The Spread and scale up of the Champlain BASE™ eConsult service in Canada.

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The eConsult Team

A collaboration between:
• The Champlain Local Health Integration Network
• The Ottawa Hospital
• Bruyère Research Institute
• Winchester District Memorial

Program Funding
• Champlain Local Health Integration Network
• Ontario Ministry of Health and Long-term Care

Current Research Funding
• Canadian Institutes of Health Research
• Bruyère Research Institute

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Where it all started: Champlain region

- Population of 1.2 million
- One major urban referral center (Ottawa, ON)
- Surrounding rural communities up to 2 hours away by car
- Demographics/health outcomes similar to the rest of Ontario/Canada
- Long, cold winters (average winter low -11.2°C)
The problem: access to specialists

- Timely access to specialists remains a problem in Canada
- 7 in 10 primary care doctors state patients often experience long wait times to see a specialist
- Canada has the highest proportion of excessive waits among all 10 countries in the Commonwealth Fund 2015 Survey

How does Canada compare (2015)?

What is an eConsultation?

- Asynchronous, electronic communication between providers
- Patient-specific question directed to a specialist
- May result in patient not needing a face-to-face visit with a specialist
How does eConsult work?

1. PCP logs onto secure webpage
2. Completes simple form to submit to a “specialty”
3. Assigned to an appropriate specialist (availability/rotation)
4. Response received within 7 days; back and forth communication can occur between PCP and specialist
5. PCP closes eConsult and completes survey
Case example

Day 1 – PCP asks question: “Thank you for seeing this 13 year old [patient] with extensive!! warts to both hands ~ 20 per hand that began about 2 yrs ago. Very very slow improvement. Recent [bloodwork] shows a slight lymphopenia - see attached [bloodwork]. Should I be worried about immune compromise?”

PCP attaches images and lab test results, submits case

Day 2 – Specialist responds: “Dear Dr X: Thank you for this interesting consultation. Severe or recalcitrant warts can be symptom of a primary immunodeficiency disorder. I have attached a (very detailed) article on this relationship, which is complex, but the conclusions are helpful. .... [Specialist suggests possible tests.] You may wish to have this reviewed by Infectious Disease/Immunology. Treatment of the warts via freezing or other methods that induce an inflammatory response may be beneficial. You could also consider administering the HPV vaccine to boost humoural immunity if [patient] has not already received it. Hope that helps.”

PCP accepts recommendation, closes case
Evidence base

- 27,833 people have had an eConsult*
- 1,282 PCPs (1,089 MDs and 193 NPs) from 449 clinics in 105 towns/cities have joined the service
- 105 specialty groups available

* As of July 31, 2017
Impact of eConsult on access

Specialists responded to eConsults in a median of 0.9 days (improved access)

Over 60% of cases did not require a face-to-face specialist visit (efficient, coordinated care)

In 4% of cases, eConsult prompted a medical referral (patient safety)
Patient perspectives of eConsult

• She took photos of both my hands [and] sent them through the eConsult and within 24 hours I was back in the office [with a prescription].

• It was really, really helpful and I was so happy that it was available. [...]

• It just kind of gives me a bit of peace of mind

**Improved Patient experience through better access, care coordination**
Per Capita Cost of Care

• Across specialty groups, the service cost a weighted average of $47.35/case versus $133.60/case for traditional referrals

• Accounting for societal factors (e.g. cost of avoided referrals, reduced patient travel/lost wages) nets additional savings of $11/eConsult\(^1\)

• 8 % decrease on referral rate for primary care providers who use eConsult (cost savings of $4,104,528 based on 342,044 fewer referrals)

\(^{1}\) Liddy C, Drosinis P, Deri Armstrong C, McKellips F, Afkham A, Keely E. What are the cost savings associated with providing access to care through the Champlain BASE eConsult service? BMJ Open. Under Review
What is the impact of eConsult on primary care referral rate?

- eConsult physicians had consistently lower mean number of referrals compared to their matched controls
- 8% decrease on referral rate for primary care providers who use eConsult (preliminary results)
- potential total of 342,044 fewer referrals and cost savings of $4,104,528.
Provider perspectives

"Fast, easy to use service. Very user friendly. The advice I received was thorough and helpful. I am very grateful!"

"Excellent collaboration, very quick response – so glad to have access to this service!"

"Invaluable service for GPs"

"This eConsult saved an in-person referral and months of wait. This is such an excellent service. Also, as a Nurse Practitioner, I really value this service ... I get direct, timely access - this is improving care for my clients."

*Building Access to Specialists through eConsultation | © Bruyère Research Institute, Champlain LHIN, The Ottawa Hospital, Winchester District Memorial Hospital*
PCPs and their patients will have equitable access to specialist advice through eConsults.

Each region in Canada will have access to eConsult service(s).

**Goal**

**Operations**
- Registration
- Funding
- Payment model

**Engagement**
- Regional clinical champions
- Key organizations
- LHIN leaders

**Model of Delivery**
- Population-based
- Addresses regional gaps in specialist access
- Primary care led

**Quality Assurance**
- Metrics
- Leadership
- Auditing
- Comparison to other regions

**Workflow**
- Efficient
- Integrated into referral workflow
- Support integration into EMR

**Education**
- Leverage eConsult to build capacity in region through CPD
- Enhance specialist-PCP relationship

Program management, leadership, quality assurance

Technology platform – OTN, SharePoint, other regional platforms

National Partnerships: RCPSC, CHI, CFHI, CFPC, CAN, CPSI, CMPA
Spread and scale-up - pilot to program

Our own MOH in Ontario announced program funding for eConsult in 2017 budget.

Partnership with other regions of Canada to implement our model through research grants (Newfoundland, Quebec, Manitoba).

Country wide learning collaborative to spread the model sponsored by our national partners (CFHI, CHI, CFPC, RCPSC).

Collaborative Network of researchers and knowledge users from Canada and USA

National Organizations:

- College of Family Physicians of Canada
- Canadian Foundation for Healthcare Improvement
- Canadian Medical Protective Association
- Canadian Patient Safety Institute
- Canadian Nurses Association
- Royal College of Physicians and Surgeons
- Canada Health Infoway
- American Board of Medical Specialists
Implementation tools

• Our team developed a suite of tools and knowledge products:
  • eBook: “Faster Access, Better Care”
  • Business case calculator
  • Website (http://champlainbaseeconsult.com)
  • Draft key messages
  • You tube videos

• Tools/products are freely available and designed to facilitate adoption of eConsult by innovators in new jurisdictions
Focus on policy

- Sustainable innovations must move beyond academic literature and engage policymakers in order to create linkages and understand/overcome policy barriers
  - Seek alignment with current policy platform
  - Create briefing notes
  - Hold in-person meetings
  - Write to the Minister
  - Patient/Public engagement
Lessons learned

- Stay grounded in research (evidence)
  - Imbedded survey questions into usage of service/ routine utilization data
  - Quadruple aim framework as a guide
  - Grant funding ongoing
  - Go beyond academic dissemination
- Team approach (partnerships)
- Embrace policy aspects
- Be persistent
Thank You!

Questions?
For more information, check out our eBook

Available in iBook (for Mac) and pdf (for PC) from www.ChamplainBASEeConsult.ca
Evidence base for Champlain BASE™

Better Population Health

1) Building Access to Specialist Care through E-Consultation. *Open Med* 2013

2) Utilization, Benefits and Impact of an e-Consultation Service across Diverse Specialties and Primary Care Providers. *Telemed J eHealth* 2013

3) Improving access to chronic pain services through eConsultation: A cross-sectional study of the Champlain BASE eConsult service. *Pain Med* 2016

4) Rationale and model for integrating the pharmacist into the outpatient referral-consultation process. *Can Fam Physician* 2016

5) eConsults to Endocrinologists improve access and change primary care provider behavior. *Endocr Pract* 2016


7) Ask the eConsultant: Improving access to hematology expertise using an asynchronous eConsult system. *J Telemed Telecare* 2016


9) eConsultations to Infectious Disease Specialists: Questions asked and impact on primary care providers' behaviour. *Open Forum Infect Dis* 2017

10) Use of Electronic Consultation System to Improve Access to Care in Pediatric Hematology/Oncology. *J Pediatr Hemato/Oncol* 2017

11) Improving access to specialists in remote communities: A cross-sectional study and cost analysis of the use of eConsult in Nunavut. *J Circumpolar Health* 2017

12) The Association between Question Type and the Outcomes of a Dermatology eConsult Service. *Int J Derm* 2017


15) Improving access to Urologists through an Electronic Consultation Service. *Can Urol Assoc J* Accepted December 13, 2016


18) It takes a team: improving access to team-based care through the Champlain BASE eConsult Service. *Br J Gen Pract* Accepted July 10, 2017.
Evidence base for Champlain BASE™

**Improved Patient Experience**

1) Patients’ perspectives on wait times and the referral-consultation process while attending a tertiary diabetes and endocrinology centre: Is eConsultation an acceptable option? *J Diabetes* 2015

2) Use of Social Media for Patient Engagement in an Innovative Implementation Project. *Can Fam Physician* 2017

3) Just a Click Away: Exploring patients’ perspectives on receiving care through the Champlain BASE eConsult service. *Family Pract* Aug 2017


**Improved Provider Experience**

1) Impact of and satisfaction with a new eConsult service: a mixed methods study of primary care providers. *J Am Board Fam Med* 2015


4) Impact of Question Content on e-Consultation Outcomes. *Telemed J eHealth* 2015

5) Unique educational opportunities arising from electronic consultation services. *Academic Medicine*. 2017

**Lower Costs**


2) What are the costs of improving access to specialists through eConsultation? The Champlain BASE experience. *Stud Health Technol Inform* 2015

3) What are the cost savings associated with providing access to specialist care through the Champlain BASE eConsult service? A costing evaluation. *BMJ Open* 2016

4) Choosing a model for eConsult specialist remuneration: factors to consider. *Informatics* 2016

**Exploring Policy/Implementation Issues**

1) Ten Steps to Establishing an e-Consultation Service to Improve Access to Specialist Care. *Telemed J eHealth* 2013


3) Critical requirements and considerations for establishing and participating in an eConsultation service: Lessons learned from the Champlain BASE team. *E Healthc Law Rev* 2015
