



# CorHealth COVID-19 Cardiac Stakeholder Forum Meeting #18

August 27, 2020 | 8:00-9:00 am

Teleconference: (647) 951-8467 or Long Distance: 1 (844) 304 -7743

Conference ID: 986393473

# Agenda

Time	Description	Presenter / Facilitator
8:00	<b>1. Welcome</b> <ul style="list-style-type: none"><li>• Meeting Objectives</li><li>• System Planning Updates</li></ul>	<b>Sheila Jarvis</b>
8:05	<b>2. CorHealth Ontario Virtual Care Initiative &amp; Cardiac System Findings</b> <ul style="list-style-type: none"><li>• Overview and key deliverables and products</li><li>• Key findings from virtual care interviews</li><li>• Validation discussion</li></ul>	<b>Alex Iverson &amp; Ireena Soleas</b> <b>Jana Jeffrey &amp; Karen Harkness</b>
8:35	<b>4. Heart &amp; Stroke Foundation: Update on Virtual Care Activities</b>	<b>Ms. Natalie Gierman</b> <i>Senior Manager, Health Systems Research &amp; Strategic Initiatives, Heart &amp; Stroke Foundation</i>
8:40	<b>5. Cardiac Activity Update</b>	<b>Garth Oakes</b>
8:55	<b>6. Other Updates &amp; Next Steps</b>	<b>Jana Jeffrey</b>



# Welcome

**SHEILA JARVIS**

# Meeting Objectives

- To provide an overview of CorHealth Ontario's virtual care initiative and describe key deliverables / products
- To provide a summary of the needs, barriers, and opportunities related to the delivery of virtual cardiac care from stakeholder interviews, validate key findings and identify areas that require further guidance
- To provide an update from the Heart & Stroke Foundation on their Virtual Care activities
- Review recent trends in cardiac activity

## ***Housekeeping Reminders:***

- *Please ensure that you are on mute, not on hold, when you are not speaking on the call*
- *Please be aware that when the call is put on hold, we often hear hold music or persistent beeping*

# System Planning Updates

- Met with Dr. Chris Simpson last week to discuss the new report he and his team are working on. It will focus on maintaining care throughout the phases of COVID-19. Dr. Madhu Natarajan participated in the meeting.
- Subsequent meetings with Dr. Simpson will be scheduled to get an update and provide support where possible.



# CorHealth Ontario Virtual Care Initiative

**ALEX IVERSON & IREENA SOLEAS**

# Supporting Access to Virtual Care

*In response to stakeholder feedback, CorHealth embarked on a new initiative to explore virtual care opportunities across its three clinical domains.*

## DESCRIPTION:

A provincial approach supporting high-quality virtual care for cardiac, stroke, and vascular providers and patients across the care continuum, including establishment of standards/guidance, recommendations, and measurement of impact, developed in collaboration with our stakeholders and partners

## BENEFITS / OUTCOMES

- Standards and guidance on virtual care in cardiac, stroke and vascular will support equitable access to patients and providers across the province
- Provincial summary of needs and priorities, as well as leading practices, strategies, resources and innovations associated with the use of virtual care in cardiac, stroke and vascular will help promote knowledge sharing, spread and uptake across clinical programs and providers (e.g., via CorHealth Provincial Forums)
- Identified priorities can help inform targeted recommendations to support provincial partners address virtual care needs (e.g., Ontario Health, Ministry, Heart and Stroke)
- Measurement and reporting will enable assessment of the impacts of virtual care on quality and outcomes in cardiac, stroke and vascular care

# Supporting Access to Virtual Care

## *Updated Key Deliverables & Products*

### Virtual Care in Cardiac, Stroke & Vascular: A Summary Report of Strategies & Resources in Ontario

A succinct & use-oriented document that summarizes the needs, barriers, gaps and opportunities in Virtual Care, and *shares innovative strategies & resources to promote knowledge sharing, spread and uptake* across clinical programs & providers.

FALL 2020

Strategies, Resources & Tools to be vetted through key experts/stakeholders

### Focused Clinical Practice Considerations for Virtual Care

Clinical practice considerations around patient populations where virtual care may / may not work well in focused areas of clinical practice, to support equitable access to patients & providers across the province, and beyond COVID-19

WINTER 2020

Clinical practice considerations to be vetted through key experts/stakeholders

### Virtual Care Measurement & Reporting Framework

An approach to measure the impacts of virtual care on quality and outcomes in cardiac, stroke, and vascular care. This is critical to guide our collective understanding of the impact of this transition in care modality.

WINTER 2020







# Virtual Care Findings in the Cardiac System

**JANA JEFFREY & KAREN HARKNESS**

# Virtual Care Cardiac Stakeholder Engagement

CorHealth Ontario undertook a series of cardiac stakeholder consultations aimed at better understanding:

- **How virtual care is currently being leveraged** across the continuum of cardiac care
- The unique **barriers** specific to the delivery of virtual cardiac care
- Key priorities and **opportunities** related to virtual care within each clinical domain across the continuum
- Stakeholder views on **CorHealth's role** in addressing needs and opportunities identified

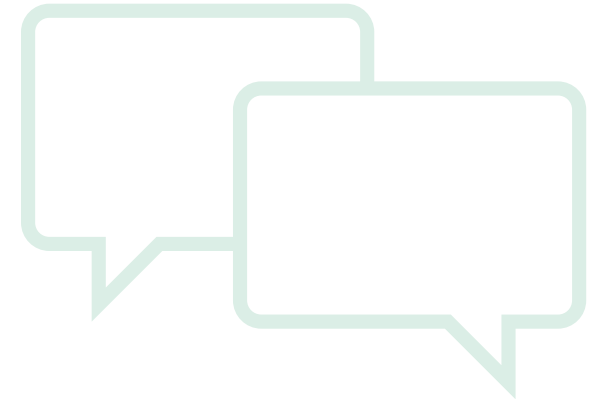
**20 interviews conducted** with a diverse group of stakeholders, including:

- Frontline Clinicians (e.g. cardiologists, RNs, pharmacists)
- Cardiovascular rehab coordinators
- Palliative care leads
- Hospital program administrators & Hospital Medical Program Directors
- Chief Information Officer

Representation from **across the continuum of care** (cardiac diagnostics, acute care, post-acute care, rehabilitation/community/outpatient care) **and across diverse geographies**

# Key Messages from Stakeholder Engagement

- Unanticipated **impact to provider wellness**; professional identity/job satisfaction;
- Virtual care is in **different stages of adoption** across the province- telephone easiest to use and accessed for the majority of interactions;
- Different opinions for 'universal tool' vs multiple tool options for visual virtual communication;
- Requirement for **additional coordination resources** / administrative resourcing (strong admin support enabled clinical efficiency);
- **Access to technology tools and infrastructure** is fundamental to the delivery of virtual care;
- Virtual care is a privilege, **disparities exist** with respect to **geography** and **socioeconomic status**;
- Virtual care is a tool that **requires training and competency** to be used effectively;
- In the context of COVID-19, clinicians have heard that patients **felt connected to their clinician using virtual care as an option**; patients have also voiced the benefit of virtual care with respect to **avoiding travel, and associated costs**;
- While there are common variables to support in-person/virtual/hybrid care delivery, it is the **interplay of these variables** that guides individual appropriateness for care delivery options.
- **Sometimes virtual care is not appropriate...**



# Virtual Care Cardiac Interviews: Summary

## Barriers, Opportunities and Needs

BARRIERS	OPPORTUNITIES	NEEDS
<ul style="list-style-type: none"> <li>• Access to technology</li> <li>• Stability/reliability of platforms &amp; ease of set up</li> <li>• Communication challenges &amp; anxiety</li> <li>• Resistance to adoption (patient and provider)</li> <li>• Regulations (e.g. privacy)</li> <li>• Funding of infrastructure</li> <li>• Remuneration and sustainability of billing codes/payment models</li> <li>• Lack of human resource support / coordination resources</li> <li>• Education/training/experience</li> <li>• Time commitment</li> </ul>	<ul style="list-style-type: none"> <li>• Access to rural and remote areas of the province &amp; broader reach of patients</li> <li>• Promotion of more team-based &amp; integrated care</li> <li>• Use of multiple virtual platforms or universally available platforms</li> <li>• Virtual innovations to support patient self-monitoring at home for chronic conditions</li> <li>• Virtual platforms to view diagnostics / imaging (e.g., ECHO, CATH images, 12-lead ECG)</li> <li>• Knowledge sharing and spread</li> <li>• Easier facilitation and involvement of family members / group visits</li> <li>• Leveraging PFACs and volunteers to act as champions of virtual care &amp; peer-support</li> </ul>	<ul style="list-style-type: none"> <li>• Advocacy &amp; knowledge sharing (e.g., COVID-19 forums, community of practice)</li> <li>• Resources / Tools (e.g., for patient preparedness, defining basic elements of virtual care, work-flow)</li> <li>• Guidance &amp; training (e.g., appropriateness criteria, skill-building training)</li> <li>• Funding</li> <li>• Platforms &amp; interfaces</li> <li>• Development of hybrid models of virtual &amp; in-person care</li> </ul>

# Cardiac Virtual Care: What We Heard

Certain conditions and/or patient characteristics may:

**A. *Inhibit the use of virtual care, such as:***

- Communication / bi-directional communication challenges (e.g., cognitive, sensory issues, language barriers)
- Complex clinical scenarios / encounters / some diagnostic testing (e.g., where a physical examination is required to support clinical decision making)
- Where overlapping symptoms make a diagnosis difficult / patients with multiple comorbidities
- Patients requiring specialized exercise equipment (e.g., patients with several musculoskeletal issues)

**B. *Require considerable reliance on caregivers/support persons to enable the use of virtual care:***

- Patients without access to a telephone or internet
- Communication challenges (e.g., language and/or cognitive barriers, sensory impairments)
- Where difficult / complex clinical conversations are required (e.g., providing a patient with bad news); this may also require a certain provider level of training / skill set
- Patients who require additional support (e.g., psychosocial, motivational) for engaging in healthy behaviors (e.g., smoking cessation, exercise adherence)

- **Does this resonate with your experience/practice?**
- **Are there other patient characteristics/conditions that should be taken into consideration when providing virtual care?**



# Virtual Care: Cardiac Sub-Specialty Findings

**JANA JEFFREY & KAREN HARKNESS**

# Arrhythmia (e.g AFib, Device (Pre/Post))

## *When Virtual Care May Not Work Well*

### Considerations for in-person appointment

- A patient requires an in-person clinical and/or functional assessment by a health care provider to gather critical information for informing care decisions that is not possible to gather accurately and confidently in a virtual platform

For example, a patient requires:

- Additional tests such as ECG, CXR
- Adjustment of device settings/programming
- Clinical exam due to new or worsening symptoms that overlap with co-morbidities or suggest increased risk for adverse outcome

### Clinical Conditions

- New or worsening shortness of breath
- Pre-syncope/syncope
- ICD therapy / shock assessments
- Post-procedure wound/puncture site complications

- **Does this resonate with your experience/practice?**
- **Have we missed any considerations / scenarios that work/do not work well with virtual care?**

# Structural Heart Disease (Pre/Post Procedure)

## *When Virtual Care May Not Work Well*

### Considerations for in-person appointment

- A patient requires an in-person clinical and/or functional assessment by a health care provider to gather critical information for informing care decisions that is not possible to gather accurately and confidently in a virtual platform

For example, a patient requires:

- Additional tests such as ECG, CXR, echo, CT
- Clinical exam required to support treatment decisions.
- Develops new or worsening symptoms that overlap with co-morbidities or suggest increased risk for adverse outcome

### Clinical Considerations

- Initial & ongoing clinical assessment of structural heart condition symptoms (e.g., shortness of breath, syncope, chest pain)
- Post-procedure wound/puncture site complications, and ongoing post-procedure symptoms

- **Does this resonate with your experience/practice?**
- **Have we missed any considerations / scenarios that work/do not work well with virtual care?**



# Coronary Artery Disease (Chronic CAD, MI, PCI, CABG)

## *When Virtual Care May Not Work Well*

### Considerations for in-person appointment

- A patient requires an in-person clinical and/or functional assessment by a health care provider to gather critical information for informing care decisions that is not possible to gather accurately and confidently in a virtual platform

For example, a patient requires:

- Additional tests such as ECG, CXR, echo
- Clinical exam due to new or worsening symptoms that overlap with co-morbidities or suggest increased risk for adverse outcome

### Clinical Conditions

- Crescendo angina/unstable angina
- New or worsening symptoms of heart failure
- Pre-syncope/syncope
- Post procedure wound/puncture site complications

- **Does this resonate with your experience/practice?**
- **Have we missed any considerations / scenarios that work/do not work well with virtual care?**

# Heart Failure

## Considerations for in-person appointment

A patient requires an in-person clinical and/or functional assessment by a health care provider to gather critical information for informing care decisions that is not possible to gather accurately and confidently in a virtual platform

For example a patient requires:

- Additional diagnostic tests
- Administration of IV diuretics
- Clinical exam due to **new or worsening symptoms** that overlap with co-morbidities (differential diagnosis difficult) or suggest increased risk for adverse outcome.

## High risk criteria

Criteria for high-risk patients primarily includes:

- Recent hospital discharge (< 30 days) for acute decompensated HF
- Multiple readmissions or ED utilization in the last 6 months
- Worsening cardiorenal syndrome
- Home IV inotropes
- Worsening volume overload and/or requiring IV Lasix
- NYHA Class III-IV symptoms
- Work up for advanced therapies

- **Based on what we have learned / experienced since Heart Failure Memo #1 (April 2020), do these considerations still resonate with your experience / practice?**

# Cardiovascular Rehabilitation

Cardiovascular Rehabilitation Forums in May and June focused on developing provincial guidance for virtual care and the gradual resumption of in-person services.

[CorHealth COVID-19 Cardiac Memo #12 - Recommendations for an Approach to the Provision of Cardiovascular Rehabilitation during COVID-19 in Ontario \(May 12, 2020\)](#)

- This document aims to provide guidance on how the delivery of CR can strive to meet the Standards for the Provision of Cardiovascular Rehabilitation in Ontario in a virtual based environment during the COVID-19 pandemic.

[CorHealth COVID-19 Cardiac Memo #14 - Recommendations for an Approach to Resuming In-Person Outpatient Cardiovascular Rehabilitation Services in Ontario \(June 17, 2020\)](#)

- This document aims to provide guidance on how programs can plan for resuming some in-person services as provincial directives gradually lift restrictions in response to the pandemic.

# Assumptions within the Cardiovascular Rehab Guidance Memos

- Where applicable, **virtual care should continue to be the cornerstone** model of delivery cardiovascular rehab (CR).
- The delivery of CR rehab will need to include both virtual care and in-person care options. Delivery models continue to evolve.
- Local cardiac programs and providers are in the **best position to determine which clinical services are best delivered virtually or in-person**, assuming the necessary provincial, regional, local and applicable health regulatory college requirements are met.
- The delivery of cardiac clinical services will need to accommodate to the potential ebb and flow of care delivery restrictions along the COVID-19 pandemic trajectory.

# Next Steps

- **Develop a Summary Report of Strategies & Resources in Ontario to Support Virtual Care in Cardiac, Stroke & Vascular**
  - Including strategies & resources to promote knowledge sharing, spread and uptake of virtual care across clinical programs & providers
- **Take a more focused look at clinical practice considerations for virtual care**
  - Clinical practice considerations around patient populations where virtual care may/may not work well in focused areas of clinical practice, to support equitable access to patients & providers across the province, and beyond COVID-19
- **Develop a virtual care measurement & reporting framework**
  - An approach to measure the impacts of virtual care on quality and outcomes in cardiac, stroke, and vascular care



# Heart & Stroke Foundation: Update on Virtual Care Activities

**MS. NATALIE GIERMAN**

*Senior Manager, Health Systems Research & Strategic Initiatives, Heart & Stroke Foundation*



# System change priorities

System planning for next 18 months or beyond

Recovery and resetting of systems of care for heart conditions, stroke and vascular cognitive impairment

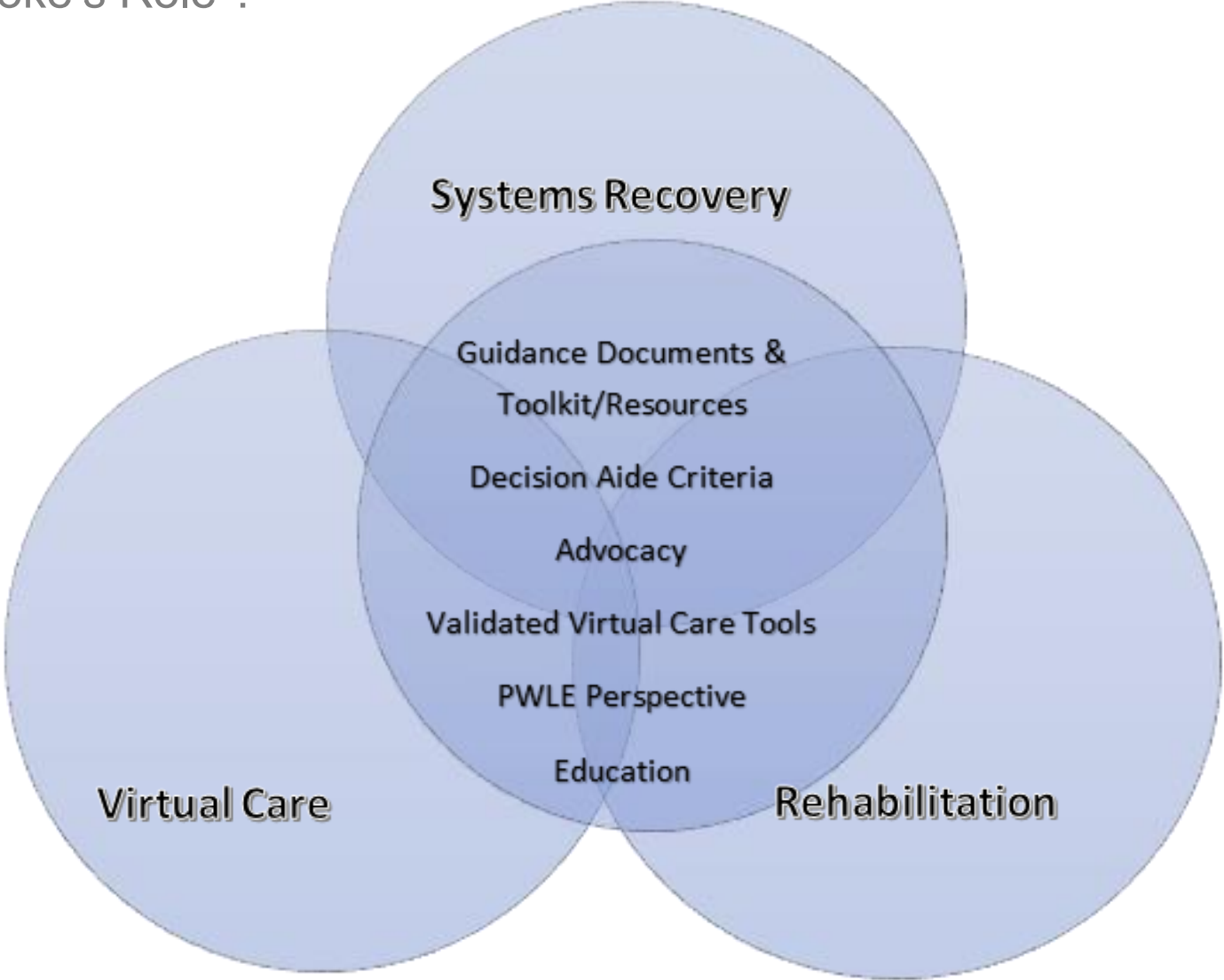
Rehab models post pandemic

Sustainability and quality of virtual health care across the continuum heart conditions, stroke and vascular cognitive impairment

**Reality is we cannot do multiple full-scale actions on all of these.  
What is priority and what are the possible actions?  
Who should we collaborate with?**

# System change priorities

What is Heart and Stroke's Role ?





# Virtual Care Toolkit

- *Stroke Virtual Care implementation Toolkit* is currently being adapted for Cardiac broadly. We are working with CCS, CHFS, CACPR as well as others to have this ready in the next month or so. We may call on some of you as reviewers pre-launch.
- As a reminder, the accompanying *Patient Virtual Care Checklist* is ready to use now. It was co-created with patients and caregivers. Our vision for the checklist is that it would be sent out in advance of virtual care sessions (by the provider) to assist people with lived experience prepare for their upcoming virtual session.

Download Patient Checklist here:

<https://www.heartandstroke.ca/-/media/1-stroke-best-practices/resources/patient-resources/csbp-infographic-virtual-healthcare-checklist.ashx?rev=52fc18b0280c4b3d88c27b7ca497d3d2&hash=4C0B0FAE6D09D61B2579DB103E67AC68>





# Cardiac Activity Update

**GARTH OAKES**

# Percentage Reduction/Increase in Activity

Procedure	August 10 – August 16, 2020 Compared to 2019	August 10 – August 16 (this week), Compared to August 3 – August 9 (last week)
CATH	-10%	17%
PCI	-12%	17%
CABG	-11%	24%
Valve Surgery	13%	64%
CABG + Valve	-41%	31%
TAVI	3%	0%
Electrophysiology	-12%	40%
Device Implants	-28%	-17%

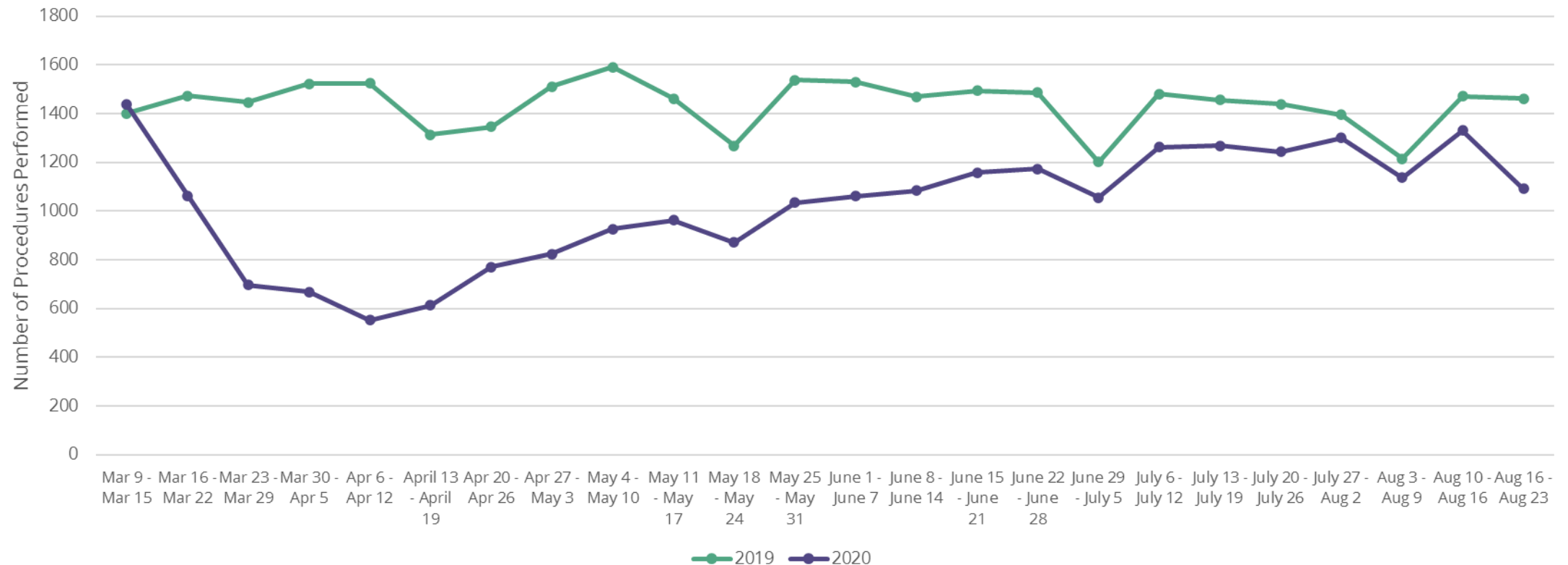
Data are from the CorHealth Cardiac Registry

CATH data includes CATHs which were part of SSPCIs

Electrophysiology data includes EP Diagnostic Studies, and Standard and Complex Ablations

Device Implants data includes single chamber and dual chamber ICDs, CRT-ICDs and CRT-Pacemakers

# Comparison of Current Provincial CATH Activity From This Year to Last Year



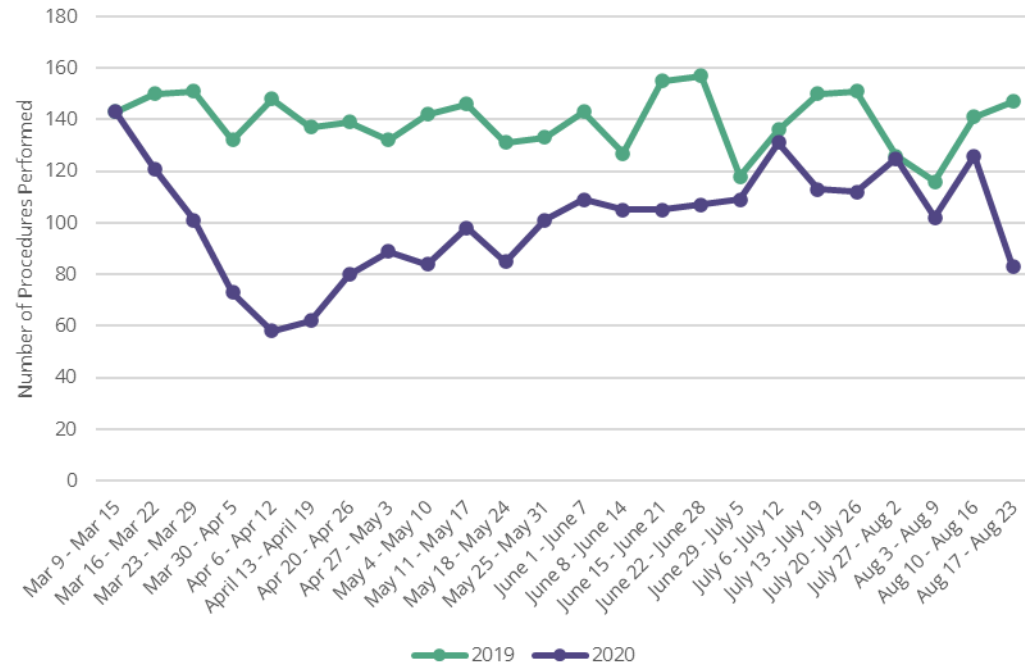
Data are from the CorHealth Cardiac Registry; Data includes CATHs which were part of SSPICs.

# Change in CATH Activity at the Hospital Level; Comparing July 10 - August 16, 2019 to 2020

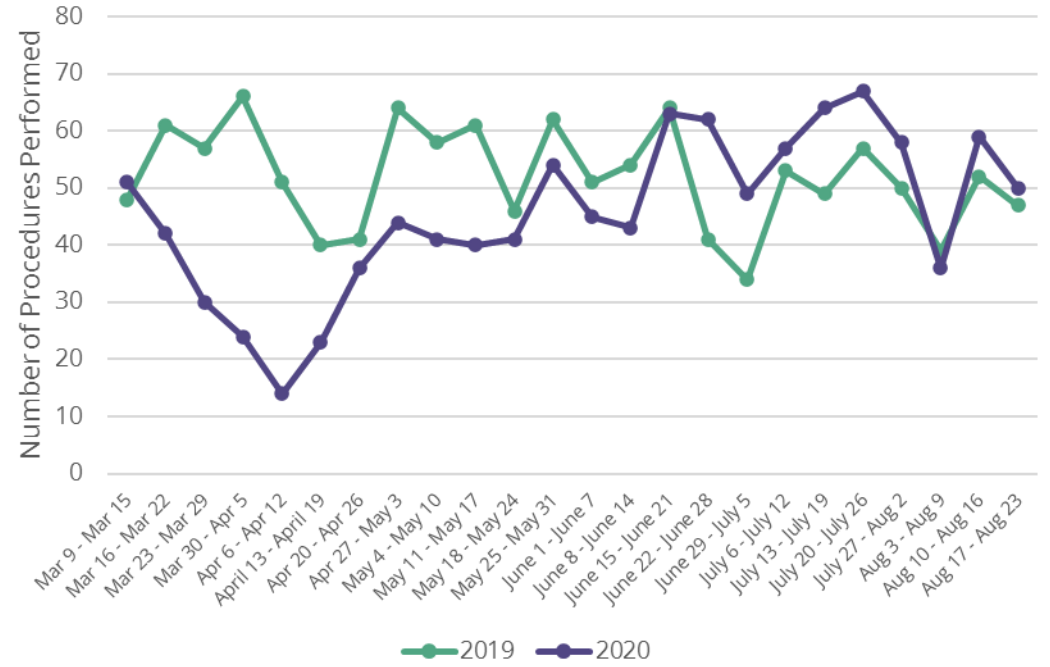
	2019	2020	Percent Change
London Health Sciences Centre	354	412	16.4%
Royal Victoria Hospital	137	156	13.9%
Peterborough Regional Health Centre	142	154	8.5%
Sault Area Hospital	86	90	4.7%
Thunder Bay Regional Health Sciences Centre	189	196	3.7%
University of Ottawa Heart Institute	471	476	1.1%
Health Sciences North	284	282	-0.7%
Windsor Regional Hospital	199	196	-1.5%
St. Mary's General Hospital	336	328	-2.4%
Kingston General Hospital	205	195	-4.9%
Hamilton Health Sciences	462	431	-6.7%
Sunnybrook Health Sciences Centre	224	206	-8.0%
Niagara Health System	138	122	-11.6%
William Osler Health System	336	292	-13.1%
Michael Garron Hospital	135	113	-16.3%
Trillium Health Partners	424	347	-18.2%
University Health Network	416	333	-20.0%
St. Michael's Hospital	236	185	-21.6%
Southlake Regional Health Centre	433	299	-30.9%
Scarborough Health Network	316	199	-37.0%
<b>Ontario</b>	<b>5523</b>	<b>5012</b>	<b>-9.3%</b>

# Comparison of Current Provincial Cardiac Surgery Activity From This Year to Last Year

## Isolated CABG



## Isolated AVR



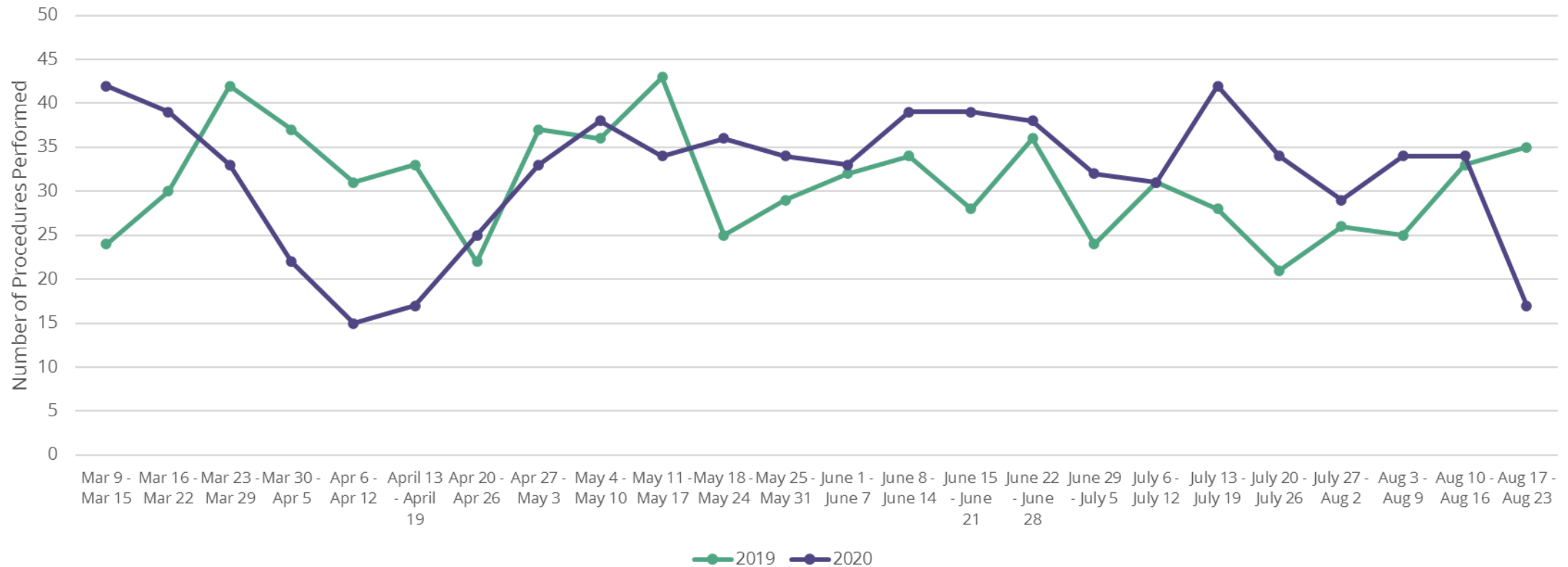
Data are from the CorHealth Cardiac Registry.

# Change in Cardiac Surgery Activity at the Hospital Level; Comparing July 10 - August 16, 2019 to 2020

	2019	2020	Percent Change
Health Sciences North	33	37	12.1%
London Health Sciences Centre	89	96	7.9%
Kingston General Hospital	39	41	5.1%
University Health Network	90	93	3.3%
St. Mary's General Hospital	60	57	-5.0%
Hamilton Health Sciences	109	101	-7.3%
University of Ottawa Heart Institute	121	111	-8.3%
Sunnybrook Health Sciences Centre	41	36	-12.2%
St. Michael's Hospital	77	65	-15.6%
Trillium Health Partners	100	81	-19.0%
Southlake Regional Health Centre	65	46	-29.2%
<b>Ontario</b>	<b>824</b>	<b>764</b>	<b>-7.3%</b>

Cardiac Surgery volumes include isolated CABG surgery, isolated valve surgery and combined CABG + Valve surgery only.

# Comparison of Current Provincial TAVI Activity From This Year to Last Year



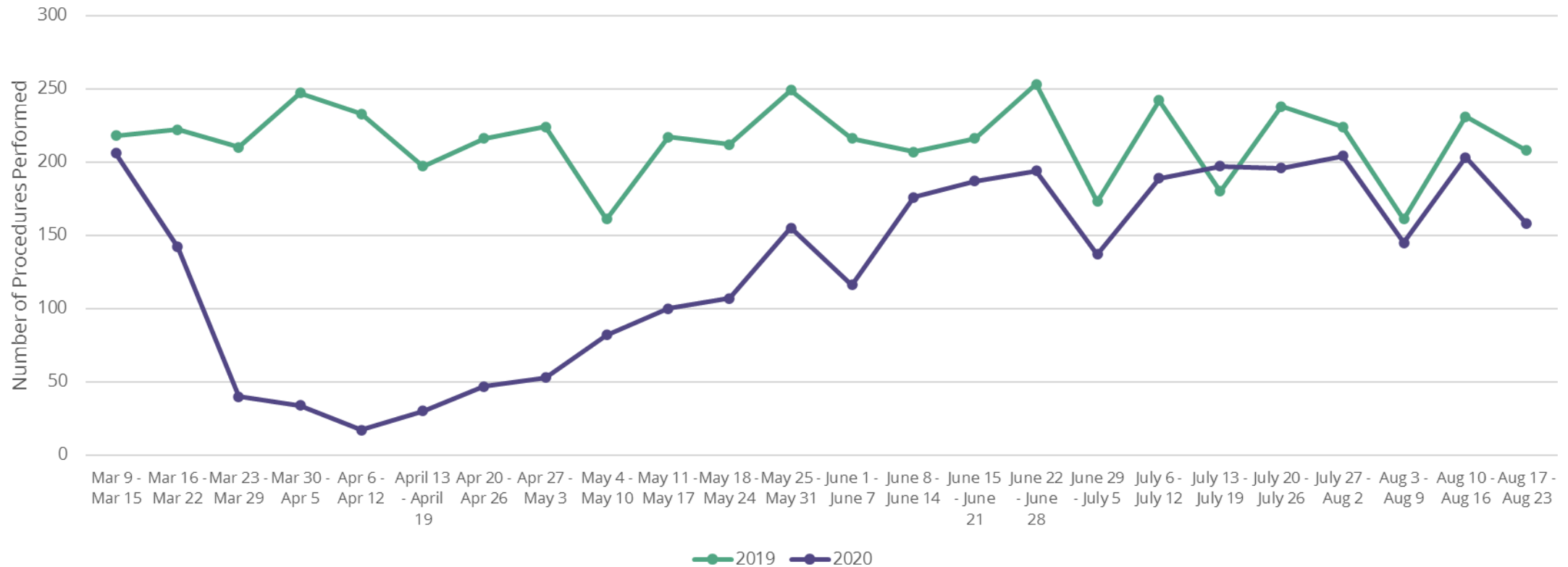
Data are from the CorHealth Cardiac Registry.



# Change in TAVI Activity at the Hospital Level; Comparing July 10 - August 16, 2019 to 2020

	2019	2020	Percent Change
Trillium Health Partners	6	10	66.7%
Hamilton Health Sciences	14	22	57.1%
St Michael's Hospital	11	17	54.5%
London Health Sciences Centre	11	16	45.5%
Sunnybrook Health Sciences Centre	19	26	36.8%
Southlake Regional Health Centre	5	6	20.0%
Kingston General Hospital	3	3	0.0%
University Health Network	15	15	0.0%
University of Ottawa Heart Institute	14	13	-7.1%
Health Sciences North	3	2	-33.3%
St. Mary's General Hospital	4	1	-75.0%
<b>Ontario</b>	<b>105</b>	<b>131</b>	<b>24.8%</b>

# Comparison of Current Provincial Electrophysiology Activity From This Year to Last Year



Data are from the CorHealth Cardiac Registry; Data include EP Diagnostic Studies and Standard and Complex Ablations.

# Change in Electrophysiology Activity at the Hospital Level; Comparing July 10 - August 16, 2019 to 2020

	2019	2020	Percent Change
Sunnybrook Health Sciences Centre	62	84	35.5%
University of Ottawa Heart Institute	131	162	23.7%
University Health Network	87	87	0.0%
London Health Sciences Centre	94	91	-3.2%
Trillium Health Partners	68	59	-13.2%
Scarborough Health Network	99	79	-20.2%
Southlake Regional Health Centre	131	84	-35.9%
Kingston General Hospital	58	36	-37.9%
Hamilton Health Sciences	80	44	-45.0%
St. Michael's Hospital	44	22	-50.0%
<b>Ontario</b>	<b>854</b>	<b>748</b>	<b>-12.4%</b>

Data are from the CorHealth Cardiac Registry; Data include EP Diagnostic Studies and Standard and Complex Ablations.



# Other Updates and Next Steps

**JANA JEFFREY**

# Other Updates and Next Steps

- **Next COVID-19 Cardiac Forum Meeting #19** – *Wednesday, Sept 16<sup>th</sup>, 8:00 – 9:00 AM*
  - Tentative focus of this forum will be on the new report from Dr. Chris Simpson, regarding maintaining care throughout the phases of COVID-19
- *If group members would like to share any innovative resumption planning models implemented at their sites, please email [jana.jeffrey@corhealthontario.ca](mailto:jana.jeffrey@corhealthontario.ca) to share this information at a future forum*



# Appendix

# Cardiac Workstreams

Cardiac Workstream	Moderator(s)
Echocardiography	Dr. Tony Sanfilippo Dr. Howard Leong-Poi
Rehab	Dr. Paul Oh Dr. Mark Bayley
Cardiac Surgery Cath/PCI	Dr. Chris Feindel Dr. Eric Cohen
Heart Failure	Dr. Heather Ross
STEMI	Dr. Steve Miner
Cardiac Electrophysiology	Dr. Atul Verma
Structural Heart (TAVI, Mitral Clip)	Dr. Sam Radhakrishnan
Managing Referrals	Dr. Chris Feindel Dr. Eric Cohen