


# Let's Talk Informatics

Virtual Care: Successes and Challenges in a  
Changing World of Technology

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October 31, 2019

Bethune Ballroom, Halifax, Nova Scotia



Please be advised that we are currently in a  
controlled vendor environment for the  
One Person One Record project.

Please refrain from questions or discussion  
related to the  
One Person One Record project.

# Informatics...

utilizes health information and health care technology to enable patients to receive best treatment and best outcome possible.

# Clinical Informatics...

is the application of informatics and information technology to deliver health care.

AMIA. (2017, January 13). Retrieved from <https://www.amia.org/applications-infomatics/clinical-informatics>

# Objectives

At the conclusion of this activity, participants will be able to...

- Identify what knowledge and skills health care providers will need to use information now and in the future.
- Prepare health care providers by introducing them to concepts and local experiences in Informatics.
- Acquire knowledge to remain current with new trends, terminology , studies, data and breaking news.
- Cooperate with a network of colleagues establishing connections and leaders that will provide assistance and advice for business issues, as well as for best-practice and knowledge sharing.

# Session Objectives

- Define Virtual Care in the Nova Scotia Health Authority setting.
- Discuss current state and successes of virtual health care delivery in Nova Scotia and across Canada, while giving health care providers a sense of how they can use virtual care in their practice.
- Examine the challenges and barriers that impact the ability for advancement, as well as examining future opportunities.

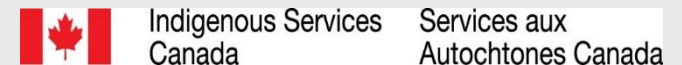
# Conflict of Interest Declaration

- We do not have an affiliation (financial or otherwise) with a pharmaceutical, medical device, health care informatics organization, or other for-profit funder of this program.
- Cannot identify any conflict of interest

# NSHA Virtual Care Team



## Key Partnerships:



- 1 Provincial Manager**
- 4 Virtual Care Leads**
- 1 Systems Analyst**
- 3 Provincial Schedulers**
- 4 Site Coordinators**

Plus over 200 telehealth site supports



# Our History

Over 20 years ago the Nova Scotia Telehealth Network was implemented as the first of its kind in Canada using videoconferencing to deliver patient appointments from one health care facility to another across the NS.

Since then, this service has evolved and undergone a major restructuring that shifted and **CHANGED ITS NAME** to ***Virtual Care*** to allow for the exploration of innovative e-health technologies beyond telehealth to deliver person-centered health care.

1996

Nova Scotia Telehealth Network (NSTN) Program Established

2012

DHW Program Review

2016

Beginning of Restructure

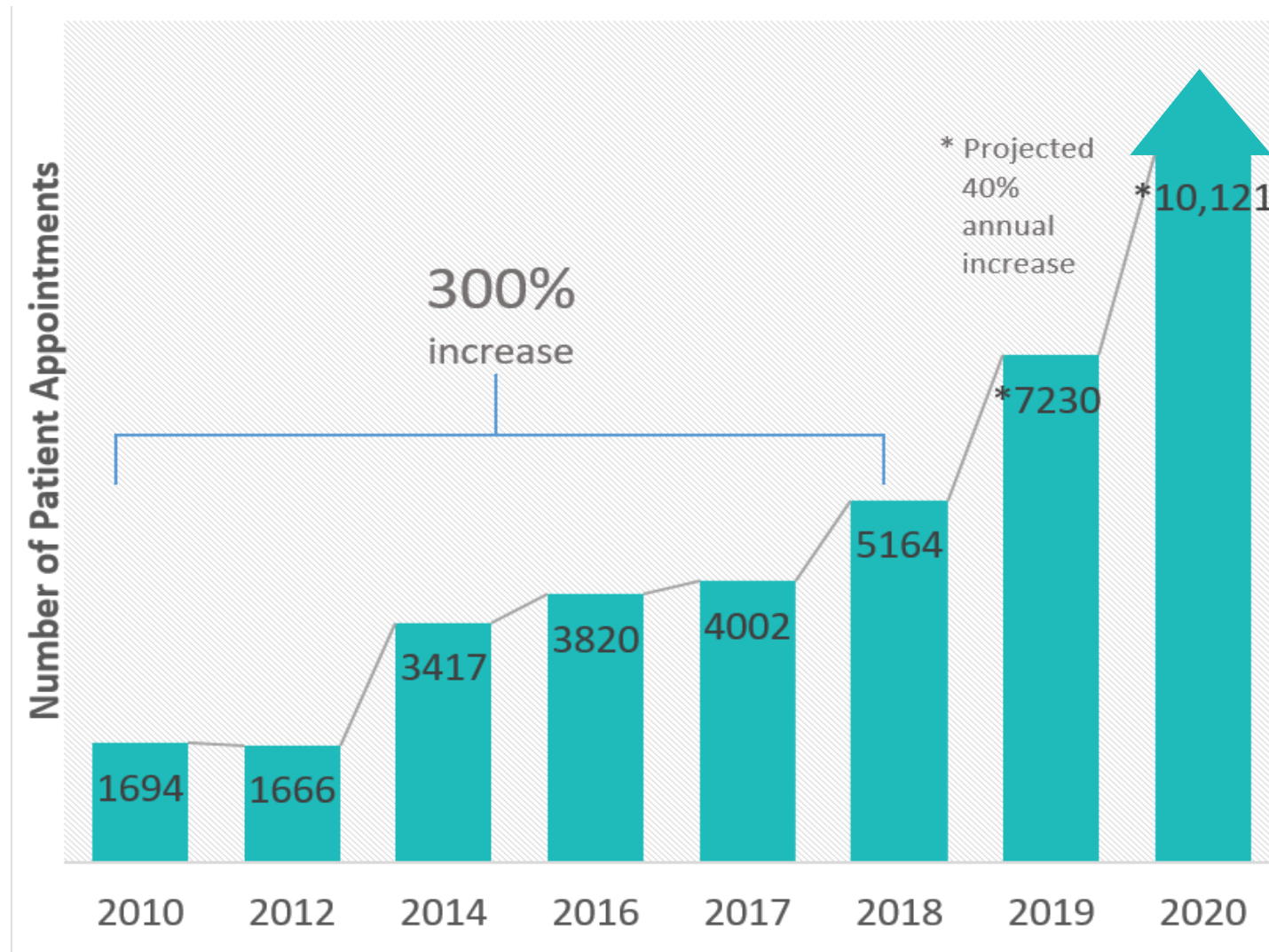
2017

Rebranded to Virtual Care

2018

Operationalizing Plan

# NS Clinical Telehealth Growth



# CURRENT USERS

## VIRTUAL CARE



Currently have over 40 services using Virtual Care in some capacity

- Patient Appointments
- Case Conferencing
- Patient Education



Have increased our users by over 40% in the last 1.5yrs



Continue to work with new groups every day (assigned to a lead)

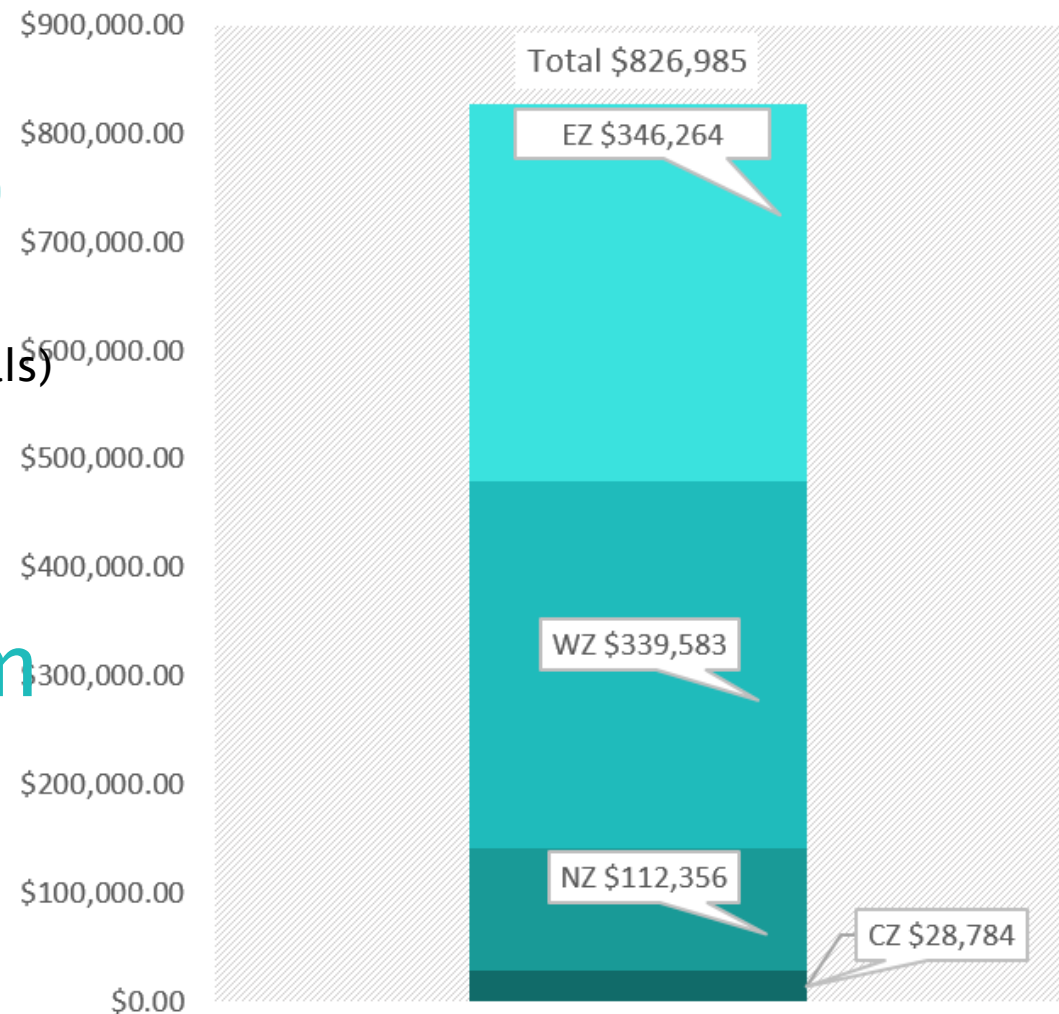
### Examples of New Initiatives:

- INSPIRED
- ABI
- Mental Health & Addictions (various)
- Chronic Pain
- Geriatrics
- Vascular Surgery
- Palliative Care
- Gastroenterology
- Language Interpretation
- Neurology
- Primary Health

January - June 2018

Saved over  
**\$800,000**  
**estimated travel expenses**  
(includes mileage, parking, hotel/meals)

almost  
**500,000 km**  
**not travelled by patients**



# Current State in Canada

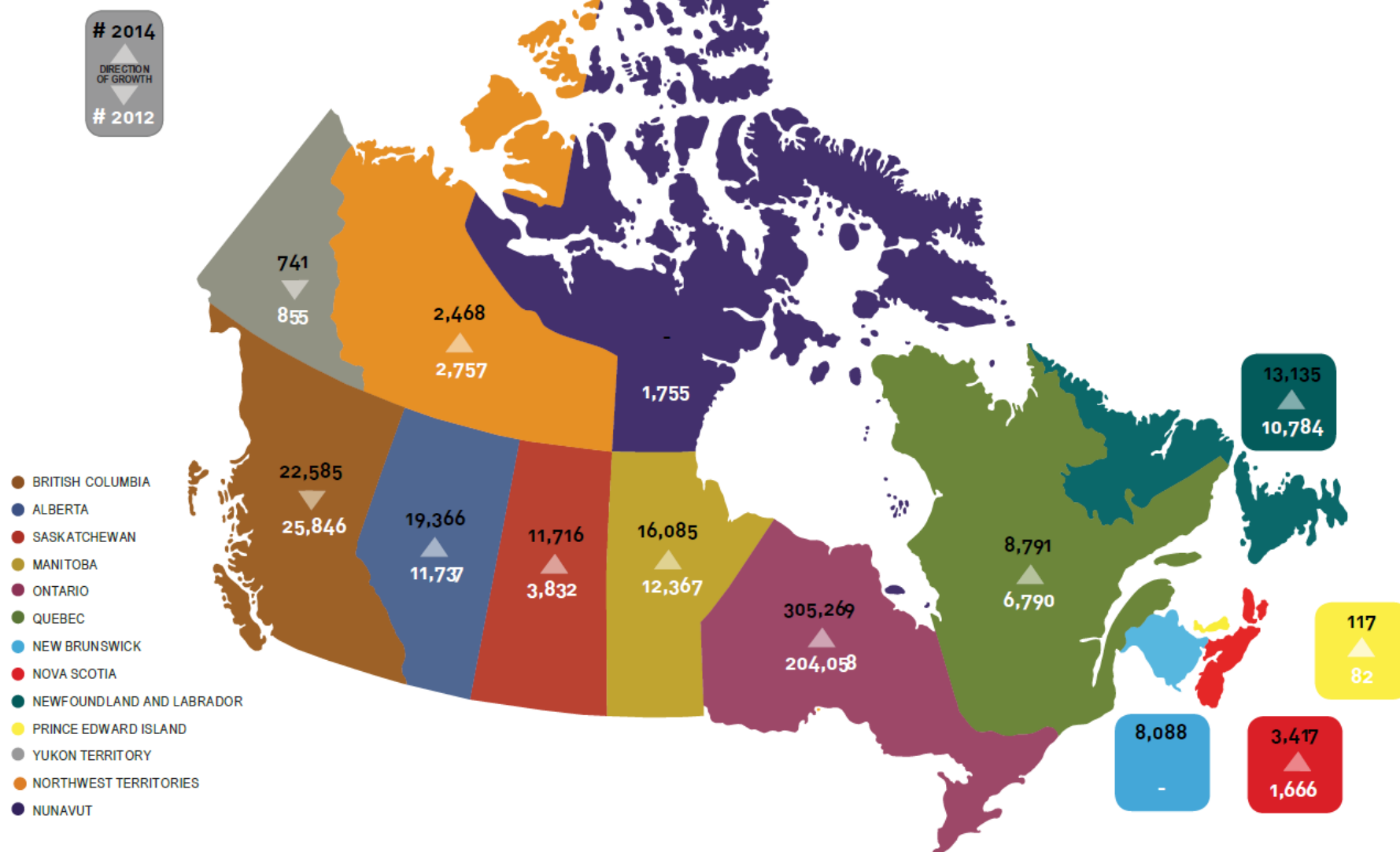


Figure 3. Total Number of Real-Time Clinical Sessions Delivered in the Reporting Period

- Data was not reported

(Coach, 2015)

# Telehealth Service Availability in Canada

## **All provinces:**

- Mental Health (Psychiatry; Psychology) \*
- Neurology \*
- Oncology \*
- Pediatrics \*
- Rehab (OT, PT, Speech Language) \*

## **Most provinces:**

- Family Visitations \*
- Internal Medicine
- Addictions \*
- Cardiology \*
- Discharge Planning
- Nephrology-Dialysis \*
- Pain Management \*
- Endocrinology – Diabetes
- Surgery \*
- Wound Management \*

# Digital Clinical Peripheral Devices

Clinical Peripheral Devices	BC	AB	SK	MB	ON	QC	NB	NS	NL	PE	YT	NT
Exam Camera												
Stethoscope								2019				
Otoscope												
Ophthalmoscope												
Ocular Camera												
Home Health Monitor (HHM)								?				
Retinal Camera (for diabetic retinal exams)												
Ultrasound												
Tablet or smartphone								2019				
Dermatology Camera								2019				

**LEGEND:**

- Devices in use
- Devices not in use

# Telehomecare/Remote Patient Monitoring

- Home-based equipment used to monitor patients' vitals (e.g. pulse, blood pressure, blood sugar, weight) and transmit the data for review and assessment by a clinician
- BC, Ontario, Quebec, NB – now includes NL
- Chronic Disease Management
  - CHF
  - COPD
  - Diabetes

Table 9: Telehomecare Monitoring Data

	BC	ON	QC	NB
NIBP				
SpO2				
Weight				
Heart Rate				
Glucose				
ECG				
Respirometry				
Fetal Heart Rate				
Other				

(Coach, 2015)



# What is Virtual Care in NSHA?

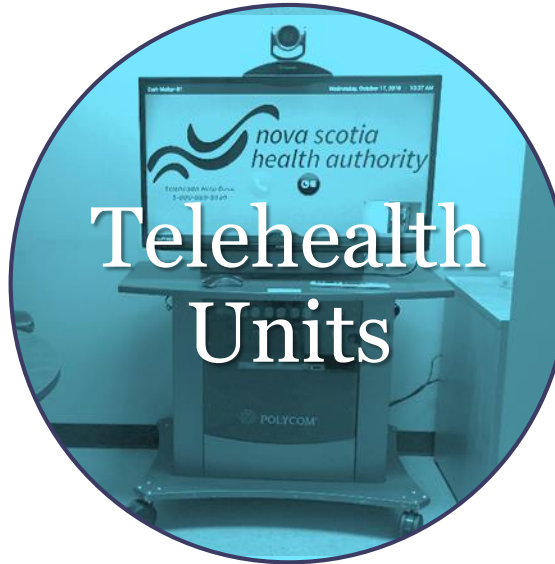
- Virtual Care uses audio and video technology to connect patients with health care providers in other locations.

# Virtual Care Technology



**Video conferencing software** available for install on NSHA computers. Connects with other NSHA computers and facility-based telehealth units.

Technical support provided by Telehealth Help Desk



**Facility-based video conferencing units** located at all NSHA health care centres and some community partner locations.



Web-based **video conferencing solution** to connect with patients in their homes or other location of their choice, using a personal electronic device. (some limitations apply)

Tech support provided by the vendor

# Our Mandate

- Virtual Care leverages **technology**, skills and knowledge to support delivery of **person-centered** virtual health services through **innovation** and **integration**.

# Strategic Foundations

## Communication

Stakeholders identification, targeted communications, developed plan.

## Evaluation

Plan to monitor and evaluate aspects of VC including usage, efficiency providing robust data set for internal improvements.

## Quality and Standards

Aligned VC with NSHA quality plan. Telehealth accreditation standards, identifying gaps, and overall program success.



## iScheduler

Implemented new scheduling software to replace VC Scheduler. Users can now request appointments in the software directly.

## Patient Engagement

Prepared Team through engagement process and have now posted for patient and family advisor.

## Diversity and Inclusion

Developed a plan to align with NSHA and IWK diversity and inclusion framework. And partner with Atlantic FN Helpdesk.

## Policy

Completed policy to provide NSHA/IWK with direction on informed consent and documentation while using VC.

# NEW INITIATIVE INTAKE PROCESS

## Intake

## Summarize and Steering Committee Approval

## Planning and Workflow

## Training and Go Live

**VirtualCare@nshealth.ca**

- Meet with Service Area
- Gather necessary information
- Work through best technology solution based on the information/requirements
- Service Area must identify supports for initiative

- VC Lead summarizes info, discusses with team
- Report sent to Steering Committee for Approval

- Service area looks at their current process and works with VC lead to integrate a virtual clinic
- Work includes registration, patient criteria, scheduling, etc.
- Equipment purchase may be necessary.

- All providers must be trained prior to go live date.
- All requesters must be trained.
- Once everything is in place, virtual clinic can begin.

# New Initiative Highlights:

## PRIMARY HEALTH & VIRTUAL CARE



Partnered to help with physician shortage in Digby, NS.



Physician was already doing a travel clinic.



Wanted the patient experience to be very similar.



*Dr. LaPierre using RealPresence Desktop in Kentville to connect with a patient in Digby*

First clinic took place on November 27, 2018

# HOW DOES IT WORK?

## **Prior to the Appointment:**

- Patient is registered and notified of their appointment
- Virtual appointment is requested and scheduled

## **Day of the Appointment:**

- Patient arrives and registers at front desk.
- Patient proceeds to clinic room when called upon by LPN.
- Patient is given Telehealth Information Guide and verbal consent is received to have their care delivered virtually.
- LPN does any initial vitals or questionnaires with patient.
- LPN sends instant message to physician when she is ready to receive the call- they then connect via videoconferencing.
- Both LPN and physician can chart in the same EMR.
- Digital stethoscope is used, when needed.





# New Initiative Highlights: Virtual Wound Clinic in Cape Breton

- NSHA Cape Breton Regional Hospital Virtual Wound Care Clinic delivers wound assessment/follow-up to 8 communities in Cape Breton.
- **The objectives of the virtual clinic are:**
  - Improve the patient experience
  - Decrease patients' stress associated with travel
  - Reduce congestion at the Cape Breton Regional Hospital

## Virtual Wound Care in Cape Breton



300% more patients seen per clinic

Utilizes physician time more efficiently and effectively

New Waterford  
Sydney Mines  
Glace Bay  
North Sydney  
Cheticamp  
Inverness  
Neil's Harbour  
Baddeck



eliminates  
3.6 hours

On average of 2 hours travel via ambulance transport, plus up to 1 hour and 30 minutes wait time for the ambulance to return to CBRH for pick up to return home.

Improved patient experience

2018 STATS Jan 1 - Dec 31

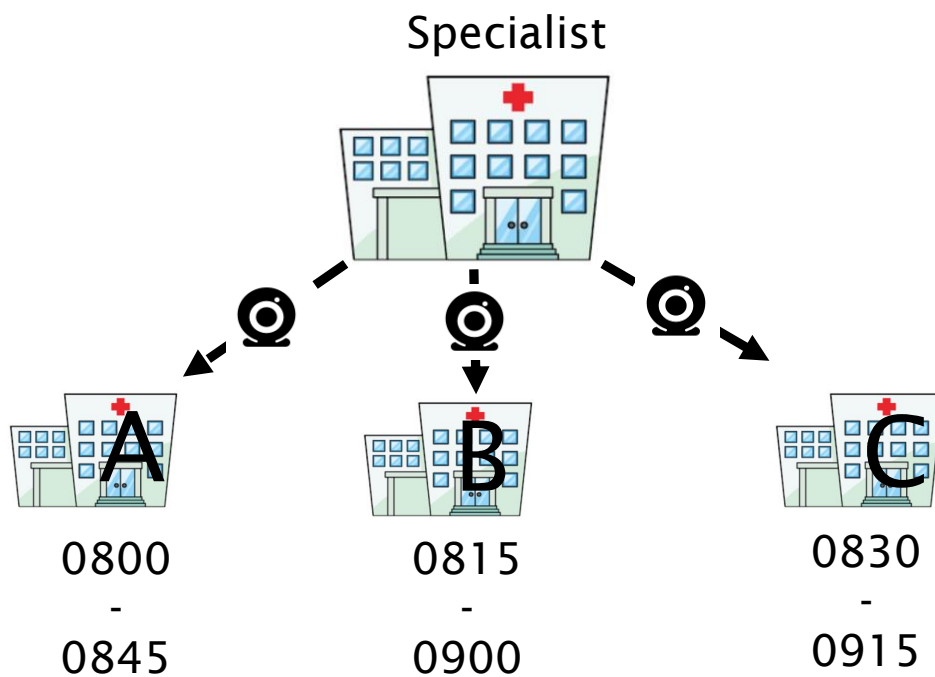
169 new referrals

245 patients scheduled for virtual visits



# HOW DOES IT WORK?

- Mondays 0800-1200 / 15 minute appointments
- Rotating sites allows for exam room changeover



# Barriers and Challenges

- Billing codes (not applicable to all services at this time)
- Support at sites to assist with telehealth appointment
- Clinical time
- Telehealth myths
- Out-of-warranty peripheral equipment
- Lack of integration with existing technologies
- Uncertainty of future direction (OPOR)

# Future Opportunities

- Home Health Monitoring- chronic disease management (home first)
- Connecting family members into patient rounds
- Texting/messaging between providers/patients
- Potential external partnerships:
  - VON, EHS, HRCE, LTC
- Accreditation 2021

## **Future, Future Opportunities**

- Virtual emergency triage
- Virtual walk-in clinic
- eICU/Patient observation/virtual sitter
- Integrating virtual care into med school/nursing school curriculums/education



VIDEO <https://www.youtube.com/watch?v=8rC-2cRAMTc&feature=youtu.be>

Joy Williams has stopped using her blood pressure medication, left behind her walking stick and is now able to spend more time with her energetic granddaughter — all thanks to a remote patient monitoring (RPM) program that helped her get her diabetes under control.

Eastern Health — the largest Regional Health Authority in Newfoundland and Labrador — introduced its RPM program in 2014 to help individuals living with chronic illnesses manage their conditions from home, rather than through regular trips to the ER and hospital stays. The program has reduced the number of hospital and clinic visits for patients, says Kim Ghaney, the program's Engagement and Implementation Manager. It's the reason she supports the scaling of digital health solutions across Canada, a goal of the ACCESS 2022 movement. Watch the video to learn more about Eastern Health's RPM program.

A new day in health is coming. Join the Movement. [www.ACCESS2022.ca](http://www.ACCESS2022.ca)

Let's Talk Informatics has been certified for continuing education credits by:

- College of Family Physicians of Canada and the Nova Scotia Chapter for 1 Mainpro+ credit.
- Digital Health Canada for 1CE hour for each presentation attended. Attendees can track their continuing education hours through the HIMSS online tracking certification application, which is linked to their HIMSS account.

*Thank you for attending this event.*

# References

- COACH: Canada Health Informatics Association. (2015). *2015 Canadian Telehealth Report*. Retrieved October 24, 2019, from <https://livecare.ca/sites/default/files/2015%20TeleHealth-Public-eBook-Final-10-9-15-secured.pdf>
- Canada Health Infoway. (2019, July 24). ACCESS 2022: a life transformed [Video file]. Retrieved from <https://www.youtube.com/watch?v=8rC-2cRAMTc&feature=youtu.be>