

# CorHealth Cardiovascular Rehabilitation Stakeholder Forum #3

JANUARY 17, 2023 | 3:00 – 4:00 PM



**Ontario Health**  
CorHealth Ontario

# Agenda

Time	Description	Purpose	Presenter
3:00 pm	<b>Welcome</b> <ul style="list-style-type: none"><li>Land Acknowledgement and Meeting Objectives</li></ul>	Information	Carol Chan Dr. Karen Harkness
3:05 pm	<b>Provincial CR Measurement &amp; Reporting Initiative</b> <ul style="list-style-type: none"><li>Updated CR Measurement Results</li></ul>	Information and Discussion	Dr. Karen Harkness Dr. Paul Oh
3:20 pm	<b>Guest Presentation</b> <ul style="list-style-type: none"><li>Cardiovascular Rehabilitation Program at Hamilton Health Sciences</li></ul>	Information	Jessica Pilon-Bignell Elizabeth Snow
3:40 pm	<b>Open Forum Discussion</b> <ul style="list-style-type: none"><li>Pulse Check: What is the current experience of delivery CR in Ontario?</li></ul>	Discussion	Dr. Paul Oh
3:55 pm	<b>Next Steps</b>	Information	Dr. Karen Harkness



We are recording this Forum and will make the recording available on the CorHealth website



**Ontario Health**  
CorHealth Ontario


# Land Acknowledgement

Carol Chan



# Meeting Objectives

- To review updated CR data collection results to date
- To continue the dialogue and activity supporting a progressive approach to measure, monitor, and report on the status of outpatient Cardiovascular Rehabilitation in Ontario
- To share experiences and facilitate dialogue on the current activities and models of delivery for cardiovascular rehabilitation (including virtual, in-person and hybrid)



# Provincial Cardiovascular Rehabilitation Measurement and Reporting Initiative: Updated Results

Dr. Karen Harkness & Dr. Paul Oh

# List of CR programs not providing clinical services



**We (Joy) continue to try and keep an up-to date list of CR currently programs providing cardiovascular rehabilitation.**

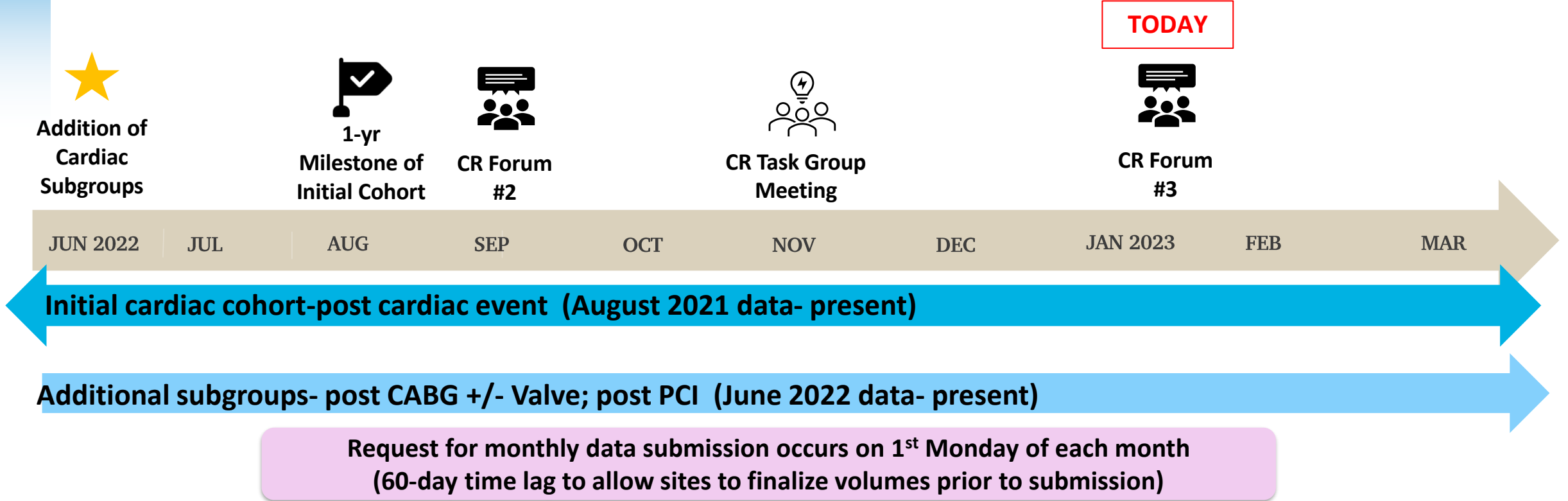
## **Programs currently 'on hold' per our notes**

1. Cornwall Hospital Cardiopulmonary Rehab Program
2. Stevenson Memorial CV Prevention Program
3. Heart Care Canada – Oshawa Solo Program
4. Orillia Soldiers Memorial Hospital Cardio Rehab Program

**If you know of any programs on this list (or any new programs) that are now offering CR services, please type any notes in the chat box for Joy. Thank you.**



# Update: Project Timeline

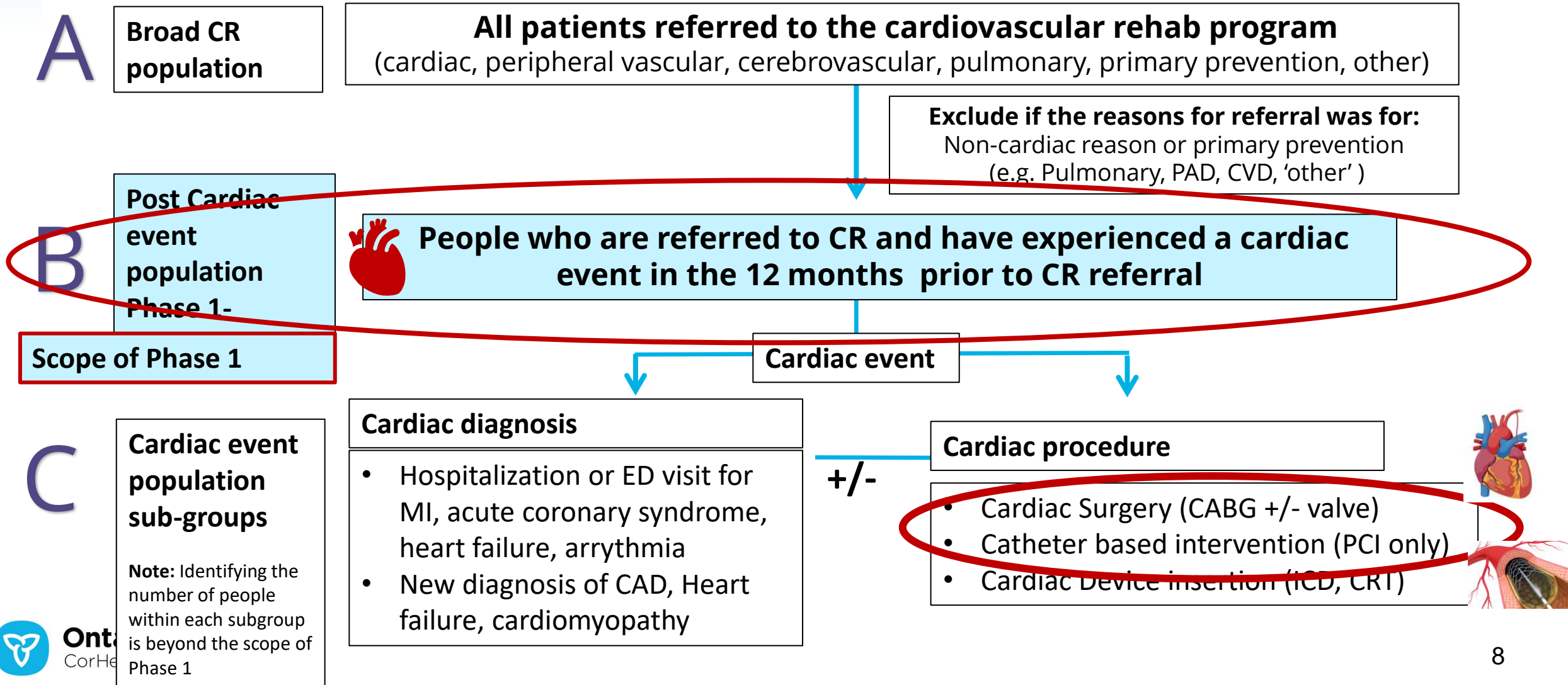


## Key Achievements to Date:

- ✓ Start of CR data collection process (Aug 2021)
- ✓ Completed 1 year of data collection on the initial cardiac cohort (Aug 2022)
- ✓ Consistent response rate >80% for initial cohort from programs actively providing CR services
- ✓ Addition and start of cardiac subgroup data collection (Jun 2022)

**Recall: "Initial Cohort":** People referred to CR following a cardiac event

**Subgroups within initial cohort:** People referred to CR following CABG +/- valve surgery or following PCI procedure





# Progress update



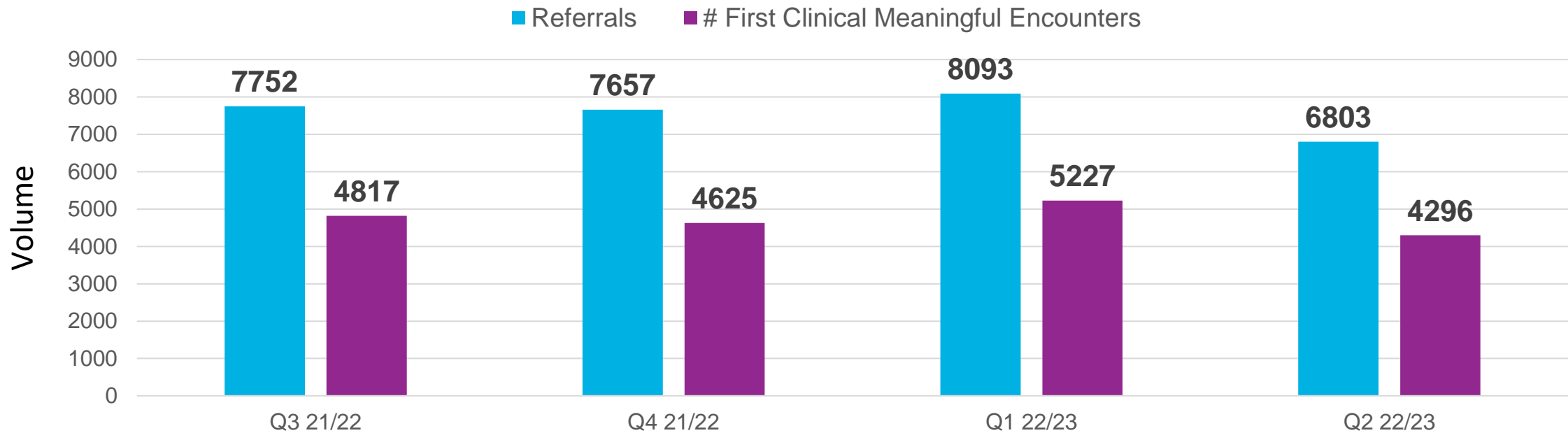
	FY 2022/23	
# programs submitting the following data for Q1 and Q2 of FY 2022/23	Q1 Apr-Jun	Q2 Jul-Sept
Any data	37	36
Complete data for the initial cohort	33	35
Complete data for the cardiac subgroups	23	29

**Good news! Many programs are overcoming the initial challenges to collect and report on cardiac subgroup data**



# Quarterly Provincial Volumes

Quarterly Provincial Volumes for CR Programs submitting  
*at least 1 month* of aggregate data  
for the Initial Cohort



Programs (n) (n=36-37)  
# programs added, (+2, -3)  
removed from  
volume collection

(n=35-36)  
(-1)

(n=35-37)  
(+3, -1)

(n=36)  
(-1)

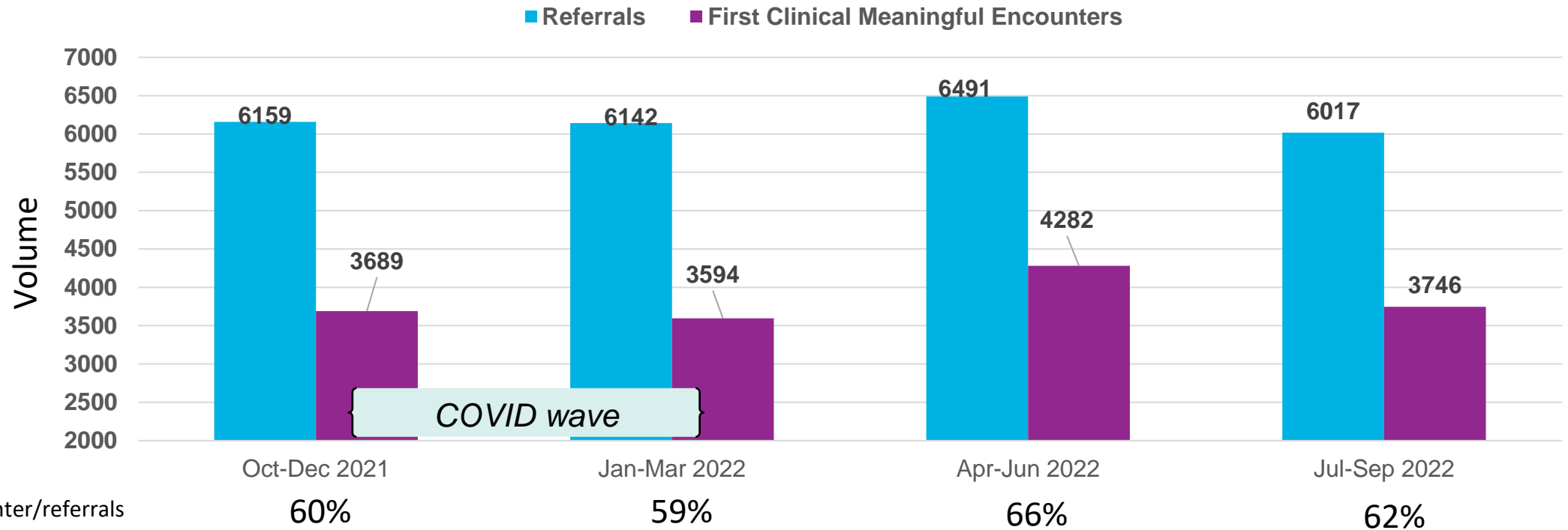
Total referrals: n= 30,305

Total first clinical meaningful encounter: n= 18,965

Ratio: total first encounter/total referrals = 63%

# Quarterly Provincial Volumes

Number of Referrals and Clinically Meaningful Encounters  
CR Programs Submitting Aggregate Data for Initial Cohort  
for the *entire period* between Oct 2021 - Sep 2022  
n=31 programs



Ratio total first encounter/referrals

Total referrals: n= 24,809

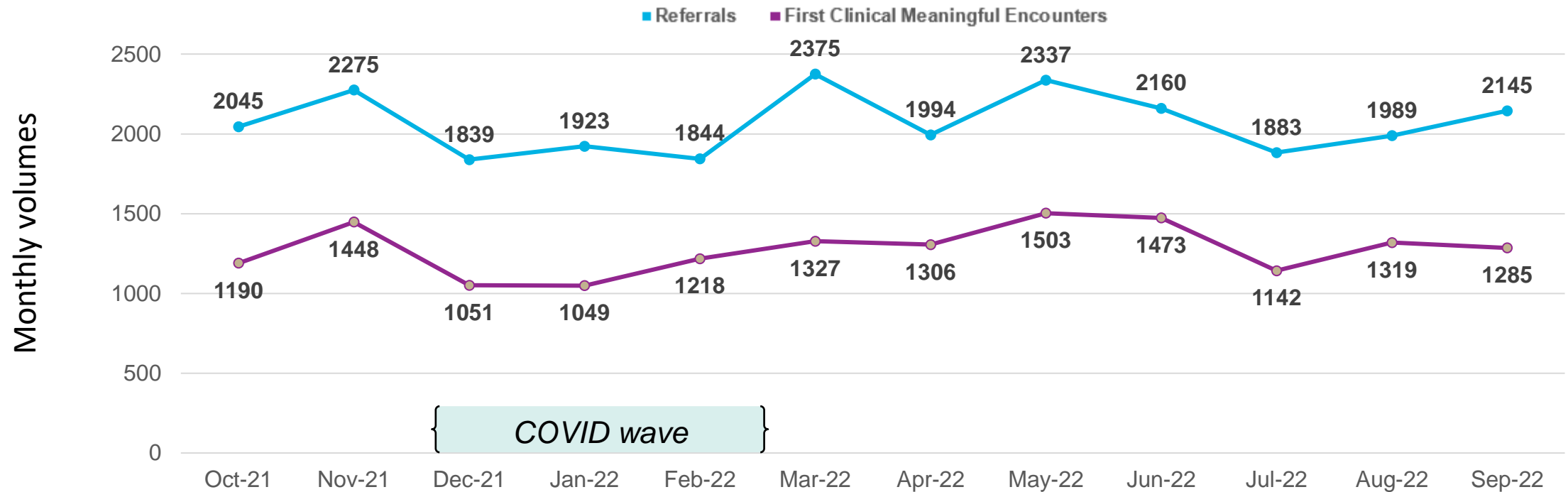
Total first clinical meaningful encounter: n= 15,311

Ratio: total first encounter/total referrals = 62%

n=31 programs (75 sites)

# Monthly Provincial Totals: 31 programs (75 sites)

Number of Referrals and Clinically Meaningful Encounters  
CR Programs Submitting Aggregate Data for Initial Cohort for the *entire*  
*period* between Oct 2021- Sep 2022  
n=31 programs



Total referrals: n= 26,517

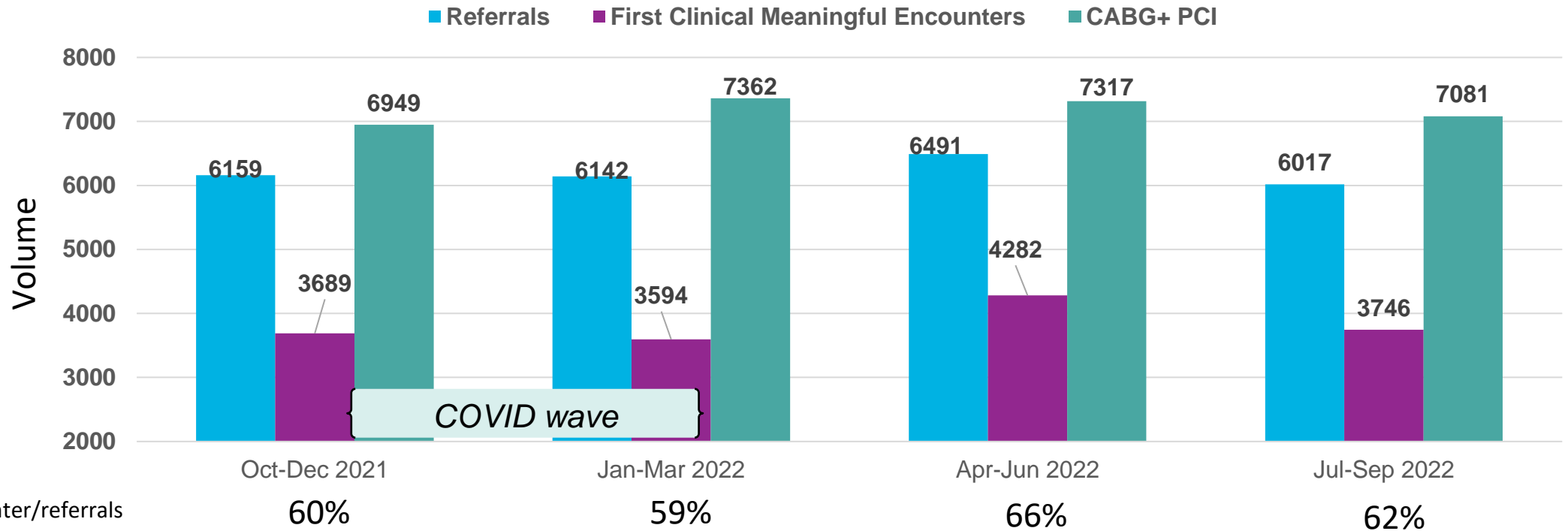
Total first clinical meaningful encounters: n= 16,468

Ratio: total first encounter/total referrals = 62%

n=31 Programs

# Quarterly Provincial Volumes

Number of Referrals and Clinically Meaningful Encounters  
CR Programs Submitting Aggregate Data for Initial Cohort  
for the *entire period* between Oct 2021 - Sep 2022  
n=31 programs



n=31 programs (75 sites)

Total referrals: n= 24,809

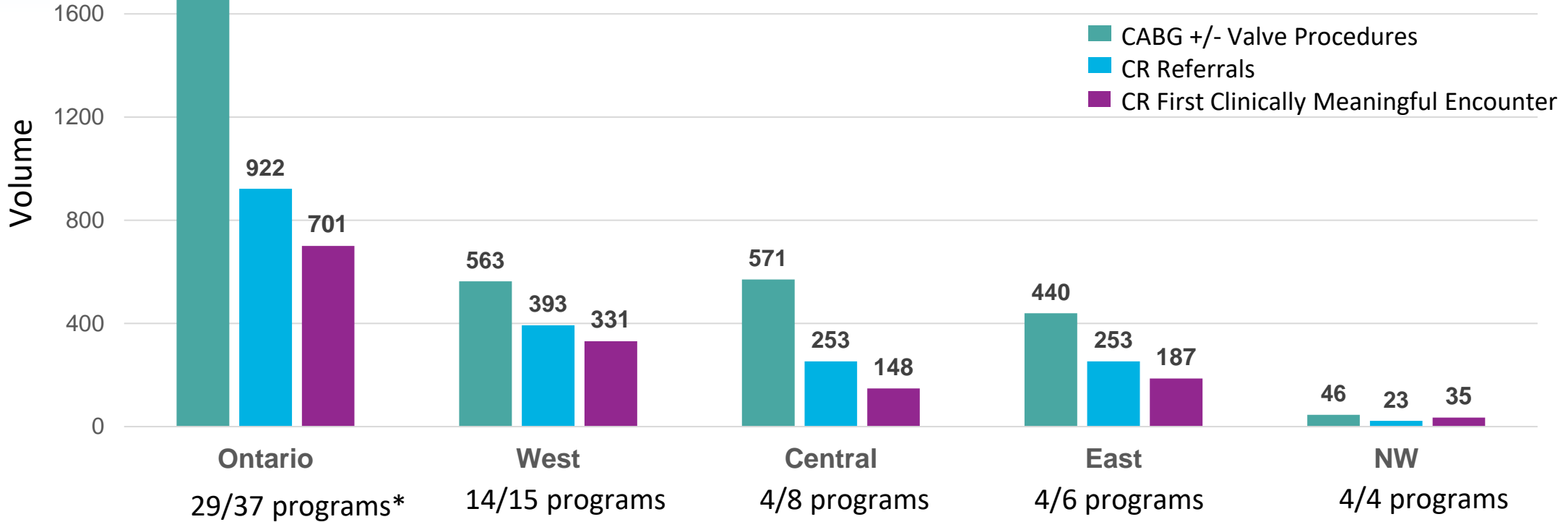
Total first clinical meaningful encounter: n= 15,311

Ratio: total first encounter/total referrals = 62%

Procedure volumes- source CorHealth Cardiac Registry using  
hierarchal approach for CABG/PCI

# Subgroup Procedures and CR Volumes

CABG +/- Valve Subgroup Procedures by Region and CR Referrals and First Clinically Meaningful Encounters  
Jul – Sep 2022



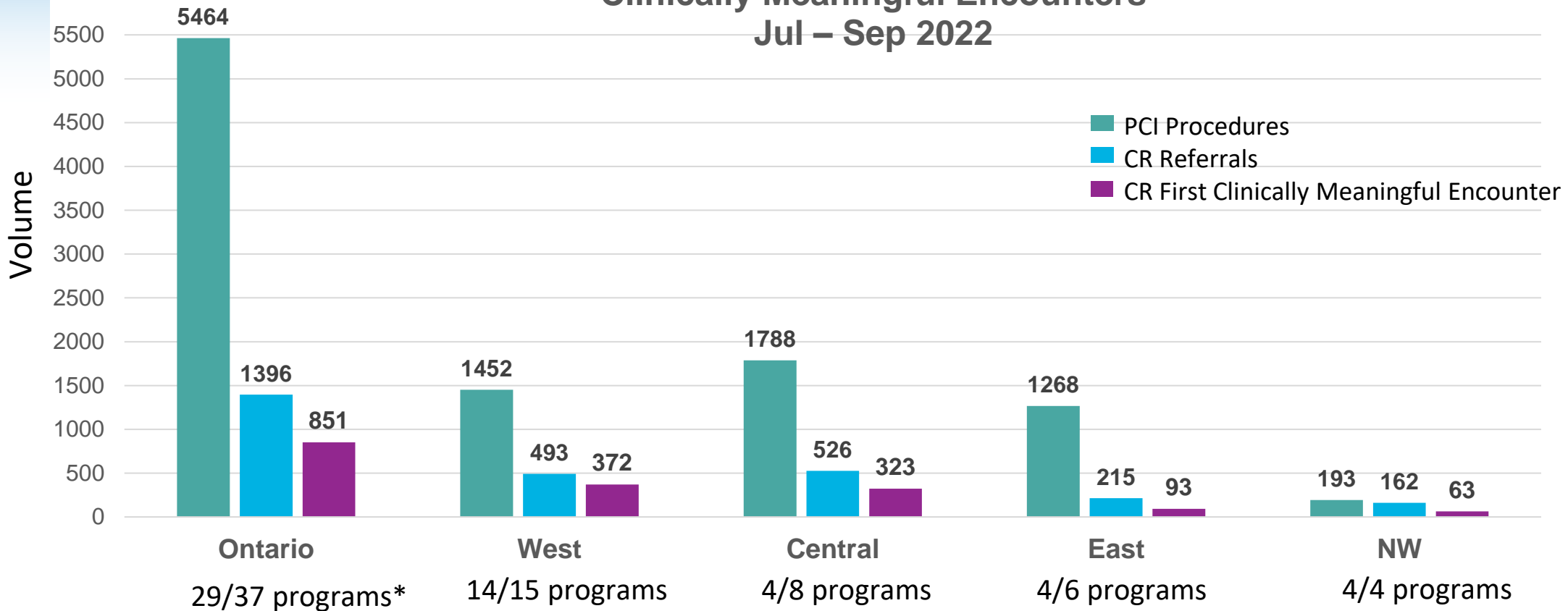
\*CR Referral and First Clinically Meaningful Encounters represent data from 29 CR programs in Ontario

Note- data are suppressed for Toronto Region and NE LHIN due to low cell counts of submitted CR volumes

Note- procedure volumes are from the CorHealth Cardiac Registry according to hierarchy of CABG/PCI for this project

# Subgroup Procedures and CR Volumes

PCI Subgroup Procedures by Region and CR Referrals and First Clinically Meaningful Encounters  
Jul – Sep 2022



\*CR Referral and First Clinically Meaningful Encounters represent data from 29 CR programs in Ontario

Note- data are suppressed for Toronto Region and NE LHIN due to low cell counts of submitted CR volumes

Note- procedure volumes are from the CorHealth Cardiac Registry according to hierarchy of CABG/PCI for this project

# Discussion




Currently, we are sharing this information at the CR Forum only.

1. Do you share this information with anyone locally?
2. If so, who likes to review these data?
3. How do you use this information in your program?
4. Are there any action items that come out of this information?
5. How might these data be used for planning?



# Next Steps

- Continue **regular monthly data collection** for 2 key metrics for:
  - Initial cohort
  - CABG and PCI subgroups

Month					
 Initial Cohort		 CABG +/- Valve subgroup		PCI subgroup 	
Referrals	First meaningful encounter	Referrals	First meaningful encounter	Referrals	First meaningful encounter

The contact person from each program submitting data will receive an email from Joy Tabieros with their program-specific data collection form on the first Monday of each month

# Cardiac Health and Rehabilitation Clinic (CHRC)



**Elizabeth Snow, MSW, RSW**

**Jessica Pilon-Bignell, Registered PT, MScPT, Bkin.**

# Paradigm Shift

Shift from hospital-based supervised programming (pre-Covid)  
to self-directed programming with specialist guidance throughout the rehab process

Goal: To creatively provide effective system navigation that sets patients up for long term success with heart-healthy behaviours

- ♥ Self-identification of client's goals and shared development of a plan to facilitate
- ♥ Consultative approach: to provide access, remove barriers, improve self-efficacy, reduce anxiety, and to provide risk-stratification
- ♥ Provision of service options based on preference and capability



# CHRC Flow

## Referral

Mail patient orientation appointment

- Default location: in-person at YMCA Hamilton Mountain
- Letter offers virtual option; patients must call to select

Call patient to schedule Physician appointment

## Orientation

## Medical Assessment

## CHRC Programs



# CHRC Flow

## Referral

Mail patient orientation appointment

- Default location: in-person at YMCA Hamilton Mountain
- Letter offers virtual option; patients must call to select

## Orientation

Patient selects program options

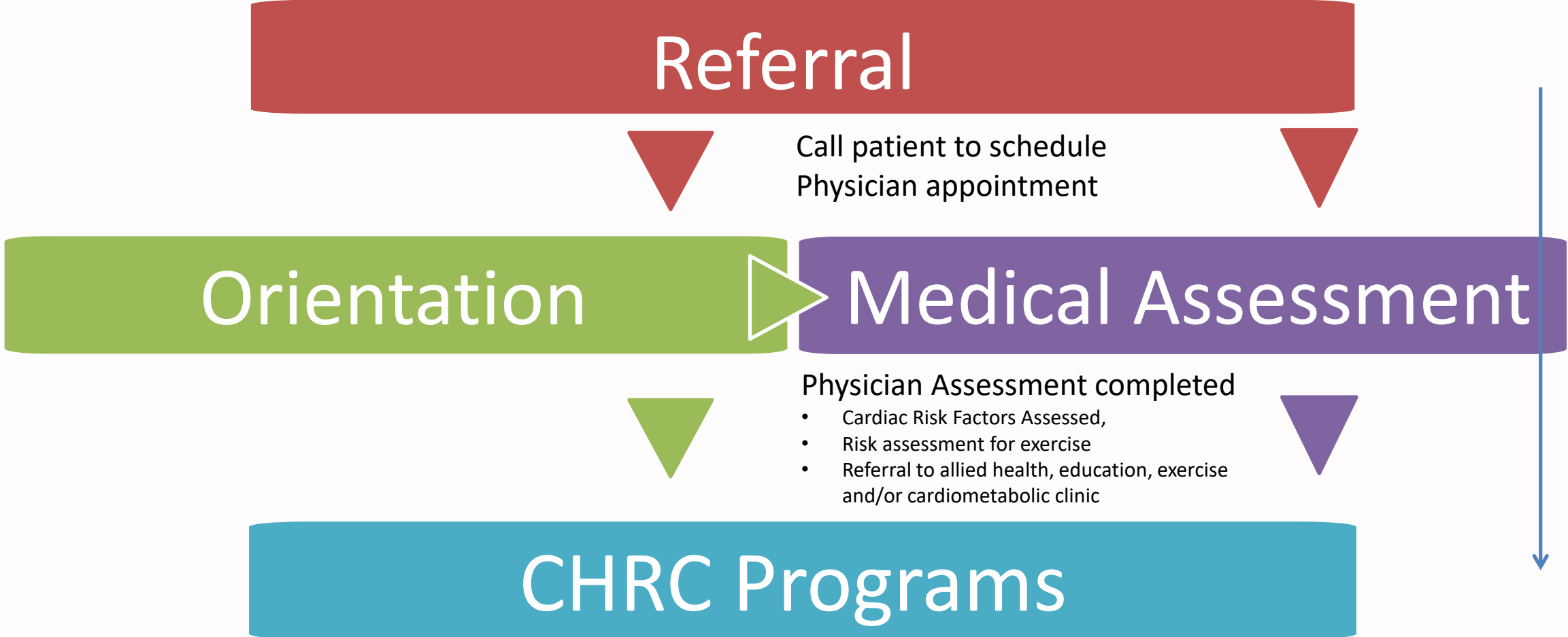
- Sign up lists at in-person orientations
- Sign up via REDcap survey, phone or email at virtual orientations; email confirms registration in classes

## Medical Assessment

## CHRC Programs



# CHRC Flow



# CHRC Program Structure



Orientation

### Overview

- Program structure
- Review cardiac risk factors
- SMART goals
- Provide Worksheets: Risk Factor Identification & Progress Report



Education Classes for Heart Health



Individual Consults



Links to Community Exercise





## Education Classes for Heart Health

# 90 minute Education Classes occur weekly over 4 weeks



### In-Person

#### **Burlington:**

- Ron Edwards YMCA

#### **Hamilton:**

- Les Chater YMCA (Hamilton Mountain)
- Hamilton Downtown YMCA (Feb '23)



### Zoom

#### **Access by internet**

## Topics:

- Eating for a Healthy Heart
- Your Heart & Heart Medication
- Exercise Safely
- Mental and Emotional Well Health







Individual  
Consults  
as needed

## One-on-one sessions as needed, including:

- ♥ Dietitian (0.8 FTE)
- ♥ Nursing (0.6 FTE)
- ♥ Occupational Therapy (1.0 FTE)
- ♥ Physiotherapy (Exercise Consultation) (1.6 FTE)
- ♥ Physician (Physician Group includes Cardiologists, an Internist & Psychiatrist)
- ♥ Social Work (0.8 FTE)
- ♥ Smoking Cessation (Nursing, Occupational Therapy & Social Work)





Links to  
Community  
Exercise

## Community-based Exercise

- ♥ Risk assessment for exercise available from CHRC Physicians
- ♥ Exercise consultation available by phone from Physiotherapy team
- ♥ Close partnership with YMCA Healthy Hearts Program for great patient collaboration
- ♥ Information and guidance for community-based exercise programs

*Please note: There is no longer a cardiac gym at HHS.*





Physician appointment for risk assessment, with referral for exercise

# Exercise

Physiotherapy for system navigation & service provision

Supervised

Community-based programs, including **YMCA Healthy Hearts** partnership

Home-based

CHRC Physiotherapy tailored exercise, walking programs, resistance exercise at home

Virtual

CHRC online exercise class, on-line coaching resources

Image attribution: freepik vectors planning icon, rawpixel.com@freepik, vecteezy free vector fitness

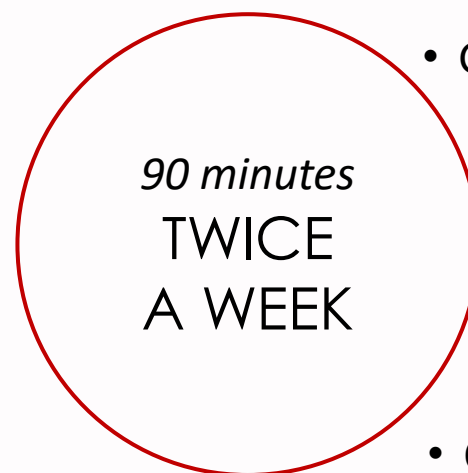
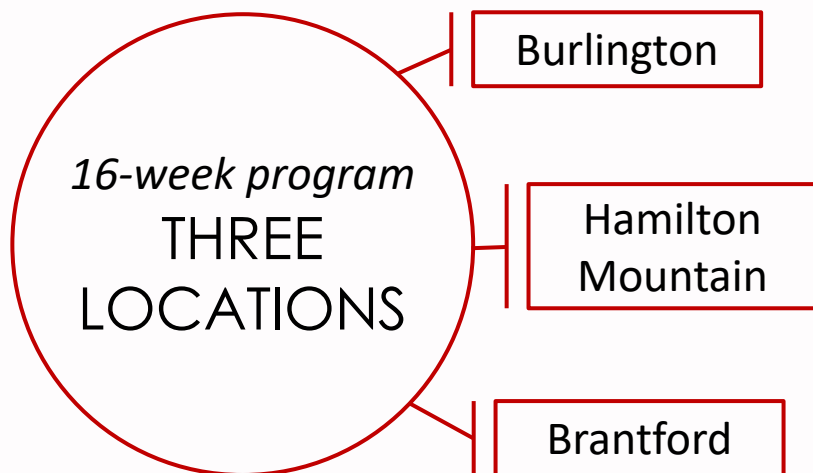
# YMCA Partnership: Healthy Hearts



Healthy Hearts is part of **YMCA LiveWell**, supervised exercise and education programs delivered in partnership with Hamilton Health Sciences and McMaster University.



# YMCA Partnership: Healthy Hearts



- Group warm up & cool down
- Individualized exercise program developed by YMCA staff
- Participant activity logs for progression monitoring
- Collaboration with CHRC staff

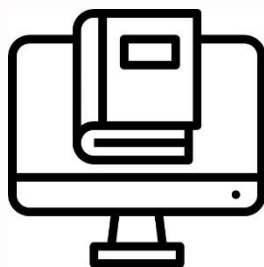
Program relaunched in September 2022; This is a fee-for-service model with access to financial assistance

\*\*Orientation to CHRC and CHRC Education Classes are provided at YMCA locations by CHRC staff



# YMCA Partnership: Healthy Hearts

- ♥ Physiotherapists determine patient eligibility for program with risk stratification process, then refer directly to Healthy Hearts Program
  - Since YMCA program re-launch:  
23 patients have enrolled in Hamilton, 10 in Burlington, and 4 in Brantford
- ♥ Mandatory training for all Healthy Hearts staff using a “flipped classroom” approach developed by CHRC team with senior YMCA staff



E-learning  
prior to training



Quiz at start  
of training



Case-based  
education



Warm-up/Cool-down  
demonstration

Image attribution: vecteezy\_exercise-i-glyph-black-icon\_8307839; EBook; Test (itim2101); chat (prettycons) - Flaticon



# Challenges

- Multiple redeployments of staff during 2020 and 2021 because of the COVID Pandemic, causing program suspensions
- Complete allied health staff turnover in 2020 and 2021 with change in staffing complement
- Switch to virtual programming in response to COVID, then transition to “hybrid” model (virtual OR in-person) in May 2022
- New hospital Electronic Medical Record in June 2022 resulted in significant technology interface issues for virtual programming



# Opportunities

- Paradigm shift in service provision to consultative model +
- Closure of Cardiac Gym at HHS
  - ➔ Refresh of YMCA Healthy Hearts Partnership
- New hospital Electronic Medical Record in June 2022
  - ➔ New electronic Patient Portal (MyChart) now used to coordinate scheduling of patient appointments with CHRC programs





# Survey data: CHRC Virtual Care

- 32 respondents (33% response rate, May-Sept 2022)

The fine print:

- ❖ Survey conducted by the Centre for Evidence-Based Implementation, and sent only to Virtual Care participants
- ❖ The survey link did not work when it was sent out to 30 patients in July. This can contribute to a lower response rate as the survey link was re-sent to patients. Recruitment was challenging due to COVID-19 and Epic EMR implementation
- ❖ Patients had the option to choose virtual care vs. in-person education classes during this period
  - 48% preferred virtual visits,
  - 14% preferred in-person
  - 17% preferring a mixed approach
- 93% felt that the visits were beneficial
- Overall satisfaction with experience: 8.6 +/- 1.4 SD (on 10-point scale, 10 = very good)



# Survey data: CHRC Virtual Care

- Participants liked:
  - Content/Structure that was informative and included access to resources
  - Comfort & Safety of their own environment
  - Savings on gas, parking and time
  - Knowledgeable and accommodating staff support
- Room for Improvement:
  - The group setting did not provide the individualized care some were seeking
  - New EMR technology interface was a source of frustration, causing many issues signing into virtual classes
  - Content overload?
  - Some critique of content delivery



# Future Directions

- **Goal:** Expand supervised community exercise capability  
Plan: Application completed for funding for an AED
- **Goal:** Expand options for CHRC Classes & Healthy Hearts programming  
Plan: February 2023 - Initiate classes at Hamilton Downtown YMCA
- **Goal:** Increase resources for Smoking Cessation support  
Plan: Program agreement signed with Centre for Addiction and Mental Health (CAMH) to become a STOP (*Smoking Treatment for Ontario Patients*) site in 2023, enabling provision of free Nicotine Replacement Therapy and behavioural support
- **Goal:** Assess program effectiveness  
Plan: Determine and initiate Outcome Measures - Research project initiated:  
*“Efficacy and Patient Satisfaction with Remote Exercise Prescription and Community-Based Cardiac Rehabilitation”* (CHRC Physiotherapists with McMaster OT students)





# Open Forum Discussion

Pulse Check: What is the current experience of delivery CR in Ontario?

Dr. Paul Oh

# Open Forum Discussion

1. What is the current experience of delivering CR in Ontario?
  - ❖ What is going well?
  - ❖ Where are your pain points?
  - ❖ Are there some key learnings and changes in response the pandemic that you feel have improved the delivery of CR in your program?
2. What can CorHealth do to help support your program at this time?



# Next Steps

Dr. Karen Harkness

# Next Steps

- Continue **regular monthly data collection**
- Present updated results at the next CR Forum (April 2023; tentative)

A copy of the Forum notes, slides and recording will be made available on the CorHealth website under ‘Resources for Healthcare Planners & Providers’

## Resources for Healthcare Planners & Providers

### Cardiac Catheterization & Percutaneous Coronary Intervention (PCI)

Referral Forms

### Heart Rhythm

Offlisting Form  
Referral Form

### Quality Performance Measurement and Monitoring (QPMM)

Cardiac QPMM Resources  
Stroke QPMM Resources

### COVID-19 Resource Centre

COVID-19 Resources  
CorHealth Memos & Documents  
CorHealth Stakeholder Forum Meetings  
General Cardiac Resources  
General Stroke Resources  
General Vascular Resources  
Archive


### Hypertension Management

Hypertension Management Program –  
Getting Started Toolkit for Primary Care

### Rehabilitation

Standards for the Provision of Cardiovascular  
Rehabilitation in Ontario  
Cardiovascular Rehabilitation Forum  
Materials  
Regional Economic Assessments  
Community Stroke Rehabilitation





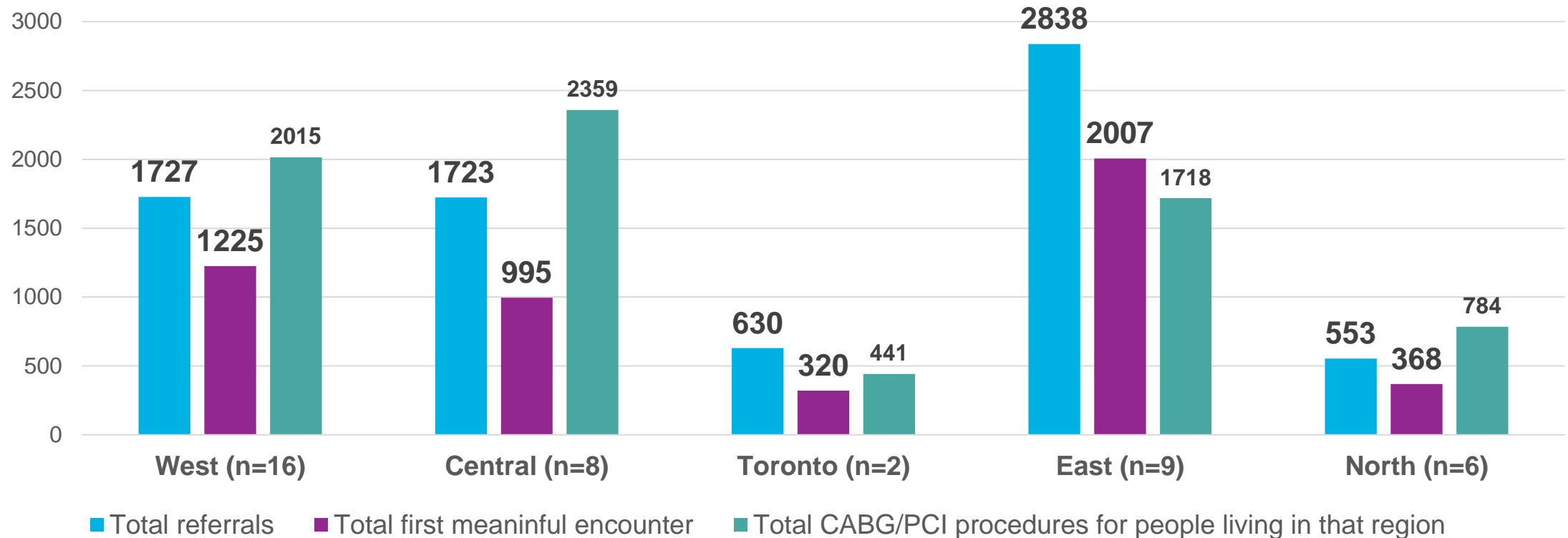
# Appendix A.

## OH Region Quarterly Volumes and Participating Sites



# Regional Totals

Total # referrals and first clinical meaningful encounters and for initial cohort per Region and CABG and PCI procedures by patients living in that region (Apr-Jun 2022)



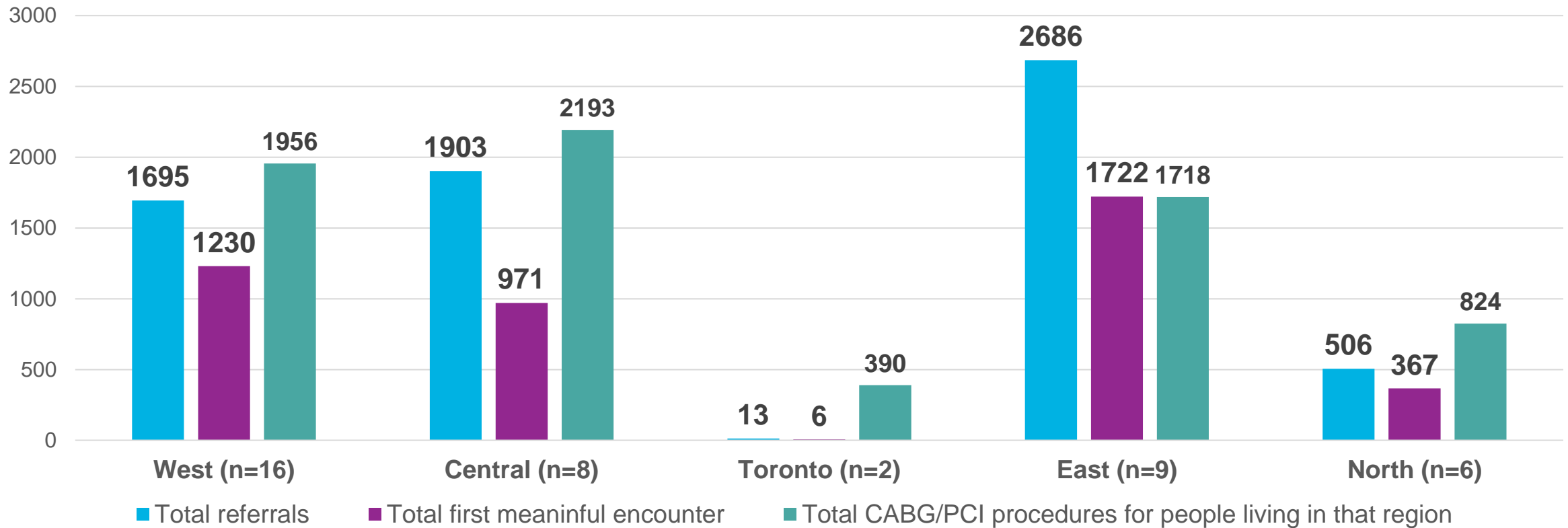
Total referrals: n= 7,471

Total first clinical meaningful encounter: n= 4,915

Ratio: total first encounter/total referrals = 66%

# Regional Totals


Total # referrals and first clinical meaningful encounters for initial cohort per Region and Number of people with CABG and PCI procedures living in that region Jul-Sep 2022



Total referrals: n= 6,803

Total first clinical meaningful encounter: n= 4,296

Ratio: total first encounter/total referrals = 63%



# Appendix B: Supporting Data Collection Slides

# Recall: Project Goals and Objectives

1. An initial goal of this work will be to gain a better understanding of the impact of COVID-19 on the delivery of Cardiovascular Rehabilitation (CR) services for Ontario patients with cardiac conditions (Phase 1)

## Phase 1 Objectives:

- Consistently collect a small amount of aggregate data from a clearly defined group of CR providers across Ontario & regularly report data back to stakeholders
- Test the readiness of the CR System to provide consistent, reliable data / better understand the availability and accessibility of data at CR provider sites

2. A potential long-term goal of this work will be to have consistent/ reliable CR data collection in Ontario to support broader system planning, monitoring and performance measurement for cardiac and vascular patients (Phase 2)

- Ability to pursue / achieve this goal will be dependent on success of the initial objectives stated above



# Purpose of Proposed Refinement of the CR Dataset

Continue to mature and refine the current data set to:

- Identify of regional variation and begin to explore drivers of variation in referral and uptake of CR, including barriers, enablers and opportunities to increase CR participation in Ontario
- Enable meaningful data-driven local and regional conversations about access and uptake of CR
- Support broader system planning, monitoring and performance measurement for cardiovascular rehabilitation



# Refinement within Data Collection

**Refinement:** Explore cardiac subgroup(s) within initial cohort where a clear denominator can be captured from the Cardiac registry and programs can easily identify this subgroup for values that will represent the numerator

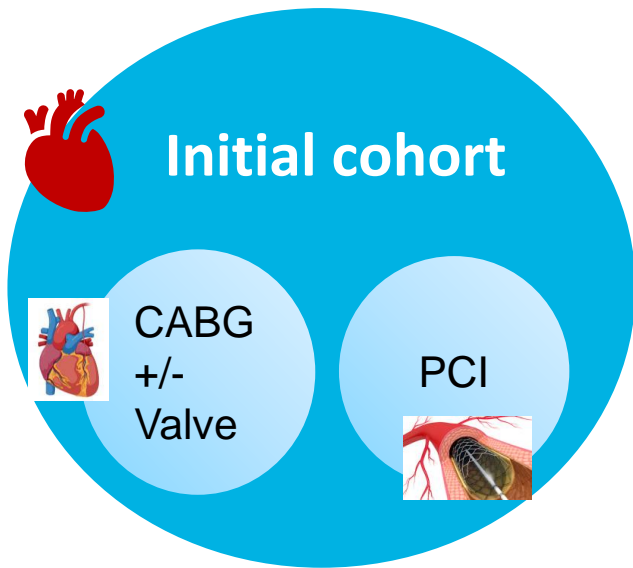
**Rationale:** Provides additional meaning to interpret findings by understanding local supply *and demand*



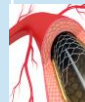
**Outcome of discussion:** Within the initial cohort of patients referred following a cardiac event, identify the following 2 cardiac subgroups:

- Post CABG +/- Valve surgery: easily identified
- Post PCI: represents a large proportion of patients referred to a CR program

# Data collection flowsheet

The following data points for the initial cohort and 2 subgroups will be collected monthly for CR Program volumes generated for FY 2022/23



Month					
 Initial Cohort		 CABG +/- Valve subgroup		 PCI subgroup	
Referrals	First meaningful encounter	Referrals	First meaningful encounter	Referrals	First meaningful encounter