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Société canadienne des infirmières et infirmiers en gastroentérologie et travailleurs associés

Transforming Access to Specialist Care for Inflammatory Bowel Disease: The PACE Telemedicine Program

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Crohn's and Colitis Canada
Crohn et Colite Canada

PACE
ADVANCING PATIENT CARE BY CROHN'S AND COLITIS CANADA

MOUNT SINAI HOSPITAL
Joseph and Wolf Lebovic Health Complex
Zane Cohen Centre for Digestive Diseases

Overview

Introduction
Method
Results
Discussion
Conclusion

Introduction

- What is Telemedicine?

- What is the impact of Telemedicine?

- Geographic variation in access to Gastroenterologists who primarily care for IBD patients

Introduction

- Financial constraints and Telemedicine
- Telemedicine in Literature
- Evaluation-
  - What is the difference in the cost of the telemedicine program for patients and families compared with alternative (s)?
  - Is the telemedicine program able to enhance the timeliness of care compared with the alternative (s)?

Methods

Needs Assessment
PACE Telemedicine Program

Needs Assessment

- Ontario health administrative databases that included the Ontario Health Insurance Plan database, the Canadian Institute for Health Information Discharge Abstract Database, the Registered Person's Database and the ICES Physician Database. (1999-2008)

- Three key indicators:
  - Number of gastroenteroligists per capita
  - Early gastroenterology care
  - Continuous gastroenterology care

Description of PACE Telemedicine Program

•The Promoting Access to Centres of Excellence (PACE) IBD program was developed in collaboration with Crohn's and Colitis Canada to improve access to and quality of care for IBD patients.

•Launched in June 1, 2016, it operates from Mount Sinai Hospital's IBD Centre of Excellence.

- 7 Gastroenterologists specialized in IBD
- 1 Colorectal surgeon
- 2 Nurses
- 1 Dietician

Description of PACE Telemedicine Program

- Eligibility
- Referral Process: www.zanecohencentre.com/pdfs/IBD/PACE/PACE_IBD_REFERRAL_AUG2016.pdf
- Triaging

Description of PACE Telemedicine Program

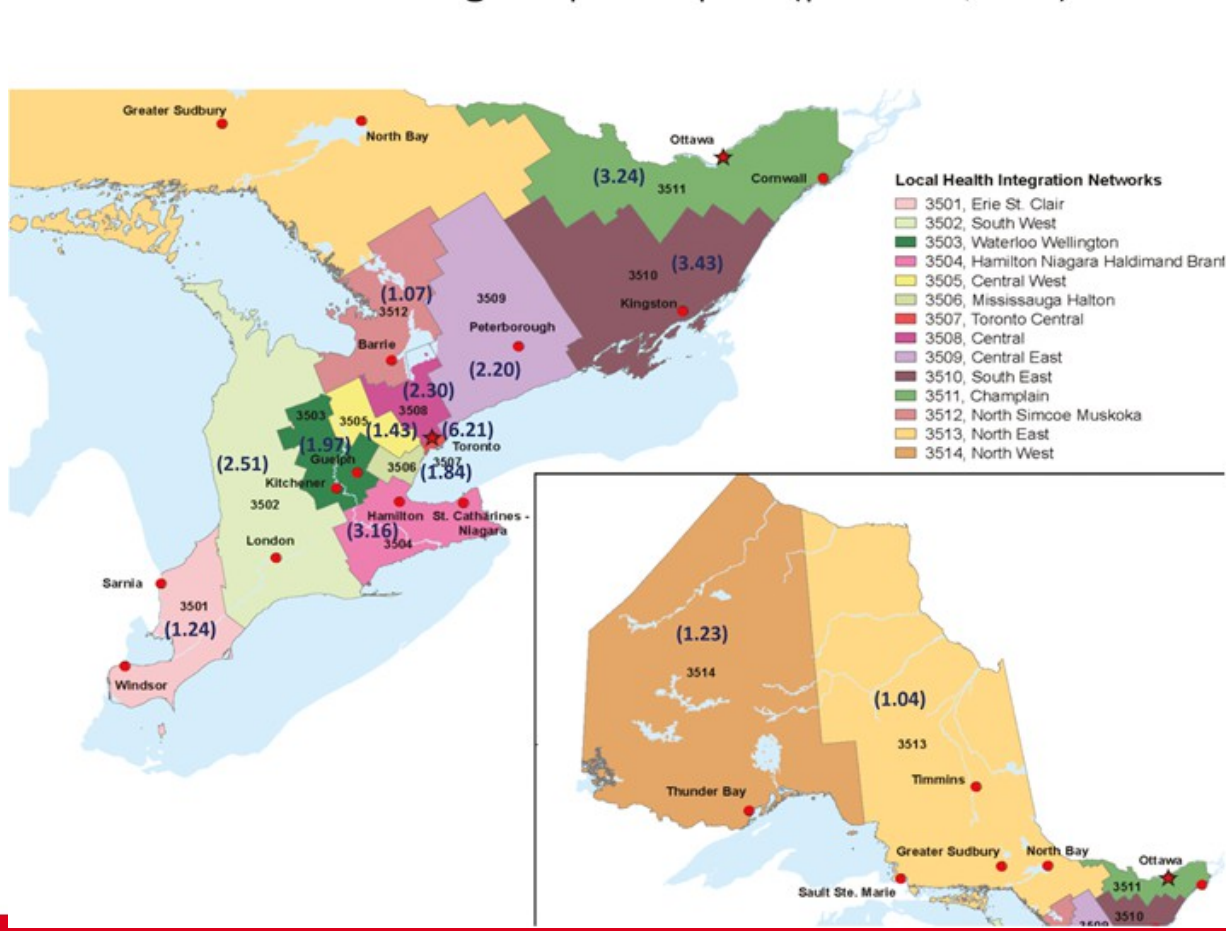
- Evidence of remote patient monitoring (RPM) → HealthPROMISE

Telemedicine Outcomes

- June 1, 2016- November 30, 2017
- Wait time Analysis
- Cost saving analysis (Northern Travel Grant)

Needs Assessment

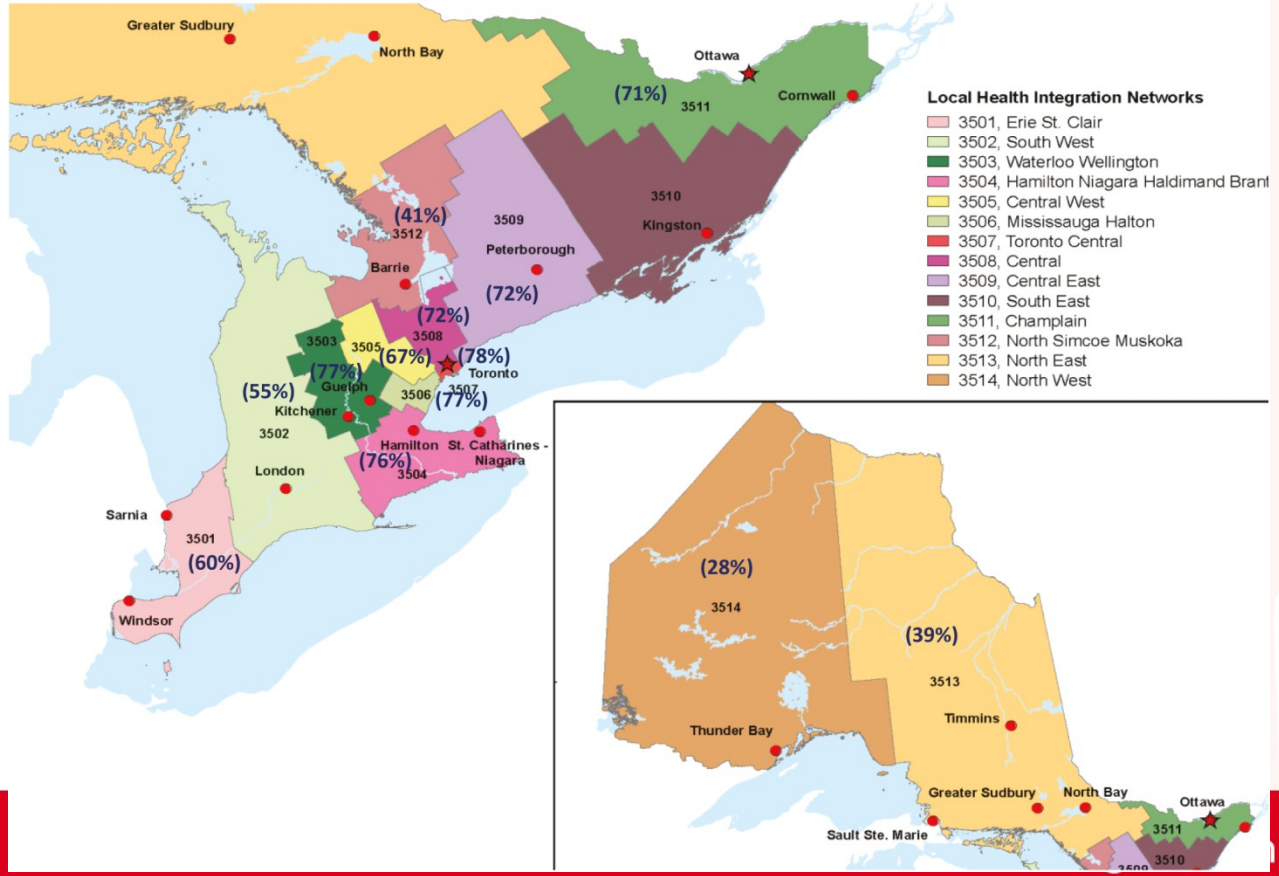
Unmet needs for IBD Specialist Care



Needs Assessmer

Early specialist care

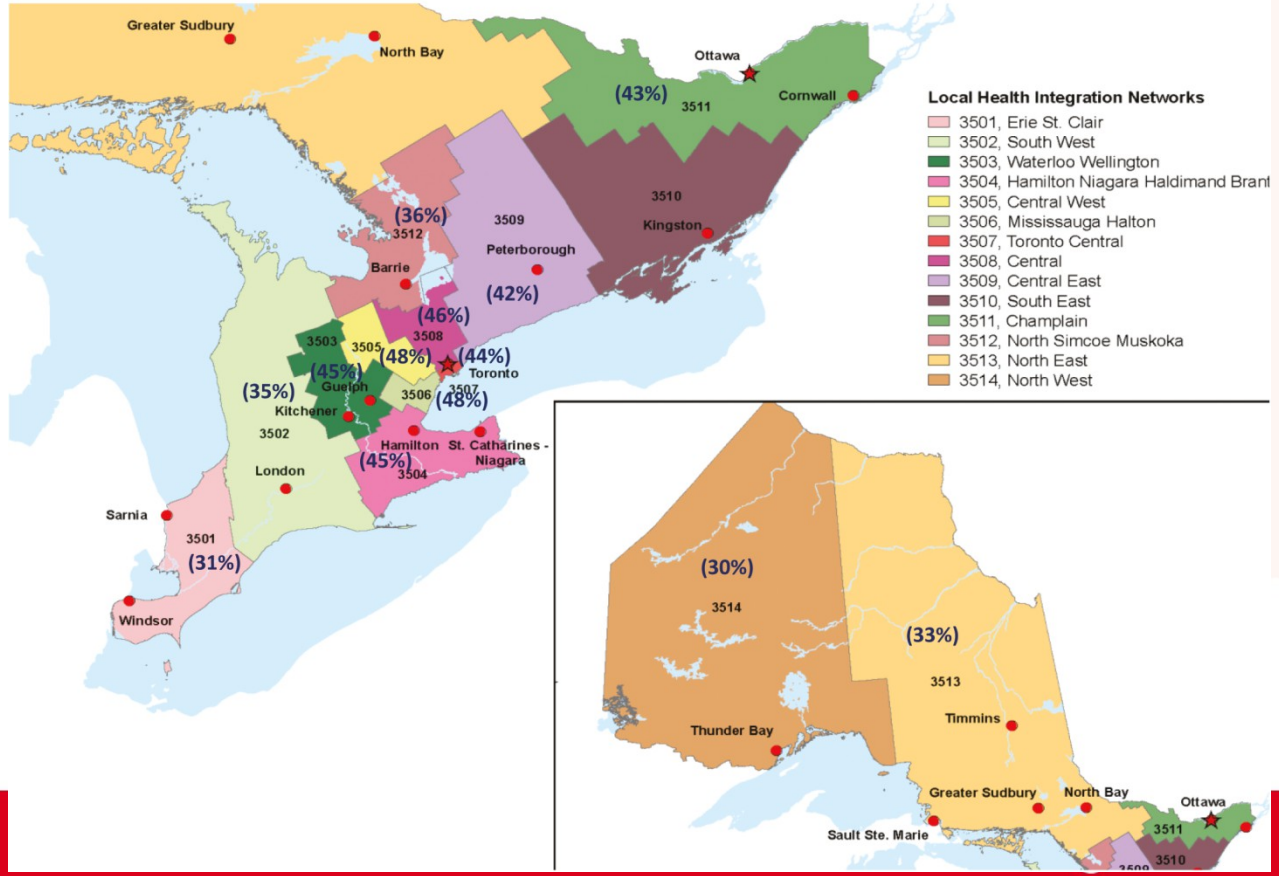
Early Specialist Care



Continuous specialist care

Needs Assessmer

Continuous IBD care



PACE Telemedicine Prog

99 Patients
186 Telemedicine visits

Month & Year	Total Visits	1st visit	2nd visit	3rd visit	4th visit	5th visit
June 2016	1	1				
July 2016	0	0				
August 2016	5	5				
September 2016	3	3				
October 2016	6	5	1			
November 2016	4	3	1			
December 2016	6	3	3			
January 2017	7	5	1	1		
February 2017	8	4	3	1		
March 2017	9	8	1			
April 2017	12	11	1			
May 2017	15	8	4	2	1	
June 2017	26	7	15	4		
July 2017	11	7	1	2	1	
August 2017	9	4	1	3	1	
September 2017	15	6	3	3	2	1
October 2017	17	8	5	1	2	1
November 2017	33	12	9	6	5	1
Total Visits	**186**	**99**	**49**	**23**	**12**	**3**

PACE Telemedicine Program

Telemedicine sites

Name of LHIN	Telemedicine Locations
Erie St. Clair	Windsor, Sarnia
South West	Markdale, Wiarton, Mount Forest, Wingham, Clifford, Owen Sound, Fergus, Ingersoll, Kincardine, Stratford, Lion's Head, London, St. Thomas
Waterloo Wellington	Cambridge, Kitchener, Guelph
Central West	Shelburne, Orangeville, Etobicoke
Mississauga Halton	Milton
Central	Newmarket
Central East	Port Perry, Peterborough, Lindsay, Uxbridge, Oshawa, Cobourg
South East	Belleville, Kingston, Madoc
Champlain	Ottawa
North Simcoe Muskoka	Barrie, Wasaga Beach, Midland, Bracebridge, Collingwood, Orillia, Parry Sound, Haliburton, Huntsville
North East	Timmins, Elliot Lake, Kirkland Lake, Cochrane, North Bay, Chapleau, Blind River, Val Caron, Sudbury, Sault Ste. Marie
North West	Dryden, Thunder Bay, Nipigon

PACE Telemedicine Progra

Cost Savings

Location	Total Travel Distance Avoided (km)	Total Cost Savings (Canadian dollars)
Blind River	1,108	$513.28
Chapleau	8,450	$3,759.50
Cochrane	4,302	$1,940.83
Dryden	3,428	$1,464.48
Elliot Lake	2,160	$1,003.60
Kirkland Lake	1,172	$539.52
Nipigon	7,602	$3,293.82
North Bay	1,380	$624.80
Parry Sound	916	$493.56
Sault Ste. Marie	15,114	$6,847.74
Sudbury	9,552	$4,624.32
Thunder Bay	49,716	$21,445.56
Timmins	1,382	$625.62
Val Caron	804	$388.64
TOTAL	**107,086**	**$47,565.27**

PACE Telemedicine Program

- Wait times
  - Median wait time from time of referral to initial telemedicine consultation was 17 days
  - Overall, 45% of patients attended their telemedicine appointment within 14 days of the referral.
  - Wait time between the request by a patient to be seen for active IBD symptoms was a median of 8.5 days.
  - Overall, 83% of patients who required telemedicine visit for active IBD symptoms were seen within the 2- week target wait time.

Discussion- Limitations

•Needs assessment- Our analysis was limited by its inability to account for migration of gastroenterologists and patients between geographic regions over time. Moreover, our analysis was limited by the relatively short follow-up period and did not directly assess the clinical impact of gaps in specialty care

•Telemedicine Program Evaluation- One of the study's limitations is that we do not have recent wait time data for in-person consultations at our centre with which to compare. However, it is important to note that for patients with active IBD symptoms, the telemedicine program was able to achieve the target wait time of less than two weeks.

Discussion- Major Findings from PACE Telemedicine Program

•During the first 18 months of its operation, we have demonstrated that the PACE Telemedicine Program provided a feasible approach to bridging regional disparities in access to specialist care for IBD. The telemedicine program's median wait times for new consultations and visits for active IBD symptoms of 17 days and 8.5 days, respectively, were considerably lower than the median 126 days reported by historical controls obtained through national audits.

•Cost Savings

•One of the key advantages of our program is its multidisciplinary nature.

Discussion- Work in Progress

- Improve program's outreach
  - Limited availability of telemedicine sites
  - Lack of awareness of our program within Norther Ontario areas

Discussion- Work in Progress

- Prior studies in other fields suggest telemedicine systems are associated with improved quality of life, patient satisfaction, decreased health resource utilization and indirect costs
- Currently measuring other performance metrics that include:
  - Patient satisfaction, quality of care and quality of life using validated questionnaires, the results of which were not yet available for this analysis.
  - We will also compare these performance measures in our telemedicine cohort with those of a matched cohort of our IBD patients seen in-person at our centre.
  - Additionally measure indicators of IBD healthcare utilization using data from ICES to see if the telemedicine initiative has reduced geographic disparity

Conclusion

- The implementation of telemedicine services for IBD is highly feasible and can reduce wait times to see gastroenterologists that meet nationally recommended targets and can lead to cost savings.
- The multidisciplinary nature of our program can serve as a model for the development of telemedicine programs for other chronic diseases in Ontario.

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Question Period

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