



Health Innovation Portal: Archive of Innovative Practices

Theme: **E-Health**

January 2014



Health Council of Canada
Conseil canadien de la santé



Selected Search Output Table (December 16, 2013)

SEARCH TERMS:	N/A	LOCATION:	All
HEALTH THEME:	E-Health	FRAMEWORK CATEGORY:	All
HEALTH SECTOR:	All	SEARCH RESULTS:	17 results out of 20

1. Physicians Data Collaborative

Implementation Year: Sunday, December 9, 2012 - 15:30	Location: British Columbia	Practice Website:
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SNAPSHOT:

This innovative practice involves the creation of a network of physicians' offices that enables the collaborative use of clinical data generated by an electronic medical record (EMR) to improve patient care. The practice was launched in British Columbia and currently involves 23 of BC's 33 geographically based divisions of family practice.

CONTACT INFORMATION:

Claire Doherty Executive Director Physicians Data Collaborative physiciansdatacollaborative@yahoo.ca

2. Sault Ste. Marie Group Health Centre

Implementation Year: Tuesday, December 9, 1997 - 14:30	Location: Ontario	Practice Website: http://www.ghc.on.ca/index.php
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SNAPSHOT:

This innovative practice facilitates improved accessibility and comprehensiveness of primary care service delivery. The Group Health Centre was originally founded in Sault Ste. Marie in 1962. As a progressive, multi-specialty, ambulatory health organization, the health centre integrated an electronic health record system in 1997 and now serves 71,000 residents of Sault Ste. Marie and Algoma District (population 75,000), with 81 doctors and 350 employees.

CONTACT INFORMATION:

Name: Garry Walsh **Title:** Vice President of Communications **Organization:** Group Health Centre **Email address:** walsh_gary@ghc.on.ca **Telephone number:** 705-759-5562 **Information last updated on:** November 13, 2013

3. Remote Order Telepharmacy Review

Implementation Year: Monday, November 26, 2007 - 14:30	Location: International	Practice Website: http://www.mercydubuque.com/
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SNAPSHOT:

This innovative practice improves accessibility, efficiency, and safety of pharmaceutical services through the use of electronic medical records, standardized formularies, and tailored communication protocols among pharmacists, physicians, and nurses. The telepharmacy services were implemented in seven rural critical access hospitals in Iowa in 2007 and have continued to expand to a total of 10 locations, all of which were identified as having inconsistent pharmacist coverage.

CONTACT INFORMATION:

Name: Douglas Wakefield **Title:** Director **Organization:** Centre for Health Care Quality; Missouri, United States **Email address:** wakefielddo@health.missouri.edu **Information last updated on:** August 22, 2009



4. Telehealth Services, Primary Care, Carrier Sekani Family Services

Implementation Year: Sunday, November 25, 2012 - 19:00	Location: British Columbia	Practice Website:
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SNAPSHOT:

This innovative practice addresses the need to enhance access to primary care and continuity of care in remote First Nations communities in North Central British Columbia through use of telehealth. The practice was launched at Carrier Sekani Family Services in January 2012 and involved a primary care physician, a family nurse practitioner, and medical staff at nursing centres and health centres in eight First Nations in Carrier and Sekani Territory.

CONTACT INFORMATION:

Name: Ginny Burns **Title:** Family Nurse Practitioner and Clinical Support **Organization:** Carrier Sekani Family Services Primary Care **Email address:** ginny@csfs.org **Telephone number:** (250) 567 7561 **Information last updated on:** September 27, 2013

5. PharmaNet Modernization Project

Implementation Year: Sunday, October 7, 2012 - 14:30	Location: British Columbia	Practice Website:
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SNAPSHOT:

This innovative practice addresses the issue of improving the delivery of patient care in British Columbia by expanding the use of electronic medication information management. The practice was launched in British Columbia in two medical clinics and a pharmacy, and it involved three physicians, two pharmacists, clinic/pharmacy staff, and consultants from colleges, professional associations, and ministry program areas.

CONTACT INFORMATION:

Name: Zachy Olorunjojon **Title:** Project Director, PharmaNet Modernization **Organization:** Ministry of Health **Email address:** zachy.olorunjojon@gov.bc.ca **Telephone number:** 250-387-1549

6. Physicians Data Collaborative (PDC)

Implementation Year: Thursday, October 7, 2010 - 14:30	Location: British Columbia	Practice Website:
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SNAPSHOT:

This innovative practice addresses the issue of improving patient care by enabling sharing of clinical data among divisions of family practice. The practice was launched in British Columbia with 25 divisions of practice, and it involved a development team consisting of a MEDIC consultant, a project manager, and a board of directors with representatives from all health authorities and representatives of academic institutions.

CONTACT INFORMATION:

Name: Claire Doherty **Title:** Executive Director **Organization:** Physicians Data Collaborative **Email address:** physiciansdatacollaborative@yahoo.ca **Telephone number:** N/A

7. Integrating Patient Health Records on Wireless Devices

Implementation Year: Thursday, October 7, 2010 - 13:45	Location: Alberta	Practice Website: http://www.coalesce.com/Sample-Projects.html#ccp
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SNAPSHOT:

This innovative practice addresses the issue of enabling the integration of electronic medical record (EMR) systems, electronic health record (EHR) systems, and any picture archiving and communication systems (PACS) for a complete and discrete view of patient records using mobile devices. It was adopted by various hospitals, workforce groups, and primary health care clinics throughout Alberta Health Services starting in 2010.

CONTACT INFORMATION:



Name: Dave Stasiuk Organization: Coalese Corporation, Consultant Email address: dave@coalese.com Telephone number: 587-226-0915

8. The Ontario Cancer Symptom Management Collaborative: Integration of Care and Better Cancer Symptom Management Using an Electronic Tool called ISAAC

Implementation Year: Saturday, October 7, 2006 - 11:30	Location: Ontario	Practice Website: https://www.cancercare.on.ca/ocs/qpi/ocsmc/isaactool/
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SNAPSHOT:

This innovative collaborative practice addresses the issue of improving cancer patients' experience by enhancing the quality and consistency of patients' physical and emotional symptom management across the patient journey. The collaborative was set up in Ontario in 2006 and involved a central cancer program and 14 regional programs across the province.

CONTACT INFORMATION:

Name: Sean Molloy Title: Program Manager, Symptom Management Organization: Cancer Care Ontario Email address: sean.molloy@cancercare.on.ca Telephone number: 416 971 9800 x2730

9. Home Care Business Automation Project: Streamlining home care coordination using cellphones

Implementation Year: Friday, October 7, 2011 - 11:30	Location: National	Practice Website:
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SNAPSHOT:

This innovative practice streamlines home care staff communication and coordination through the use of a cellphone application. It was launched in 2011 by the Saint Elizabeth Health Care home care service and involved health care staff from across Canada.

CONTACT INFORMATION:

Name: Mary Lou Ackerman: Vice President, Business Capabilities Organization: Saint Elizabeth Health Care Email address: mackerman@saintelizabeth.com Telephone number: 905-968-6451

10. MedicAlert Access En-Route: Medic Alert Interchange Project

Implementation Year: Friday, February 3, 2012 - 01:00	Location: Nova Scotia	Practice Website: http://www.gov.ns.ca/health/ehs/medicAlert.asp
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SNAPSHOT:

This innovative practice gives paramedics access to the MedicAlert emergency health record from ambulances and includes it in electronic patient care records.

CONTACT INFORMATION:

Name: Robert Ridge Title: President and CEO Organization: Canadian MedicAlert Foundation Email address: rridge@medicalert.ca Telephone number: 416-490-3522

11. Telehomecare in Ontario

Implementation Year: Saturday, February 3, 2007 - 01:00	Location: Ontario	Practice Website:
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SNAPSHOT:

This innovative practice aims to provide care to patients in their home by offering a remote monitoring unit to transmit their blood pressure, weight and other measurements from home to the physicians office on a daily basis. Launched in 2007, Ontario is currently implementing a provincial telehomecare expansion program.



CONTACT INFORMATION:

Name: Laurie Poole **Title:** Vice President, Telemedicine Solutions **Organization:** Ontario Telemedicine Network **Email address:** lpoole@otn.ca
Telephone number: 416-446-4110 ext. 4233

12. eMedication Reconciliation (The Ottawa Hospital)

Implementation Year: Friday, February 11, 2011 - 00:00	Location: Ontario	Practice Website: http://www.imaginationchallenge.ca/outcomes-challenge/medication-reconciliation-2/
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SNAPSHOT:

This innovative practice aims to reduce the risk of adverse drug events and to ensure accurate and comprehensive medication information is accessible and communicated consistently to clinicians across points of care. Implemented in the Ottawa Hospital in 2011, this medication reconciliation program is seamlessly integrated with the hospitals electronic records.

CONTACT INFORMATION:

Name: Dr. Glen Geiger **Title:** Medical Director, Chief Medical Information Officer, Staff Physician, General Internal Medicine, Assistant Professor, University of Ottawa **Organization:** The Ottawa Hospital **Email address:** ggeiger@ottawahospital.on.ca

13. myDDSNetwork Collaborative Model for Dentistry Referrals

Implementation Year: Friday, February 3, 2012 - 00:15	Location: National	Practice Website: http://www.ereferralpilot.com/
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SNAPSHOT:

This innovative practice addresses the need to support the exchange and collaboration of personal health information (PHI) between dental providers. Launched at the end of 2012, all dentists in Canada now have access to a standardized referral and consultation platform to exchange PHI.

CONTACT INFORMATION:

Name: Dr. Jeff Glaizel **Title:** President and CEO **Organization:** myDDSnetwork Ltd. **Email address:** drjeff@myddsnetwork.com **Telephone number:** 416-579-9679

14. Bridging General and Specialist Care (BGSC) Project

Implementation Year: Tuesday, February 5, 2008 - 00:30	Location: Manitoba	Practice Website:
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SNAPSHOT:

This innovative practice streamlines the referral process among health care providers in Manitoba. Launched in 2008, the program focused on developing IT software and finalizing criteria for effective referrals.

CONTACT INFORMATION:

Name: Brie DeMone **Title:** Executive Director **Organization:** Health System Innovation, Manitoba Health **Email address:** Brie.DeMone@gov.mb.ca
Telephone number: 204-788-6475

15. Alberta's Integrated Approach to Medical and Health Information: Alberta NetCare Portal, Pharmaceutical Information Network (PIN), and Physician Office System Program (POSP)

Implementation Year: Thursday, February 3, 2011 - 00:00	Location: Alberta	Practice Website: http://www.albertanetcare.ca
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SNAPSHOT:

This innovative practice addresses integration of electronic health records with pharmaceutical information networks. Publicly accessible throughout Alberta since



2011, the initial release of an integrated Patient Portal (myHealth.Alberta.ca) is continually evolving.

CONTACT INFORMATION:

Name: Dr. Tim Kolotylyuk **Title:** Clinical Professor, Informatics Advisor **Organization:** Department of Family Medicine, University of Alberta **Email address:** timkolotylyuk@med.ualberta.ca

16. Electronic Medical Records in Northwest Territories

Implementation Year: Thursday, February 3, 2005 - 00:45	Location: Northwest Territories	Practice Website: http://www.gov.nt.ca/
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SNAPSHOT:

This innovative practice addresses the necessity to coordinate information across multiple sites and care providers in the Northwest Territories. Many specialists are not available locally, and often patients must travel long distances to access certain types of care. In 2005, an EMR pilot project was initiated in Great Slave Medical House in Yellowknife, Northwest Territories. Based on the success of this pilot project, the Government of the Northwest Territories has begun a territory-wide EMR system to support an integrated service delivery model and address territorial care pathways.

CONTACT INFORMATION:

Name: Dr. Ewan Affleck **Title:** Medical Director **Organization:** Yellowknife Health and Social Services Authority **Email address:** Ewan_Affleck@gov.nt.ca

17. Community Agency Notification Program

Implementation Year: Thursday, February 3, 2011 - 00:45	Location: Ontario	Practice Website: http://torontoems.ca/community-paramedicine/can
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SNAPSHOT:

This innovative practice addresses the fact that many patients living at home receive various levels of support from community agencies. In an acute medical situation, these support agencies often lose contact with their patients. In March 2011, Toronto Emergency Medical Services (EMS) launched a pilot program called Community Agency Notification (CAN). CAN is a communication protocol initiated by paramedics that notifies community agencies when their client comes into contact with EMS. The alert enables the community agency to follow up with the hospital and/or resident.

CONTACT INFORMATION:

Name: John Klich **Title:** Superintendent, Community Paramedicine Program **Organization:** Toronto Emergency Medical Services **Email address:** jklich@toronto.ca **Telephone number:** 416-392-3881



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Physicians Data Collaborative

LOCATION:	British Columbia	HEALTH THEME:	E-Health
HEALTH SECTOR:	Primary Health Care	FRAMEWORK CATEGORY:	Emerging

Snapshot: This innovative practice involves the creation of a network of physicians' offices that enables the collaborative use of clinical data generated by an electronic medical record (EMR) to improve patient care. The practice was launched in British Columbia and currently involves 23 of BC's 33 geographically based divisions of family practice.

Practice Description:

The Physicians Data Collaborative (PDC) is developing a distributed data network that is driven by front-line physicians and owned by BC's divisions of family practice. The PDC's mission is to operate a trusted physician network that enables doctors to collaboratively use data for improving primary care through:

- local health care initiatives;
- continuous learning; and
- clinical research.

The PDC values 1) ownership and operation by physicians, 2) protection of privacy and safety for providers and patients, and 3) results that are meaningful for physicians in daily practice. The PDC's distributed data network will not collect patient-level data into a centralized hub. Rather, questions (e.g., prevalence of diabetes) will be sent out to participating practices and only answers (e.g., 200/1500 patients have a diagnosis of diabetes) will be input. The hub will summarize the results across practices and present the end-user with reports that would allow for comparisons among practices within a trusted community or region. An iterative approach to system development is being used, with the first releases scheduled for late 2013. These early releases will be deployed with a limited number of EMR systems and a fixed set of primary health care questions of interest. The PDC is funded by membership fees paid by the participating divisions of family practice, set at 3.5% of the division's infrastructure funding (provided by the Ministry of Health through the General Practice Services Committee, a joint committee of the BC Medical Association and the Ministry of Health).

Impact:

An assessment of the costs and savings of this practice has not been completed at this time.

This innovative practice is under development. However, international evidence and experiences suggest that the practice can lead to improved performance metrics and has the potential to produce positive outcomes on health.

Applicability/Transferability

The PDC has been inspired by Pegasus Health, an independent practitioner association in Christchurch, New Zealand, which has used clinical data collaboratively over the past 20 years to improve patient care. The practice informant did not identify other practices that PDC had adapted from and was unaware if the practice was used as a model elsewhere in Canada. The success of this specific practice is dependent on timely engagement of stakeholders (including EMR vendors), building consensus among stakeholders, and adoption by physicians.

Contact Information:

Claire Doherty

Executive Director

Physicians Data Collaborative

physiciansdatacollaborative@yahoo.ca



Content has been adapted from the following sources and relevant links:

This practice description is based on materials provided by Brian Hutchison and Monica Aggarwal on behalf of the Canadian Working Group for Primary Healthcare Improvement.

Physicians Data Collaborative. (2013). *2013 Annual Report*. Retrieved from <https://www.divisionsbc.ca/Media/WebsiteContent/5306/2013-PDC-Annual-Report.pdf>

Physicians Data Collaborative. (February 2013). *Update #4 : What has the Physicians Data Collaborative been doing lately?* Retrieved from <https://www.divisionsbc.ca/Media/WebsiteContent/5306/PDC-Update4-February2013.pdf>



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Sault Ste. Marie Group Health Centre

LOCATION:	Ontario	HEALTH THEME:	Access and Wait Times
HEALTH SECTOR:	Primary Health Care	FRAMEWORK CATEGORY:	Promising

SNAPSHOT: This innovative practice facilitates improved accessibility and comprehensiveness of primary care service delivery. The Group Health Centre was originally founded in Sault Ste. Marie in 1962. As a progressive, multi-specialty, ambulatory health organization, the health centre integrated an electronic health record system in 1997 and now serves 71,000 residents of Sault Ste. Marie and Algoma District (population 75,000), with 81 doctors and 350 employees.

PRACTICE DESCRIPTION:

The Group Health Centre provides ambulatory care, diagnostic services, integrated care with primary, secondary, and other health care services such as for congestive heart failure, nutrition, physical therapy, and surgery. A range of health care professionals are located on-site, including doctors, nurses, nurse educators, physiotherapists, optometrists, kinesiologists, dietitians, and lab technicians. The centre focuses on providing same day care as well as offering on-site services including laboratory facilities and longer term chronic care support.

Prior to 1997, there was recognition that patients, particularly those with chronic conditions, were slipping through cracks in the health care system and better record-keeping systems were required. Sault Ste. Marie now has the largest primary care electronic medical records system in Canada. With this system ('Epic' <http://www.epic.com/software-ambulatory.php>), each patient has their own, single electronic medical record. This mode of information storage enables different types of health care providers to access patient data as needed, and facilitates real-time referrals to specialists, thereby increasing interprofessional collaboration and continuity of care. This system allows for greater patient engagement, as patients can access their own health information via an online patient portal and the system generates treatment plans based on best practice templates and algorithms. Another capability of the electronic system is the possibility to aggregate data to track trends and outcomes. With regular monitoring and evaluation, this system can link to the development of new programming based on patient-population needs and integrate accordingly, based on clinical practice guidelines. New programming initiatives are processed through the Committee of Health Promotion Initiatives.

The Group Health Centre functions under an alternative funding structure with support from the Ontario Ministry of Health and Long-Term Care.

IMPACT:

A third-party evaluation of the impact of the electronic medical record system was conducted by Health Informatics Institute (<http://www.hiiu.ca/>) at Algoma University in 2011. Data were collected through observation, one-on-one interviews, focus groups, and surveys, however, this information is not publically available. Anecdotal evidence from participating health care providers suggests that improved health outcomes can be attributed to the integrative functioning of the electronic medical record and greater satisfaction attributed to being able to devote more time to clinical practice rather than administration.

Group Health Centre has won National Best Practice Awards for four consecutive years and was featured in Maclean's Magazine as one of Canada's top ten models of health care.

APPLICABILITY/TRANSFERABILITY:

'Epic' electronic medical records system functions out of Wisconsin, USA and manages over 170,000,000 American patients. Group Health is one of four health care organizations (Children's Hospital of Eastern Ontario, Women's Health Centre in Toronto, and Hamilton Health Sciences) in Canada to use 'Epic', but is unique in its care for outpatients. The continued and increasing coverage of the Sault Ste. Marie Group Health Centre is exemplary of the possibility for this type of health care model to successfully function within a Canadian community and is therefore theoretically transferrable elsewhere.

CONTACT INFORMATION:



Name: Garry Walsh

Title: Vice President of Communications

Organization: Group Health Centre

Email address: walsh_gary@ghc.on.ca

Telephone number: 705-759-5562

Information last updated on: November 13, 2013

Content has been adapted from the following sources and relevant links:

Publications:

Sault Ste. Marie Group Health Centre: Big Success in a Small Community. Government of Ontario.

<http://www.health.gov.on.ca/en/pro/programs/cdpm/pdf/ssmarie.pdf>

Shaw, N., Ward, A. (2011) Case Study: A look into the Group Health Centre's Electronic Medical Record Procurement Process

http://www.nosm.ca/uploadedFiles/Research/Northern_Health_Research_Conference/Ward.%20Amanda_Case%20Study-Group%20Health%20Centre%20Record%20Procurement.pdf

Personal Communications:

Garry Walsh; November 13, 2013 [telephone]

External Source: <http://www.ghc.on.ca/index.php>



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Remote Order Telepharmacy Review

LOCATION:	International	HEALTH THEME:	Access and Wait Times
HEALTH SECTOR:	Acute Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice improves accessibility, efficiency, and safety of pharmaceutical services through the use of electronic medical records, standardized formularies, and tailored communication protocols among pharmacists, physicians, and nurses. The telepharmacy services were implemented in seven rural critical access hospitals in Iowa in 2007 and have continued to expand to a total of 10 locations, all of which were identified as having inconsistent pharmacist coverage.

PRACTICE DESCRIPTION:

In 2005, electronic health record and computerized prescriber-order-entry systems were introduced in affiliation with the Trinity Health Network in Iowa to support expedited, 24/7 medication order review by pharmacists. In 2006, planning began for similar implementation at a regional level, and by 2008 all seven of the participating critical access hospitals had these health information technology systems in place. This gave pharmacists remote access to patients' electronic health records, allowing them to review the record before selecting the appropriate medication. Through this system orders are scanned and sent via email; they can be processed within 60 minutes of being entered into the system. Medications are dispensed through an automated, standardized hospital formulary based on a unique coding system, and security is managed based on the role of the provider requesting patient information.

IMPACT:

This innovative practice has been implemented since 2007 but no formal longitudinal impact assessment is available at this time. As a supplementary evidence base, data were collected over a two-week pilot period in 2012, indicating that the remote order verification was 39% more efficient in processing orders than in the local pharmacy. The cost was \$4 per medication review without any reported adverse events. This brief data collection period, along with the overall reporting on increased accessibility, coincided with change in state law in January 2013, which enabled the computerized prescriber-order-entry systems to function outside of regular hours and provide 24/7 coverage.

APPLICABILITY/TRANSFERABILITY:

Similar telepharmacy services exist in other states where enabling laws are present. The broader applicability of these services is largely dependent on legislation and available resources. In Iowa, this model was particularly successful in rural settings where insufficient baseline pharmacist coverage had been identified. The level of transferability for this innovative practice in the Canadian context is complicated by different financing systems; however, similar models have been employed in British Columbia and Ontario where pharmacist shortages exist in rural areas (see <http://www.cadth.ca/products/environmental-scanning/health-technology-update/issue2/telepharmacy>).

Barriers to implementing a similar practice in other jurisdictions depend on regulations allowing remote order verification services to function outside of regular pharmacy hours. This was not the case in Iowa at the time this initiative was implemented. In fact, it was not until January 12, 2013, that there was sufficient evidence to allow the electronic health record, computerized prescriber-order-entry systems to function outside of regular pharmacy hours.

CONTACT INFORMATION:

Name: Douglas Wakefield

Title: Director

Organization: Centre for Health Care Quality; Missouri, United States

Email address: wakefielddo@health.missouri.edu



Information last updated on: August 22, 2009

Content has been adapted from the following sources and relevant links:

Publications:

Wakefield, D.S., Ward, M.M., Loes, J.L., O'Brien, J., & Sperry, L. (2010). Implementation of a telepharmacy service to provide round-the-clock medication order review by pharmacists. *American Journal of Health System Pharmacy*, 67(23), 2052–2057. Abstract retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/21098378>

Wakefield, D.S., Ward, M.M., Loes, J.L., & O'Brien, J. (2010). A network collaboration implementing technology to improve medication dispensing and administration in critical access hospitals. *Journal of American Medical Information Association*, 17(5), 584–587. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/20819868>

Wakefield, D.S., Ward, M.M., Loes, J.L., O'Brien, J., & Abbas, N. (2010). Creating a shared formulary in 7 critical access hospitals. *Journal of Rural Health*, 26(3), 283–293. Abstract retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/20633097>

Personal Communications:

Jack Kampf, J. (interview, August 22, 2013). [Director of Pharmacy, Mercy Medical Centre for Dubuque and Dyersville]

Wakefield, D. (interview, August 14, 2013).

External Source: <http://www.mercydubuque.com/>



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Telehealth Services, Primary Care, Carrier Sekani Family Services

LOCATION:	British Columbia	HEALTH THEME:	Aboriginal Health
HEALTH SECTOR:	Primary Health Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT:

This innovative practice addresses the need to enhance access to primary care and continuity of care in remote First Nations communities in North Central British Columbia through use of telehealth. The practice was launched at Carrier Sekani Family Services in January 2012 and involved a primary care physician, a family nurse practitioner, and medical staff at nursing centres and health centres in eight First Nations in Carrier and Sekani Territory.

PRACTICE DESCRIPTION:

Carrier Sekani Family Services (CSFS) introduced telehealth into its primary care services as a way to enhance access to care in eight remote First Nations communities it serves. Prior to the introduction of this technology, seniors in these communities relied on the services of fly-in physicians. With no access to physician care between these community visits, individuals typically access primary care services from nurses who rotate through the communities. Anticipated outcomes of introducing telehealth included (1) reduced need for medical transfers, (2) enhanced ability to meet chronic care guidelines, and (3) enhanced ability to provide continuity of care and access to evidence-based care. Funding to support telehealth is drawn from the CSFS budget.

CSFS introduced telehealth in 2012, piloting it in the most remote community it serves. Telehealth enabled nurses and patients in the community to access (as needed) CSFS's nurse practitioner and primary care physician. Within six months, CSFS brought telehealth into a second community; today, nursing staff in eight communities are using telehealth. The nurse practitioner and primary care physician continue to travel to the communities, but the physician's practice has shifted to focus on telehealth appointments with patients. At scheduled clinics in the communities, the nurse practitioner can facilitate physical examinations needed to complete patients' virtual visits with the physicians. CSFS's telehealth practice has been established as a permanent program and continues to grow. The program now includes access to mental health services. CSFS has recently received funding for three additional nurse practitioner positions, which will further enhance patients' access to care and the utility of the telehealth practice.

Seniors, other patients, and nursing staff have embraced telehealth. Telehealth has meant that all medical staff in CSFS's system of nursing stations now have access to the same information. Each Monday morning, nursing staff in all eight communities and the nurse practitioner meet via telehealth, a practice that offers valuable peer support to nursing staff.

CSFS telehealth-assisted primary health care services provide more access to care than was previously available to First Nations seniors in the region. The practice has increased continuity of care and changed the way in which care is provided. Seniors and their families are able to establish relationships with their physician, and the practice supports collaborative care. Ordinarily, in nursing stations, care focuses on treatment. Telehealth positions CSFS to shift the focus of in-community services towards maintenance and preventive care. Telehealth has also proven to be an invaluable resource in the provision of in-community palliative care, enabling CSFS's physician, nurse practitioner, and nursing staff to meet with patients and their families and ensure that the best possible care is in place.

IMPACT:

While an evaluation has not been completed at this time, a survey of nursing staff at the pilot site is underway. Personal testimonials from patients and other observations suggest that the practice has the potential for positive outcomes on health. For example, the number of medical transfers from communities where the telehealth practice is now being used has declined to about half of what it was before the technology was introduced. Reductions in medical transfers and travel are generating savings.

APPLICABILITY/TRANSFERABILITY:



The practice informant did not identify other practices that Sekani had adapted from and were unaware if the practice was used as a model elsewhere. Although, at the time of this report, the practice had only been in place for a relatively short time, other health organizations in British Columbia have shown interest in the model. Lessons learned from this practice suggest that it is theoretically applicable and transferable to other settings:

Although, at the time of this report, the practice had only been in place for a relatively short time, other health organizations in British Columbia have shown interest in the model.

- The telehealth program was championed by CSFS's primary care physician, whose passion, knowledge, and dedication to the practice have been invaluable.
- Staff education is key, particularly in communities served by rotating visiting nurses.
- For the practice to succeed, medical practitioners and nurses in the communities must be willing to collaborate with the program's nurse practitioner and physician. To minimize fear or resistance from community service providers, CSFS's nurse practitioner has worked to establish personal relationships, visiting the communities when the practice is introduced or when equipment or programming changes occur, making it clear that the technology will enhance—not replace—the relationships between care providers and patients.
- Challenges encountered in the development and implementation of this practice have included having limited access to adequate bandwidth and Internet service in some communities and limited access to dedicated funding.

CONTACT INFORMATION:

Name: Ginny Burns

Title: Family Nurse Practitioner and Clinical Support

Organization: Carrier Sekani Family Services Primary Care

Email address: ginny@csfs.org

Telephone number: (250) 567 7561

Information last updated on: September 27, 2013

Content has been adapted from the following sources and relevant links:

Personal Communications:

Burns, G. (interview and feedback, July 23, 2013). [Carrier Sekani Family Services].

Pawlovich, J. (interview and feedback, July 23, 2013). [Carrier Sekani Family Services].



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PharmaNet Modernization Project

LOCATION:	British Columbia	HEALTH THEME:	E-Health
HEALTH SECTOR:	Primary Health Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice addresses the issue of improving the delivery of patient care in British Columbia by expanding the use of electronic medication information management. The practice was launched in British Columbia in two medical clinics and a pharmacy, and it involved three physicians, two pharmacists, clinic/pharmacy staff, and consultants from colleges, professional associations, and ministry program areas.

PRACTICE DESCRIPTION:

PharmaNet is British Columbia's province-wide system connecting pharmacies, medical practices, hospitals and emergency departments. Prescription medications dispensed in community pharmacies are submitted to PharmaNet. This system was developed in consultation with health professionals and the public to improve prescription safety and support prescription claim processing.

In 2010, the BC ministry revised the scope of the system and announced that improvements would be made to PharmaNet through the PharmaNet Modernization Project. The initial step included discussions with various stakeholders and consultants from the British Columbia Pharmacists Association, the British Columbia Medical Association, the College of Pharmacists of BC, and the College of Physicians and Surgeons of BC. They assisted the ministry in defining goals and requirements, understanding workflow challenges, and developing a deployment strategy and schedule. They concluded that with the new system, users in a pharmacy will be able to view both prescriptions and dispenses in the patient's medication profile, update the medication profile without submitting a claim (e.g., for samples or self-reported items), retrieve electronic prescriptions for dispensing, change prescription status, capture adapted prescriptions in PharmaNet, submit a claim electronically for solving drug therapy problems, and reverse an electronic prescription, medication management claim, or medication profile update.

The modernization process consisted of an initial development period followed by an early deployment period. The early deployment period was divided into four phases: phase 1 (November 2012) was conducted at Rosedale Medical Clinic with one physician and staff; phase 2 (spring 2013) was at Gibson Medical Clinic and Howe Sound Pharmacy with two physicians, two pharmacists and staff; phase 3 is scheduled for summer 2013 and will focus on implementation in additional sites; and the last phase will be dedicated to general deployment and will be complete in 2014.

The goals of the four-phase process are to demonstrate integration with ministry systems, gain experience with the new functionality, receive clinical and technical input from stakeholders, assess clinical and workflow impact, and engage champions to facilitate and support broader adoption of the new functionality in the final stage of the process.

IMPACT:

Progress to date has been reported in the College of Pharmacists of BC *Board Highlights*, the *PharmaNet Bulletin*, and a presentation at the BC Quality Forum.

During the development period, the ministry consulted with stakeholders to identify appropriate vendors, develop detailed business requirements and technical design, and finalize draft conformance specifications for the vendors. As part of the technical design, they rolled out the PharmaNet integration with various features, such as the health information access layer and the enterprise master patient index, in February 2012. Also in February, the ministry enacted the legislative amendment to enable electronic prescribing. Throughout the early stages of planning, stakeholders engaged in discussions with the ministry to identify evaluation requirements, indicators, and data strategies, and to prepare the evaluation tools to be used in the second phase of the early deployment period.

With these developments in place, the ministry conducted phase 1 of the early adopter deployment. This first phase consisted of a two-week period in Rosedale Medical Clinic at Summerland, where they successfully completed 700 transactions, verified the technical support model, debriefed with vendors, and revised conformance rules and education materials. This phase was fully completed in November 2012.



Phase 2 was dedicated to upgrading the PharmaNet infrastructures with new servers for increased capacity, new processes to simplify creation of ad hoc reports, a new system administration platform, and pilot testing at the community sites. Evaluation activities were also conducted in this phase to capture performance on selected indicators. Results from this evaluation will be published in a final evaluation report in the near future.

APPLICABILITY/TRANSFERABILITY:

The PharmaNet Modernization Project has not been adapted from another jurisdiction or implemented elsewhere. However, this initiative is theoretically applicable and transferable to other settings. Successful modernization is dependent on collaboration among ministry leaders, provincial stakeholders, vendors, and local health care workers. Emphasis should be on making use of existing infrastructure and ensuring progressive implementation with regular evaluation and pilot testing.

PRACTICE WEBSITE: n/a

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Information last updated on: August 6, 2013

Content has been adapted from the following sources and relevant links:

Olorunjojon, Z., & Pop, S. (2013, February 28) PharmaNet Modernization Project: Quality Forum 2013. [Presentation Notes]. Retrieved from <http://www.slideshare.net/bcpsqc/b9-pharmanet>

British Columbia Ministry of Health. (n.d.). *What is PharmaNet?* Retrieved from <http://www.health.gov.bc.ca/pharmacare/pharmanet/netindex.html>

College of Pharmacists of British Columbia. (n.d.). *PharmaNet*. Retrieved from <http://www.bcpharmacists.org/pharmanet/>

British Columbia Ministry of Health. (2010, December 22). PharmaNet modernization—Update. *PharmaNet Bulletin*. Retrieved from <http://www.health.gov.bc.ca/pharmacare/bulletin/10007bul.pdf>

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Physicians Data Collaborative (PDC)

LOCATION:	British Columbia	HEALTH THEME:	E-Health
HEALTH SECTOR:	Home and Community Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice addresses the issue of improving patient care by enabling sharing of clinical data among divisions of family practice. The practice was launched in British Columbia with 25 divisions of practice, and it involved a development team consisting of a MEDIC consultant, a project manager, and a board of directors with representatives from all health authorities and representatives of academic institutions.

PRACTICE DESCRIPTION:

The Physicians Data Collaborative (PDC) is a not-for-profit organization that enables the collaborative use of clinical data to improve patient care. PDC was formed in 2010 and incorporated in February 2012. Twenty-five Divisions of Family Practice from across British Columbia support PDC financially. In addition to this vital funding, participating divisions provide PDC with the guidance and information it needs to plan its activities and safely share data through a distributed data network. In PDC's distributed data network, patient data always stay in the control of the physician. Instead of sending data to a central repository, this design shares only summary information. Questions are sent out to practices and only answers to the questions are sent back. The hub then summarizes the results across all practices.

PDC aims to create a distributed data network that is driven by front-line physicians and owned and controlled by the divisions. The data network has the potential to achieve the following:

- provide data to drive and evaluate divisional initiatives and support divisional funding applications;
- enable clinical quality improvement activities and continuing medical education (CME) reflective practice;
- answer clinical and research questions of interest to front-line practising physicians; and
- answer population health questions to assist with health system management and improve patient care.

Core principles of PDC's work are transparency of process, a collaborative approach to development, and ensuring data are used in a manner that protects physician and patient privacy.

The PDC Board of Directors includes residents of all five British Columbia health authorities, and users of six electronic medical record systems: Profile (Intrahealth), Jonoke, Med Access, MOIS, OSCAR, and Wolf (TELUS Health Solutions). The board meets once a month, generally via teleconference. Full-day, in-person board meetings take place quarterly.

IMPACT:

PDC, which is still in an emerging phase, has focused on developing its infrastructure and getting started on small quality improvement projects. Milestones are published as updates and annual reports on their website.

In summer 2012, PDC began by hiring Mohawk eHealth Development and Innovation Centre (MEDIC) as their informatics consultant and working on their technical design framework. By November 2012, MEDIC submitted its final report on specifications for the components of the distributed data network, PDC's website was ready to go live, and an EMR Data Query and Assessment project was underway with the University of British Columbia. Through Divisions of Family Practice provincial round tables, the PDC charter was articulated and later approved in winter 2013.

By February 2013, PDC was actively building partnerships and working with stakeholders on small quality projects. For example, the EMR Data Query and Assessment project was completed and an outline for an EMR Adapter component was created to make the distributed data network operable. PDC hired a project manager to spearhead these initiatives. Since then, it has released its first annual report, which highlights a strategic plan, a list of contributing divisions, definition of roles, progress on software development, and successful low-tech projects that are underway. Further outcomes including operability and physicians' satisfaction reports are not yet complete.



APPLICABILITY/TRANSFERABILITY:

PDC was partly adopted from Pegasus Health's approach in using clinical data collaboratively to improve patient care over the past 20 years. Pegasus Health is an independent practitioners' association in Christchurch, New Zealand, that is very similar to a Division of Family Practice in BC.

PRACTICE WEBSITE

<https://www.divisionsbc.ca/datacollaborative/home>

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Information last updated on: August 6, 2013

Content has been adapted from the following sources and relevant links:

Hobson, B. (2013) *Physicians Data Collaborative*. [Notes of presentation given to the BC Quality Forum]. Retrieved from <http://www.slideshare.net/bcpsqc/b8-bruce-hobson-16790135>

Divisions of Family Practice. (n.d.). *Physicians Data Collaborative*. Retrieved from <https://www.divisionsbc.ca/provincial/pdc>

LEAD lab (2013, March). *BC primary care distributed data networks workshop*. [Presentation Notes]. Retrieved from <http://www.leadlab.ca/wp-content/uploads/2013/03/SCOOP-01-Mar-2013.pdf>



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Integrating Patient Health Records on Wireless Devices

LOCATION:	Alberta	HEALTH THEME:	E-Health
HEALTH SECTOR:	Acute Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice addresses the issue of enabling the integration of electronic medical record (EMR) systems, electronic health record (EHR) systems, and any picture archiving and communication systems (PACS) for a complete and discrete view of patient records using mobile devices. It was adopted by various hospitals, workforce groups, and primary health care clinics throughout Alberta Health Services starting in 2010

PRACTICE DESCRIPTION:

This practice uses technology (offered by a Calgary-based private company called the Coalesce Corporation) to give users an opportunity to access patient data from old or new EMRs, EHRs, and PACS (imaging and laboratory results) and make them available for use on wireless devices or other viewing methods. Through an Internet-based application, disparate health collection systems are linked together on cellphones or iPads, which allows for seamless health care patient records and/or data movement to large databases. Using this technology, practitioners, institutions, or regions can extract data on specific individuals or groups to assist in care delivery, medical research, and business decisions within health care models.

Several organizations and physician health care networks throughout Alberta have adopted this technology to integrate patient health records and ensure that they are mobile. Each stakeholder participating to integrate EMR, EHR, and PACS systems on wireless devices indicates specific purposes and needs that they are aiming to achieve through using this technology:

- Alberta Health's Complex Care Program was created to manage complex care patients more proactively and provide more preventative care for patients with multiple co-morbidities.
- Alberta paramedics requested to have access to patient medical records while responding to emergencies to enhance care. By working with the local emergency department, they were able to gain access to patient medical records on their iPhone/iPad and provide better care to the patient.
- A rural hospital wanted to push lab results to the medical record at the clinic level.
- Three physician groups wanted to be able to track and objectively validate whether their cancer screening, hypertension, and diabetes interventions were making a difference for their patients.

IMPACT:

Although a formal evaluation has not been completed by any of the Alberta-based implementing organizations at this time, feedback from users involved has cited ease of use, portability, and affordability of bridging health data systems using this form of integration technology. Personal observations from health professionals in Alberta illustrate that this practice has improved the way they deliver care including increased accuracy, tracking, and efficiency of record keeping from patient to patient.

APPLICABILITY/TRANSFERABILITY:

This type of technology is unique to the Canadian-based Coalesce Corporation. Outside of efforts throughout Alberta Health, most EMR, EHR, and PACS systems throughout the country remain as disparate entities that do not connect to one another and cannot move beyond their static installation location. This practice is theoretically applicable and transferable to other settings. Issues to consider before making the decision to appropriately upgrade or replace existing patient health record systems include the financial expense and time needed for staff training.

EXTERNAL LINKS: <http://www.coalesce.com/Sample-Projects.html#ccp>

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Information last updated on: July 16, 2013

Content has been adapted from the following sources and relevant links:

Other:

Stasiuk, D. (External submission, July 2013). [Coalese Corporation].

External Source: <http://www.coalese.com/Sample-Projects.html#ccp>



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The Ontario Cancer Symptom Management Collaborative: Integration of Care and Better Cancer Symptom Management Using an Electronic Tool called ISAAC

LOCATION:	Ontario	HEALTH THEME:	E-Health
HEALTH SECTOR:	Home and Community Care	FRAMEWORK CATEGORY:	Promising

SNAPSHOT: This innovative collaborative practice addresses the issue of improving cancer patients' experience by enhancing the quality and consistency of patients' physical and emotional symptom management across the patient journey. The collaborative was set up in Ontario in 2006 and involved a central cancer program and 14 regional programs across the province.

PRACTICE DESCRIPTION:

An estimated 72,300 people were diagnosed with cancer in Ontario, Canada in 2012, where an estimated 27,900 people died of the disease.¹ Many patients with cancer suffer throughout the course of their illness with symptoms that may lead to high rates of emergency department use or end-of-life hospital admissions.² In September 2006, Cancer Care Ontario (CCO), with the 14 Regional Cancer Programs, initiated a province-wide quality improvement project called the Provincial Palliative Care Integration Project (PPCIP). The project later evolved into the Ontario Cancer Symptom Management Collaborative (OCSMC), whose goal is to improve patients' experience by enhancing the quality and consistency of physical and emotional symptom management across the patient journey.

The OCSMC supports the implementation of common valid and reliable tools for symptom screening and to encourage effective symptom management. Through OCSMC, a central team at CCO promotes regional improvement by creating project plans and tools; offering expert coaching and guidance; and providing regional and provincial data analysis, progress reporting, and program evaluation. Each region was funded to hire a regional improvement lead whose role was to support regional implementation through coaching and disseminating best practices in symptom screening and management, along with the guidelines to care developed by CCO. CCO also supports clinical leadership in symptom management at the provincial level.

The following assumptions were used in creating the Ontario Cancer Symptom Management Collaborative:

- Providers recognized the high symptom burden amongst the cancer population and the need for new approaches to providing clinical care in symptom management.
- Previous research indicated that clinicians systematically underestimate patients' symptoms.
- Changes needed to be made from provider-only assessment to patient-reported symptoms. It is the patient's opinion of the severity of their symptoms that is the "gold standard" for symptom assessment.
- Education and decision tools to support culture change and the integration of care were needed.
- Reducing variation in care required a common tool for measuring symptoms that yielded standardized responses to patients' symptoms.

To help support better symptom assessment in the province, CCO developed the Interactive Symptom Assessment and Collection (ISAAC) tool. ISAAC is an easy-to-use, standardized, secure, electronic platform that enables patients to complete an interactive version of the Edmonton Symptom Assessment System (ESAS) tool, which engages them directly in the symptom management process. Although ISAAC was initially targeted towards the palliative care population and lung cancer patients, electronic symptom assessment has expanded to all cancer patients. More information about the ISAAC tool can be found at <https://www.cancercare.on.ca/ocs/qpi/ocsmc/isaactool/>.

Through ISAAC, patients are able to enter their symptom severity scores at a touch-screen kiosk at an ambulatory cancer



centre, or from their home via the Internet or phone. Clinicians can access their patient's symptom information, regardless of where the patient has entered their scores and can track this information over time. Symptom management guides and algorithms have been developed to support clinical decision-making at the point of care and are available in electronic and mobile app format for easy access. At the provider level, symptom management involves integrating care using the entire team, including volunteers, clerical staff, nurses, physicians, social workers, radiation therapists, and other individuals depending on the setting the patient is in.

IMPACT:

CCO's improvement aim for system management in the system is that 70% of the population in regional cancer centres be screened for symptom severity using ESAS. There is still work to be done in reaching CCO's goal, since the province is currently at 53%, but this still represents a large achievement. As of January 2013, more than 27,000 cancer patients were screened each month using ESAS and more than 1.5 million individual cancer screens have been submitted electronically by patients since ISAAC was implemented. Additionally, seven of the 14 cancer regions are now above the 70% target, with some achieving close to a 90% screening rate.

In terms of patient satisfaction, in 2013 the OCSMC surveyed over 3,700 cancer patients across the 14 cancer regions in Ontario. In the results, 93% of patients thought ESAS was important to complete as it helps health care providers know how they are feeling, and 89% agreed that their health care providers took into consideration ESAS symptom ratings in developing a care plan. Both numbers demonstrate that patients deeply value the initiative and successes were made in cancer symptom management in Ontario. These numbers are reported publically on the Cancer System Quality Index (CSQI).

Further efforts are currently underway to better evaluate the impact of Ontario's symptom management work. A working group has been created and tasked with developing an evaluation strategy that focuses on outcomes measures.

APPLICABILITY/TRANSFERABILITY:

The approach of the OCSMC and its predecessor, the PPCIP, is based on the Institute for Healthcare Improvement (IHI) model for improvement, which encourages work at the local and regional levels to help attain provincially established improvement aims. In addition, OCSMC's approach is based on the IHI's Breakthrough Series Collaborative Model, which aims to achieve small, rapid, and locally relevant improvements across a range of clinical and care delivery process issues.³

To date, all 14 Regional Cancer Centres and 24 partner systemic-treatment hospitals have implemented ISAAC. The OCSMC is working to increase access to symptom management tools wherever a patient may be in their cancer journey and care setting. Regional leads are engaged with local partners to support the adoption of ISAAC at additional satellite and partner sites. Efforts are also underway to engage primary care and other community care partners (e.g., Aboriginal Health Access Centres) to enhance symptom management in areas of the health system.

CCO is also committed to developing and implementing additional Patient Reported Outcome Measures (PROs) through the ISAAC platform. The implementation of PROs would allow measurement of the patient experience beyond the current symptom screening available through ESAS. Measures that are within the scope of this work include new tools that focus on symptoms more prevalent in specific disease sites, phases, or types of treatment.

PRACTICE WEBSITE: <https://www.cancercare.on.ca/ocs/qpi/ocsmc/isaactool/>

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Information last updated on: May 3, 2013

CONTENT WAS ADAPTED FROM THE FOLLOWING SOURCES AND RELEVANT WEBSITES:

Personal Communications



Molloy, S. (feedback and review, May 3, 2013). [Cancer Care Ontario].

Publications

1. Canadian Cancer Society. *Canadian cancer statistics 2010*. Retrieved from <http://www.cancer.ca/en/cancer-information/cancer-101/canadian-cancer-statistics-publication/?region=on>
2. Barbera, L., Paszat, L., & Chartier, C. (2006). Indicators of poor quality end-of-life cancer care in Ontario. *Journal of Palliative Care*, 22, 12–17.
3. Gilbert, J., Howell, D., King, S., Sawka, C., Hughes, E., Angus, H., & Dudgeon, D. (2012). Quality improvement in cancer symptom assessment and control: The Provincial Palliative Care Integration Project (PPCIP). *Journal of Pain and Symptom Management*, 43(4), 663–678.

Alternative Profiles

Other:

Molloy, S. Content developed from an abstract submission to the Health Council of Canada's National Symposium on Integrated Care (2012).

External Source: <https://www.cancercare.on.ca/ocs/qpi/ocsmc/isaactool/>



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Home Care Business Automation Project: Streamlining home care coordination using cellphones

LOCATION:	National	HEALTH THEME:	E-Health
HEALTH SECTOR:	Home and Community Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice streamlines home care staff communication and coordination through the use of a cellphone application. It was launched in 2011 by the Saint Elizabeth Health Care home care service and involved health care staff from across Canada.

PRACTICE DESCRIPTION:

The Saint Elizabeth's Business Automation Project (BAP) involved the deployment of 5,000 BlackBerry devices to Canadian home care frontline staff, service coordinators, supervisors, and regional directors ranging in age from 19 to 73, all having varied levels of comfort with technology. All dispensed BlackBerrys were installed with the CellTrak application. Using CellTrak, the objectives of the project were to:

1. automate the collection of travel mileage and travel time information, achieving financial savings by using optimal route functionality;
2. automate the home care visit verification process using CellTrak as a part of the service delivery process; and
3. redesign and simplify communication and documentation processes.

All Saint Elizabeth home care staff were trained in how to use the CellTrak portal and additional BlackBerry functionality such as email, BlackBerry Messenger, and text messaging. The BAP project closely followed Saint Elizabeth's strategic direction to invest in employees by providing them with the knowledge and tools necessary to deliver exceptional home-based client care. The home care staff were also able to transform their services by automating data collection with CellTrak, which provides information for decision-making and the transfer of knowledge.

IMPACT:

As reported by Saint Elizabeth's, the BAP project has achieved the following as of March 2013:

- a 70% reduction in voice-mail usage—staff are using email to communicate with their regional office, freeing up phone lines for clients calling in;
- automation of the collection of travel mileage and travel time information from staff, resulting in significant financial savings;
- automation of the home care visit verification processes—98% of visits are now verified electronically;
- replacement of pagers with a BlackBerry paging application, resulting in additional costs savings; and
- standardization of communication protocols across the organization.

APPLICABILITY/TRANSFERABILITY:

The BAP is the first national automated program of its kind in Canada. A factor to consider for implementation is that Saint Elizabeth Health Care offers home care services that require communication and coordination of staff working from a distance. Further, although standardized training was given to staff for CellTrak and other Blackberry functions, Saint Elizabeth focused on end-users' capability and customized training to meet individual needs. They have reported that this had a direct effect on compliance results among the diverse staff.



PRACTICE WEBSITE: n/a

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Information last updated on: July 10, 2013

Content has been adapted from the following sources and relevant links:

Awards:

2012 Canada Award for Excellence: <http://www.nqi.ca/en/awards/2012-cae-recipients/2012-cae-profiles/2012-c...>

3M Health Care Quality Team Award: <http://www.cchl-ccls.ca/assets/awardsprogram/15,877-3M%20Health%20Awards...>



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MedicAlert Access En-Route: Medic Alert Interchange Project

LOCATION:	Nova Scotia	HEALTH THEME:	E-Health
HEALTH SECTOR:	Home and Community Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice gives paramedics access to the MedicAlert emergency health record from ambulances and includes it in electronic patient care records.

PRACTICE DESCRIPTION:

The MedicAlert Access En Route program gives paramedics instant access to MedicAlert health records by linking patient-provided emergency medical information directly with first responders through a wireless connection. The program is the first such system in Canada and has been implemented throughout Nova Scotia. Its purpose is to ensure responders have access to high-quality health information before they arrive on the scene of an incident to ensure the best possible patient treatment. The three partners involved in the program are the Nova Scotia Department of Health, Canada Health Infoway, and Canadian MedicAlert Foundation.

With the new system, paramedics can access the MedicAlert emergency health record from ambulances and include it as part of the electronic patient care record. Upon receiving a 911 call, emergency dispatch operators ask the caller if the individual needing care is a MedicAlert member. If so, the unique MedicAlert ID number is captured and sent to the responding ambulance. Paramedics use the number to call up a patient's information from the MedicAlert database into their tablet PC through a wireless connection. They then use the Siren ePCR software, developed by Medusa Medical Technologies, to chart the care they provide to patients in the field. Paramedics can also consult the patient's chart to obtain critical data such as allergy, medication, and physician information. Accessing a patient's record also triggers MedicAlert's 24/7 hotline service to then notify listed family members of the incident.

The program targets the more than 43,500 Nova Scotians enrolled as members with MedicAlert, a national charity. They are people of all ages with chronic medical conditions such as diabetes, hypertension, asthma, and severe allergies, as well as those with medical implants and special needs.

The system will help create more comprehensive and integrated information sharing between ambulatory care, emergency departments, primary care physicians, and other sources of patient service. The model can also be used to provide other health care professionals, such as emergency department staff, with timely and secure access to MedicAlert information.

IMPACT:

The program is currently undergoing evaluation.

Initial feedback from paramedics has been very positive. The system has allowed them to better prepare for an incident and to provide treatment in a more confident manner given the robustness of the MedicAlert record. A challenge is that since only 3% of Nova Scotians are MedicAlert members, the system is accessed infrequently, making ongoing paramedic awareness and skill in using the system an issue.

Preliminary research in 2010 showed that 42% of the province's ambulances had used the MedicAlert link. It is now part of the standard emergency health services in the province.

A preliminary investigation on usage was conducted by Dr. Alix Carter, Medical Director, Research, and Medical Oversight Physician for Emergency Health Services Nova Scotia. A follow-up study going into more detail was planned but was put on hold due to other priorities. MedicAlert is still working with the EMS department in Nova Scotia to complete an impact assessment.

APPLICABILITY/TRANSFERABILITY:



Phase 2 of the program in Nova Scotia will involve completing a wireless link from the ambulance to the hospital emergency department receiving the patient.

There is great potential to expand this program or similar services to other jurisdictions across Canada. MedicAlert is currently in discussions with several jurisdictions to widen availability of the service. Notably, MedicAlert has offered the service to municipalities that have the Medusa system, including the Regional Municipality of York in the Greater Toronto Area. The module is being integrated into the Medusa system so that any jurisdiction that upgrades its system will also be able to take advantage of the Access En Route link.

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Information last updated on: 10 Apr 2013

CONTENT WAS ADAPTED FROM THE FOLLOWING SOURCES AND RELEVANT WEBSITES:

Other:

- Ridge, R. (2012). Content developed from an abstract submission for the Health Council of Canada's National Symposium on Integrated Care.
- Canada Health Infoway. (n.d.). *MedicAlert information accessible online in Nova Scotia's ambulances*. Retrieved from <https://www.infoway-inforoute.ca/index.php/progress-in-canada/experiences-and-perspectives/medicalert-information-accessible-online-in-nova-scotias-ambulances>
- Canadian MedicAlert Foundation. (2009, April 23). *Enhanced emergency care for Nova Scotians*. Retrieved from <http://www.medicalert.ca/en/about/releases/2009-04-23.asp>

External Source: <http://www.gov.ns.ca/health/ehs/medicAlert.asp>



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Telehomecare in Ontario

LOCATION:	Ontario	HEALTH THEME:	E-Health
HEALTH SECTOR:	Home and Community Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice aims to provide care to patients in their home by offering a remote monitoring unit to transmit their blood pressure, weight and other measurements from home to the physicians office on a daily basis. Launched in 2007, Ontario is currently implementing a provincial telehomecare expansion program.

PRACTICE DESCRIPTION:

In 2007, the Ontario Telemedicine Network (OTN) launched a phase one telehomecare (THC) pilot program and worked with eight Family Health Teams (FHTs) to enroll over 800 individuals with Congestive Heart Failure and Chronic Obstructive Pulmonary Disease (COPD). Individuals had a remote monitoring unit installed in their homes to transmit their blood pressure, weight and other measurements on a daily basis. Telehomecare nurses conducted regular monitoring and health coaching sessions with the goal to help individuals and their caregivers acquire the skills and confidence to better manage their chronic illness.

The phase one program demonstrated that the successful management of chronic disease must occur on a daily basis in the home, community and primary care settings of the individual with a chronic illness, and with the active engagement of individuals and their caregivers. Given the magnitude of chronic diseases in Ontario, the FHT model, while successful for the phase one program, was not entirely scalable. Through this program, only a portion of the province's population impacted by chronic disease could benefit from THC, so moving to a LHIN-wide service delivery model that is accessible to all health care providers will reach a considerably larger population. In recent months, the early adopter LHINs have been working with their health care providers to develop an integrated and coordinated model of care using THC as an enabler. This involves the selection of a host organization (i.e. community care access centre or hospital) to fund a core group of THC nurses. These nurses may be situated within the host organization or distributed across the LHIN, working with primary care and community providers as part of a collaborative team. For THC to work, nurses will need to foster relationships across the care continuum to effectively support patients.

Two of the three LHINs have begun to enroll patients with the goal to have 2200 patients enrolled by March 31, 2013. Given the change management associated with this transformational program, OTN is aggressively supporting the LHINs with their operational, business and clinical requirements, as well as physician engagement and patient recruitment strategies.

IMPACT:

Several studies, including the phase one program, have demonstrated that early identification of exacerbations and enhanced patient self-management skills through the use of THC improves the likelihood of preventable hospitalizations, emergency room visits and long term care admissions.

The evaluation of the phase one program demonstrated high levels of patient and provider satisfaction along with a significant reduction in hospitalization and emergency room visits. FHTs that worked in collaboration with other health and community providers to coordinate patient care had fewer challenges with patient recruitment and provider adoption.

THETA, ICES and the University of Toronto are developing the evaluation methodology for the expansion program. A number of areas will be measured including patient experience, system impact, costs and models of care.

APPLICABILITY/TRANSFERABILITY:

Leveraging the successful outcomes of the phase one program, OTN is currently implementing a provincial THC expansion program beginning with 3 early adopter LHINs. By year three, upwards of 30,000 individuals will be enrolled across the 14 LHINs.

With the expansion of THC in Ontario, there is an opportunity to redesign the management of chronic disease outside and



beyond healthcare facilities.

CONTENT WAS ADAPTED FROM THE FOLLOWING SOURCES AND RELEVANT WEBSITES:

- Poole, L. Content developed from an abstract submission for the Health Council's National Symposium on Integrated Care (2012).

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eMedication Reconciliation (The Ottawa Hospital)

LOCATION:	Ontario	HEALTH THEME:	E-Health
HEALTH SECTOR:	Acute Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice aims to reduce the risk of adverse drug events and to ensure accurate and comprehensive medication information is accessible and communicated consistently to clinicians across points of care. Implemented in the Ottawa Hospital in 2011, this medication reconciliation program is seamlessly integrated with the hospitals electronic records.

PRACTICE DESCRIPTION:

The Ottawa Hospital piloted a new electronic medication reconciliation (Med Rec) module from November 2011 to February 2012, as one component of its broader Medication Transformation Strategy. The pilot was limited to the medical service units at the hospital's Civic Campus and included 80 patients. It focused on patient flow from the Emergency Department to the inpatient units. Since the pilot ended, work has been done to reconfigure the technology based on feedback that was received from the pilot. The revised electronic medication reconciliation module is being re-piloted on the same units as of January 2013, with a plan to do a staged roll out across the entire ~1,100 bed hospital by June 2013. The goal of this initiative is to reduce the risk of adverse drug events, as well as ensure accurate and comprehensive medication information is accessible and communicated consistently to clinicians across points of care. It alters the way in which the health care system documents patient medications and follows the patient's medication longitudinally from outside the hospital to inside the hospital to their return to the community. This initiative was implemented because medication reconciliation became an Accreditation Canada requirement. Moreover, it became a corporate priority because there were significant challenges with the paper-based medication reconciliation process. In particular, there was wide variability in how diligent physicians were in completing the paper-based forms, and it was difficult to audit the process to determine and manage compliance.

The hospital's electronic medication reconciliation module, which is seamlessly integrated with the hospital's electronic health record, allows pharmacists or pharmacy technicians to complete the Best Possible Medication History (BPMH), and physicians to complete the admission, transfer, and discharge medication reconciliation, all using a mobile iPad or desktop application. The solution also features alerts for clinicians and automatically populates the discharge summary with prescriptions and other information for the pharmacist and primary care provider.

The Best Possible Medication History (BPMH) is collected by a pharmacist or pharmacy technician at the bedside where medication information is entered directly into the electronic Med Rec application. The clinician provides complete documentation for each prescription and non-prescription drug (including herbal supplements) the patient is currently taking. This includes the drug name, dosage, route of administration and frequency, as well as the source of information used to verify the medication history. The physician writes the admission medication orders on paper and they are entered into the pharmacy computer system. The electronic Admission Medication Reconciliation (AMR) worksheet displays the BPMH and the current medication list. The physician is responsible for reconciling both of these lists and must set a specific disposition for each of the medications that are listed. A confirmation feature allows the physician to make only a single reconciliation decision where an exact match exists between the BPMH and the current medication the patient is receiving in hospital. The physician goes through the same basic steps to complete Medication Reconciliation at transfer (TMR) and discharge (DMR). The electronic discharge prescription is generated from the DMR. This prescription identifies BPMH drugs that should continue after discharge, BPMH drugs that have been discontinued and should not be resumed after discharge, and new medications that were started in the hospital. For new medications that were started in the hospital that were not on the BPMH list, the application prompts the physician to specify the prescribed quantity, number of refills, and allows free text for dispensing instructions. The prescription is then printed and signed.

It takes on average 15 minutes to complete a BPMH, and approximately 5 minutes for physicians to complete each of their electronic medication reconciliation activities.

This initiative is funded through The Ottawa Hospital's operational budget. As well, Canada Health Infoway has provided financial support that contributes to the hospital's overall electronic infrastructure.



IMPACT:

An audit of ~70 medical charts was conducted to examine compliance with the electronic medication reconciliation process. By the end of the pilot, there was 100% compliance among pharmacists and pharmacy technicians in obtaining the BPMH within 24 hours of admission because the system provides an alert on any outstanding history's that have not been completed. Physician compliance with doing electronic medication reconciliation was similarly very high in the pilot, close to 100%, however the physicians were not always able to perform their reconciliation activities within 24 hours of admission because they had to wait for the med history (BPMH) to be completed first. The physicians felt, and continue to feel, that this performance target is inappropriate due to the delays inherent in the process. This issue existed with the old paper process but went unaudited. Since the pilot was initiated, there has been a drop in the number of unexplained medication discrepancies at discharge from an average of 3 per patient to 0.7.

The Ottawa Hospital was the first place recipient of Canada Health Infoway's 2012 ImagineNation Outcomes Challenge Trailblazer Award in the Medication Reconciliation category.

One of the key lessons learned from the pilot was that taking a diligent medication history requires time which has an impact on the organization's resources due to increased workload. There was a lot of physician resistance to using the electronic medication reconciliation process because it involved a more time consuming process. The hospital leadership team needs to be involved in communicating expectations to physicians that electronic medication reconciliation is a corporate priority.

APPLICABILITY/TRANSFERABILITY:

The electronic medication reconciliation process at The Ottawa Hospital has not been implemented elsewhere, and the results have not been replicated in any other settings. However, the initiative is theoretically applicable and replicable elsewhere.

Content was adapted from the following sources and relevant websites:

- <http://www.imagenationchallenge.ca/outcomes-challenge/medication-recon...>
- Canada Health Infoway. (Producer). (2012). *Medication reconciliation, The Ottawa Hospital. ImagineNation outcomes challenge* [Video]. Available from <http://www.imagenationchallenge.ca/outcomes-challenge/medication-reconciliation-2/>
- Geiger, G. (personal communication: interview, December 12, 2012). [Ottawa Hospital]

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External Source: <http://www.imagenationchallenge.ca/outcomes-challenge/medication-reconciliation-2/>



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myDDSNetwork Collaborative Model for Dentistry Referrals

LOCATION:	National	HEALTH THEME:	Access and Wait Times
HEALTH SECTOR:	Public Health	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice addresses the need to support the exchange and collaboration of personal health information (PHI) between dental providers. Launched at the end of 2012, all dentists in Canada now have access to a standardized referral and consultation platform to exchange PHI.

PRACTICE DESCRIPTION:

In dentistry, the referral process is still largely paper based which limits the completeness and timeliness of patient information that can be provided to other practitioners within the circle of care.

In 2008, myDDSnetwork was released to support the exchange and collaboration of personal health information (PHI) between dental providers. The objectives of the network were; to improve patient care, to improve continuity of care in a multi provider setting, reduce the cost and time of delivery of care and to enable real time clinical knowledge transfer of PHI in a secure, regulatory compliant environment.

The Canadian Dental Association (CDA) recognized the needs of oral health professionals to have a standardized digital environment to share clinical information including radiographs. At the end of 2012 myDDSnetwork was implemented in a partnership with the CDA, Canada Health Infoway, Continovation Services Inc. (CSI) and myDDSnetwork Ltd. All dentists in Canada will now have access to a standardized eReferral and eConsultation platform to exchange PHI. On ramping of all Canadian dentists and their care teams is ongoing.

myDDSnetwork takes existing office processes with respect to the referral/consultation process and mimics them in a real time digital environment. The network can be used in all dental offices covering the entire spectrum from fully paper based to paperless. myDDSnetwork can support patient access to their own referral information.

IMPACT:

The CDA eReferral and eConsultation project will have an ongoing benefits evaluation. There will be a formal benefits evaluation at the end of 2013.

APPLICABILITY/TRANSFERABILITY:

The dental referral model is very similar to the current generalist to specialist relationship in the medical system and the current allied health care to medical professional relationship. myDDSnetwork's authentication process, clinical workflow tools and roles based permissions can be adapted and adopted to enable collaboration of PHI between any and/or all healthcare practitioners, patients and stakeholders.

The myDDSnetwork platform has been used to support the exchange of PHI between hospitals and doctor's offices electronic medical records in Ontario

Future expansion of the current myDDS model will be supporting the sharing of PHI with different users such as patients and industry stakeholders. From a workflow perspective integration with practice management systems will be supported.

CONTENT WAS ADAPTED FROM THE FOLLOWING SOURCES AND RELEVANT WEBSITES:

- Glaizel, J. Content developed from an abstract submission for the Health Council's National Symposium on Integrated Care (2012).



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External Source: <http://www.ereferralpilot.com/>



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Bridging General and Specialist Care (BGSC) Project

LOCATION:	Manitoba	HEALTH THEME:	Chronic Disease Management
HEALTH SECTOR:	Primary Health Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice streamlines the referral process among health care providers in Manitoba. Launched in 2008, the program focused on developing IT software and finalizing criteria for effective referrals.

PRACTICE DESCRIPTION:

BGSC is viewed as an innovative practice that streamlines the referral process in Manitoba.

Ensuring timely access to quality health care requires coordination among health care professionals and effective communication tools that can be easily used in clinics day-to-day. The Bridging General and Specialist Care Project (BGSC) was launched as an information technology (IT) consultation and referral system in May, 2008. BGSC facilitates timelier and more appropriate coordination between family physicians and specialists. The goal of this initiative was to streamline the consultation and referral process while also ensuring that patients get referred to the right specialist at the appropriate time. BGSC is a novel approach to clinical referral pathways in that it uses electronic record technology as a platform for sharing clinical information, medical history, and medication history with a target specialty. BGSC was funded by Health Canada, Manitoba Health, and Healthy Living; stakeholders included physicians, specialists, IT staff, and clinical office staff.

This two-year initiative was delivered in two parts. The first wave (May to December 2008) focused on developing the IT software and finalizing the criteria for referral, the required tests, and the clinical data to be entered into the software. Enough information needed to be uploaded for the physician and the specialist to agree on the appropriate treatment option. The software confirms whether all information to meet the established criteria has been uploaded, and suggests what additional information to include if the criteria are not met. These criteria were disseminated to other health care interest groups for feedback. The IT system also monitors wait times to ensure that patients who do not get access to care within the guaranteed time are referred to another specialist immediately. Six specialty areas were included in the first wave, and seven more were added in the second wave (January and February 2010).

IMPACT:

The Government of Manitoba reported on the progress and effectiveness of the initiative in its reports and presentations. Data were taken from surveys given to health care professionals before and after the intervention period as well as more informal interviews with family physicians. From 2009 to 2010, 78% of the 1,002 referrals were accepted and only 19% of appointment dates were set later than the target deadline. In the following year, 902 more referrals were made. A total of 177 family physicians and nurses were involved as well as 55 specialists. The physicians said they liked the recommendations provided by the IT system and were pleased that the system reflected their local needs rather than adopting a “one size fits all” policy. The specialists also preferred to use the BGSC system rather than traditional methods. The system would benefit from including a wider variety of specialties and from better integration with other electronic medical devices.

APPLICABILITY/TRANSFERABILITY:

The transition from wave 1 to wave 2 increased the spread of utilization and the variety of specialties included. Health care professionals reported better coordination and communication with a wider variety of specialists, and all sites had overall positive results with the software. Although somewhat similar practices exist in the United States and the United Kingdom, the BGSC project has an innovative set of inputs and established criteria that provide patient-centred treatment options. It is also the only initiative of its kind in Canada. The BGSC project could be implemented in other provinces and territories, but only for high-volume, routine referrals that meet its specific information and testing requirements.

Content has been adapted from the following sources and relevant websites:



- Canadian Medical Association. (2011, December 5). *A collection of referral and consultation process improvement projects*.
http://www.cma.ca/multimedia/CMA/Content/Images/Inside_cma/Advocacy/Referrals/ReferralProjectCollection.pdf
- DeMone, B., & Oppenheimer, L. (2011, April 19). *Adventures in electronic referral & consultation: Lessons learned over 3 years of bridging general & specialist care*.
http://umanitoba.ca/faculties/medicine/units/chi/media/DeMone_Apr.19.11.pdf
- Manitoba Health. (n.d.). *Bridging general and specialist care* [Project Website].
<http://www.gov.mb.ca/health/bgsc/index.html>

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Alberta’s Integrated Approach to Medical and Health Information: Alberta NetCare Portal, Pharmaceutical Information Network (PIN), and Physician Office System Program (POSP)

LOCATION:	Alberta	HEALTH THEME:	E-Health
HEALTH SECTOR:	Public Health	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice addresses integration of electronic health records with pharmaceutical information networks. Publicly accessible throughout Alberta since 2011, the initial release of an integrated Patient Portal (myHealth.Alberta.ca) is continually evolving.

PRACTICE DESCRIPTION:

Alberta has been on the journey towards an integrated electronic health record (EHR) and electronic medical record (EMR) since 1997. Evolution of these early efforts has led to a robust integration of a province-wide her called NetCare, significant work in developing a shared health record (meshing an EMR with NetCare), and the incorporation of the Pharmaceutical Information Network (PIN) with simultaneous EMR/EHR integration and access. The initial release of a Patient Portal (myHealth.Alberta.ca) that is accessible by the general public occurred in 2011 and is evolving.

The Physician Office System Program (POSP) has validated three EMR vendors meeting the Vendor Conformance and Usability Requirements (VCUR) and its associated funding support. Sixty percent (60%) uptake by Alberta physicians has been demonstrated. However, legacy products from the initial POSP iteration are still being used. The goal of 100% uptake has not yet been met. Significant progress in integration of the provincial electronic health record (i.e. NetCare) and the EMR is occurring. The incorporation of a parameter launch browser from within an EMR accesses an indicated patient in NetCare effectively, thereby showing all available health information. NetCare Portal is available to any registered user anywhere in the province. PIN integration provides drug information through a system-to-system integration with the EMR. E-prescribe is ready to begin pilot testing. In any affiliated Alberta Health Services institution (hospitals, nursing homes, and 60% of private clinics with growing enrolment) and in primary care networks, the uptake of the integrated product is occurring. NetCare has over 40,000 registered users. Formal feedback is actively sought, responded to, and incorporated into the project. The health care communities and their patients readily recognize the brand NetCare and PIN.

The Integrated Clinical Working Group, the various professional colleges of the involved health professionals, and members of the public all continue to provide input as the process evolves. Significant political will, monetary support, and understanding of sustainability by the Government of Alberta has been essential to the success of the program.

The Integrated Clinical Working Group meets monthly to discuss what is and is not working, challenges, and problems, and to brainstorm new initiatives.

IMPACT:

The initial business plan outlining the design, architecture, and goals of integration, a clear plan of how this would occur, and adequate funding have all contributed to the success of the program. The close collaboration of the IT and health care communities, and a willingness to listen to each other, also contributes to the success of the program.

Applicability/Transferability:

Canada Infoway has shown interest in the evolution of the project, and how this could be applied elsewhere in Canada. Other provincial health ministries are monitoring the Alberta experience, and there has also been international interest. A telling comment, often expressed by physicians during their residency training is “How can I go back to my home province and not



have the availability of NetCare to help me manage my patients?”

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Relevant website:

<http://www.healthcouncilcanada.ca/content.php?mnu=4&mnu1=34#Presentations>

External Source: <http://www.albertanetcare.ca>



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Electronic Medical Records in Northwest Territories

LOCATION:	Northwest Territories	HEALTH THEME:	E-Health
HEALTH SECTOR:	Public Health	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice addresses the necessity to coordinate information across multiple sites and care providers in the Northwest Territories. Many specialists are not available locally, and often patients must travel long distances to access certain types of care. In 2005, an EMR pilot project was initiated in Great Slave Medical House in Yellowknife, Northwest Territories. Based on the success of this pilot project, the Government of the Northwest Territories has begun a territory-wide EMR system to support an integrated service delivery model and address territorial care pathways.

PRACTICE DESCRIPTION:

It is necessary to coordinate information across multiple sites and care providers in the Northwest Territories. Many specialists are not available locally, and often patients must travel long distances to access certain types of care. Communicating accurate and comprehensive patient information in a timely matter is vital, and use of electronic medical records (EMRs) enhances care delivery in this type of setting. In 2005, an EMR pilot project was initiated in Great Slave Medical House in Yellowknife, Northwest Territories. Based on the success of this pilot project, the Government of the Northwest Territories has begun a territory-wide EMR system to support an integrated service delivery model and address territorial care pathways. To date, EMRs have been implemented in two communities in the Northwest Territories. In some locations, patient charting is done; in others, the system is used as a viewing and messaging portal. The plan is to have the entire territory on a single charting system and to have as many divisions as possible within health care on that system to optimize quality care. This system provides residents with a health “informational home” (chart) within which their circle of health care providers can network. At present, 55% of patients in the Northwest Territories have EMR charts, including those served by primary health care providers, home care providers, and family counsellors, and in part by hospital-based services (emergency, hospitalist, obstetrics, psychiatry) and physician services in some remote communities. This allows, for example, for patients being discharged by the hospital to have their care coordinated by the discharging hospitalist, the home care provider, and the community-based family physician—all in the patient’s informational home. This system allows for integrated health care by distributed providers, i.e. “networked health.” Funding is provided by Canada Health Infoway and the Government of the Northwest Territories.

IMPACT

An evaluation to assess the impact of EMRs in the Northwest Territories has not taken place. However, there have been anecdotal reports indicating that EMR use has significantly improved workflow, efficiency, and staff morale at the Great Slave Medical House. Electronic transmission of test and laboratory reports enables physicians to receive results more quickly (six to ten hours versus one week)—a workflow change that has contributed to more accurate and up-to-date medical records, and that allows physicians to see more patients in the same allotted time as prior to the implementation of EMRs.

APPLICABILITY/TRANSFERABILITY

A mental health pilot program is currently being planned using video conferencing technology and EMR systems to facilitate remote psychiatry from Yellowknife and Dalhousie University in Halifax to communities across the Northwest Territories. The project is being piloted in two communities and will commence in spring 2013. It will allow patients to access expertise that may not be otherwise available, and will allow physicians to provide follow-up care when personal visits are not possible or practical. The EMR system will allow relevant caregivers to access a patient’s information, order lab tests, and write prescriptions from across the country.

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Relevant websites:

<http://www.healthcouncilcanada.ca/content.php?mnu=4&mnu1=34#Presentations>

External Source: <http://www.gov.nt.ca/>



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Community Agency Notification Program

LOCATION:	Ontario	HEALTH THEME:	E-Health
HEALTH SECTOR:	Acute Care	FRAMEWORK CATEGORY:	Emerging

SNAPSHOT: This innovative practice addresses the fact that many patients living at home receive various levels of support from community agencies. In an acute medical situation, these support agencies often lose contact with their patients. In March 2011, Toronto Emergency Medical Services (EMS) launched a pilot program called Community Agency Notification (CAN). CAN is a communication protocol initiated by paramedics that notifies community agencies when their client comes into contact with EMS. The alert enables the community agency to follow up with the hospital and/or resident.

PRACTICE DESCRIPTION:

In March 2011, Toronto Emergency Medical Services (EMS) launched a pilot program called Community Agency Notification (CAN). The CAN pilot program involved a collaboration between the Toronto EMS Community Paramedicine Program and St. Clair West Services for Seniors. Since that time, the program has been rolled out in partnership with several other community agencies that provide supportive housing services in the Toronto Community Housing buildings and with the Integrated Client Care Program at the Toronto Central Community Care Access Centre. Many patients living at home receive various levels of support from community agencies. In an acute medical situation, these support agencies often lose contact with their patients. The CAN program leverages paramedic patient contact to keep community supports updated on patient disposition. CAN is a communication protocol initiated by paramedics that notifies community agencies when their client comes into contact with EMS. The alert enables the community agency to follow up with the hospital and/or resident.

Phase 1 (March 2011–November 2012) of the CAN pilot has been funded individually by each of the participating community agencies. Phase 2 (December 2012) of the pilot will be funded by Toronto EMS and will feature a client-specific notification platform. This will dramatically increase the capacity and specificity of the program, allowing for more organizations and clients to participate. Phase 2 is anticipated to run for 12 to 18 months with the intent that it will demonstrate this proof of concept and thus become the basis for applying for funding for a more sustainable and comprehensive notification platform.

The CAN program is structured as a service of the community agency. Toronto EMS and community agencies work together in Toronto Housing Corporation seniors' buildings to enrol residents in the program. Each resident receives a completed patient information sheet that includes a summary of the patient's medical history, medications, and emergency contact information, along with simple instructions on how to make a notification. The patient information sheet is placed in a highly visible envelope marked with the Toronto EMS logo and "Important Information for Paramedics." The resident is asked to put the envelope in a prominent place so paramedics can find it.

When an EMS call is dispatched, the premise information will remind responding paramedics that the CAN program is in place at the building. Upon patient contact, the paramedics will know to check the apartment for the envelope. Paramedics are expected to keep the patient information sheet with the patient, especially if they are transported to hospital. The information may help with the assessment and care of the patient, especially if he or she is unable to communicate due to a language barrier or their medical condition. Paramedics and hospital staff are encouraged to call a central telephone number to provide real-time notification to community agencies of their client's situation. Whenever a notification is made, the patient information sheet is updated on discharge from hospital or on follow-up by the community agency if there was no transport to hospital. The information sheet is also reviewed and updated on a yearly basis.

IMPACT:

Evaluation methods are being established for Toronto EMS and each participating community agency. The evaluations include tracking agency responses and patient outcomes to EMS notifications. Between June 2011 and November 2012, there were a total of 41 community agency notifications. There has been anecdotal evidence supporting the benefits of both notification and the patient information sheet. The CAN pilot program was useful for community agencies. Qualitative results from informal observations and patient accounts indicate increased communication and follow-up between patients, community agencies, and hospitals.



APPLICABILITY/TRANSFERABILITY:

The CAN program is unique to Toronto and has not been implemented elsewhere. To date, there is no evidence of any other programs that are leveraging the paramedic–patient experience to initiate case management and advance integration of health care supports. It is proposed that the CAN program will create “seamless transitions” through the health care system for enrolled patients.

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Relevant websites:

<http://www.healthcouncilcanada.ca/content.php?mnu=4&mnu1=34#Presentations>

External Source: <http://torontoems.ca/community-paramedicine/can>