercise supervision policy or procedure

Section 2: Program Structure and Accountability

This section defines the foundational program elements needed to ensure cardiovascular rehabilitation services are equitable, accessible, participant-centred, and well-coordinated across the care continuum. Together, these standards move from who the program serves, to how it is led and staffed, to how participants enter, experience, and exit the program, ensuring a consistent, high-quality participant journey.

Standard 4: Equity and Inclusion

Programs tailor services to increase access and retention and improve the effectiveness of care for equity-deserving populations.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14] |National Institute for Health and Care Excellence, 2020[3]| Scottish Intercollegiate Guideline Network, 2017 (update 2021)[16]

Definitions:

Equity-deserving populations: Groups that face disproportionate barriers to accessing care from cardiovascular rehabilitation programs. This includes people who identify as women; racialized groups (e.g., Black, Indigenous, Latin American, and South Asian populations); older adults, younger adults, individuals with low socioeconomic status, those living in rural or remote areas, and those with physical disabilities.[3,14,16-18]

This standard aligns with Ontario Health's Equity, Inclusion, Diversity and Anti-Racism Framework. Please refer to the framework for more information on how to identify and address barriers in care.[19]

How to Know if You're Meeting This Standard

- You have identified which equity-deserving populations (from above definition) are most relevant to your program's catchment area
- You review participation and completion data at least annually for trends or gaps
- You document identified barriers and strategies to address them

How Success of Your Program Can be Measured

- Written record (policy, plan, meeting notes) describing adaptations to support equity-deserving populations

- Percentage of participants from identified equity-deserving groups (most relevant to your program's catchment area) who complete the program
- Number and type of adaptations implemented in the past year (e.g., extended hours, translated materials, transportation assistance)
- Evidence of annual review of participation and completion data by at least one equity-related variable (e.g., age, postal code, sex and gender)
- Documentation of staff participation in equity-related education or training within the last 2 years

Standard 5: Leadership and Team Structure

Programs have leadership consisting of a designated Program Lead and Medical Director. Programs also have interprofessional team members, either through internal staffing or referrals to external providers

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14] | The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Program Lead: A healthcare provider who is responsible for managing all aspects of program administration including fiscal and human resources, delivery, coordination, quality, and safety.

Medical Director: A physician who provides vision and leadership to the program, clinical consultation and supports medical decision-making.[14] The physician is not required to be on-site but must be available and accessible for medical consultations at all times during which services are being provided to participants within programs.

Interprofessional team: Programs ensure that participants have access, as clinically indicated, to the following healthcare professionals, either as part of their internal team or through a referral process:

- Mental health professional (e.g., psychologist, psychiatrist, social worker)
- Registered Dietitian
- Kinesiologist, Physiotherapist, or Exercise Physiologist
- Registered Nurse

Note: Participants enrolled in the program often also work with a primary care provider and pharmacist in the community. There is an expectation that participants can access these supports. The program may assist participants in connecting with these providers if needed.

How to Know if You're Meeting This Standard

- Your program has a Program Lead
- Your program has access to a Medical Director
- Your program has access to all required members of the interprofessional team

How Success of Your Program Can be Measured

- Program has access to all required interprofessional team members either through internal staffing or referrals (see interprofessional team above) (yes/no)

Standard 6: Program Eligibility Assessment

Programs have clearly documented eligibility criteria used to screen participant referrals. Programs notify the referring healthcare professional if the participant is deemed ineligible.

Sources: Consensus

Definitions:

Eligibility Criteria: Participants at very high risk for cardiovascular disease, or those with a diagnosed cardiovascular condition have been shown to benefit from cardiovascular rehabilitation. However, programs are not expected to accept every subtype of participant within this broad category. Programs have individual eligibility criteria which is informed by program capacity, participant safety considerations, availability of specialized resources, and alignment with best practices and clinical guidelines. Programs can clearly communicate their individual eligibility criteria and why certain participant types may not be accepted into their specific program.

Screen: Evaluate the participant's clinical condition and medical history to determine suitability for program participation.

How to Know if You're Meeting This Standard

- Your program has clearly documented eligibility criteria
- Every participant referred to your program is screened for eligibility
- If a participant cannot be accommodated, the reason is documented, and the referring healthcare professional is notified as soon as possible

How Success of Your Program Can be Measured

- Evidence of documented eligibility criteria
- Percentage of patients who are screened as eligible (from all referrals)
- Percentage of patients who attend the program (from all referrals)
- Percentage of patients who are screened as ineligible (from all referrals)
  - With a documented reason for ineligibility
  - With documentation that the referring healthcare professional was notified

Standard 7: Initial Contact

Eligible participants are contacted within 2 weeks of referral to confirm interest in participation and schedule an intake assessment.

Sources: National Institute for Health and Care Excellence, 2020[3] | The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Eligible participants: Programs have individual eligibility criteria which is informed by program capacity, participant safety considerations, availability of specialized resources, and alignment with best practices and clinical guidelines. Please see Standard 6 for a full definition of ***eligibility criteria***.

Within 2 weeks of referral: If a referral is sent to the program in advance of participant discharge from an acute care facility, then the 2-week window may start from the actual day of discharge.

Intake Assessment: Programs initiate intake assessments within 6 weeks of receiving referrals. The intake assessment can be conducted over multiple interactions and may involve input and evaluation from several healthcare providers. Please see Standard 8 for a full definition of ***intake assessment.***

How to Know if You're Meeting This Standard

- Eligible participants are contacted within 2 weeks of receiving their referral

How Success of Your Program Can be Measured

- Percentage of eligible participants contacted within 2 weeks of referral

Standard 8: Intake and Care Plan

Programs perform intake assessments on all participants, initiated within 6 weeks of referral, or as soon as the participant is available. The information gathered during the intake assessment is used to develop the individualized care plan.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14]| American Heart Association/American Association of Cardiovascular and Pulmonary Rehabilitation, 2024[20] |European Society of Cardiology, 2020[21]| Scottish Intercollegiate Guideline Network, 2017 (update 2021)[16] |The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Intake Assessment: The intake assessment can be conducted over multiple interactions and may involve input and evaluation from several healthcare providers. Participant meetings can occur virtually, in person, or through a combination of both, with supplementary information gathered from their referral and medical records. The intake assessment includes review or assessment of the following:

- Medical history including cardiovascular risk factors, laboratory results (if available), and medical imaging results (if available)
- Physical exam including vital signs (for participants assessed on-site)
- Physical activity and exercise patterns
- Demographic information, including social determinants of health and barriers to care
- Substance use (drugs (including cannabis) and alcohol)
- Social and psychosocial information
- Medication

Individualized care plan: Care plans are developed by the health care team in partnership with the participant and their family using self-management and adult learning principles that incorporate behavioural change concepts.[14] Every care plan addresses the following core components:

- Education (see Standard 11)
- Exercise (see Standard 12)
- Nutrition (see Standard 13)
- Tobacco use (see Standard 14)
- Psychological and psychosocial health (see Standard 15)
- Medication Review (see Standard 16)

How to Know if You're Meeting This Standard

- Intake assessments are offered within 6 weeks of referral
- Each participant has an individualized care plan
- All care plans include necessary participant-specific health and treatment goals

How Success of Your Program Can be Measured

- Percentage of participants whose intake assessments begin within 6 weeks of referral
- Percentage of participants who have a completed intake assessment
- Percentage of participants with documented individualized care plans

Standard 9: Communication with Most Responsible Provider

Programs communicate relevant information to the participant's Most Responsible Provider.

Sources: American Heart Association/American Association of Cardiovascular and Pulmonary Rehabilitation, 2024[20]

Definitions:

Relevant information: Programs share discharge plans with the participant's most responsible provider within 1 month of program completion (See Standard 9 for the definition of ***Discharge Plan***). Programs may also communicate additional information and earlier, for example, information gathered at the intake assessment may be useful to share. They may also share urgent clinical information, for example, if a participant has stopped an important medication or if they're experiencing a significant health concern.

Most Responsible Provider (MRP): The healthcare provider that is responsible for overseeing the participant's ongoing care and who needs to remain informed about the participant's progress and outcomes. The MRP could be the participant's primary care provider, cardiologist, or another specialist involved in their cardiovascular care. In some cases, an MRP may not yet be designated, and the program can assist the participant in identifying an appropriate provider for ongoing communication and follow-up. In some cases, the program may communicate information to additional providers.

How to Know if You're Meeting This Standard

- Discharge plans are shared with designated MRP

- Participants who don't have a MRP are helped to find one

How Success of Your Program Can be Measured

- Percentage of participants who have a designated MPR documented in their file

Standard 10: Discharge Plan

Programs share a discharge plan with all participants within 1 month of program completion.

Sources: The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Discharge Plan: The discharge plan includes the following components:

- An at-home strategy for when to seek help and whom to contact
- A review of participant goals (noting any progress made)
- A comparison of the participant's cardiovascular risk factors before and after program completion
- Guidance for ongoing and long-term cardiovascular risk factor reduction strategies
- Self-management strategies

How to Know if You're Meeting This Standard

- Your program has a system in place to ensure that every participant receives a discharge plan at program completion

How Success of Your Program Can be Measured

- Percentage of participants provided with discharge plans upon program completion

Section 3: Cardiovascular Risk Reduction

These standards outline the core clinical content areas of cardiovascular rehabilitation that address participants' modifiable risk factors and support long-term self-management. Together, these standards ensure that programs take a holistic approach, integrating physical, behavioural, nutritional, psychological, and pharmacological domains into a coordinated, participant-centred care plan that promotes sustainable health improvements beyond the program's duration.

Standard 11: Education on Modifiable Cardiovascular Risk Factors

Programs provide all participants with education on modifiable cardiovascular risk factors.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14]| American Heart Association /American Association of Cardiovascular and Pulmonary Rehabilitation, 2024[20] | European Society of Cardiology, 2020[21]|National Institute for Health and Care Excellence, 2020[3] | Scottish Intercollegiate Guideline Network, 2017 (update 2021)[16] |The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions

Education: The content is evidence-based, developed by subject matter experts, e.g., healthcare providers and people with lived experience and their families, and is based on adult learning principles. Education is delivered by the team (See Standard 5 for the definition of ***Interprofessional Team***) through a variety of formats including written materials, live sessions, and recorded content.

Modifiable Cardiovascular Risk Factors: Risk factors that can be positively influenced through lifestyle and behavioural changes, participant education, or clinical management. These include, but are not limited to hypertension, dyslipidemia, tobacco use, physical inactivity, nutrition, obesity, type 2 diabetes, and psychosocial factors such as stress, depression, and social isolation.

How to Know if You're Meeting This Standard

- All participants receive education on modifiable risk factors
- Content is developed or reviewed by subject matter experts

How Success of Your Program Can be Measured

- Percentage of participants that received education on modifiable risk factors
- Participant-reported improvement in their knowledge of risk factors and their management (before and after survey)

Standard 12: Exercise Prescription

Programs ensure that all participants receive individualized exercise prescriptions and are supported in progressing throughout the duration of the program.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14]| American Heart Association /American Association of Cardiovascular and Pulmonary Rehabilitation, 2024[20] | European Society of Cardiology, 2020[21]|National Institute for Health and Care Excellence, 2020[3] | Scottish Intercollegiate Guideline Network, 2017 (update 2021)[16] |The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Individualized Exercise Prescription: The exercise prescription is developed and actioned through partnership between health care professionals within the program, and the participant and includes consideration of behaviour management strategies. An exercise prescription is determined from assessing findings from the following:

- Information from the intake assessment (see Standard 8)
- Results of the risk assessment (see Standard 2)
- Functional capacity assessment (e.g., the 6-minute walk test, or Graded Exercise Test)
- Personal health and fitness goals
- Physical activity and exercise patterns, specifically:
  - Current physical activity, exercise habits, and periods of inactivity
  - Symptoms experienced during physical activity and exercise
  - Physical abilities and limitations
  - Barriers affecting daily physical activity and exercise

How to Know if You're Meeting This Standard

- Each participant receives a tailored exercise prescription

How Success of Your Program Can be Measured

- Percentage of participants with individualized exercise prescriptions
- Percentage of participants with documented improvements in their exercise capacity

Standard 13: Nutritional Needs

Programs screen all participants for nutritional needs and provide them with education materials developed by a Registered Dietitian. Participants with additional complex nutritional issues are referred to a Registered Dietitian for individualized assessment and counselling.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14]| American Heart Association /American Association of Cardiovascular and Pulmonary Rehabilitation, 2024[20] | European Society of Cardiology, 2020[21] | The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Registered Dietitian: This clinician may be a member of the program or be enlisted by referral, and preferably also has knowledge of cardiovascular diseases. This individual will provide assessment of individual nutritional needs and tailored counselling on nutrition to referred participants.

Additional complex nutritional issues: Participants are assessed for their knowledge on heart healthy nutrition as well as other referral indicators determined by the program, e.g., malnutrition, unintended weight loss, diabetes (depending on the program), and participants who do not meet recommended targets for lipids, glucose, or blood pressure. Participants identified as requiring individualized assessment or counselling are referred to a Registered Dietitian.

How to Know if You're Meeting This Standard

- Participants receive Registered Dietitian-developed education on healthy eating and structured nutrition sessions as part of their cardiovascular rehabilitation program
- All participants are screened for nutritional needs using a validated tool
- Participants who screen positive for additional nutritional issues are referred to a Registered Dietitian

How Success of Your Program Can be Measured

- Percentage of participants who received nutritional education developed by a Registered Dietitian
- Percentage of participants who are screened for nutritional needs
- Percentage of participants who screened positive for having additional nutritional issues who were referred to a Registered Dietitian

Standard 14: Tobacco Use

Programs assess every participant for tobacco use. Current users are offered smoking cessation interventions either within the program or through referral.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14]| American Heart Association /American Association of Cardiovascular and Pulmonary Rehabilitation, 2024[20] | European Society of Cardiology, 2020[21] | Scottish Intercollegiate Guideline Network, 2017 (update 2021)[16] |The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Assess: Assessment for tobacco use includes asking about:[22]

- Current status
- History and type of tobacco use (e.g. cigarettes, e-cigarettes)
- Past quit attempts
- Motivation and confidence to quit
- Exposure to second-hand smoke

Smoking Cessation Interventions: [22] Cardiovascular rehabilitation participants who smoke should be offered smoking cessation interventions. A range of pharmacological and non-pharmacological interventions are available (based on readiness to quit) to help people stop smoking tobacco. Options include, but are not limited to, the following:

- Behavioural support
- Intensive counselling
- Motivational interviewing
- Nicotine replacement therapy products
- Pharmacotherapy

How to Know if You're Meeting This Standard

- All participants are screened for tobacco use
- Participants who smoke are provided with resources, support, and referrals to smoking cessation programs

How Success of Your Program Can be Measured

- Percentage of participants who are assessed for tobacco use
- Percentage of participants who currently smoke who are offered smoking cessation interventions

Standard 15: Psychosocial Health

Programs screen all participants for symptoms of depression and anxiety-related concerns. Participants who screen positive are offered supports, resources, and if needed, care from a health care professional with expertise in mental health for further assessment and treatment.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14]|American Heart Association /American Association of Cardiovascular and Pulmonary Rehabilitation, 2024[20] | European Society of Cardiology, 2020[21] | Scottish Intercollegiate Guideline Network, 2017 (update 2021)[16] |The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Screening: Participants are screened for symptoms of depression and anxiety-related concerns using validated tools.[21] Those with symptoms beyond the scope of the program are referred for specialized evaluation and treatment. [20,23-25]

Health care professional with expertise in mental health: A health care professional with training in mental health and/or psychosocial issues can be a psychologist, psychiatrist, psychotherapist, social worker, primary care provider (family physician or nurse practitioner), or occupational therapist. This clinician should preferably also have knowledge of cardiovascular diseases. This clinician may be a member of the program or be enlisted by referral.

Adults experiencing depression or anxiety-related concerns can access cognitive-behavioural therapy and related services through the Ontario Structured Psychotherapy Program (OSP). OSP is a publicly funded program, offered by the Mental Health and Addictions Centre of Excellence, that does not require OHIP billing. Clients can be referred by a clinician or they may refer themselves.

How to Know if You're Meeting This Standard

- All participants are screened for symptoms of anxiety and depression related concerns
- Participants with symptoms are offered supports and resources
- Participants with symptoms beyond the scope of program receive referrals to specialized evaluation and treatment
- Participants have access to health care professionals with expertise in mental health (either within the program or though referral)

How Success of Your Program Can be Measured

- Percentage of participants who are screened for symptoms of depression and anxiety-related concerns
- Percentage of participants who screen positive that are offered supports and resources

Standard 16: Appropriate Medication Use

Programs ask all participants about their knowledge and concerns with taking prescribed medications and education is provided as needed. Participants are encouraged to report medication issues and changes to the program. If any complex medication concerns are identified, participants are supported to connect with an appropriate healthcare professional.

Sources: The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Education: This education should address common cardiovascular medications with a focus on use, symptom monitoring, and treatment targets. (See Standard 11 for a detailed definition of ***Education***)

Complex Medication Concerns: Any participant-reported or clinically identified concerns that are beyond the scope of the program's team. For example, side effects or interactions, medication adherence issues, physical and/or cognitive limitations affecting ability to take medications, concerns requiring medication review or adjustment.

Appropriate Healthcare Professional: A participant's Most Responsible Provider (MRP) (see Standard 9 for a definition of ***Most Responsible Provider***), pharmacist, or another healthcare professional with pharmacotherapy expertise.

How to Know if You're Meeting This Standard

- Participants receive education on common medications

How Success of Your Program Can be Measured

- Percentage of participants who received medication education

Section 4: Measurement and Quality Improvement

This section focuses on ensuring cardiovascular rehabilitation programs contribute to a unified, province-wide measurement strategy by collecting and submitting a standardized minimum data set. The goal is to support system oversight, inform quality improvement, enhance transparency, and guide evidence-based decision-making at program, regional, and provincial levels.

Standard 17: Measurement Strategy

Programs participate in the provincial measurement strategy for cardiovascular rehabilitation by collecting and submitting data based on the defined minimum data set.

Sources: American Association of Cardiovascular and Pulmonary Rehabilitation, 2021[14]| American Heart Association /American Association of Cardiovascular and Pulmonary Rehabilitation, 2024[20] | European Society of Cardiology, 2020[21] |The British Association for Cardiovascular Prevention and Rehabilitation, 2023[15]

Definitions:

Provincial measurement strategy: A coordinated, province-wide approach to collecting and analyzing standardized data from cardiovascular rehabilitation programs. The aim is to support system-level oversight, drive local quality improvement, enhance transparency, and inform decision-making at both the program and regional levels.

Minimum data set: A set of standardized indicators and data elements collected by all cardiovascular rehabilitation programs. This may include participant demographics, program utilization, clinical outcomes, and participant-reported outcomes. The specific components are defined provincially in collaboration with key stakeholders.

How to Know if You're Meeting This Standard:

- The program collects all data elements of the current minimum data set
- The program submits data within the required timeframes and formats

How Success of Your Program Can be Measured

- Participation status in the provincial measurement strategy (yes/no)

Appendix 1: Glossary

Term	Definition
Caregiver	An individual identified by the participant who provides unpaid support, which may include assistance with daily activities, emotional support, or help with health care management.
Care Team	Regulated professionals, such as nurses, nurse practitioners, occupational therapists, pharmacists, physicians, physiotherapists, kinesiologists, psychologists, cardiologists, therapists, and social workers as well as people in unregulated professions, such as administrative staff, clinical exercise physiologists, recreational staff, spiritual care staff, and volunteers.
Family	The people closest to a person in terms of knowledge, care, and affection; this may include biological family, family through marriage, or family of choice and friends. The person defines their family and who will be involved in their care.
Home	A person's usual place of residence. This may include personal residences, retirement residences, assisted-living facilities, long-term care facilities, hospices, and shelters.
Outpatient	Outpatient refers to care provided to a participant who is not admitted to hospital. The participant continues to live at home and receives services on a scheduled basis, either by attending a hospital or community setting without occupying a hospital bed, or by participating remotely through virtual or home-based delivery.
Participant	An adult (aged 18 years and older) enrolled in a cardiovascular rehabilitation program. Participants may have a diagnosed cardiovascular condition or be at high risk of developing one.
Policy	A formal statement that sets expectations and direction on a specific topic.
Primary care provider	A family physician (also called a primary care physician) or nurse practitioner.
Procedure	A detailed description of the steps required to carry out a policy in practice.
Process	A series of related activities or tasks that together achieve a defined outcome.
Program	A single cardiovascular rehabilitation program may operate across multiple sites or use a model of virtual and in-person care with people and resources distributed across locations.

Appendix 2: Development

Development of These Standards

The standards are an update of the 2014 Cardiac Care Network's *Standards for the Provision of Cardiovascular Rehabilitation in Ontario*.[26] This update aligns the standard with the most recent clinical evidence, and with current practice in the Ontario landscape.

These standards were developed by an expert Working Group in collaboration with Ontario Health. The Working Group was co-chaired by Dr. Paul Oh and Kyle Baysarowich who determined the development process including the methods for evidence selection and the membership selection strategy.

Members were chosen by the co-chairs through an open call approach using a skills matrix to ensure representation across clinical roles, lived experience, geographic regions, and health system perspectives. Led by the co-chairs, the working group defined the scope, selected key evidence sources, and drafted and finalized the standards based on best available evidence and expert consensus.

As part of the secondary review process, reviewers were asked to assess the revised standards for clarity, feasibility, equity, and alignment with evidence and clinical practice. They were encouraged to identify any gaps, inconsistencies, or unclear content, while considering equity and applicability across the province.

Appendix 3: Acknowledgements

Working Group

Ontario Health thanks the following individuals for their generous, voluntary contributions of time and expertise to help create this standard (credentials at the time of initial development):

Paul Oh (Co-Chair)
Internist, Medical Director and Senior Scientist, University Health Network & Associate Professor of Medicine, University of Toronto

Kyle Baysarowich (co-chair)
Registered Kinesiologist, Senior Clinical Advisor, Ontario Health

Carly Bell
Registered Kinesiologist, Operations Manager, Hôtel-Dieu Grace Healthcare

Debbie Childerhose
Physiotherapist, Program Coordinator, Women's College Hospital

Janna Dolphin
Program Manager, Providence Care Rehab Services

Trudy Hall
Person with Lived Experience

Jennifer Harris
Physiotherapist, Program Manager, University of Ottawa Heart Institute

Ashlay Huitema
Cardiologist, St. Joseph's Health Care London, & Assistant Professor Medicine (Cardiology), Western University.

Michelle Jacobs
Registered Kinesiologist & Clinical Exercise Physiologist, Kincardine Family Health Team and Hanover Family Health Team

Lauren Jenkinson
Registered Kinesiologist, Regional Coordinator, Royal Victoria Regional Health Centre

Renee Konidis
Registered Kinesiologist, Program Manager, University Health Network

Charissa Levy
Occupational Therapist, Executive Director, Rehab Care Alliance/GTA Rehab Network

Angelique O'Donnell
Registered Nurse, Clinical Lead, Health Sciences North

Adam Pierce
Registered Kinesiologist, Regional Manager, Scarborough Health Network

Veronica Rouse
Registered Dietitian, University Health Network

Nick Serafini
Registered Kinesiologist, Upper Grand Family Health Team

Morgan Waddell
Physiotherapist, Providence Care Rehab Services

Heather Tulloch
Psychologist & Scientist, University of Ottawa Heart Institute

Secondary Review Panel

Ontario Health thanks the following individuals for their generous, voluntary contributions of time and expertise to help create this standard (credentials at the time of initial development):

Danielle Barry-Hickey
Registered Kinesiologist, Service Coordinator, University Health Network

Wanda Firth
Registered Dietitian, Hearts and Health in Motion & Manager, REDUCE-IT Cardiac Rehab, Nova Scotia Health (Nova Scotia)

Jill Kuzmich
Registered Nurse, Manager, Thunder Bay Regional Health Sciences Centre

Mireille Landry
Physiotherapist, Women's College Hospital

Julie Matthews
Registered Kinesiologist, Clinical Manager, Royal Victoria Regional Health Centre

Clare Peddle
Registered Social Worker, Toronto Rehabilitation Institute, Rumsey Centre

Neville Suskin
Cardiologist, Medical Director, London Health Sciences Centre & Professor Medicine (Cardiology), Western University.

Tyler Threlfall
Clinical Exercise Physiologist, Program Manager, TotalCardiology Rehabilitation (Alberta)

Lynn Woods
Registered Nurse, Patient Care Manager, Mackenzie Health

Colin Yeung
Cardiologist, Medical Director, Saskatchewan Health Authority & Assistant Professor, University of Saskatchewan (Saskatchewan)

Brianna Yuill
Registered Kinesiologist, Kincardine Family Health Team

References

(1) Scottish Intercollegiate Guidelines Network (SIGN). SIGN 147: Management of Chronic Heart Failure Edinburgh: Scottish Intercollegiate Guidelines Network (SIGN); 2016.

(2) Scottish Intercollegiate Guidelines Network (SIGN). SIGN 151: Management of Stable Angina. Edinburgh: Scottish Intercollegiate Guidelines Network (SIGN); 2018.

(3) National Institute for Health and Care Excellence (NICE). NG185: Acute Coronary Syndromes. London: National Institute for Health and Care Excellence (NICE); 2020.

(4) American College of Cardiology/ American Heart Association/Society for Cardiovascular Angiography and Interventions. Guideline for Coronary Artery Revascularization. Washington (DC): American College of Cardiology/American Heart Association/Society for Cardiovascular Angiography and Interventions; 2021.

(5) German Society of Rehabilitation Sciences/German Society of Cardiology/Austrian Society of Cardiology/Swiss Society of Cardiology. Cardiac rehabilitation in German-speaking countries of Europe: evidence-based guidelines from Germany, Austria and Switzerland. Part 1. Berlin: German Society of Rehabilitation Sciences/German Society of Cardiology/Austrian Society of Cardiology/Swiss Society of Cardiology; 2021.

(6) American Heart Association/American College of Cardiology/ Heart Failure Society of America. Guideline for the Management of Heart Failure. Washington (DC): American Heart Association/American College of Cardiology/ Heart Failure Society of America; 2022.

(7) European Society of Cardiology (ESC). Guidelines for the Diagnosis and Treatment of Acute and Chronic Heart Failure. Sophia Antipolis (FR): European Society of Cardiology; 2023.

(8) National Institute for Health and Care Excellence (NICE). NG106: Chronic Heart Failure in Adults: Diagnosis and Management London: National Institute for Health and Care Excellence (NICE); 2024.

(9) American College of Cardiology/ American Heart Association/ American College of Emergency Physicians/National Association of EMS Physicians/Society for Cardiovascular Angiography and Interventions. Guideline for the Management of Patients With Acute Coronary Syndromes. Washington (DC): American College of Cardiology/ American Heart Association/ American College of Emergency Physicians/National Association of EMS Physicians/Society for Cardiovascular Angiography and Interventions; 2025.

(10) American Heart Association/American College of Cardiology/American Society of Echocardiography/ American College of Chest Physicians/Society for Academic Emergency Medicine/Society of Cardiovascular Computed Tomography/Society for Cardiovascular Magnetic Resonance. Guideline for the Evaluation and Diagnosis of Chest Pain. Washington (DC): American Heart Association/American College of Cardiology/American Society of Echocardiography/ American College of Chest Physicians/Society for Academic Emergency Medicine/Society of Cardiovascular Computed Tomography/Society for Cardiovascular Magnetic Resonance; 2021.

(11) Japanese Circulation Society and Japanese Association of Cardiac Rehabilitation. Guideline on Rehabilitation in Patients With Cardiovascular Disease. Tokyo: Japanese Circulation Society and Japanese Association of Cardiac Rehabilitation; 2021.

(12) American Heart Association/American College of Cardiology/American College of Chest Physicians/American Society for Preventive Cardiology/National Lipid Association/ Preventive Cardiovascular Nurses Association. Guideline for the Management of Patients with Chronic

Coronary Disease. Washington (DC): American Heart Association/American College of Cardiology/American College of Chest Physicians/American Society for Preventive Cardiology/National Lipid Association/ Preventive Cardiovascular Nurses Association; 2023.
(13) National Heart Foundation of Australia Cardiac Society of Australia New Zealand. Australian clinical guidelines for the management of acute coronary syndromes. Melbourne: National Heart Foundation of Australia and Cardiac Society of Australia and New Zealand (NHFA/CSANZ); 2016.
(14) American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR). Guidelines for Cardiac Rehabilitation Programs: 6th Edition. Champaign, IL: American Association of Cardiovascular and Pulmonary Rehabilitation (AACVPR); 2021.
(15) British Association for Cardiovascular Prevention and Rehabilitation. The BACPR standards and core components for cardiovascular disease prevention and rehabilitation 3rd edition 2023. London: British Cardiovascular Society; 2023.
(16) Scottish Intercollegiate Guidelines Network (SIGN). SIGN 150: Cardiac Rehabilitation: A National Clinical Guideline: Scottish Intercollegiate Guidelines Network (SIGN); 2017.
(17) International Council of Cardiovascular Prevention and Rehabilitation (ICCPR). Women-Focused Cardiovascular Rehabilitation: An International Council of Cardiovascular Prevention and Rehabilitation clinical practice guideline. Toronto (Ontario): International Council of Cardiovascular Prevention and Rehabilitation (ICCPR); 2022.
(18) Carew Tofani A, Taylor E, Pritchard I, Jackson J, Xu A, Kotera Y. Ethnic Minorities' Experiences of Cardiac Rehabilitation: A Scoping Review. Healthcare (Basel, Switzerland). 2023;11(5):757.
(19) Ontario Health. Ontario Health's Equity Inclusion Diversity and Anti-Racism Framework Toronto (Ontario): Ontario Health; 2020.
(20) American Heart Association /American Association of Cardiovascular and Pulmonary Rehabilitation. Core Components of Cardiac Rehabilitation Programs: 2024 Update: A Scientific Statement From the American Heart Association and the American Association of Cardiovascular and Pulmonary Rehabilitation: American Heart Association /American Association of Cardiovascular and Pulmonary Rehabilitation; 2024.
(21) European Society of Cardiology (ESC). Secondary prevention through comprehensive cardiovascular rehabilitation: From knowledge to implementation. 2020 update. Sophia Antipolis (FR): European Society of Cardiology (ESC); 2021.
(22) Ontario Health. Chronic Obstructive Pulmonary Disease: Care in the Community for Adults. Toronto (Ontario): Ontario Health; 2021.
(23) Ontario Health. Major Depression: Care for Adults and Adolescents. Toronto (Ontario): Ontario Health; 2021.
(24) Vigore M, Sattin D, Maestri R, Bussotti M, Ranucci L, Parma C, et al. Beyond the heart: The role of psychological factors and coping strategies in cardiovascular rehabilitation. Int J Cardiol. 2025;428:133144.
(25) Ontario Health. Anxiety Disorders: Care in All Settings. Toronto (Ontario): Ontario Health; 2021.
(26) Cardiac Care Network. Standards for the Provision of Cardiovascular Rehabilitation in Ontario. Toronto (Ontario): Cardiac Care Network (CCN); 2014.