CorHealth Cardiovascular Rehabilitation Stakeholder Forum #1

APRIL 26, 2022 | 3:00-4:00 PM

Ontario Health
CorHealth Ontario

Agenda

Time	Description	Purpose	Presenter
3:00 pm	**Welcome** • Land Acknowledgement • Meeting Objectives	Information	Dr. Karen Harkness
3:05 pm	**Provincial CR Measurement & Reporting Initiative** • Updated CR Measurement Results • Proposed Refinement of the CR Dataset	Information and Discussion	Dr. Karen Harkness Dr. Paul Oh
3:30 pm	**Guest Presentation**	Information	Dr. Ashlay Huitema
3:40 pm	**Open Forum Discussion** Pulse check: What is the current experience of delivery CR in Ontario?	Discussion	Dr. Paul Oh
3:55 pm	**Next Steps**	Information	Dr. Karen Harkness

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

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Land Acknowledgement

In this time of reconciliation, we remember the oldest recorded agreement between Indigenous peoples and new settlers from Europe, known as the Two Row Wampum. It covers the land we recognize as Niagara today.

We acknowledge that because of these early agreements, and later more formal treaties, we are able to live in the Niagara region and enjoy the beauty of this area and the bounty that this land provides.

Two Row Wampum (Kaswehntha)

In 1613, the Dutch and the Haudenosaunee created an agreement known as the Two Row Wampum. The Two Row Wampum has two purple rows surrounded by three white rows.

One purple row represents the ship of the Dutch. The other purple row is the Haudenosaunee canoe. Each row is travelling down the river of life side by side. Neither is trying to steer the other's boat.

The three white rows represent the three principles of the treaty: peace, respect, and friendship between the two people in an agreement that will last forever

Meeting Objectives

- To review updated CR data collection results from 6 months of data
- 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 validate feasibility and program value-add for proposed data subgroups
- 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

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

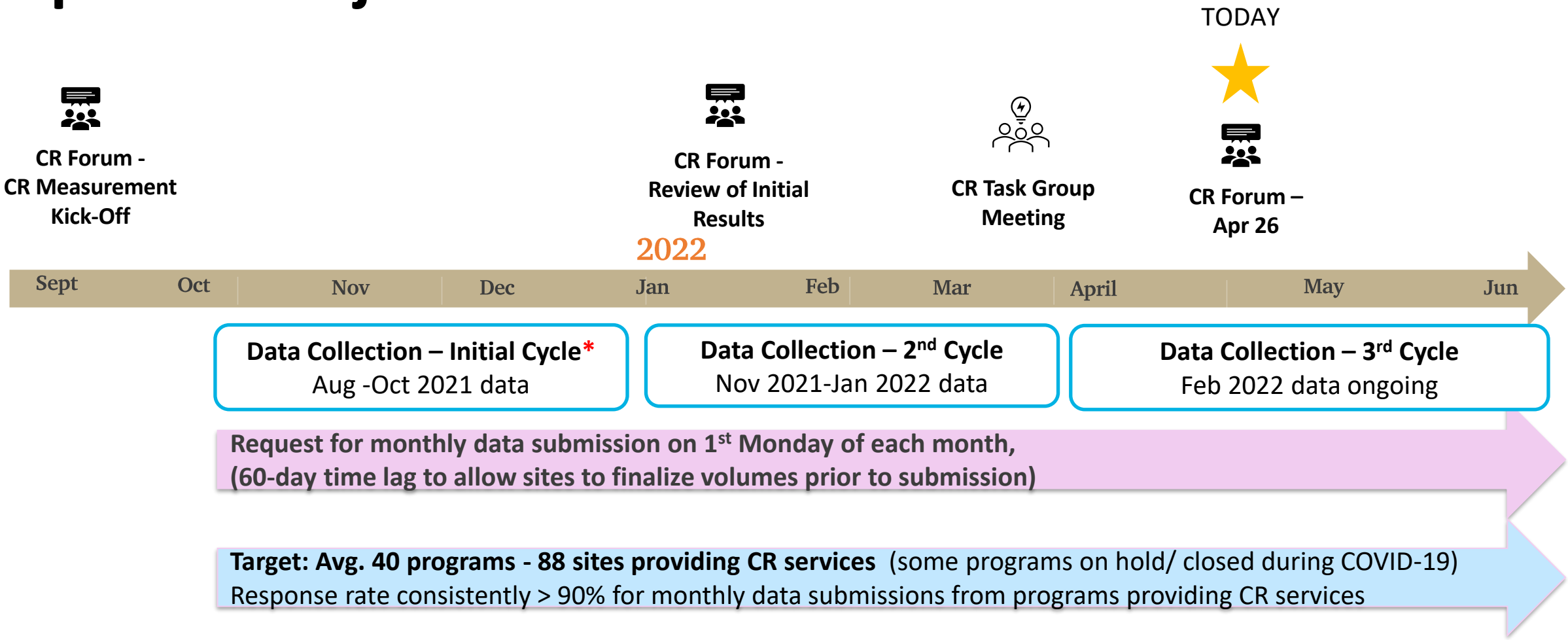
2. A potential long-term goal of this work will be to have consistent/ reliable CR data collection in Ontario to support broader system planning, monitoring and performance measurement for cardiac and vascular patients (Phase 2)

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

Recall: Phase 1 Key Metrics

Data Point	Key Metric
1. Cardiovascular Rehabilitation Program Demand	Number of referrals for patients **eligible for the CR program after initial screening**
2. Cardiovascular Rehabilitation Program Supply	Number of patients who received their **first meaningful clinical encounter** with the CR program

Update: Project Timeline



* Goals of the initial cycle were to establish communication channels for data collection, ensure definitions are clear, determine willingness and feasibility for data collection

List of CR programs that are inactive during COVID

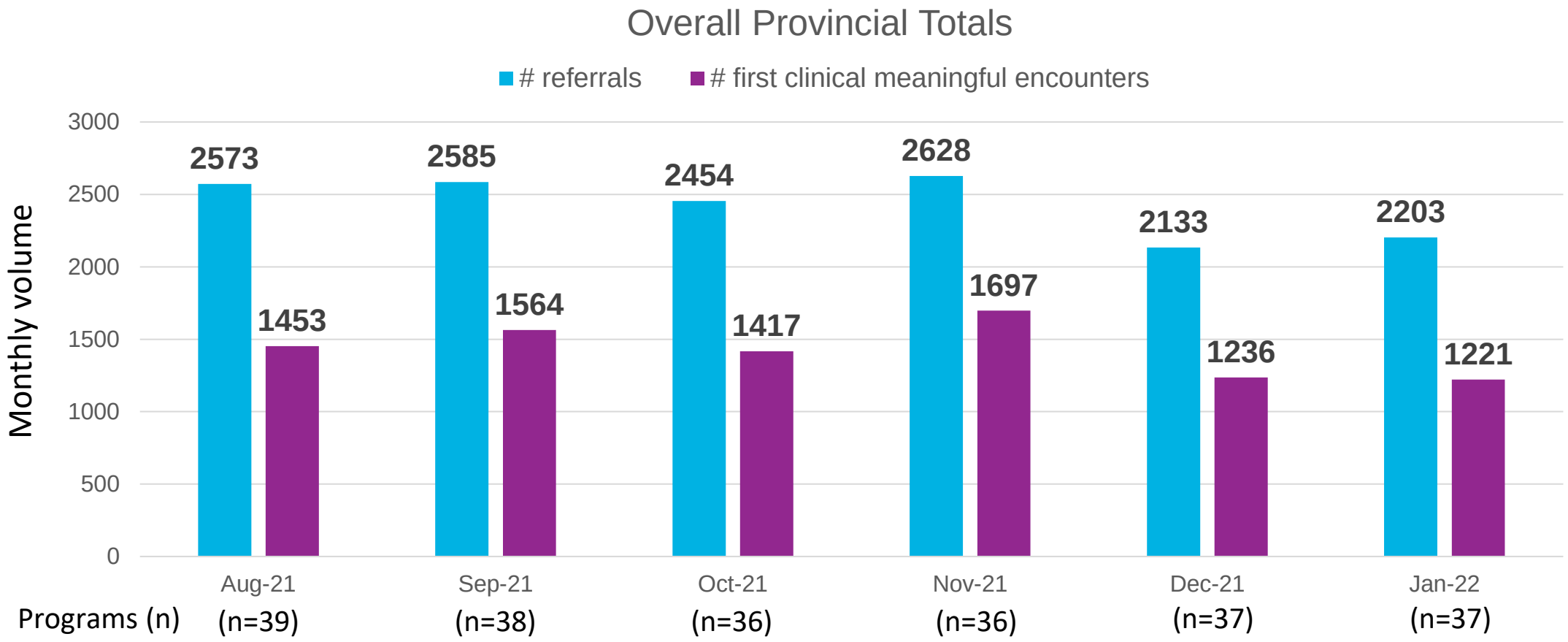
Please type in the chat box or email us if you any updates to this list

1. North Hastings Cardiac Rehabilitation (Bancroft) – plans to open April 2022
2. YMCA of Hamilton-Burlington-Brantford (rely on referrals from HHS)
3. Cornwall Hospital Cardiopulmonary Rehab Program (hold- staff deployed)
4. Hanover and District Hospital Hearts in Motion - plans to re-open April 2022
5. Minto-Maple Family Health Team
6. Stevenson Memorial CV Prevention Program
7. Cardiac Health and Rehab (Hamilton Health Sciences)- on hold
8. Heart Care Canada – Oshawa Solo Program

No plans to reopen

1. Toronto Heart Centre – Unity Health Toronto
2. Headwaters Healthcare Centre Cardiac Wellness (Orangeville)
3. Kemptville District Hospital
4. Markham Stouffville Lifestyle Education Exercise Program
5. Peterborough Regional Health Centre- closing April 2022

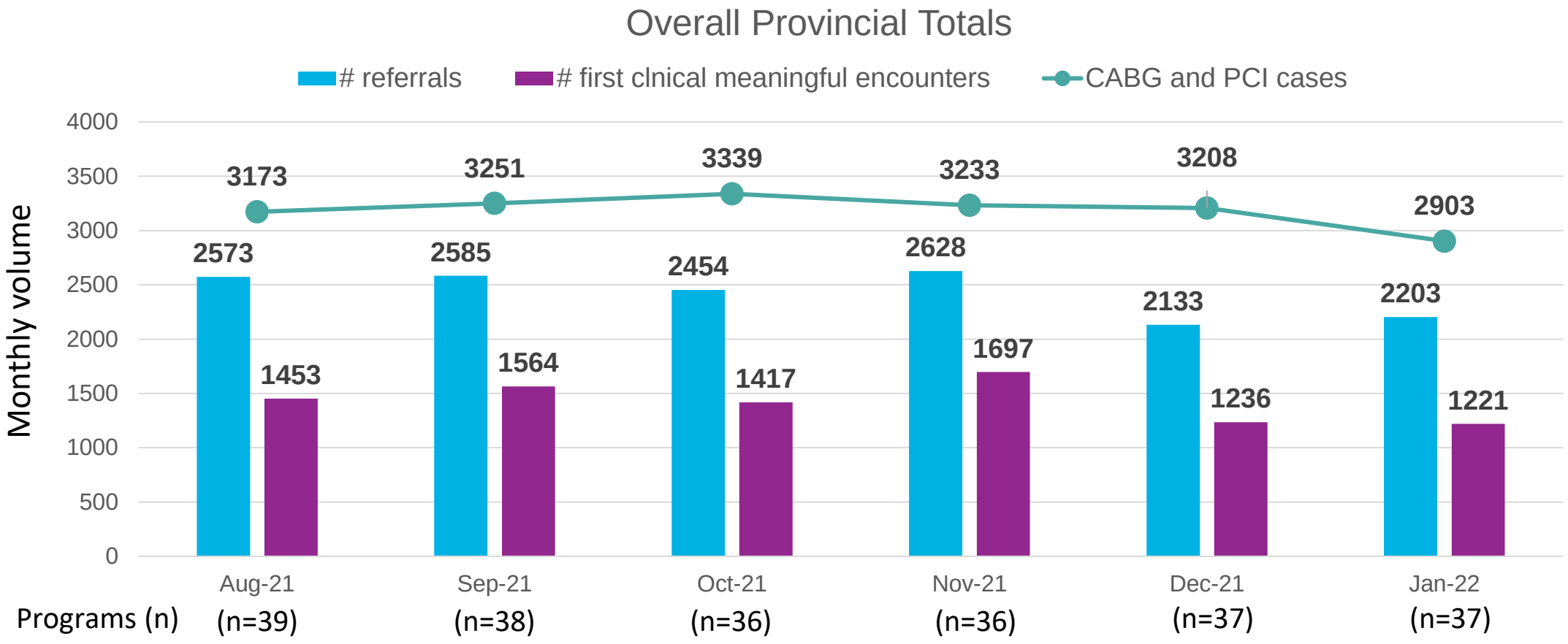
Updated Results: Overall Provincial Totals



Total referrals: n= 14,535
Total first clinical meaningful encounter: n= 8,558
Ratio: total first meaningful clinical encounter/total referrals = 59%

Note: Please see Appendix for Regional Volumes

Updated Results: Overall Provincial Totals



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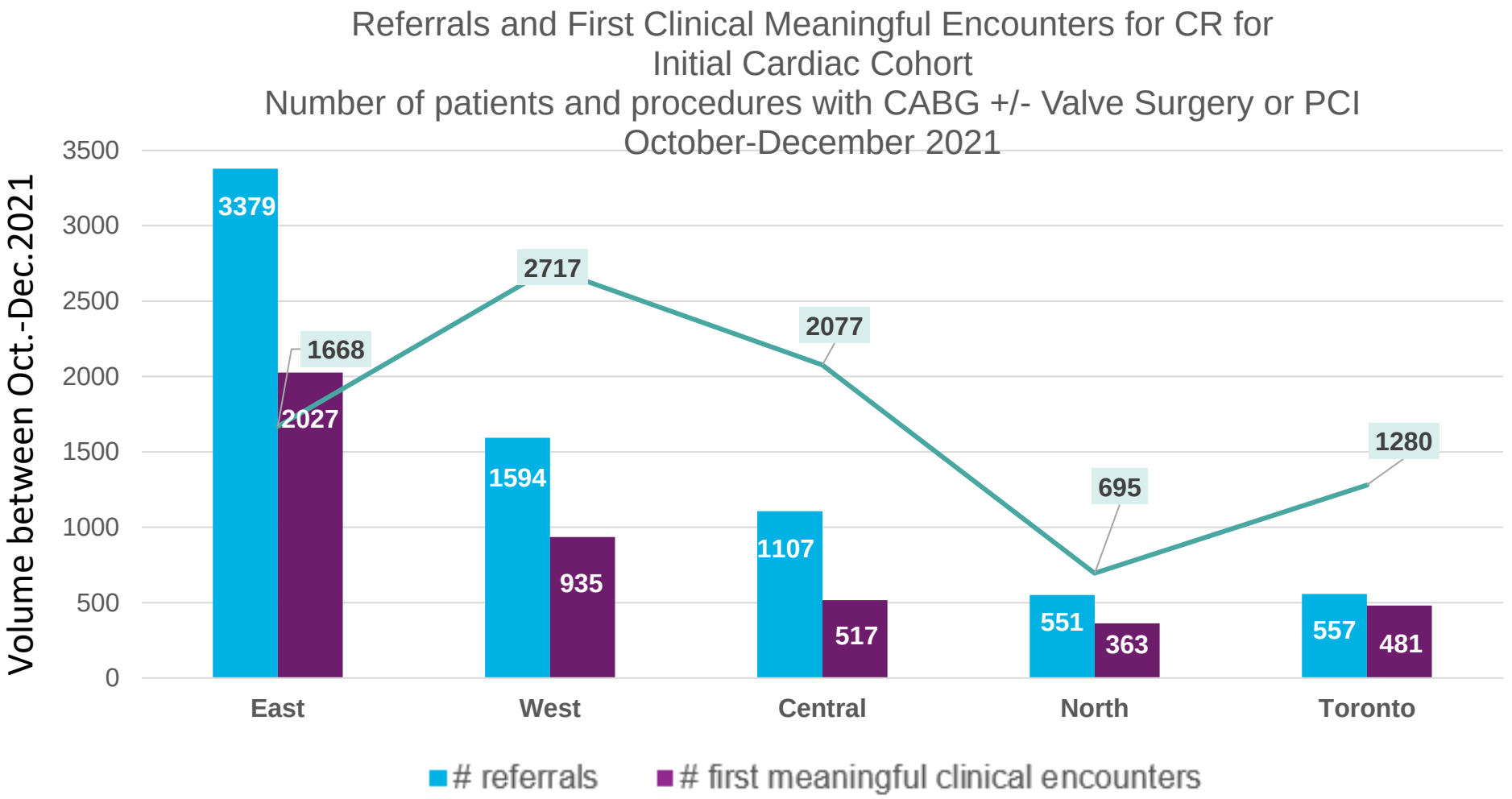
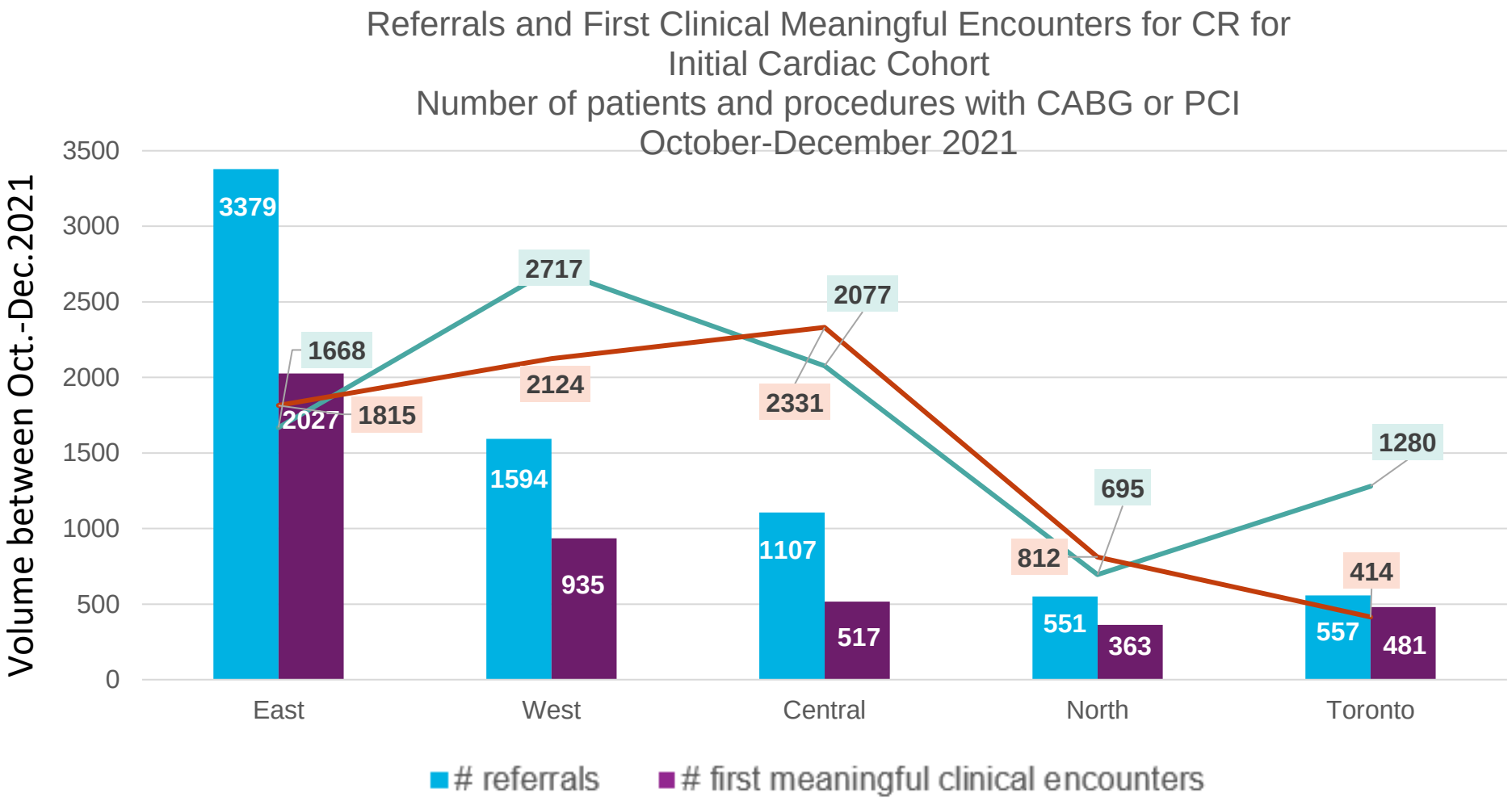
Regional Volumes- FY 2021/22- Q3



Regional where the CABG or PCI procedure was completed

For the initial cardiac cohort

Regional Volumes- FY 2021/22- Q3



For the initial cardiac cohort

Regional where the CABG or PCI procedure was completed

Region where the patient who had a CABG or PCI procedure resides

Note- patients undergoing CABG include cases with isolated CABG or CABG +same sitting valve surgery

Proposed Refinement of the CR Dataset

Dr. Karen Harkness & Dr. Paul Oh

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

At Jan 19th CR Forum, we invited participants to share which additional data subgroups might be meaningful to collect *in future*

Considerations for Refining the Dataset

(Mentioned at Jan 2022 Forum)

Potential Data Element	Value Add	Considerations
1) Completion rate	• Patient outcomes correlate with enrolment and completion of program • National quality indicator (QI)	• Standardized definition for 'full set' to ensure valid and reliable provincial measurement will be challenging at this stage
2) Qualitative analysis of reasons for declining CR	• Determine if regional variation in declining CR exist and inform opportunities for improvement	• Not in position to collect qualitative data • Check list- definition required for each option • Homogenous patient population needed to improve interpretation of findings
3) Wait times (collaboration w CACPR Reg sites)	• Wait time important as part of timely access • National QI	• HOLD for future • Not all programs are able to provide this level of information
4) Breakdown referral data point #1 into MI	• Subgroup within cardiac population-allow for identification of eligible population • National QI	• Limitation in identifying population in timely manner as relies on admin data- CorHealth only captures MI associated with procedure in registry
5) Displaying the volumes of procedures for calibration	• Provides additional meaning to interpret findings by understanding demand from local population	• Will need a subgroup included in registry for timely data
6) Male/Female	• Determine if rates different between male and female patients for data points	• Is this meaningful within a cohort with aggregate of cardiac conditions?

Task Group Discussion

- No changes to the 2 initial data points

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*

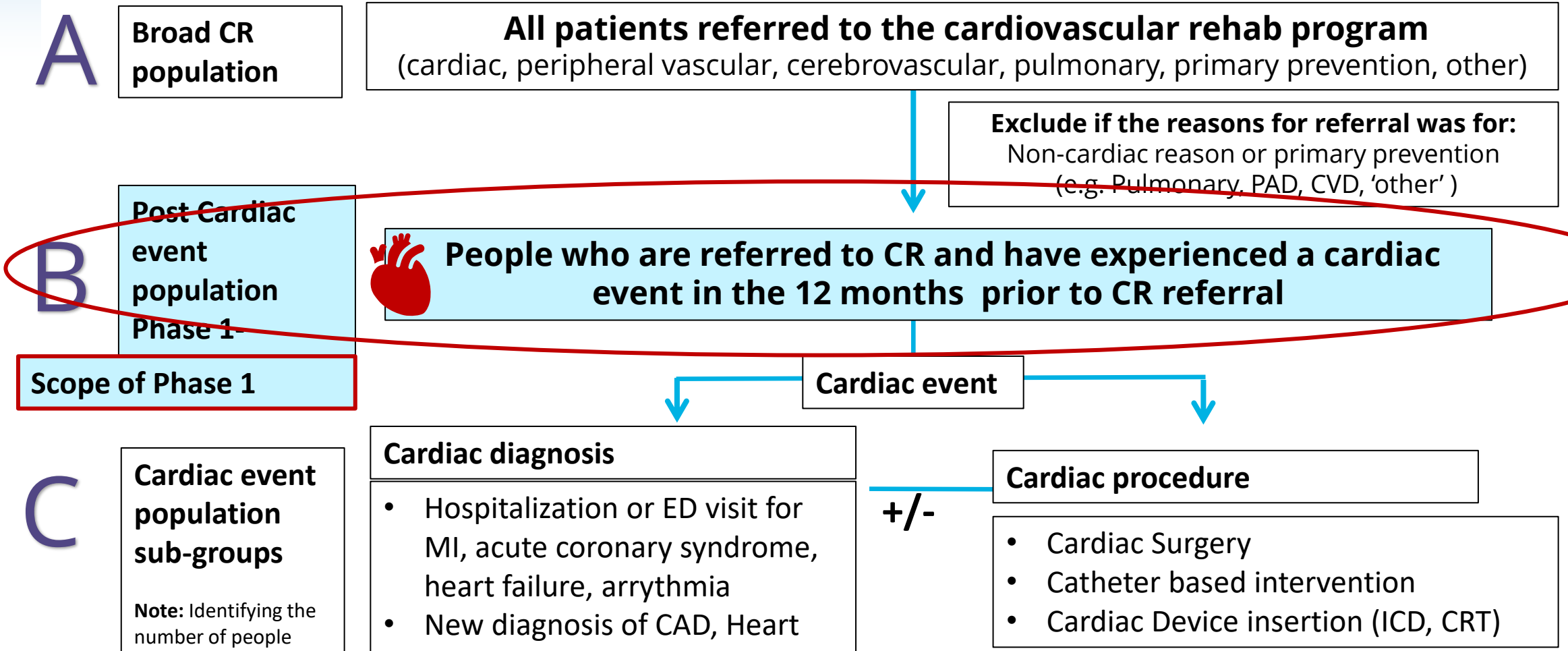
Outcome of discussion: Within the initial cohort of patients referred following a cardiac event, identify the following 2 cardiac subgroups:

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

Note- both cardiac sub-group populations are captured in the cardiac registry

Note- we are not anticipating any additional refinement for the next fiscal year

Phase 1. “Initial Cohort”
People referred to CR following a cardiac event



Phase 1. "Initial Cohort": People referred to CR following a cardiac event
Identify subgroup within the initial cohort: People referred to CR following CABG +/- valve surgery or following PCI procedure

A

Broad CR population

All patients referred to the cardiovascular rehab program
(cardiac, peripheral vascular, cerebrovascular, pulmonary, primary prevention, other)

Exclude if the reasons for referral was for:
Non-cardiac reason or primary prevention
(e.g. Pulmonary, PAD, CVD, 'other')

B

Post Cardiac event population Phase 1

People who are referred to CR and have experienced a cardiac event in the 12 months prior to CR referral

Scope of Phase 1

Cardiac event

C

Cardiac event population sub-groups

Note: Identifying the number of people within each subgroup is beyond the scope of Phase 1

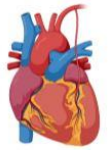
Cardiac diagnosis

- Hospitalization or ED visit for MI, acute coronary syndrome, heart failure, arrythmia
- New diagnosis of CAD, Heart failure, cardiomyopathy

+/-

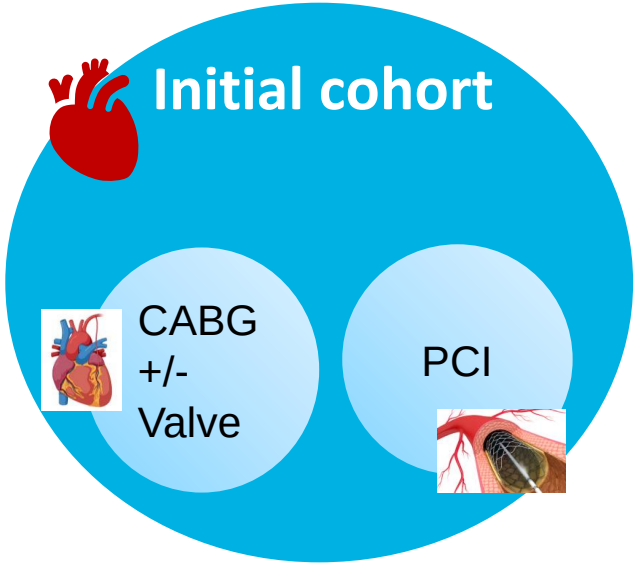
Cardiac procedure

- Cardiac Surgery (CABG +/- valve)
- Catheter based intervention (PCI only)
- Cardiac Device insertion (ICD, CRT)



Discussion: Proposed Refinement

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

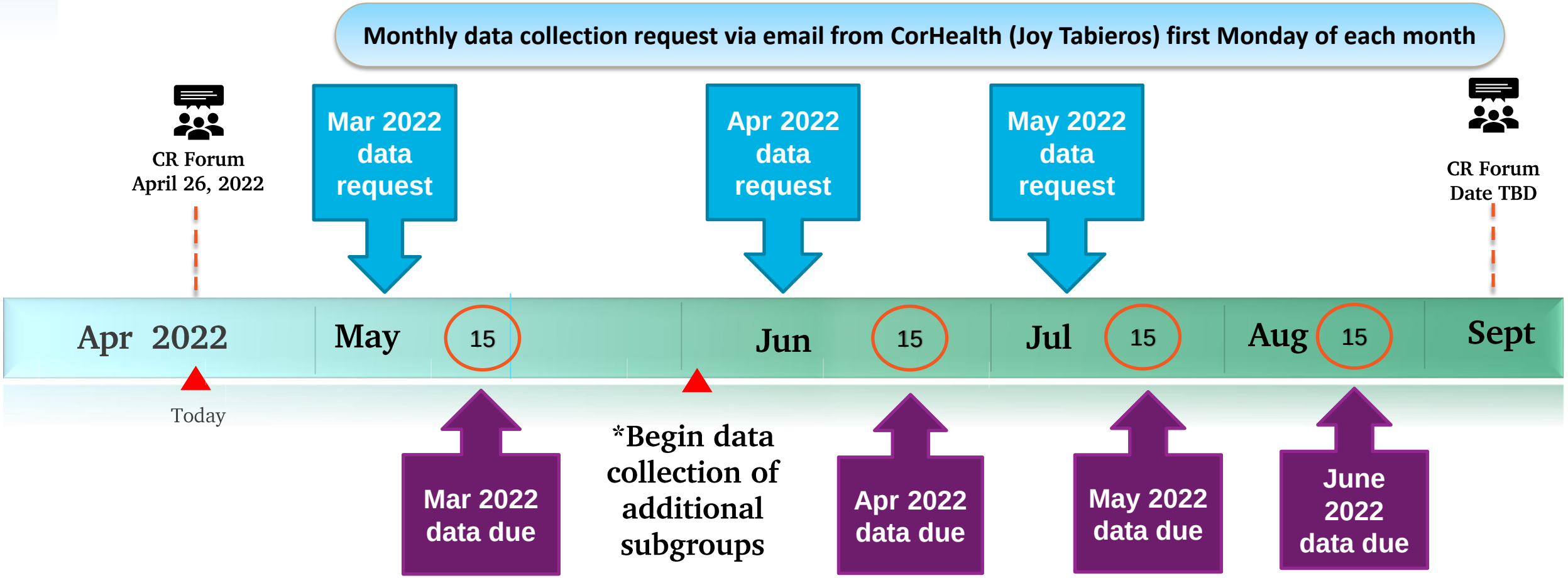
Discussion
Do you foresee any challenges with collecting these additional values for FY 2022/23?

Next Steps: CR Data Collection

- Continue **regular monthly data collection** for 2 key metrics and initial cardiac cohort:
  - 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
- Assuming support from CR Forum, begin data collection for two additional subgroups, starting June 2022
  - Data collection template for programs will be updated
- Present updated results at the next CR Forum (September; date TBD)

Data Collection: Next Steps Timeline

Assuming support for proposed data subgroup collection by CR Forum



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Monthly data submission to CorHealth (Joy Tabieros) by email due 15th of each month

Guest Presentation

Dr. Ashlay Huitema MD, FRCPC
Division of Cardiology
Co-Program Director Adult Cardiology and Assistant Professor Western University
Cardiac Rehabilitation and Secondary Prevention Program St. Joseph's Health Care London

SJHC CRSP & COVID-19

again & again & again!

SJHC VIRTUAL CRSP

Full Virtual Capability

Webex intake appt. into cardiologica and cerner;
Email intake letter, link to cardiac college, walking guidelines and consent form;
Email OTN appointment

▶ **INTAKE** *(attend by video or phone)*

▶ Email Webex invite to Orientation session
Email Orientation slides (notes page version), workbook, exercise diary, food record

▶ **ORIENTATION** *(attend by video)*

▶ Email initial H/B phone call appt. within 48 hours following Orientation

▶ **Initial H/B Phone Call** *(enroll in education series; email schedule)*

▶ Email Webex invite (recurring appts.) to education series;
Email full series of education slide decks (notes page version)

Phone and Email Capability

Webex intake appt. into cardiologica and cerner;
Email intake letter, link to cardiac college, walking guidelines and consent form

▶ **INTAKE** *(attend by phone)*

▶ Email Webex invite to Orientation session
Email Orientation slides (notes page version), workbook, exercise diary, food record

▶ **ORIENTATION** *(patient to call in; integrate with video attenders)*

▶ Email initial H/B phone call appt. within 48 hours following Orientation

▶ **Initial H/B Phone Call** *(enroll in education series; email schedule)*

▶ Email Webex invite (recurring appts.) to education series;
Email full series of education slide decks (notes page version)

Phone Only Capability

Call patient to schedule phone intake appt.;
Book intake appt. into cardiologica and cerner;
Mail intake letter, link to cardiac college, walking guidelines and consent form

▶ **INTAKE** *(attend by phone)*

▶ Call patient to book Orientation session
Mail out Orientation slides (notes page version), workbook, exercise diary, food record

▶ **ORIENTATION** *((facilitator to call out; integrate with video joiners)*

▶ Call patient within 48 hours following Orientation to schedule initial H/B phone call appt.

▶ **Initial H/B Phone Call** *(enroll in education series; mail out schedule)*

▶ Patient relies on paper copy of education series schedule
Mail full series of education slide decks (notes page version)

Special Barrier(s) to Care

Call patient to schedule phone intake appt. or arrange onsite visit;
Book intake appt. into cardiologica and cerner;
Mail intake letter, link to cardiac college, walking guidelines and consent form

▶ **INTAKE** *(attend by phone or in-person; arrange supports)*

▶ Proceed to 1:1 RD and 1:1 ReT appointment.
Continue with 1:1 inter-disciplinary intervention as required with appropriate supports.

SJHC CR – **Virtual** CR 2020

Referral

LHSC - Cardiac Care Program (cardiology and cardiac surgery) - electronic referral to CRSP program.

Orientation

Webex appointment: patient group with facilitation by inter-disciplinary team members (RN/NP; RD; Rehab trainer).

CRSP Programming

Clinical team:
MD, NP, RN
Rehab trainer
Dietitian
Social worker
Psychologist

12-week group education series (Webex sessions): facilitated by inter-disciplinary team members
1:1 risk factor modification/behaviour change interventions (phone calls, email): emphasis on medications, exercise, nutrition and mental health.

Medical Intake

OTN appointment: patient/RN or NP/MD
Components: demographics; personal information form; patient concerns; medical/family Hx; substance use/smoking status; intro to program; hospital bloodwork; BPMH; PHQ-4; triage to 1:1 mental health and RD services; exercise and physical activity habits; walking guidelines; cardiac college website; plan of care; adjust meds; goal-setting.

Connecting

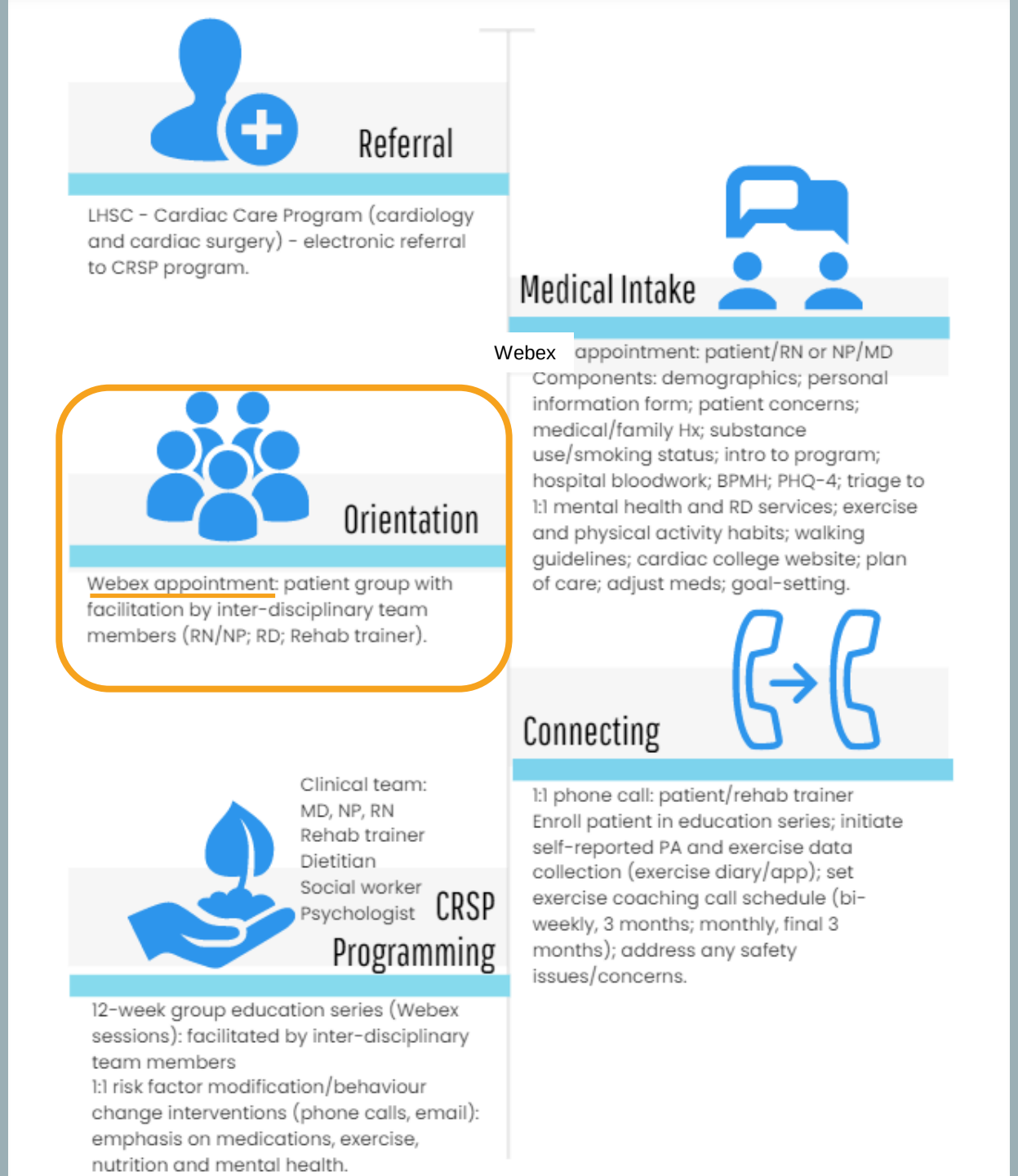
1:1 phone call: patient/rehab trainer
Enroll patient in education series; initiate self-reported PA and exercise data collection (exercise diary/app); set exercise coaching call schedule (bi-weekly, 3 months; monthly, final 3 months); address any safety issues/concerns.

St JOSEPH'S HEALTH CARE LONDON

SJHC CRSP – **Virtual** CR (In-between Waves)

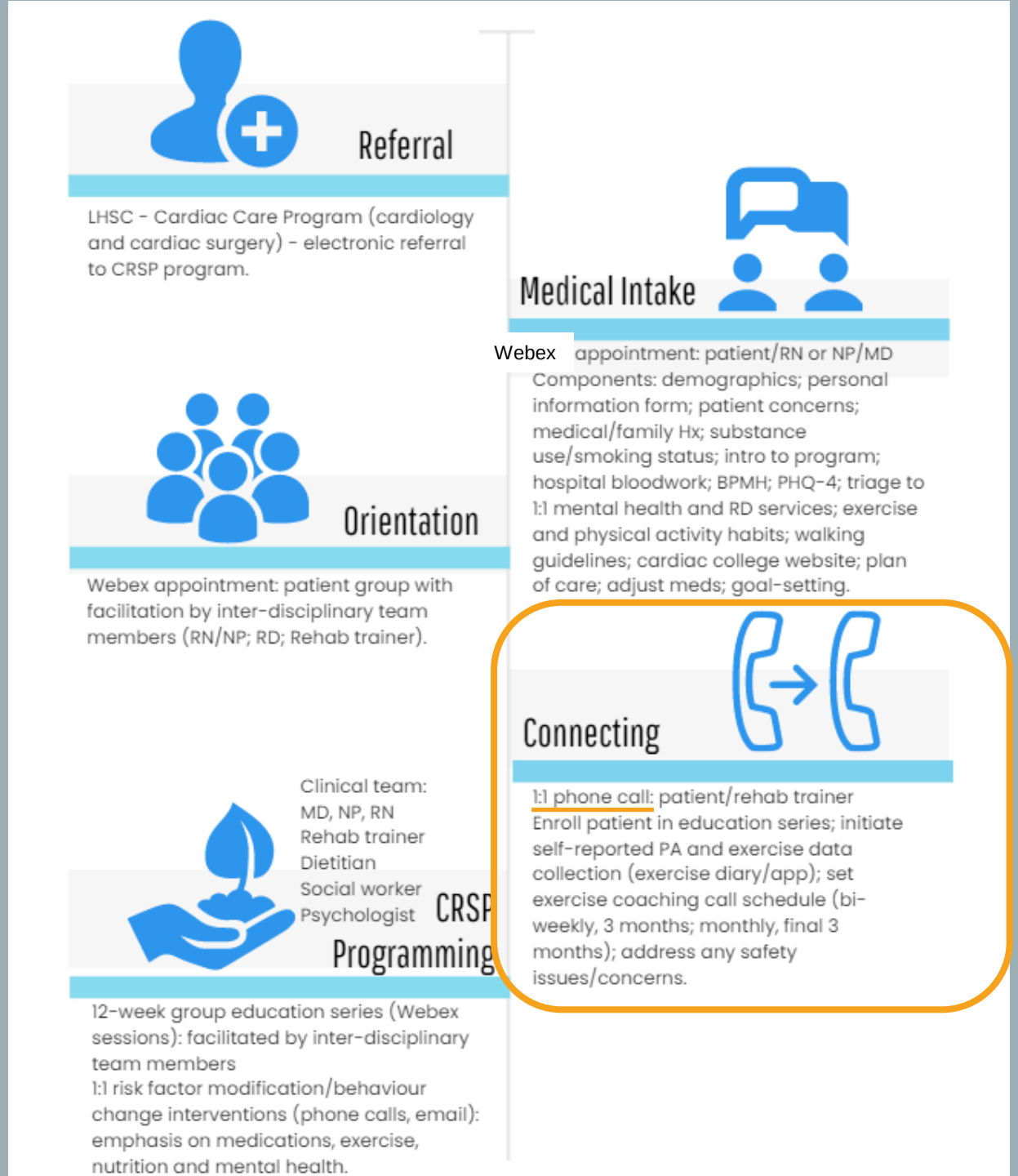
St JOSEPH's HEALTH CARE LONDON

SJHC CRSP – **Virtual** CR (In-between Waves)



St JOSEPH'S HEALTH CARE LONDON

SJHC CRSP – **Virtual** CR (In-between Waves)



St JOSEPH'S HEALTH CARE LONDON

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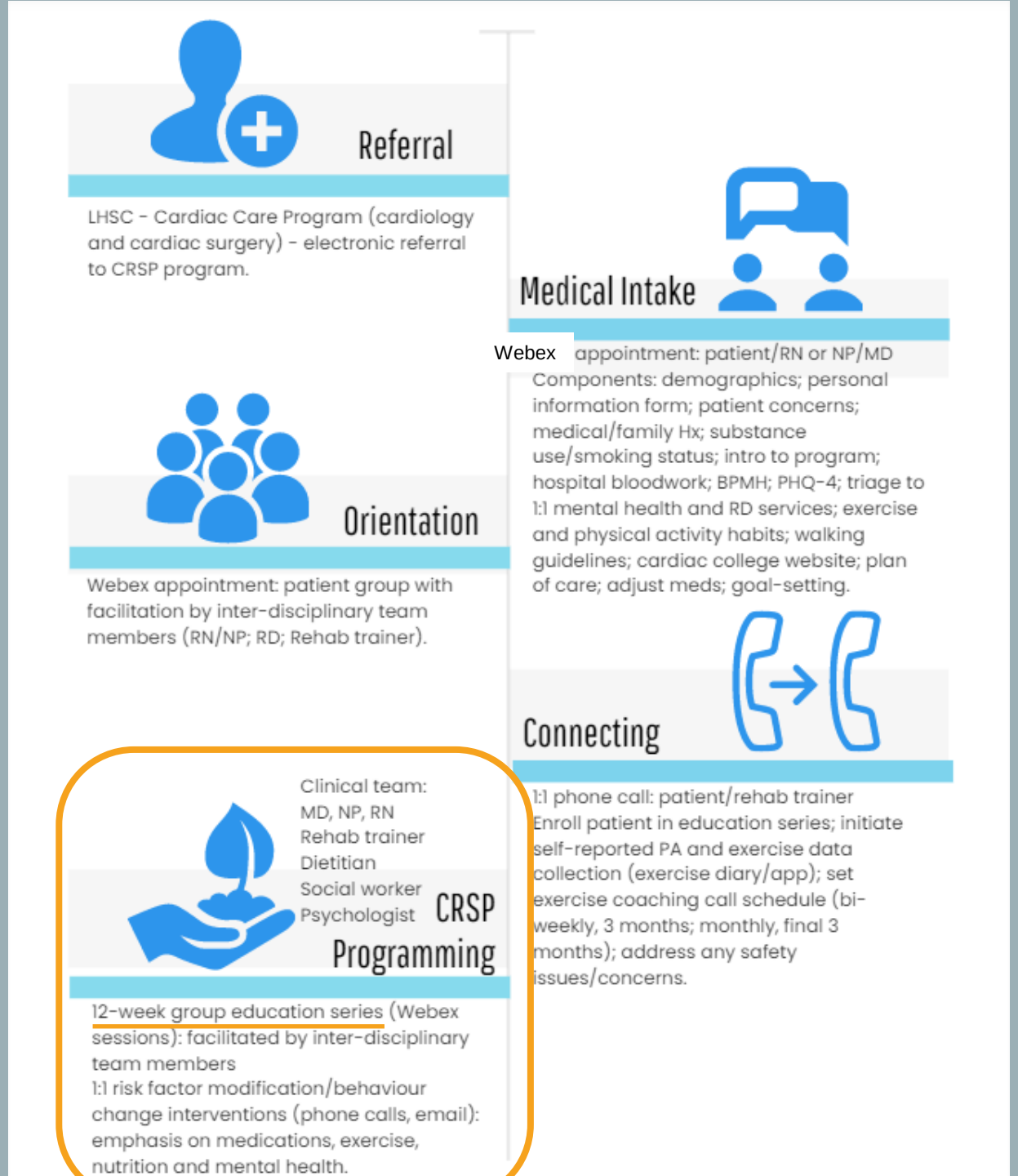


St JOSEPH'S HEALTH CARE LONDON

Cardiac Rehabilitation and Secondary Prevention Patient Education Schedule

Week 1 — **Exercise Safely**

Read Get Active: 'Staying Active for a Healthy Heart' pages 8-15, 22-27 and pages 37-50

For Patient Living with Diabetes

Read Diabetes College for more information

Week 2 — **How Your Heart Works**

Read Treat Heart Disease: 'How Your Heart Works and Common Types of Heart Problems' pages 1-8
Common Tests and Treatments for Heart Disease' pages 1-7

Week 3 — **Know Your Risk Factors**

Read Treat Heart Disease: 'How Your Heart Works and Common Types of Heart Problems' pages 11-35

Week 4 — **How to Progress Your Exercise**

Read Get Active: 'Staying Active for a Healthy Heart' pages 16-17, 28-30

Week 5 — **How to Set Goals and Action Plans**

Read Take Control: 'Setting Goals for a Healthy Heart' pages 5-17

Watch the THRiVE video, 'Create a Plan for Change'

Week 6 — **Take Your Heart Medicines**

Read Treat Heart Disease: 'Taking your Heart Medicines' pages 1-19

Watch the THRiVE video, 'Take Your Medicines'

Week 7 — **Heart Healthy Ways of Eating**

Read Eat Healthy: 'Eating Well for a Healthy Heart'

Watch the THRiVE video, 'Eat the Mediterranean Way'

Week 8 — **Take Care of Your Emotional Wellbeing: Part 1**

Read Feel Well: 'Managing Stress for a Healthy Heart',

Watch the THRiVE video, 'Manage Stress, Depression and Burnout'

Week 9 — **Live Resistance Training Review**

Week 10 — **How to Choose Heart Healthy Foods**

Read Eat Healthy: 'Eating Well for a Healthy Heart'

Watch the THRiVE video, 'Choose Healthy Foods' and the 'Making Healthy Food Choices' video series (19 videos and tip cards).

Week 11 — **How to Read Food Labels**

Read Eat Healthy: 'Eating Well for a Healthy Heart' pages 59-65

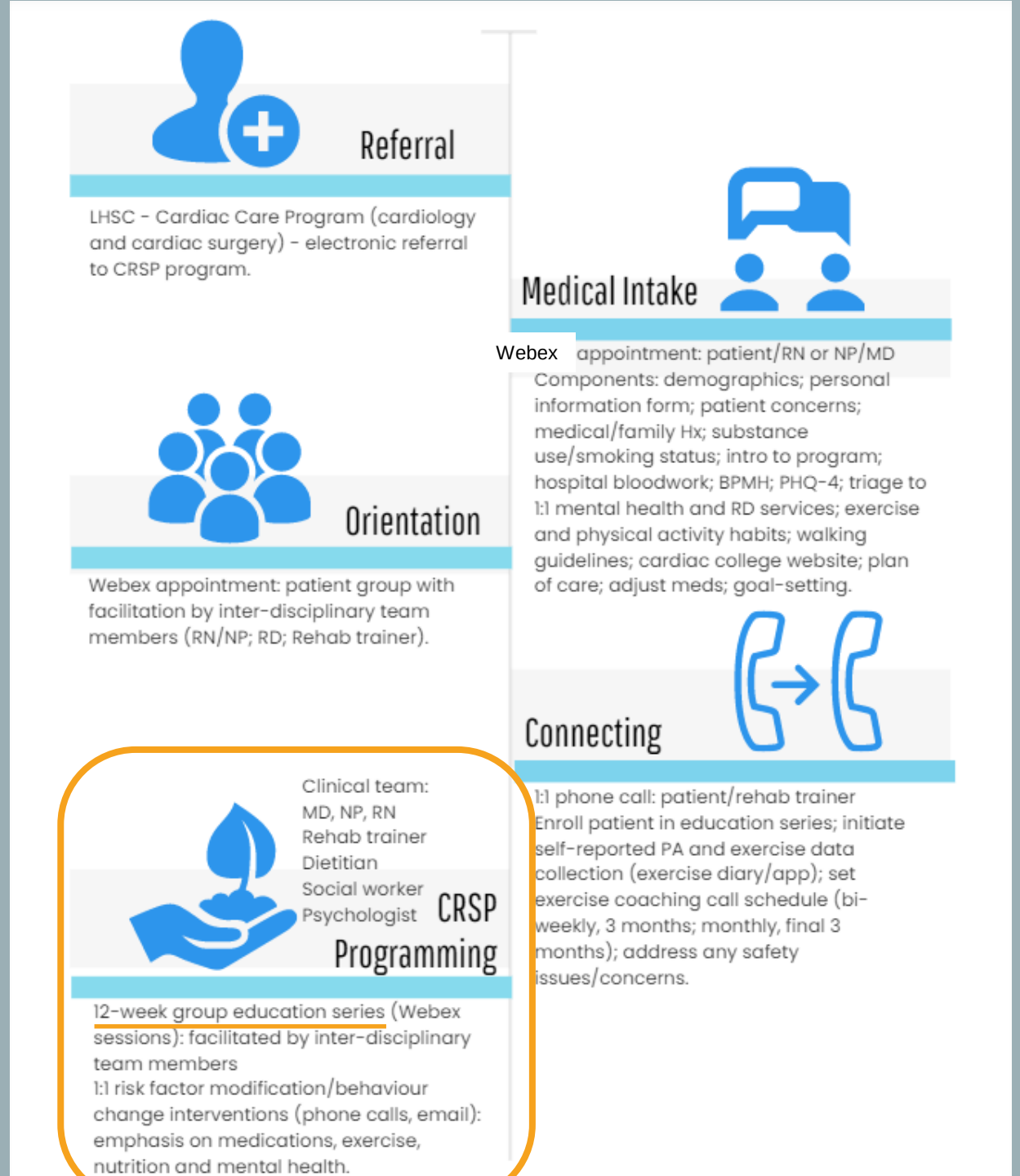
Watch 'Food Labels' and 'Nutrition Health Claims' videos on cardiac college

Week 12 — **Take Care of Your Emotional Wellbeing: Part 2**

Read Feel Well: 'Managing Stress for a Healthy Heart'

Watch the THRiVE videos: 'Sleep Well' and 'Strengthen Your Social Relationships'

SJHC CRSP – **Virtual** CR (In-between Waves)

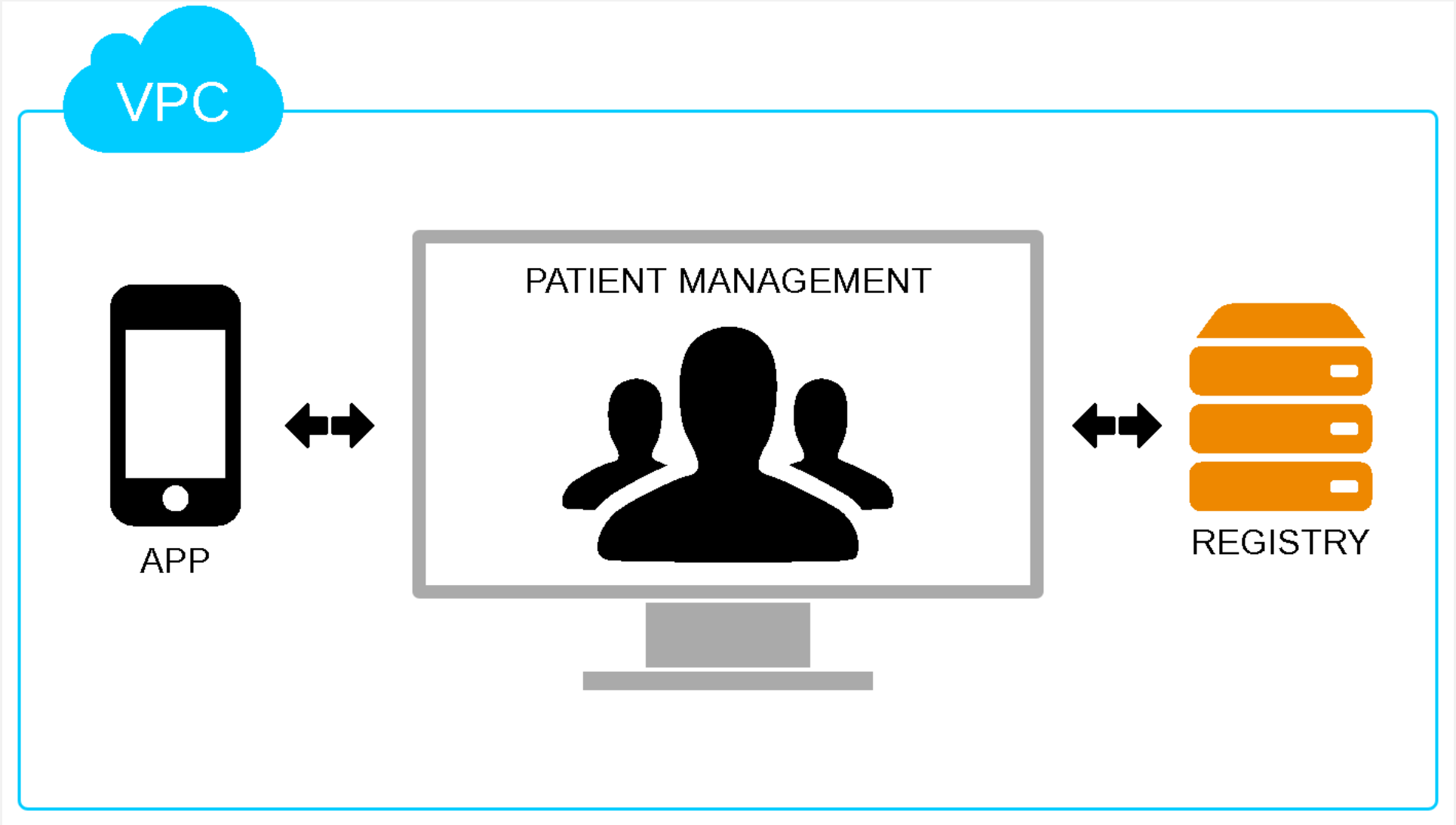


EXIT assessment ← EXIT CPET ←

St JOSEPH's HEALTH CARE LONDON

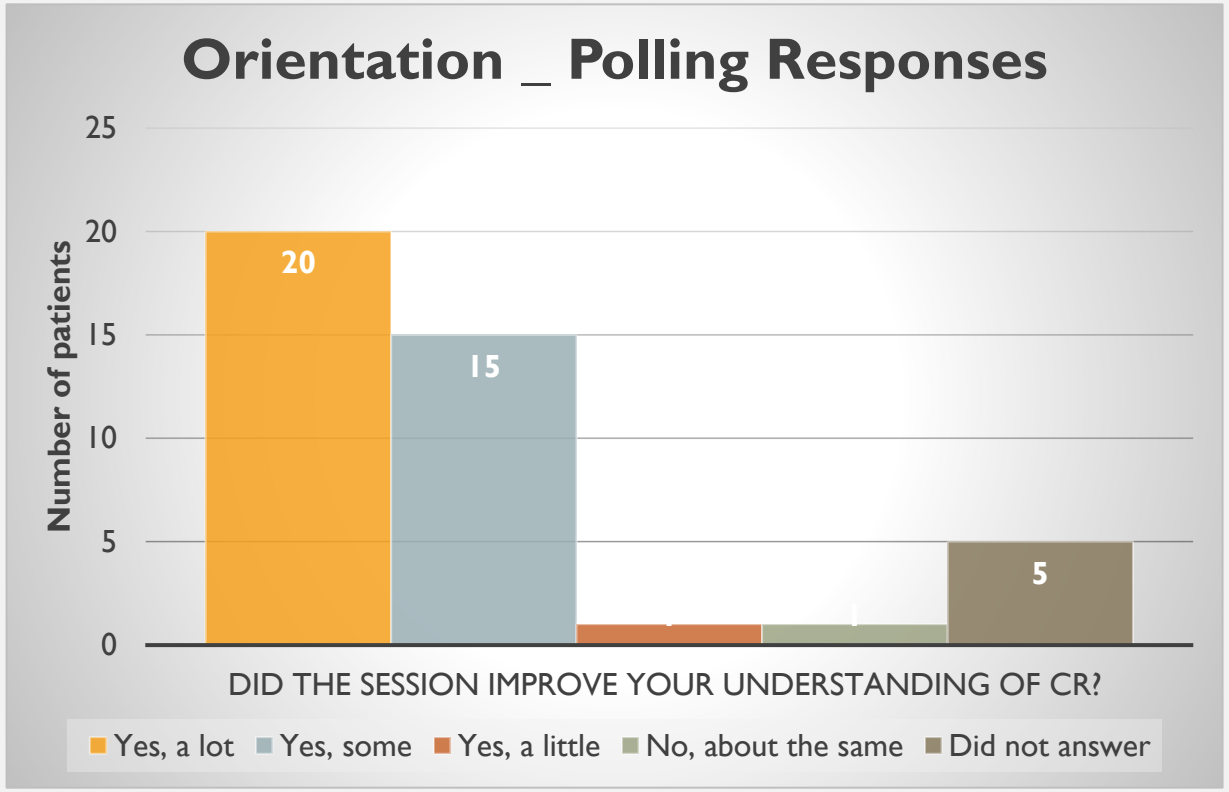
CARDIOLOGICA PATIENT APP

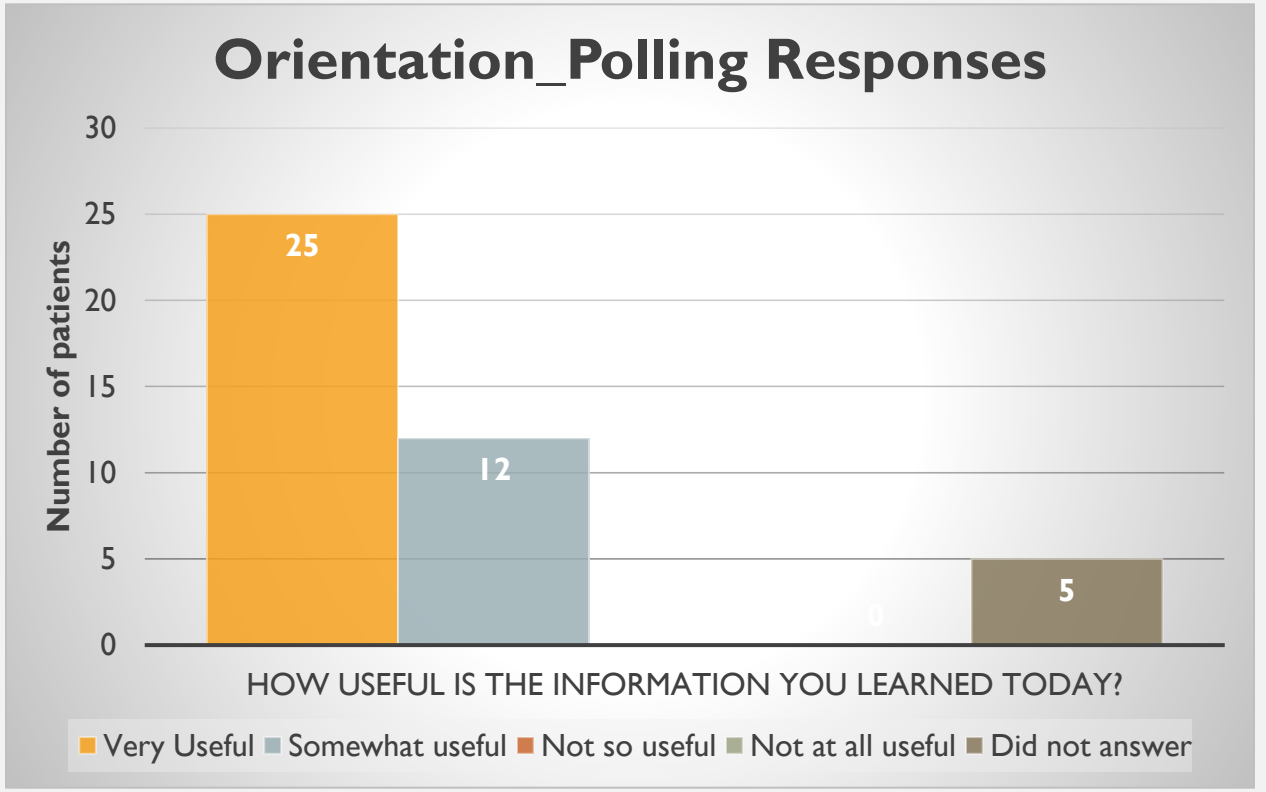
CARDIOLOGICA VIRTUAL REGISTRY SUITE



CR QI & MEASUREMENT

SJHC CRSP


Orientation _ Polling Responses
Number of patients
25
20
15
10
5
0
20
15
5
DID THE SESSION IMPROVE YOUR UNDERSTANDING OF CR?
Yes, a lot
Yes, some
Yes, a little
No, about the same
Did not answer


Orientation_Polling Responses
Number of patients
30
25
20
15
10
5
0
25
12
0
5
HOW USEFUL IS THE INFORMATION YOU LEARNED TODAY?
Very Useful
Somewhat useful
Not so useful
Not at all useful
Did not answer

Traffic Signals to Manage the Transition to Virtual Cardiac Rehabilitation

Contact Information:

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karen.unsworth@sjhc.london.on.ca

Unsworth K, Prior P., Hartley, T., Frisbee, S., Grattan, K., Graat, M., Hocking, S., McKelvie, R., Huitema, A. and Suskin, N.

Cardiac Rehabilitation and Secondary Prevention Program, St. Joseph's Health Care, London, Ontario

RATIONALE

Following the onset of the COVID-19 pandemic, our cardiac rehabilitation (CR) program suspended patient care on 16-Mar/20, for rapid development of fully virtual service. We adapted a 12-week virtual CR interactive educational series (vCRED), developed at the University Health Network CR Program, Toronto. Notably, decision tools to determine patients' suitability for vCRED were unavailable. We created a simple triage tool to categorise patients as fully (green), partially (yellow) or not (red) vCRED-able. Traffic-signal categorisation (TrafCat) was conducted by administrative staff during an intake-scheduling call with patients, based on their access to, and stated readiness to use technology compatible with audio-video conferencing.

METHODS

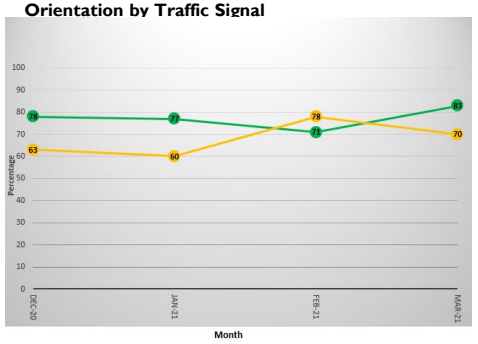
Using *cardiologica*, our web-based clinical management system, we categorised patients into technologically-enabled (green), technologically-restricted (yellow) or having additional barriers, e.g. language (red). We began virtual programming in June/20, using online Webex-based group orientation education sessions, enrolling only green-coded patients; holding yellow-coded patients in abeyance pending Webex technology enhancements, including a "call-out" feature permitting audio-only participation, deployed in Nov-20. Red-coded patients were not enrolled in virtual programming; offered individualised home-based programming via telephone; and excluded from analysis. Means (standard deviations, SD), parametric statistics, proportions, and non-parametric statistics were used (significance: 2-sided $p<0.05$)

RESULTS

From Aug-Dec/20, 402 patients were referred to CR; 256 (63.7%) completed intake. Following Intake, virtual Orientation attendance (n, % of scheduled) by TrafCat (green; yellow respectively) was: Dec (14, 78%), (25, 63%); Jan (43, 77%), (30, 60%), Feb (32, 71%), (29, 78%); March 1-18 (35, 83%), (14, 70%). Attendance proportions did not differ significantly by colour code (p>0.05), (Figure 1).

The overall sample had more men (70%) than women (30%), but sex proportions did not differ significantly between green vs. yellow TrafCat (p=0.25). Green-coded (62.5 y, SD=12.1) were significantly younger than yellow-coded (70 y SD=10) patients (p< 0.001).

Figure 1: % Attended Orientation by Traffic Signal



OBJECTIVES

To evaluate: 1) TrafCat feasibility for vCRED suitability by assessing attendance at the 1st vCRED, vOrientation; 2) patient characteristics by TrafCat.

CONCLUSIONS

All new CR patients were categorised by technology readiness. Majorities of green- and yellow-coded patients attended orientation providing evidence that TrafCat process was reasonable. Proportions of green- vs. yellow-coded patients attending did not differ significantly in any month. Simple decision tools such as TrafCat can triage patients to vCRED and be widely deployed. Analyses of complete vCRED attendance, and CR outcomes, by TrafCat is ongoing.

DISCLOSURES

I have **not had** an affiliation (financial or otherwise) with a commercial organization that may have a direct or indirect connection to the content of my presentation.

Does your presentation describe the off-label use of a device, product, or drug that is approved for another purpose?

N O Y E

Traffic Signals to Manage the Transition to

Contact Information:

Unsworth, K, Cardiac Rehabilitation & Secondary Prevention Program, St. Joseph's Health Care London
karen.unsworth@sjhc.london.on.ca

RATIONALE

Following the onset of the COVID-19 pande
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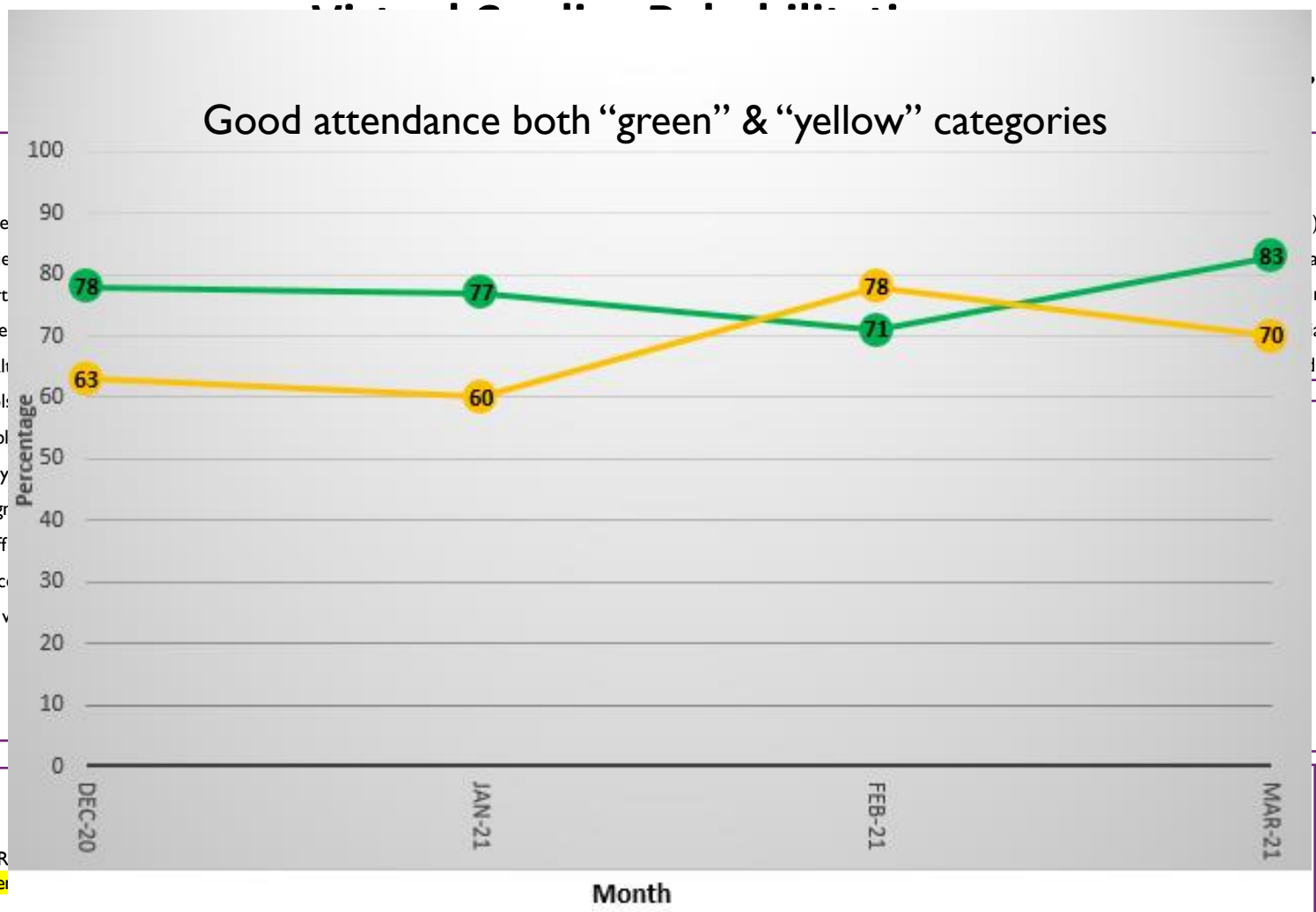
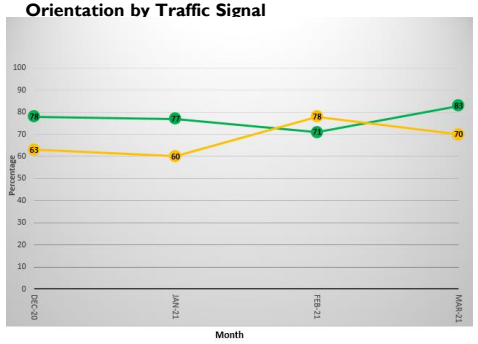
readiness to use technology compatible v
conferencing.



), technologically-restricted (yellow) or having
ation education sessions, enrolling only green-coded
re permitting audio-only participation, deployed in
a telephone; and excluded from analysis. Means
$p<0.05$)

Figure 1: % Attended Orientation by Traffic Signal



OBJECTIVES

To evaluate: 1) TrafCat feasibility for vCR
assessing attendance at the 1st vCRED, vOrie
characteristics by TrafCat.

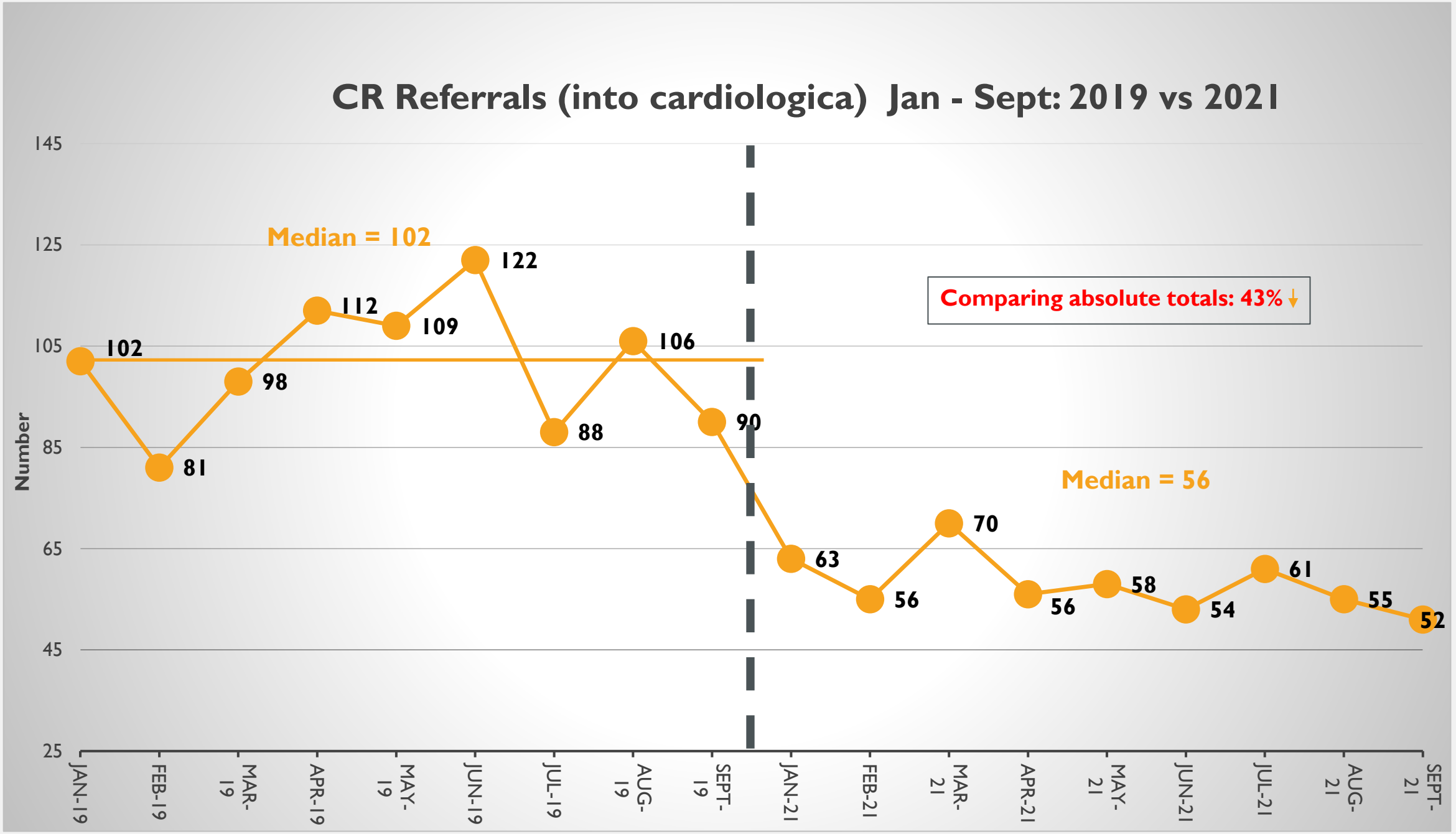
vCRED and be widely deployed. Analyses of complete vCRED attendance, and CR outcomes, by TrafCat is ongoing.

DISCLOSURES

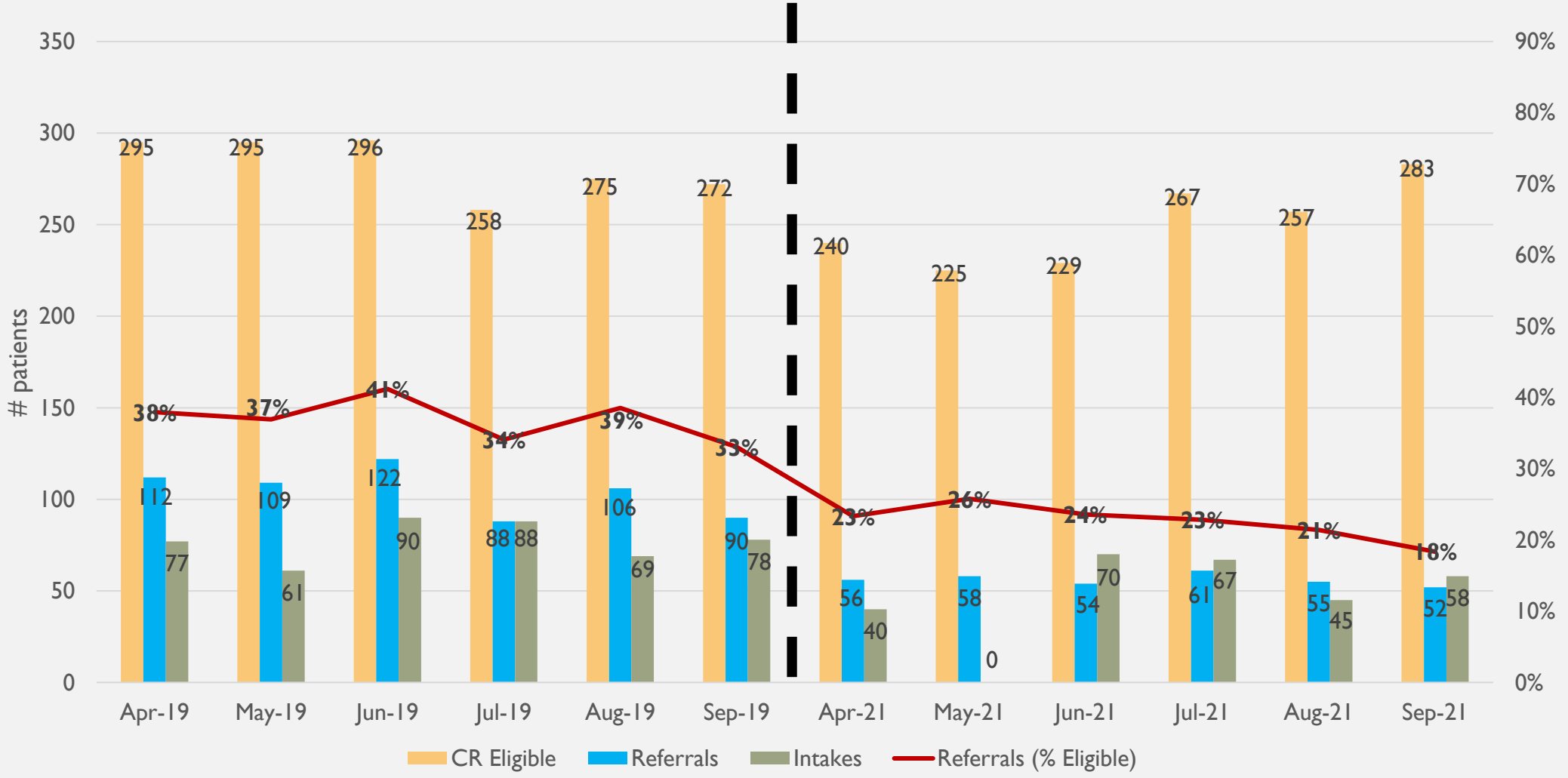
I have **not had** an affiliation (financial or otherwise) with a commercial organization that may have a direct or indirect connection to the content of my presentation.

Does your presentation describe the off-label use of a device, product, or drug that is approved for another purpose?

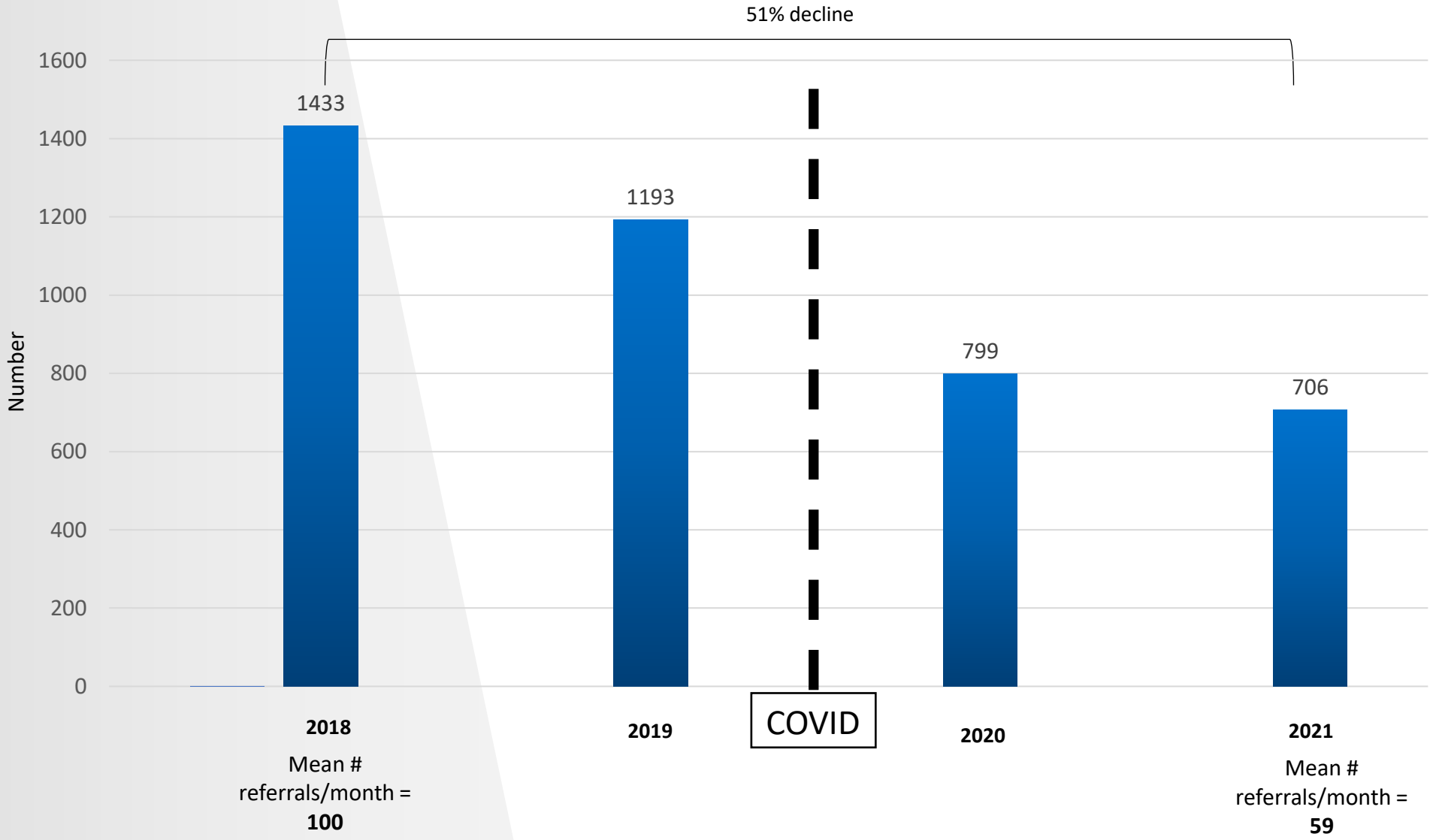
N O Y E


CR Referrals (into cardiologica) Jan - Sept: 2019 vs 2021
Median = 102
Median = 56
Comparing absolute totals: 43%
Number
Month
145
125
105
85
65
45
25
102
81
98
112
109
122
88
106
90
63
56
70
56
58
54
61
55
52
JAN-19
FEB-19
MAR-19
APR-19
MAY-19
JUN-19
JUL-19
AUG-19
SEPT-19
JAN-21
FEB-21
MAR-21
APR-21
MAY-21
JUN-21
JUL-21
AUG-21
SEPT-21

"DENOMINATOR" … CR ELIGIBLE & REFERRALS & INTAKE



CRSP REFERRAL



Did patient sex influence wait-times for CR during the pandemic? - the CACPR Registry Experience from Ontario -

Suskin, N. Oh, P. Petro, J. Voth, J. Huitema, A. McKelvie, R. Hartley, T. Matthews, J. Pierce, A. Ricci, J. Chipperfield, D.
CACPR Registry ready Sites

Contact Information:
Suskin, N. Cardiac Rehabilitation & Secondary Prevention Program, St. Joseph's Health Care London
neville.suskin@lhsc.on.ca

RATIONALE

Longer wait-times from CR referral to intake are associated with poorer CR outcomes, and female patients have traditionally been under-represented in CR programs.

The impact of the pandemic on wait-times , whether wait-times met the national 30-day quality-indicator, and whether wait-times differed by patient sex, are unknown.

CACPR Registry-ready sites are participating in an Ontario-wide CR measurement initiative which is collecting aggregate data to assess CR activity. Here we examine the impact of sex in regard to wait-times from CR referral to CR intake prior to and during the pandemic in 3 large (> 500 new patients annually) CR programs in different regions of Ontario, designated as A, B, and C.

OBJECTIVES

To evaluate whether CR Referral to Intake wait-times during the Pandemic:

1. Increased overall or met the 30-day quality indicator
2. Differed between the sexes

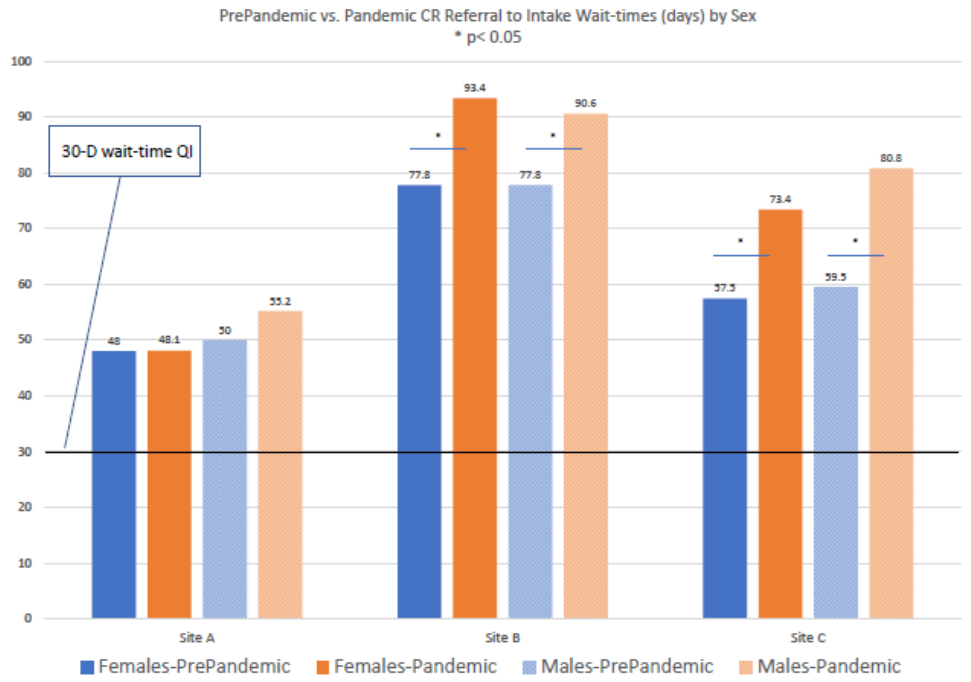
METHODS

- CR referral = formal written or electronic request for CR service
- Patients = Post MI, PCI, CABG, valve surgery or stabilized HF
- CR intake = 1st meaningful clinical encounter between the patient and clinical CR professional
- Sites submitted monthly CR referral and intake data
- To control for potential seasonal variation, we report here the comparison of wait-times for the 6-month period starting March 2020 (Pan) vs. the 6-month period starting March 2019 (PrePan)

RESULTS

Pan vs. Pre-pan wait-times (days) were:

- not different for Site A (52.6 vs. 49.2, P>0.05)
- were longer for Sites B (91.5 vs. 77.8, P<0.001) and C (78.2 vs. 58.8, P<0.001)
- were no different (p>0.05) for female vs. male patients at any site during Pan (A 48.1 vs. 55.2, B 93.4 vs. 90.6 and C 73.4 vs. 80.8); or prepan periods (A 48.0 vs. 50.0, B 77.8 vs. 77.8 and C 57.5 Vs. 59.5)



CONCLUSIONS

Assessment of the impact of the pandemic on CR referral to intake wait-times, can be quantified using aggregate data collection through participation in the CACPR Registry. The pandemic appeared to be associated with increased wait-times in 2 of 3 large CR sites in Ontario but not the 3rdsite. All sites exceeded the quality-indicator 30 day wait-time. There was no difference in wait-times in relation to patient sex. The Registry can facilitate regular monitoring and mitigation of non-target wait-times which are important to improve CR care quality.

DISCLOSURES

I have not had an affiliation (financial or otherwise) with a commercial organization that may have a direct or indirect connection to the content of my presentation.

Does your presentation describe the off-label use of a device, product, or drug that is approved for another purpose?

NO YES

CARING FOR THE BODY, MIND & SPIRIT SINCE 1869

Did p

Suskin, N. Oh, P. Petro,

RATIONALE

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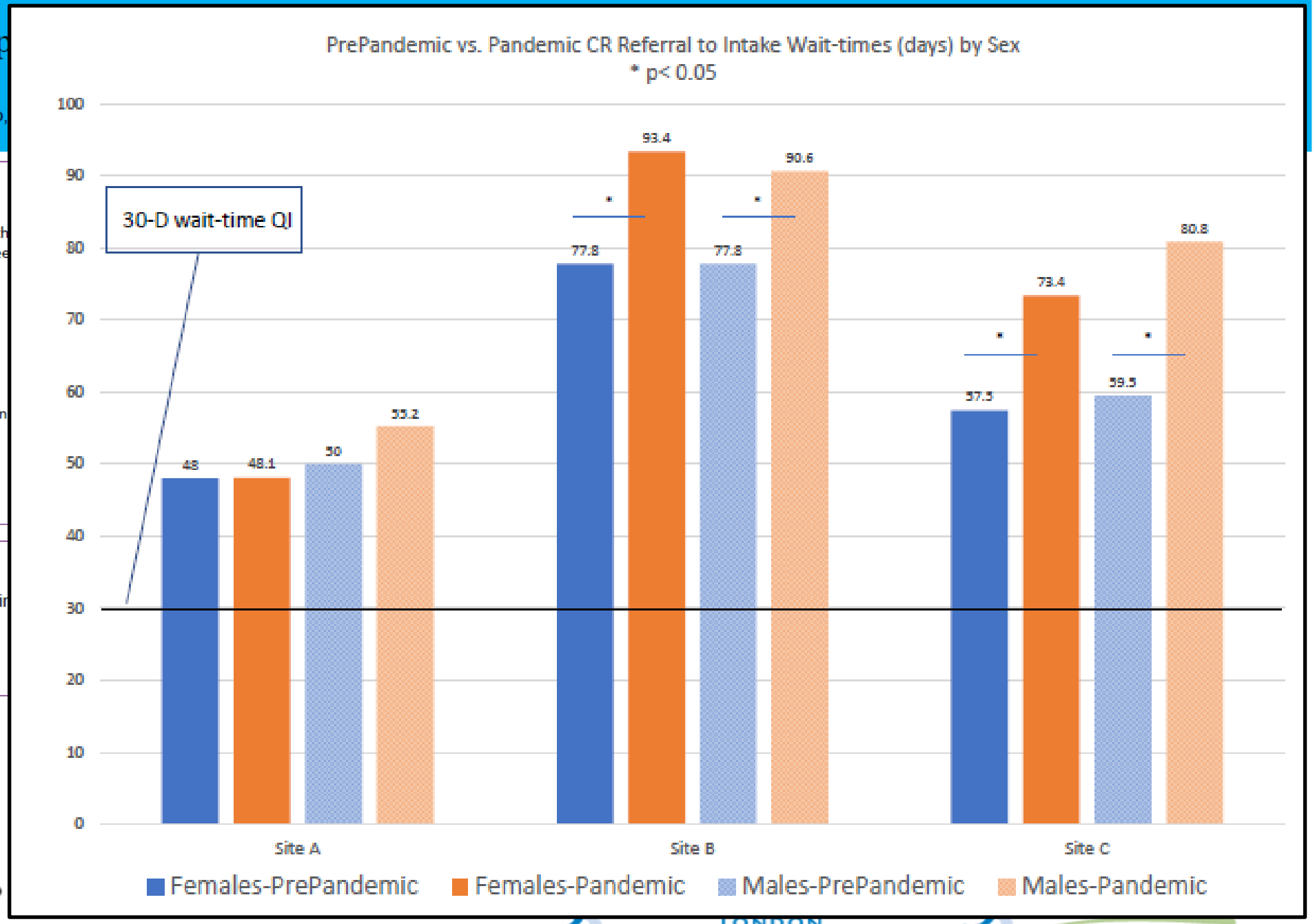
1. Increased overall or met the 30-day quality indicator
2. Differed between the sexes

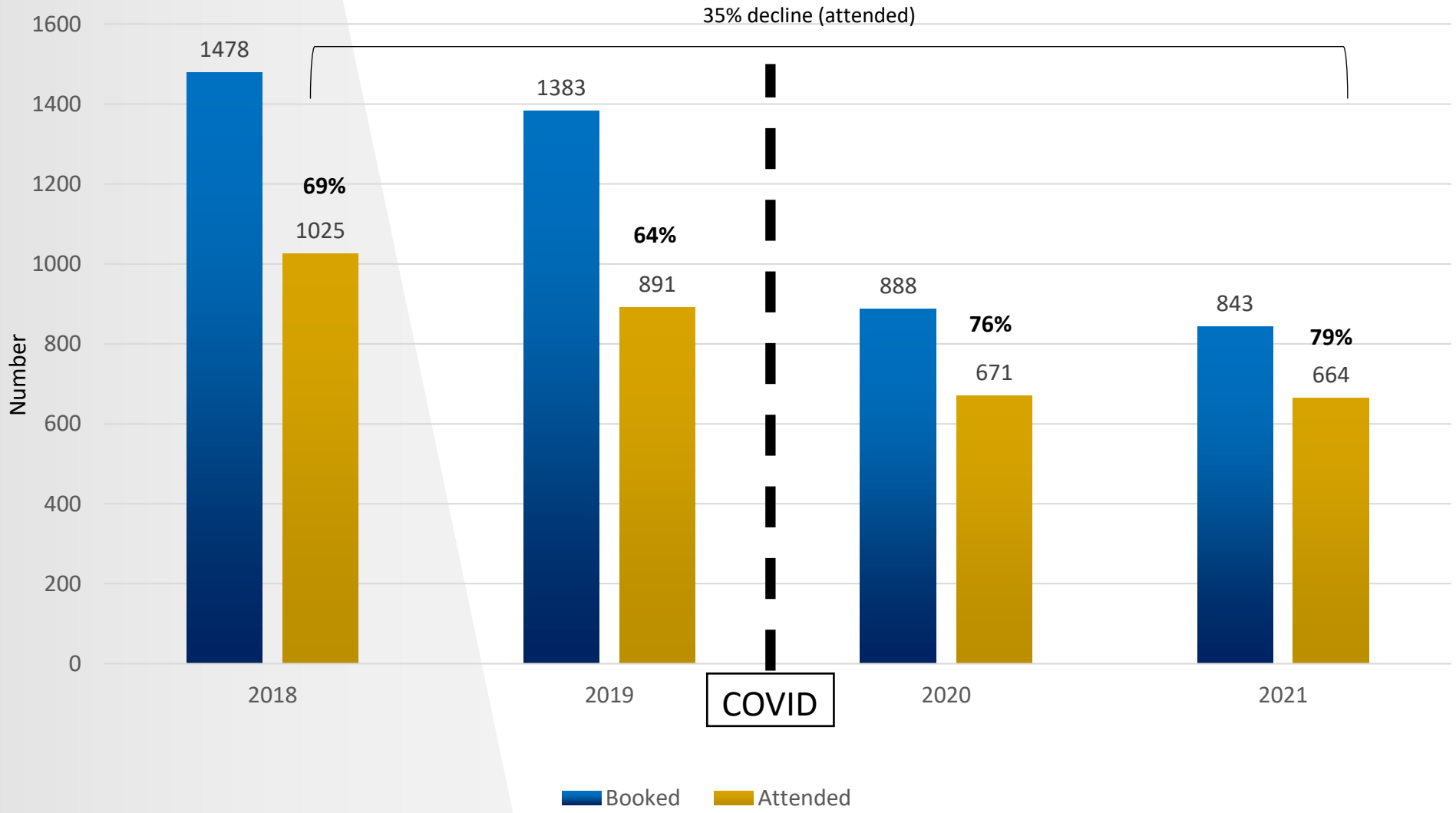


CARING FOR THE BODY, MIND

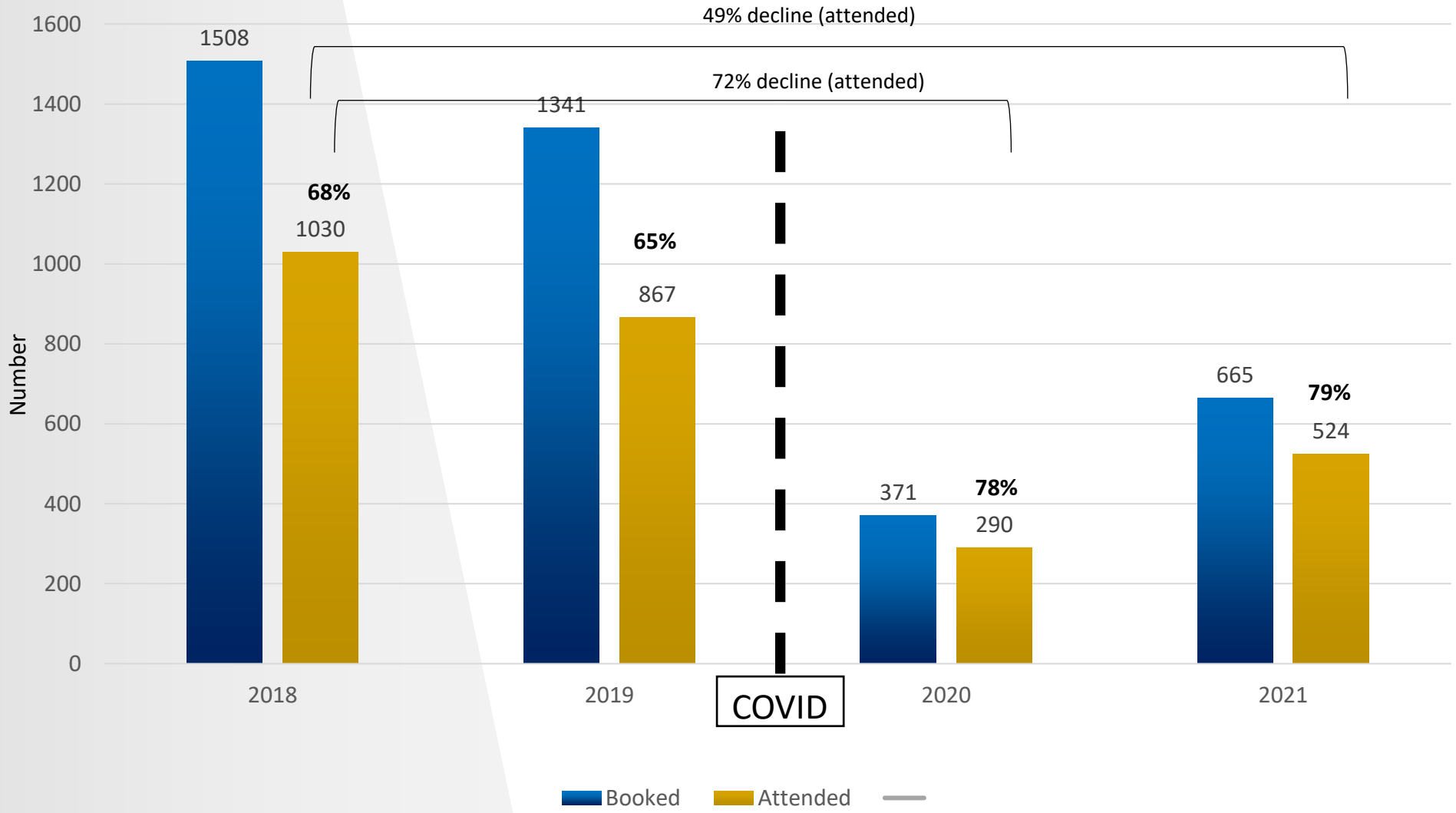
LONDON

FOUNDATION

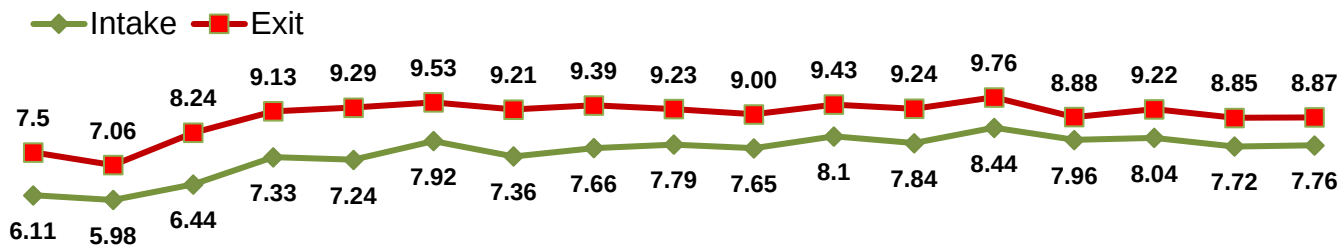
“good news”
CRSP INTAKE
ATTENDANCE

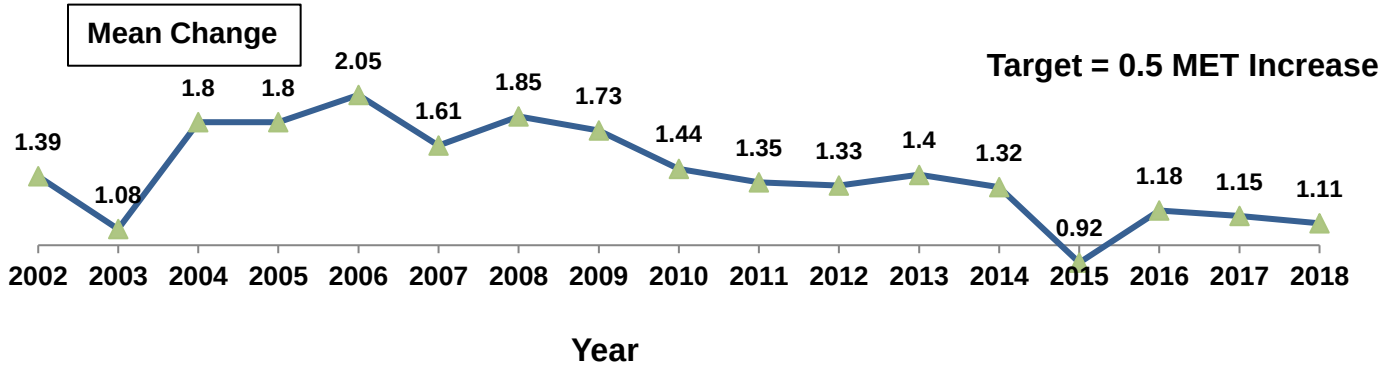


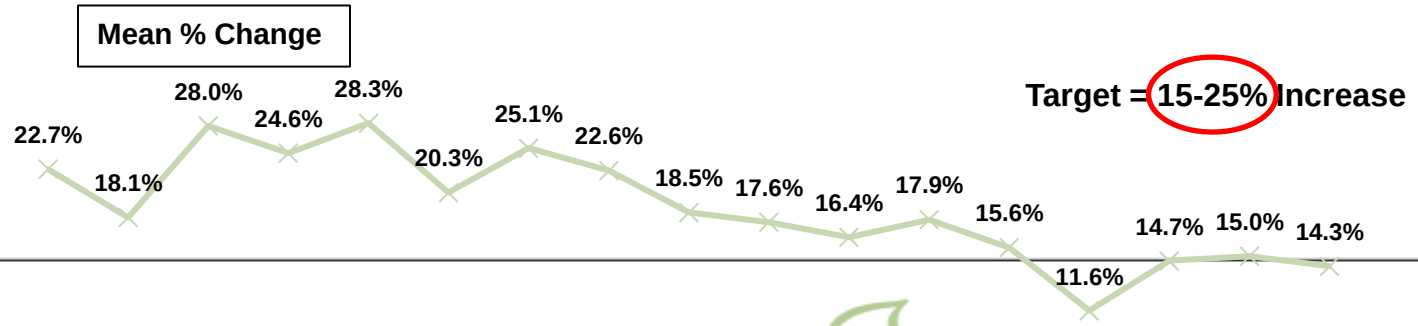
CRSP INTAKE STRESS TEST
ATTENDANCE



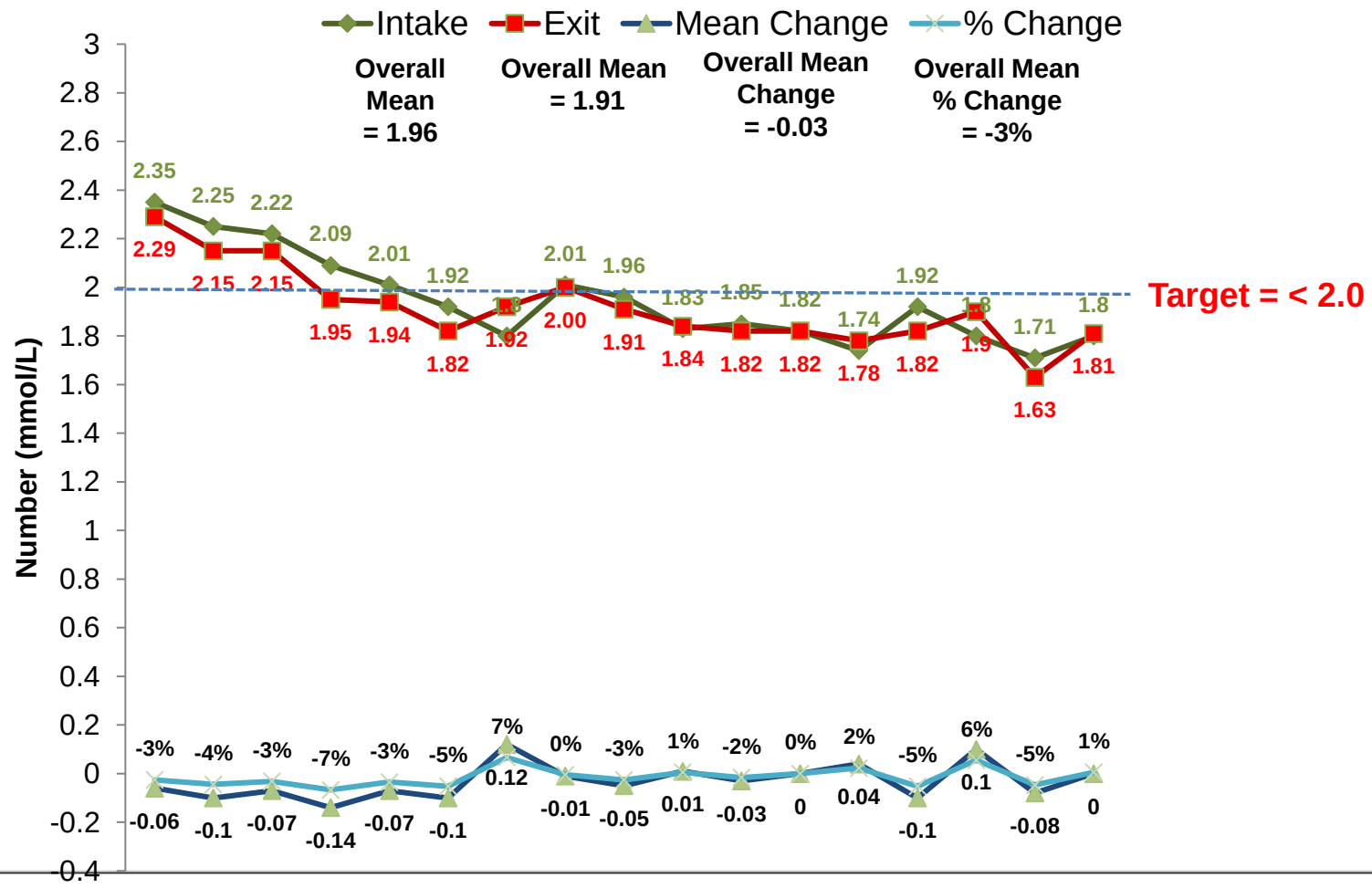
METs: Intake, Exit, Change







LDL: Intake, Exit, Change

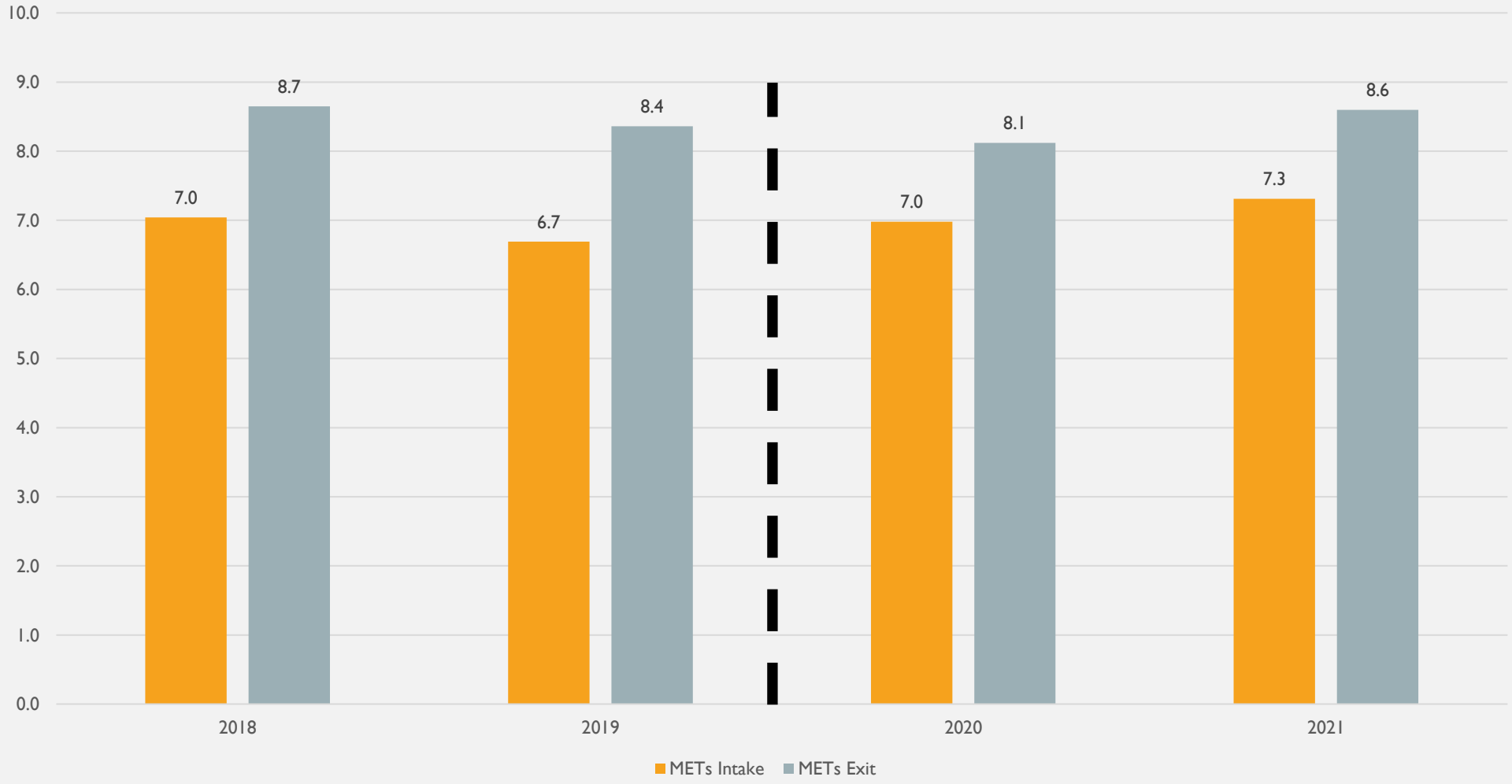


CARING FOR THE BODY, MIND & SPIRIT SINCE 1869

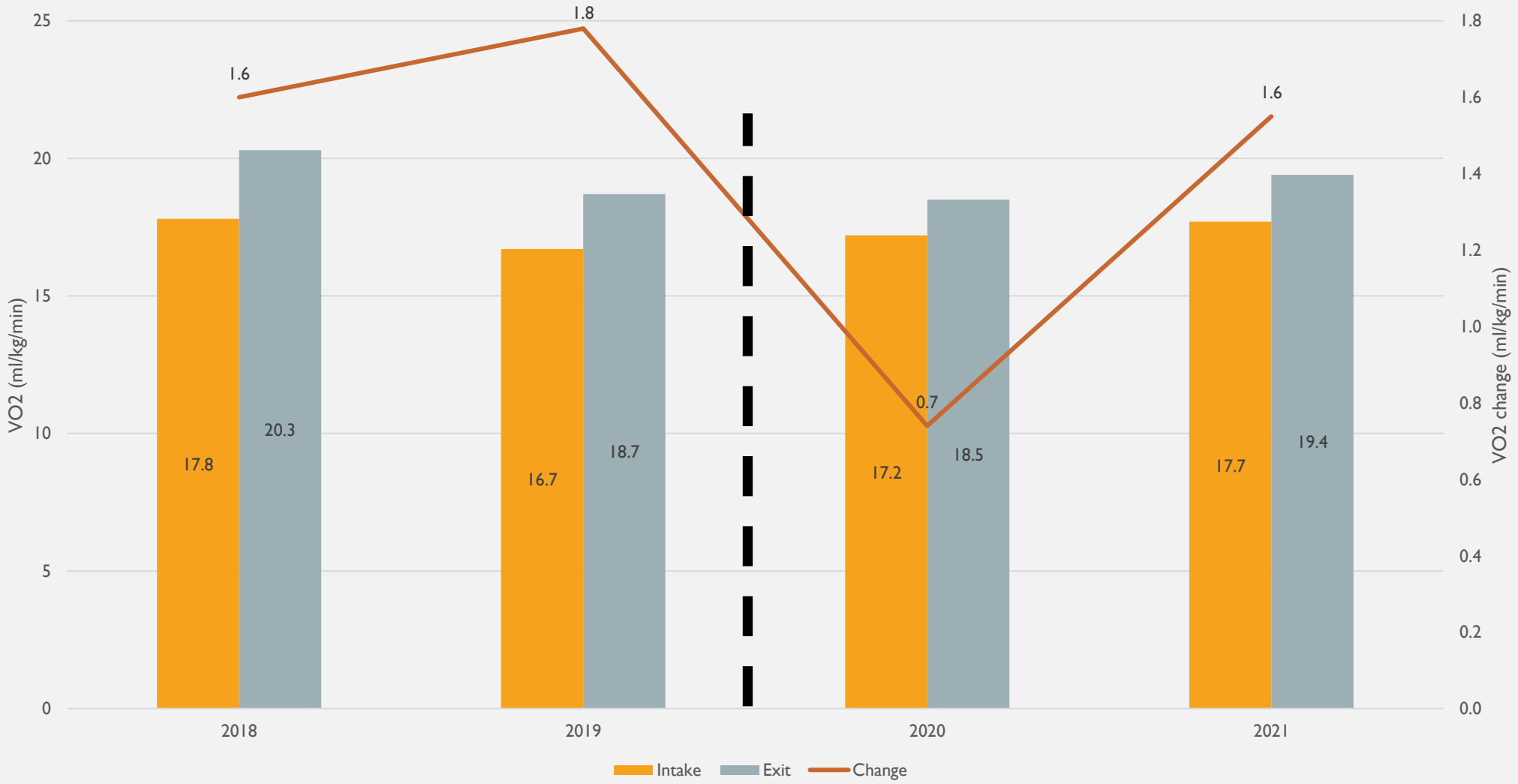
ST JOSEPH'S HEALTH CARE LONDON

ST JOSEPH'S HEALTH CARE FOUNDATION

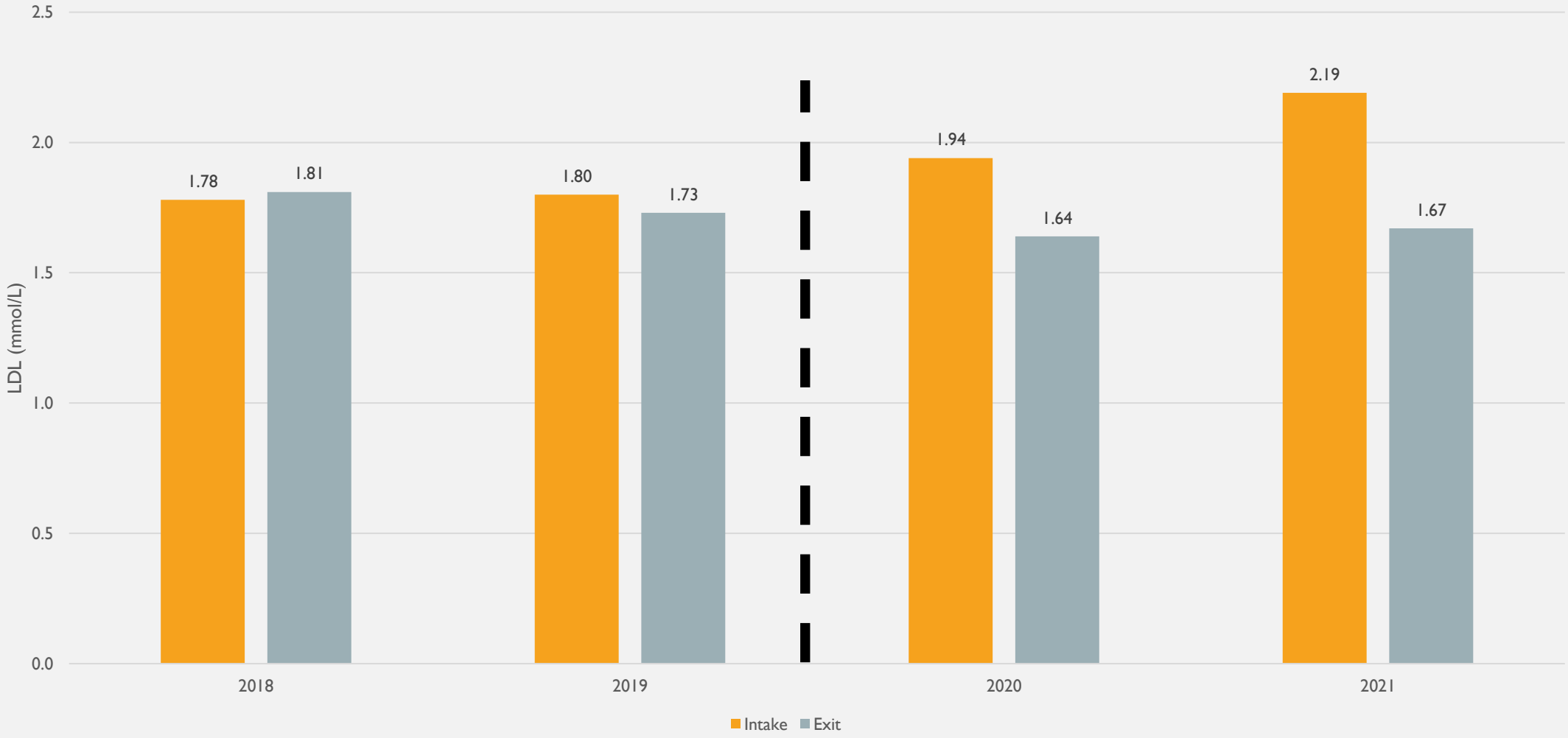
EXERCISE CAPACITY CHANGE (METS)



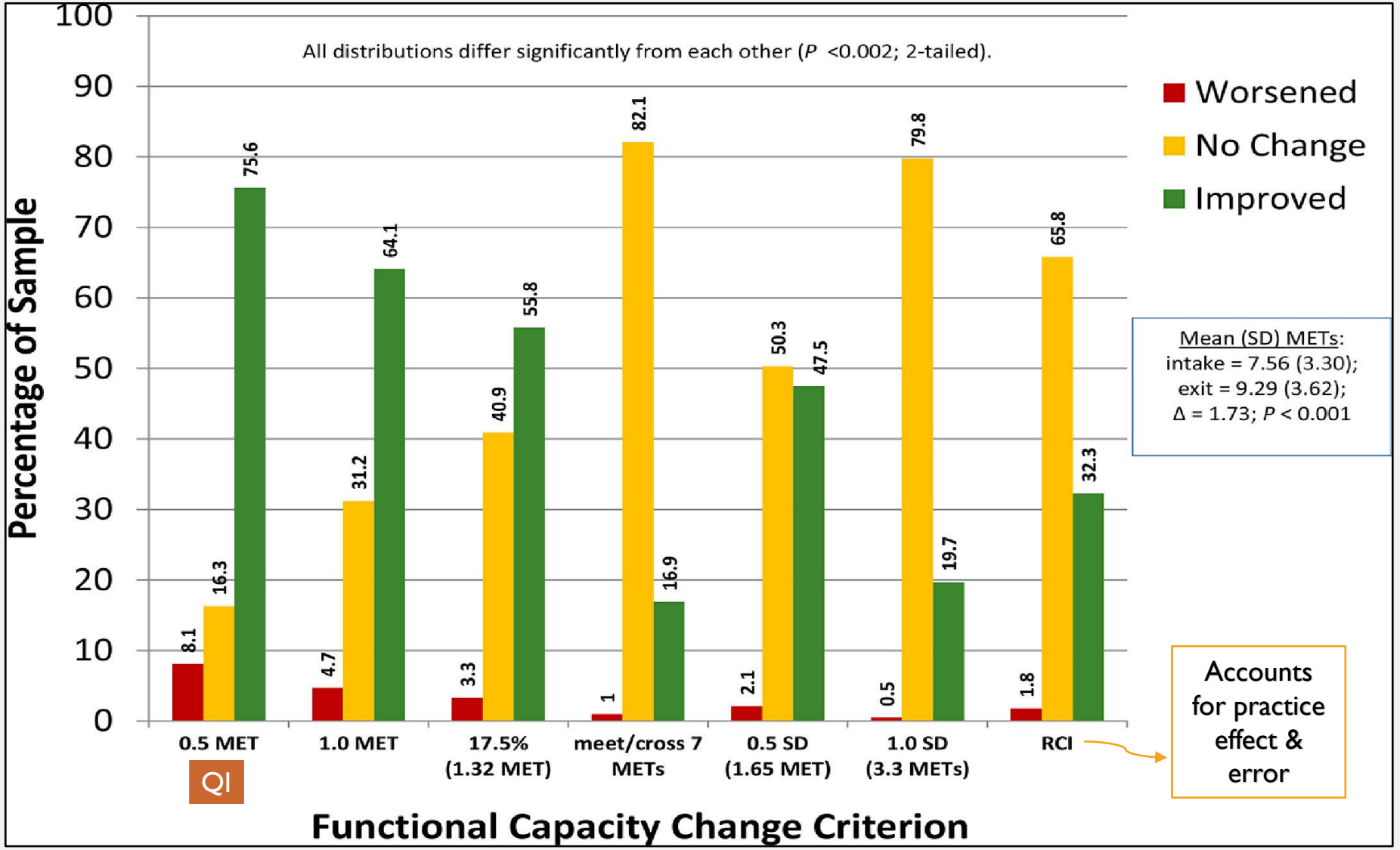
EXERCISE CAPACITY CHANGE (VO2)



LDL CHANGE


2.5
2.0
1.5
1.0
0.5
0.0
LDL (mmol/L)
1.78
1.81
1.80
1.73
1.94
1.64
2.19
1.67
2018
2019
2020
2021
Intake
Exit

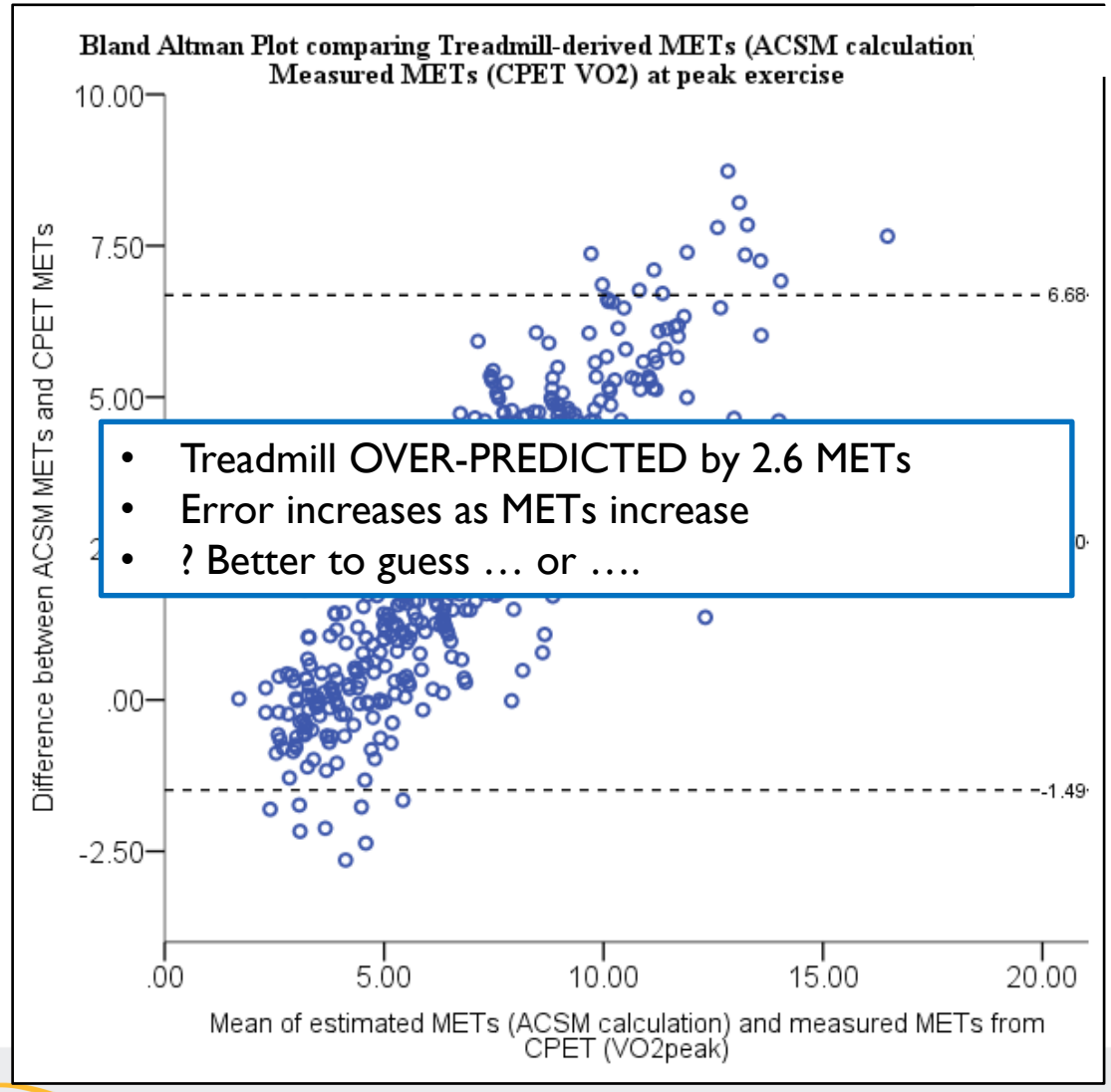
Measuring True Change in Individual Patients: Reliable Change Indices of CR Outcomes, and Implications for Quality Indicators



Editors Pick!

O'Connell, Suskin & Prior; CJC Open 2021 31139-1148DOI: (10.1016/j.cjco.2021.05.006)

Treadmill predicted VO2 vs. measured VO2

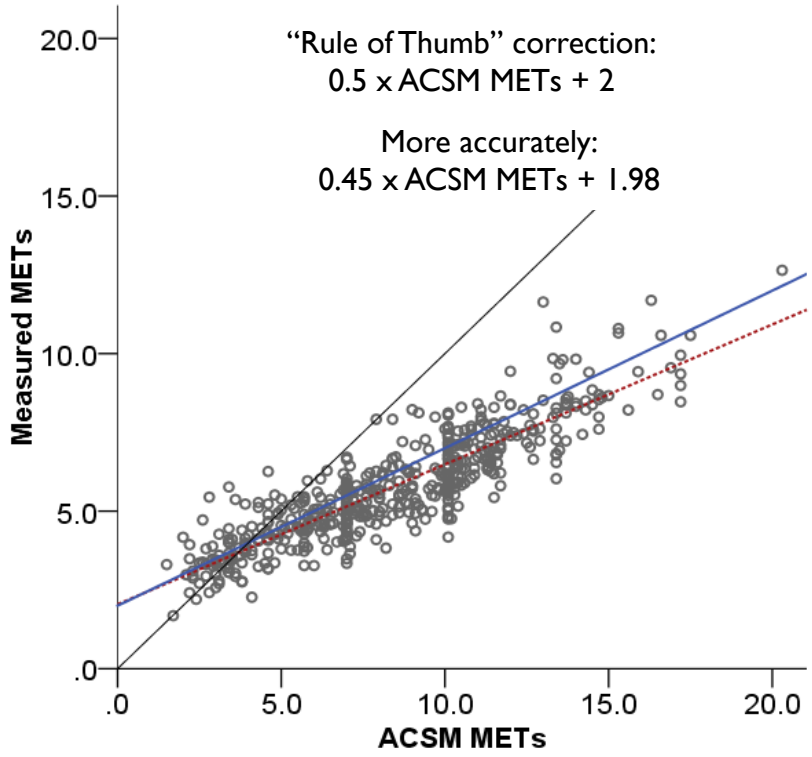


- Treadmill OVER-PREDICTED by 2.6 METs
- Error increases as METs increase
- ? Better to guess … or ….

New Formula

"Rule of Thumb" correction:
0.5 x ACSM METs + 2

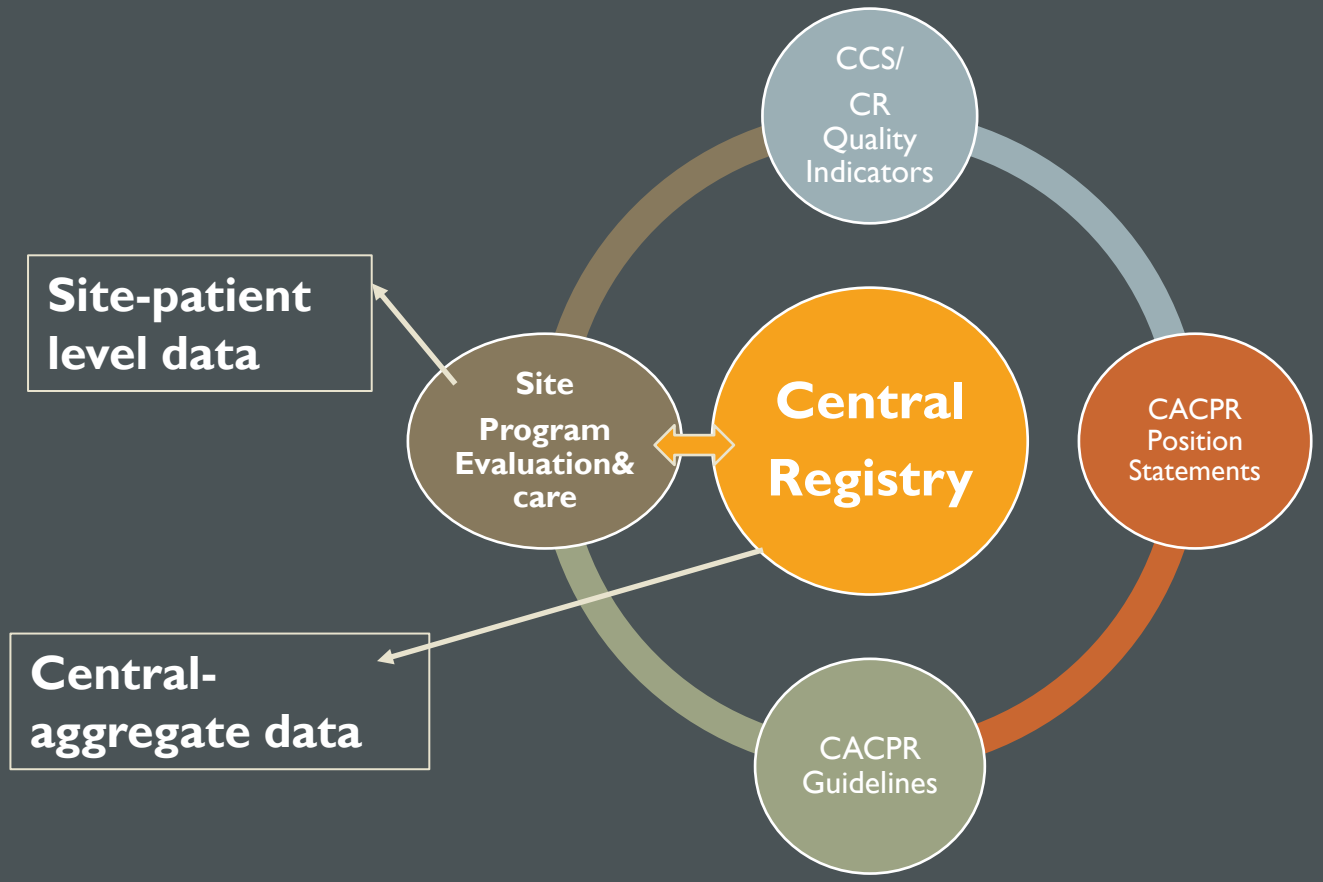
More accurately:
0.45 x ACSM METs + 1.98



Line of Identity
Rule of Thumb
Best Formula

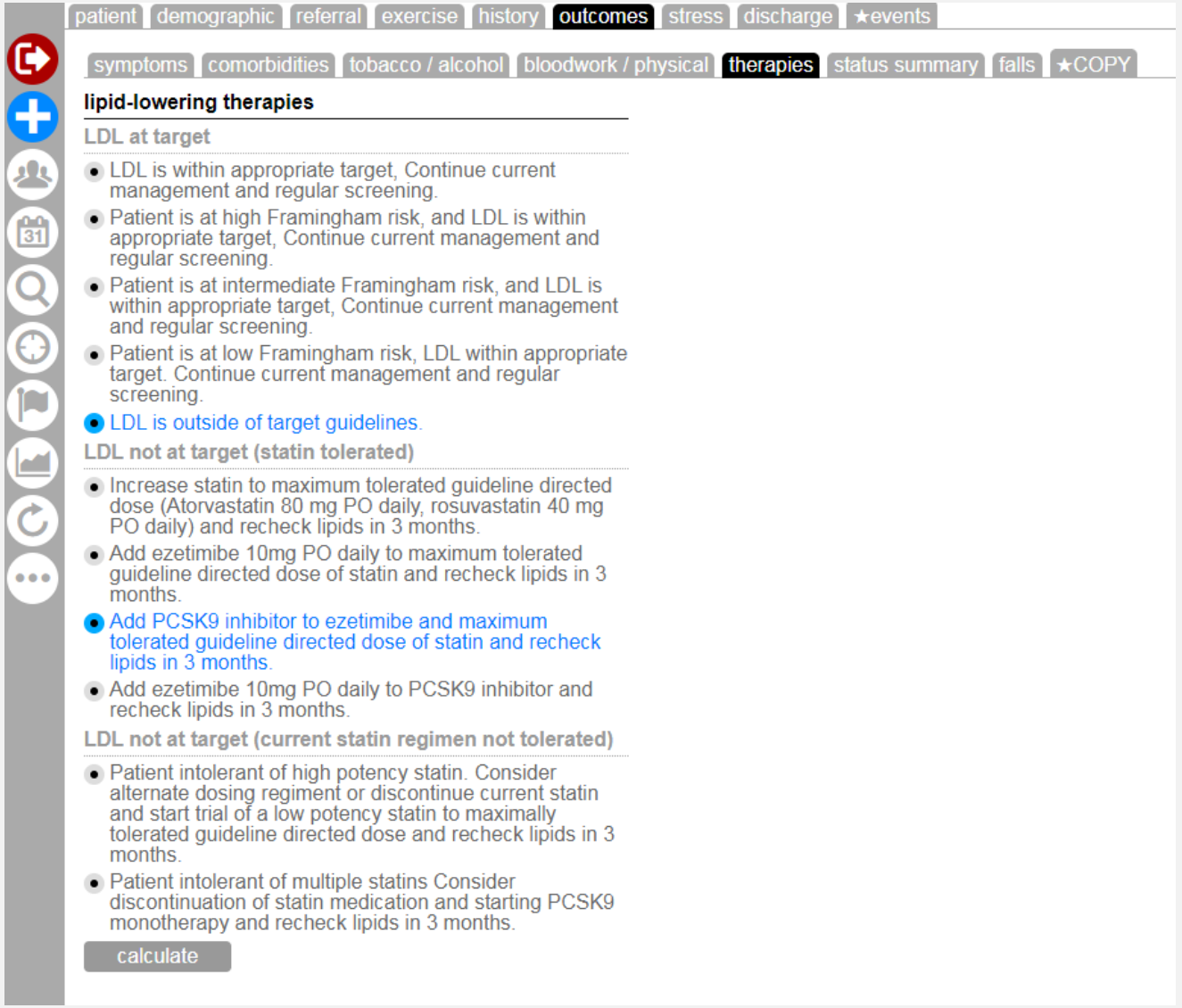
Neha Sharma et al: manuscript in progress

CACPR
CARDIOLOGICA REGISTRY SUITE & CR QUALITY



CARDIOLOGICA: DISCHARGE DOCUMENTATION PROJECT

- London
  - Dr. Ashlay Huitema
  - Dr. Neville Suskin
  - Dr. Bob McKelvie
- Hamilton- Dr. Eva Lonn
- Kitchener- Dr. Heather Warren
- Toronto- Dr. Paul Oh
- Scarborough- Dr. Joe Ricci



CARDIOLOGICA: DISCHARGE DOCUMENT

International Cardiac Institute

CARDIOLOGICA

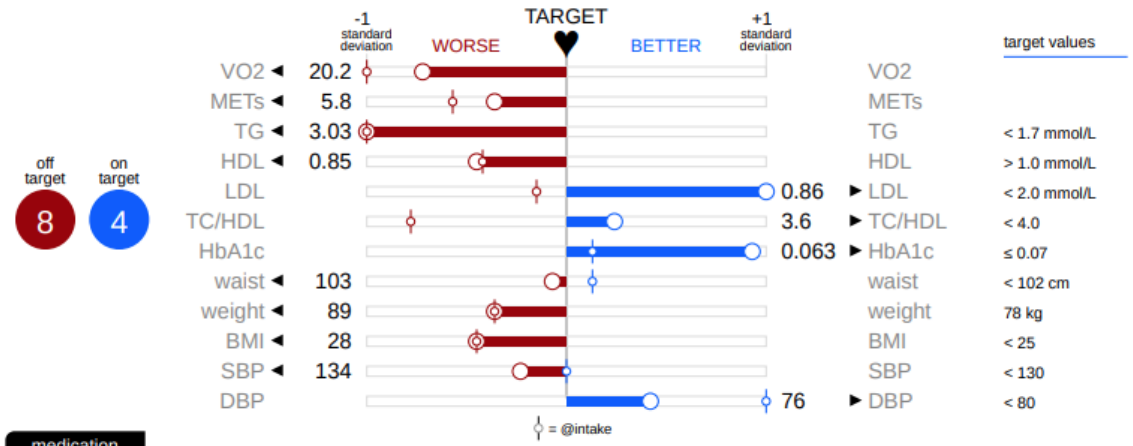
International Cardiac Institute
210 Lakeview Drive
Toronto, ON M1E 4B9
TEL: 416-123-4567 FAX: 416-123-9999

Wednesday, May 27, 2020 | discharge

PATIENT ▸ Abeqyk, Law
DOB ▸ 25-Sep-1954 —age: 65.7

MRN ▸ 52710
health card ▸

Referral Events ▸ none
CV Background ▸ valvular heart disease [13-Sep-2018], CABG [13-Sep-2018]
History ▸ sedentary lifestyle, hypertension, diabetes - type II, CAD



medication

stress test	PROTOCOL	DURATION	METS	SBP PEAK	DBP PEAK	ISCHEMIA
intake ▸	cycle	7:37	5.2	190	80	no
discharge ▸	cycle	8:16	5.8	170	80	no

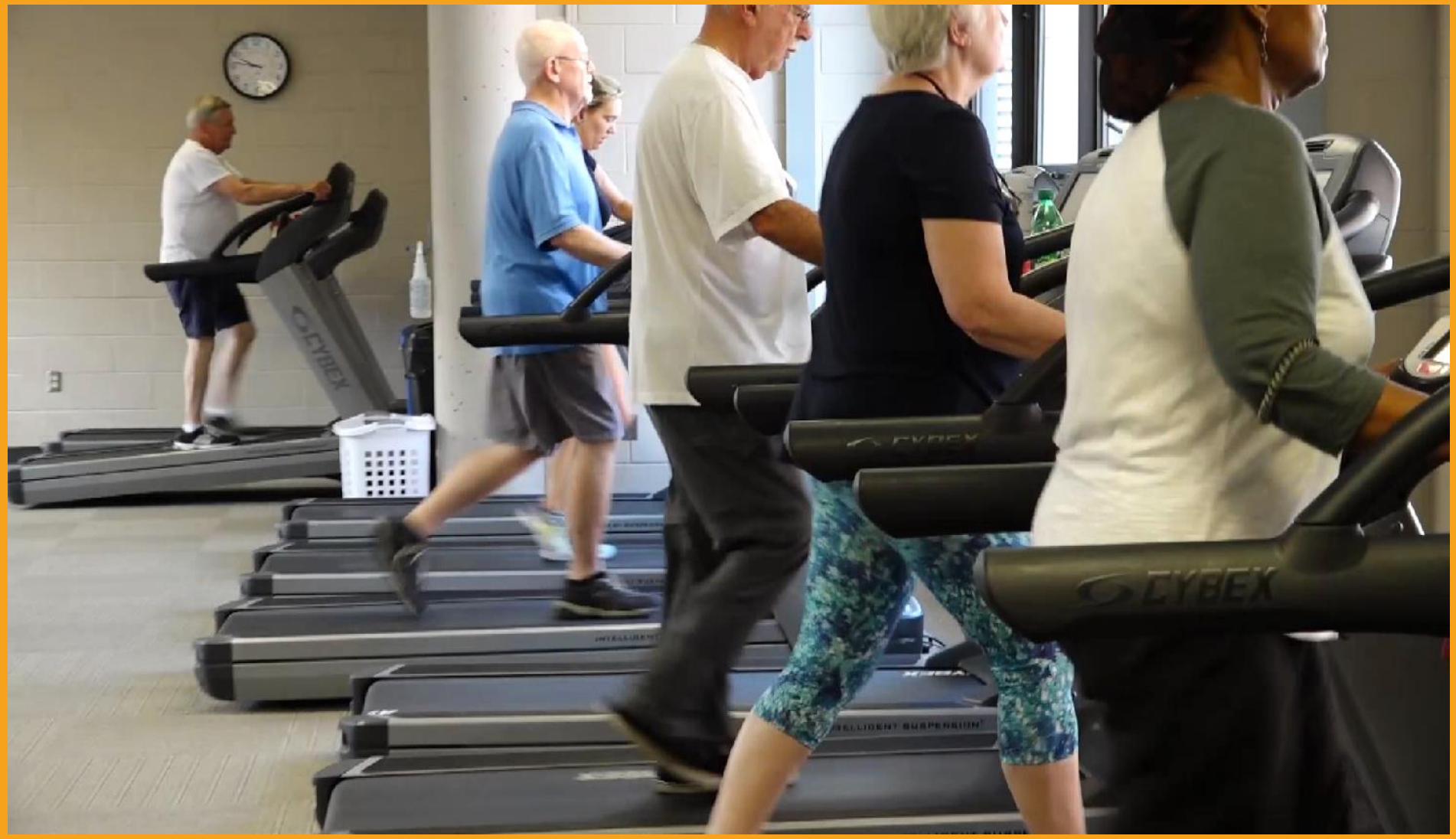
training	MIN HR	MAX HR	THRESH HR	MIN METS	MAX METS
	102	108	117		

therapy

LDL is outside of target guidelines. Add PCSK9 inhibitor to ezetimibe and maximum tolerated guideline directed dose of statin and recheck lipids in 3 months.

HAPPY CR TEAM

VERY HAPPY PATIENTS



QUESTIONS

Open Forum Discussion

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

Dr. Paul Oh

Open Forum Discussion

1. How is your program being affected by the latest COVID wave?
2. What is the current experience of delivering CR in Ontario?
3. What can CorHealth do to help support your program at this time?

Next Steps

Dr. Karen Harkness

Next Steps

- Continue **regular monthly data collection** for 2 key metrics and initial cardiac cohort:
  - 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
- Assuming support from CR Forum, begin data collection for two additional subgroups, starting June 2022
  - Data collection template for programs will be updated
- Present updated results at the next CR Forum (September; date TBD)

Forum materials

New Location!!

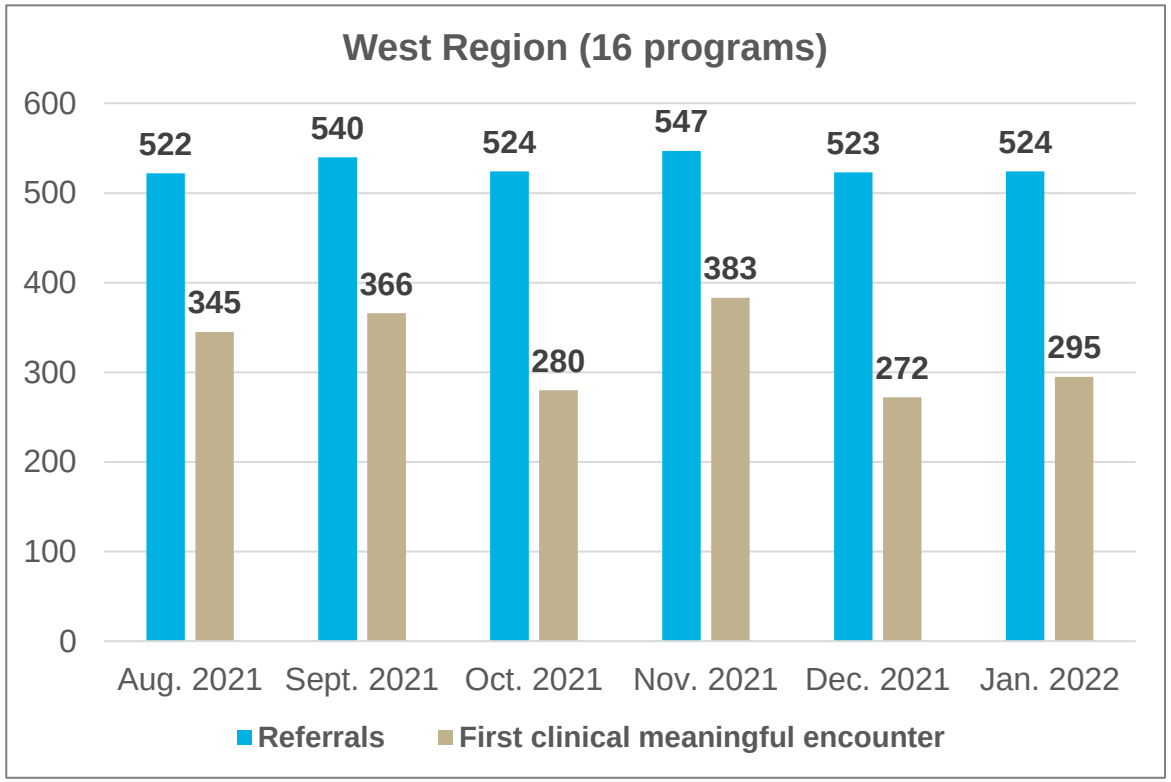
A copy of the Forum notes, slides and recording will be made available on the CorHealth website under ‘Resources for Healthcare Planners & Providers’

7th Annual CACPR Spring Conference 2022

The theme for this year's virtual Spring Meeting is "Cardiovascular Rehabilitation in the 21st Century: Future Directions for Cardiac Rehab with a Focus on Patient-Centered Care".

Appendix A.
OH Region Monthly Volumes and Participating Sites

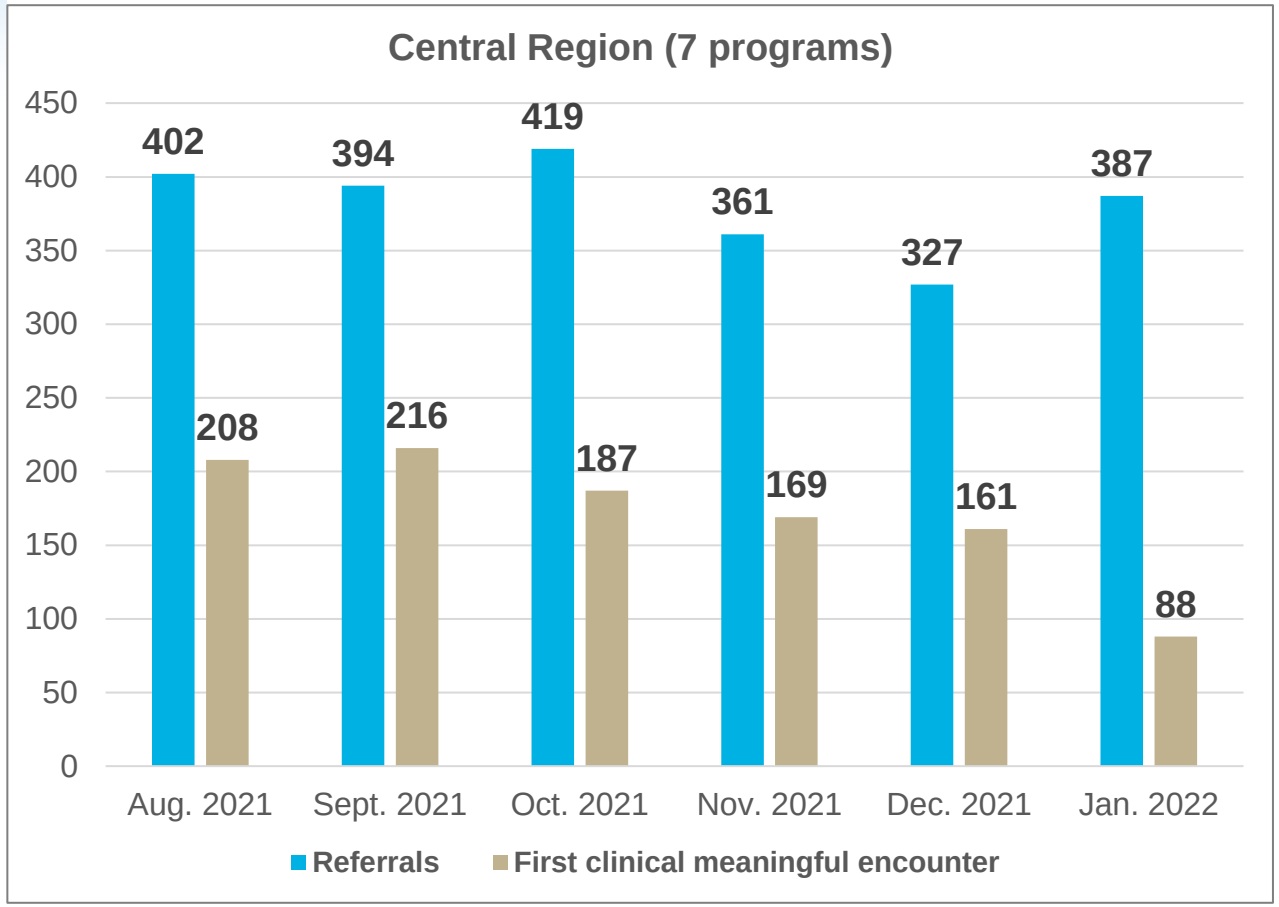
Monthly totals- West Region



Total referrals: n= 3180
Total first clinical meaningful encounter: n= 1941
Ratio: total first encounter/total referrals : 61%

Programs submitting data
Hotel Dieu Grace Healthcare Cardiac Wellness – Windsor and Leamington sites
North Lambton Community Health Centre (Sarnia)
Chatham-Kent Community Health Centre (Chatham)
St. Joseph's HealthCare Cardiac Rehab & Secondary Prevention (London)
Heathy Hearts Cardiac Rehab, Maitland FHT (Goderich)
Stratford Family Health Team (Stratford)
Grand Bend Area Community Health Centre
Alexandra Hospital Cardiac Rehab, Ingersoll
Hanover and District Hospital Hearts in Motion
Kincardine Family Health Team Hearts in Motion
Owen Sound Cardiac Rehab program (Grey Bruce Health Services)
St Mary's Cardio-Pulmonary Rehabilitation Program
Cambridge Cardiac Care Centre (Cambridge)
Cardiovascular Health & Rehabilitation Program (St. Catharines-Niagara Health System)
Upper Grand Family Health Team
Waterloo Regional Cardiac Rehabilitation (Hardy Hearts)

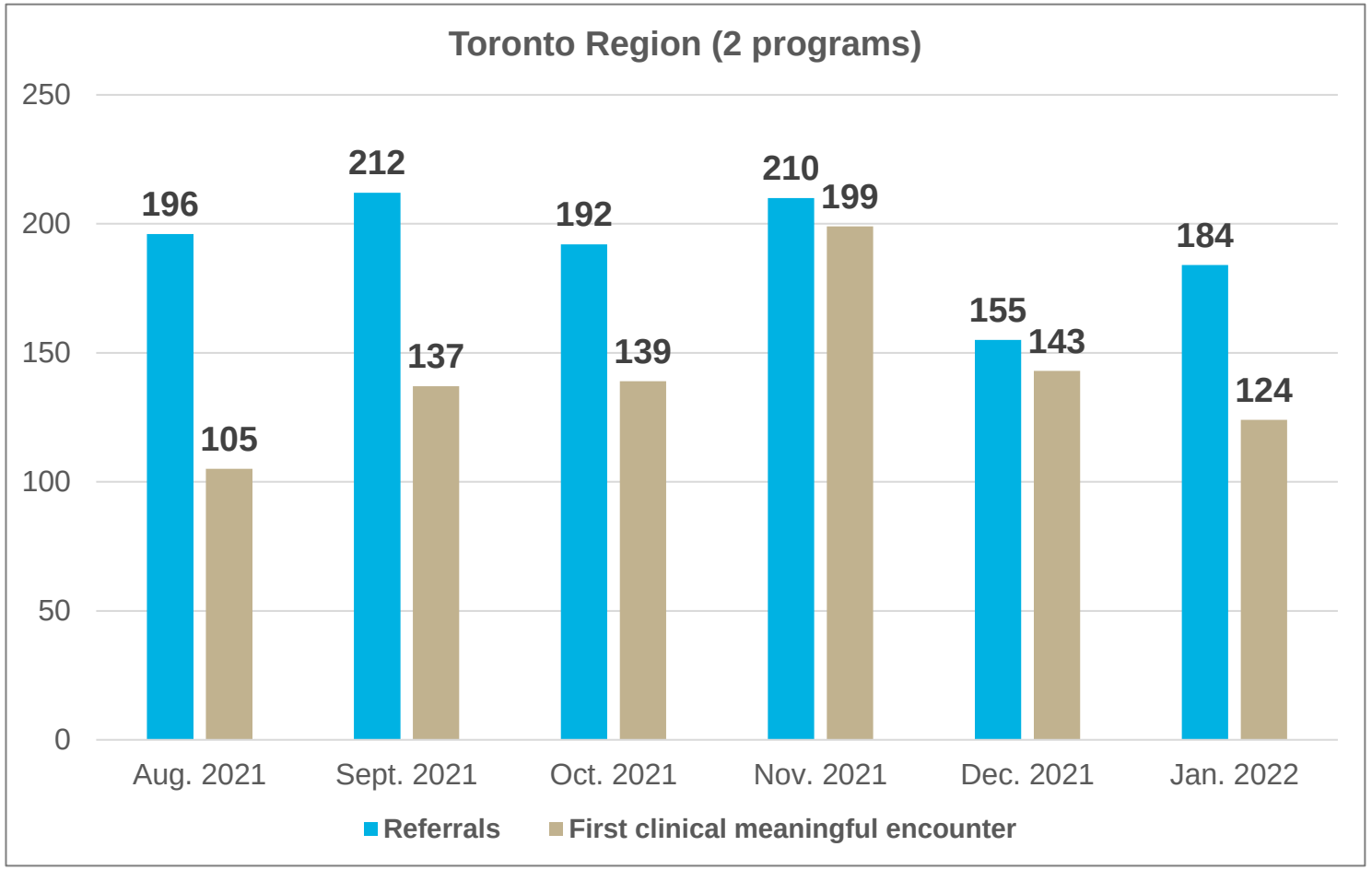
Monthly totals- Central Region



Programs submitting data
William Osler Health System-CR Program at Peel Memorial Hospital-Brampton and Etobicoke General Hospital
Trillium Health Partners CR Prevention & Rehabilitation Centre
Halton Health Care - Milton and Oakville Sites
Royal Victoria Hospital Cardiac Rehab Program (Barrie and Innisfil sites)
Partner programs- Georgian Bay FHT (Collingwood, Wasaga Beach sites), North Simcoe FHT (Midland)
Algonquin FHT- Health Heart Program (Huntsville)
Cottage County Family Health Teams Health Heart Program
Orillia Soldiers Memorial Hospital Cardio Rehab Program

Total referrals: n= 2290
Total first clinical meaningful encounter: n= 1029
Ratio: total first encounter/total referrals : 45%

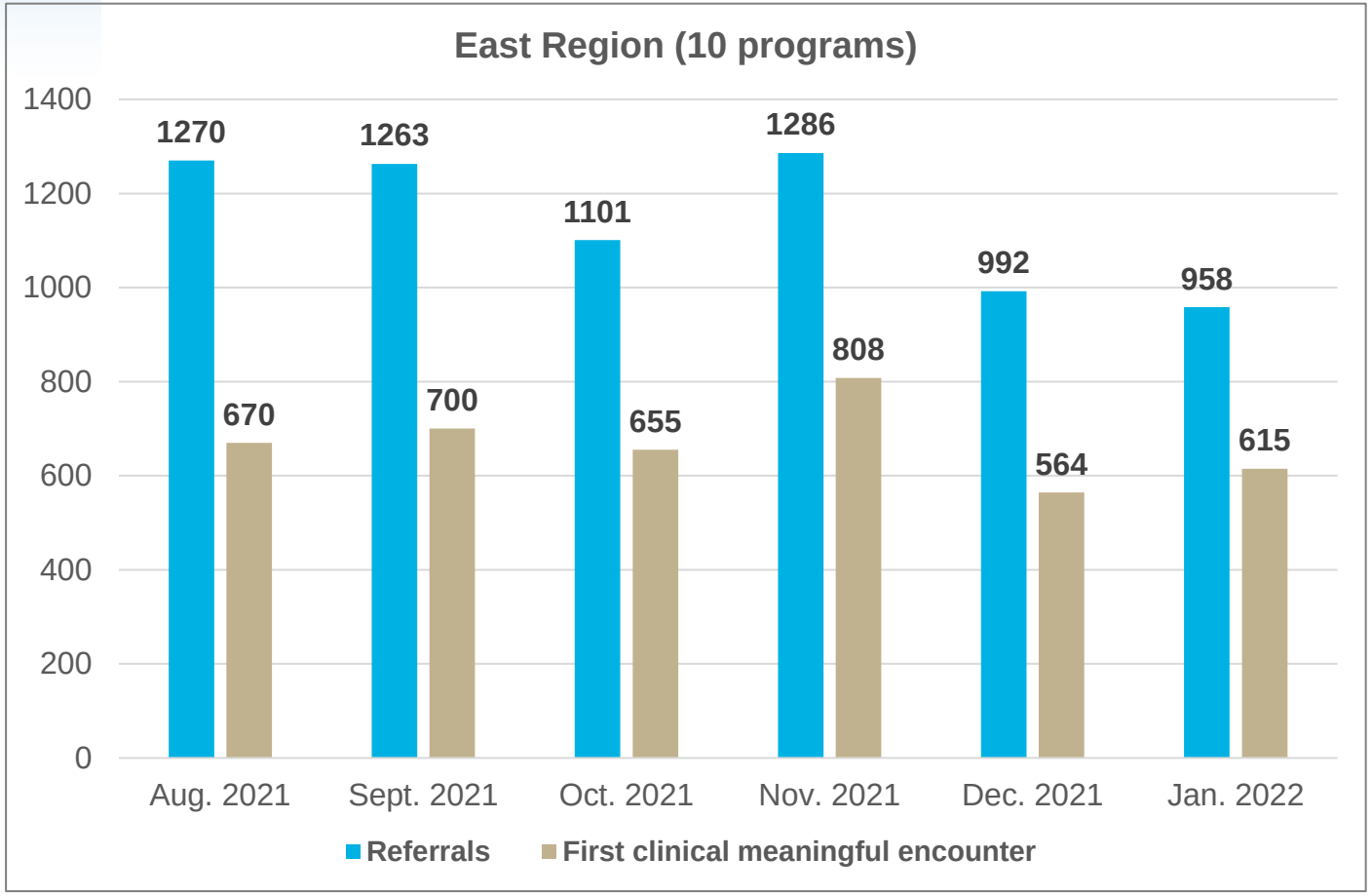
Monthly totals- Toronto Region



Programs submitting data
UHN-Cardiovascular Prevention and Rehabilitation Program
Women's Cardiovascular Health Initiative (Toronto)

Total referrals: n= 1149
Total first clinical meaningful encounter: n= 847
Ratio: total first encounter/total referrals : 74%

Monthly totals- East Region



Total referrals: n= 6870

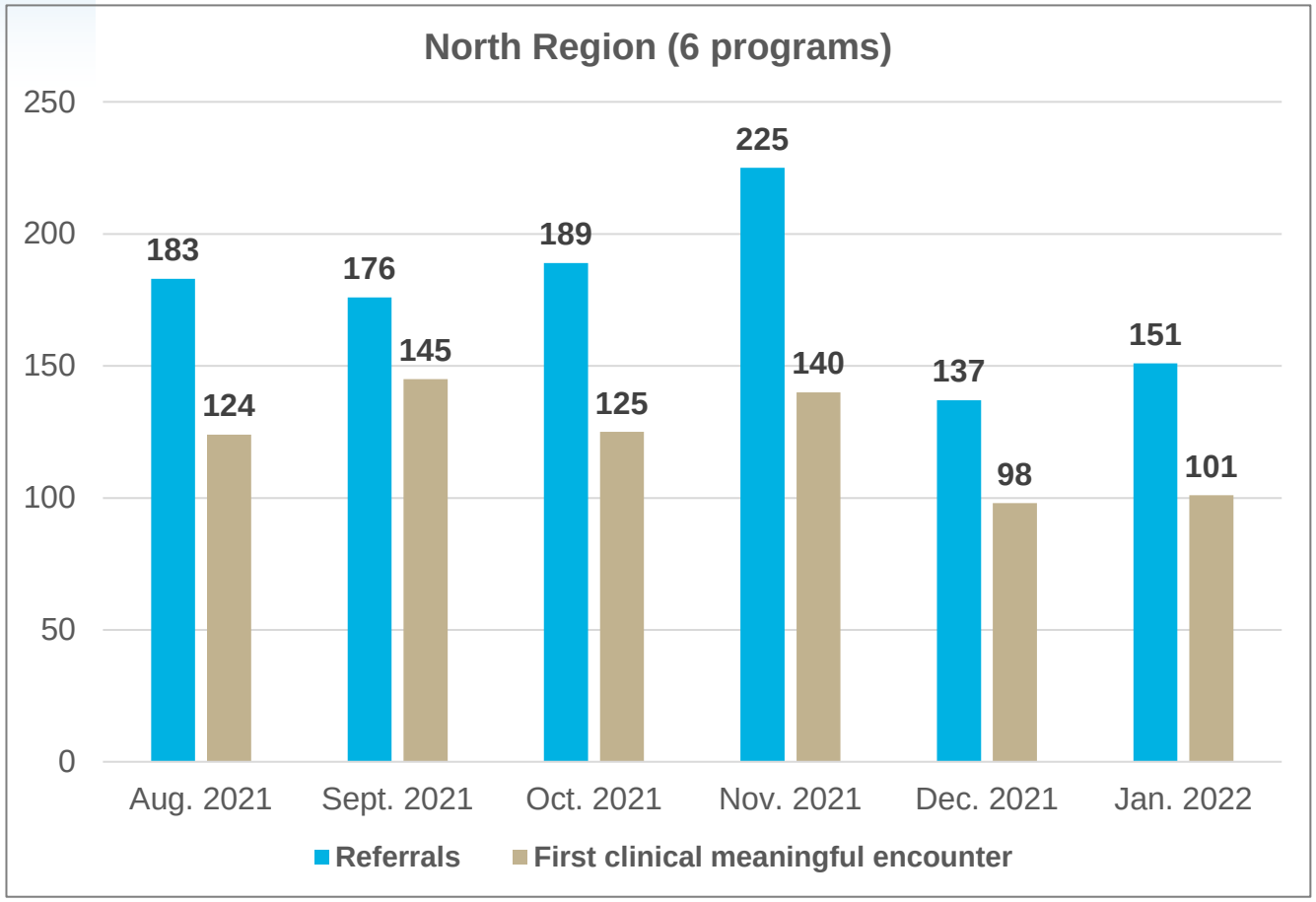
Total first clinical meaningful encounter: n= 4012

Ratio: total first encounter/total referrals : 58%

Programs submitting data
Southlake Regional Health Centre CV Prevention and Rehab Program (Newmarket)
MacKenzie Health CV Rehab Program
Carefirst Ontario - Scarborough and Richmond Hill sites
Central East Cardiac Rehab (13 sites)
Peterborough Regional Health Centre Cardiac Rehab Program
Kingston Health Sciences CR program, Hotel Dieu Site
Prince Edward Ambulatory Cardiac Centre CR (Picton)
Lennox and Addington County General Hosp. Cardiac Rehab (Napanee)
Cornwall Hospital Cardiopulmonary Rehab Program

UOHI and Partner programs submitting data	
Lanark Renfrew Lung Health Program	Hawkesbury & District General Hospital Supervised Program
Alexandria: Hospital Glengarry Memorial	Cardiovascular and Pulmonary Health Services (Montfort)
Arnprior FHT and Arnprior Regional Health	Seaway Valley CHC Tele-Rehab Program (Cornwall)
North Hastings Cardiac Rehabilitation	Winchester Tele-Rehab Program
Barry's Bay St Francis Memorial Hospital (Tele-Rehab)	Pembroke Regional Hospital Cardiac Rehab Program
Centre de santé communautaire de l'Estrie (Bourget)	Lanark Renfrew Lung Health Program(Perth)
Brockville Cardiovascular Program	University of Ottawa Heart Institute

Monthly totals- North Region



Total referrals: n= 1020

Total first clinical meaningful encounter: n= 703

Ratio: total first encounter/total referrals: 69%

Health Sciences North and Partner programs submitting data	
HSN- Sudbury	Kirkland and District Hospital Cardiac Rehabilitation and Secondary Prevention Clinic
Manitoulin Health Centre Cardiac Rehab	Temiskaming Hospital Cardiac Rehab
Espanola Regional Hospital and Health Centre Cardiac Rehab Program	Cardiac Rehab Program Group Health Centre Sault Ste Marie
Sturgeon Falls West Nipissing General Hosp. Cardiac Rehab Program	

Thunder Bay Regional Health Sciences Centre and Partner programs submitting data	
TBRHSC (Thunder Bay)	Nipigon District Memorial Hospital CV Rehab
Redlake Margaret Cochenour Memorial Hospital CV Rehab	Geraldton District Hospital CV Rehab
Mary Bergund Health Centre CV Rehab	McCausland Hospital CV Rehab
Atikokan General Hospital CV Rehab	Wilson Memorial General Hospital CV Rehab
La Varendrye General Hospital CV Rehab	Manitouwadge General Hospital CV Rehab

Other Programs submitting data	
West Parry Sound Cardiac Rehab Program	Sioux Lookout Meno Ya Win Health Centre CV Rehab
Dryden Regional Health Centre CV Rehab	Lake of the Woods District Hosp. CV Rehab, Kenora