SPORPIHCIN
RESEARCHDAY

Hilton Downtown Toronto
Toronto, Ontario
May 23, 2017
Strategy for Patient-Oriented Research (SPOR)
Primary and Integrated Health Care Innovations Network (PIHCIN)

Hilton Toronto Hotel
Toronto, Ontario
le 23 mai 2017
Stratégie de recherche axée sur le patient (SRAP)
Réseau sur les innovations en soins de santé de première ligne et intégrés (ISSPLI)

Strategy for Patient-Oriented Research
SPOR
Putting Patients First

Stratégie de recherche axée sur le patient
SRAP
Le patient d'abord

PIHCINSPARK

Sharing Practical Advances in Research Knowledge
Translating Findings to Action from PIHCIN Research

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PIHCINSPARK:

HOTSPOTTING Identifying superusers of health care services with mental health and/or addiction issues

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Jacqueline Quail

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HOTSPOTTING

Identifying superusers of health care services with mental health and/or addiction issues

[Background description]

- “Hotspotting” is the identification of people who are very expensive for the healthcare system.
- Many are frequent users of health care services, and have complex needs that are not adequately addressed by the services that are currently available.
- The purpose is to identify characteristics of people with complex mental health and addiction (MHA) issues in Ontario and Saskatchewan.
- The ultimate goal is to improve the management of these people so that the health system will address their needs proactively instead of reactively.

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What is PIHCI? PIHCI is the pan-Canadian SPOR Network in Primary and Integrated Health Care Innovations. PIHCI is a key CIHR initiative under the Strategy for Patient-Oriented Research and the Community-Based Primary Health Care Signature Initiative.

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[Objectives]

1. **Administrative data analysis:** Using administrative health services data, identify and describe high cost users with MHA problems and their transitions in cost status over time

2. **Environmental scan:** Identify and describe available MHA health services in each geographic area.

3. **Patient engagement:** Creation of a working group of patient advocates, cultural advisors, and front-line MHA workers.

SK Hotspotting Team

[Methodology]

ONTARIO led the administrative data analysis.

- Informed the direction of patient engagement activities.

SASKATCHEWAN led the environmental scan and patient engagement aspects.

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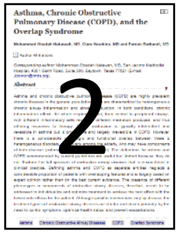
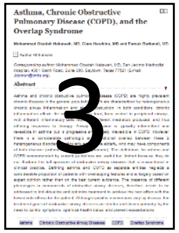
[Key findings]

Results of administrative data analysis in ON and SK

Asthma, Chronic Obstructive Pulmonary Disease (COPD), and the Overlap Syndrome



Asthma, Chronic Obstructive Pulmonary Disease (COPD), and the Overlap Syndrome

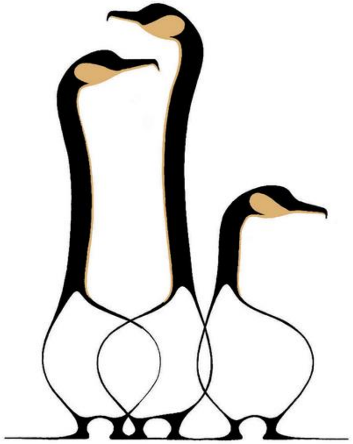


Asthma, Chronic Obstructive Pulmonary Disease (COPD), and the Overlap Syndrome

Results of working group collaboration in SK

Improving the Availability and Delivery of Health Services for Individuals with Complex Mental Health and/or Addiction Needs in Saskatoon Health Region: A Working Group Report

Patient engagement in SK



TRUST is the glue of life. It's the most essential ingredient in effective communication. It's the foundational principle that holds all relationships.

Stephen Covey

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[Key findings]

ADMIN DATA ANALYSIS

Superusers are likely to:

- Be older
- Be female
- Have a psychotic disorder (e.g., schizophrenia)
- Have chronic comorbid non-MHA diseases
- Not have a regular health care provider
- Have unstable housing

PROVINCIAL COMPARISONS

- Results virtually identical between ON and SK despite major differences in population size, density, and characteristics.

PATIENT ENGAGEMENT

- Patient advisors are expected to learn about the research world.
- Researchers must make the effort to learn about the patient advisor's world.
- The relationship must be reciprocal for true engagement to occur.

WORKING GROUP REPORT

- SK only
- Comprised of patients, family members, front-line MHA workers and MHA program managers from both health region and community-based organizations
- Recommendations are detailed in the next slides.

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[What does this mean for Patients and Policy & Practice??]

Improving the Availability and Delivery of Health Services for Individuals with Complex Mental Health and/or Addiction Needs in Saskatoon Health Region:
A Working Group Report

- Calls to action from working group meeting include:
- Implement the recommendations in the Mental Health and Addictions Action Plan endorsed by the Saskatchewan government in 2014.
- Improve the patient experience in the Emergency Department for those with acute psychiatric illness by setting up a specific care pathway to address their unique care needs.
- Reduce the transportation and physical challenges associated with utilizing multiple health and social services by co-locating relevant health and social services, along with community-based organizations, in a patient-friendly location that is easily accessible to clients.
- Consider complementing the inpatient services offered at the Dubé Centre to provide more transitional and supportive care services.

[What does this mean for Patients and Policy & Practice?]

- Calls to action from working group meeting include (continued):

- Provide additional resources to support Westside Community Clinic in becoming a true Patient Medical Home with enhanced mental health services and psychiatric care.

- Build on current, effective strategies of provider and public awareness campaigns and initiatives in Saskatoon to reduce mental health stigma and add in other communication mechanisms to raise awareness and understanding.

- Secondary recommendations include improving communication between varied service providers by:
  - facilitating face-to-face meetings between them
  - identifying joint gaps in care between them
  - identifying other service providers and individuals who should be involved
  - forming a group to move forward with the work of improving the management of the health needs of individuals living in SHR with MHA needs that are currently not being met appropriately.

Schaefer J, Quail JM, Avis K. 2017. Improving the availability and delivery of health services for individuals with complex mental health and/or addiction needs in Saskatoon Health Region: A working group report. Saskatoon, Saskatchewan: Health Quality Council (Saskatchewan). To be publically released July 1, 2017.

[What does this mean for Patients?]

- Improve ED experience
  - Specific care pathway
  - Access to MHA specialists
- Reduce transportation and physical challenges
  - Co-locate services
- Improve transitional and supportive care services
- Improve public awareness

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PIHCINSPARK:

Children with Complex Health Conditions: Let’s Learn Who They Are and Their Needs to Better Serve Them!

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Shelley Doucet

PIHCINSPARK: Sharing Practical Advances in Research Knowledge Translating Findings to Action from PIHCIN Research

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Title:

Children with Complex Health Conditions:

Let's Learn Who They Are and Their Needs to Better Serve Them!

Background

- Approximately 15 – 18% of children in North America have a chronic condition that impacts their health and causes limitations in their lives.
- Providing comprehensive and integrated health care services for children with complex health conditions (CCHC) is challenging in NB and PEI, as a result of limited resources, the diversity of communities, and rural areas.
- Advances have been made to improve care for CCHC; however, little is known about the health care experiences of these children and their families in the Canadian context.

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Objectives

1. Develop an operational definition for CCHC
2. Explore the needs of CCHC and their families
3. Identify services and programs to address the needs of CCHC and their families
4. Develop and test a computerized algorithm to identify and classify CCHC

Methodology

A mixed-methods study design, as follows:

1) Concept analysis
2) Participant interviews with CCHC, family members and various stakeholders (N = 121)
3) Environmental scan
4) Adaptation, refinement and testing of a computerized algorithm on patient databases

Key findings

Findings: Concept Analysis

- Results are currently underway to develop an operational definition
- It is clear that the definition must be comprehensive and consider the complex care needs of CCHC
  - physical
  - mental
  - social
  - behavioral
  - spiritual
  - educational

Findings: Needs Assessment

- Participants identified multiple diverse needs, including:
  a. better access to services and resources
  b. improved education
  c. family support [both emotional & financial]
  d. care coordination
  e. navigational support

Findings: Environmental Scan

Gaps and Barriers:

- Specialty services
- Health care provider capacity
- Wait times
- Care Coordination
  - provider awareness of services, navigational support, communication, collaboration, continuity
- Policy-related
  - mandates, eligibility
- Financial
  - Personal /system

Findings: Chart Audit and Algorithm

- Data analysis currently underway for Pediatric Medical Complexity Algorithm (PMCA) and Chart Audits
  - over 700 pediatric patient charts in NB and PEI
  - demographic, clinical and utilization data collected
- PMCA applied to physician billing claims for 0-19yrs (2012-2015)
- The PMCA will filter the cases into 3 levels of medical complexity
- Health care utilization data also collected and trends to be reported

What does this mean for Patients?

- Results will inform the development or enhancement of integrated and innovative service delivery models for CCHC and their families
  - E.g. NaviCare/SoinsNavi: A new navigation centre for CCHC in NB
  - **Direct Benefits**
    - Patient Navigator (PN) is a Registered Nurse who:
      - Coordinates care
      - Connects families with resources
      - Advocates on the family's behalf
      - Helps families understand available services
      - Does site visits
  - **In-direct Benefits**
    - Supports care team and stakeholders across sectors
    - Conducts site visits with clinics, care professionals, and community organizations to address needs/gaps in services
    - Helps improve care coordination through improved networking and connecting professionals with resources
    - Scan has led to an inventory of services

What does this mean for Policy & Practice?

- **Concept analysis**: Help with the stable / consistent identification of CCHC who depend on the integration of programs and services to receive optimal care.
- **Needs Assessment**: Inform new and existing integrated and innovative service delivery models for CCHC and their families that are based on the specific needs of children, their families, and the care team.
- **Environmental Scan:** Results document existing programs and services available to families and CCHC and identify barriers and gaps in service provision, which will inform policy and planning to address gaps and develop new service delivery models.
- **Algorithm**: First step in providing epidemiological assessments of disease conditions in the paediatric population, classifying children according to the level of medical complexity, and characterizing healthcare utilization and referral patterns to guide future inter-provincial research and to inform the development of integrated service delivery models across the lifespan.

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PIHCINSPARK:

Characterizing high system use across the primary-tertiary care continuum: parallel analyses of select Canadian health datasets

The Canadian Association for Health Sciences and Policy Research (CAHSPR) SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Tyler Williamson

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PIHCINSPARK:

Sharing **P**ractical **A**dvances in **R**esearch **K**nowledge
Translating Findings to Action from PIHCIN Research

[Authors] PI: Tyler Williamson,
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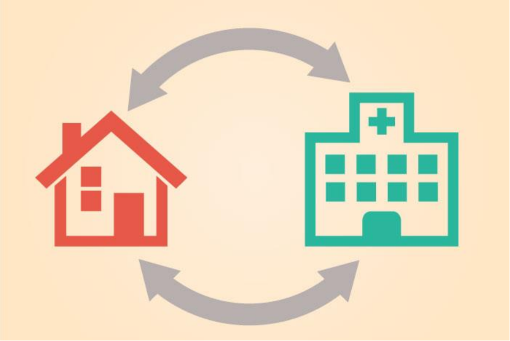
[Title]

Characterizing high system use across the primary-tertiary care continuum: parallel analyses of select Canadian health datasets



[Background description]

- A small portion of patients consume a high proportion of health care resources (5-65)
- Bending the cost curve requires that we understand who they are
- Could some of these patients be better served in primary care?
- Are there groups of patients that are very successfully being managed in primary care?
- Can we bring together some of the incredible and powerful datasets that we now have for primary care?
- Can we unpack the interplay between primary care and acute care use?

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[Objectives]

- To leverage the relative strengths of select Canadian health datasets to understand similarities and differences in clinical, social, and demographic characteristics of high system users across the health care continuum, with a specific focus on medical complexity.

- Create an EMR-based cohort of high system users in primary care
- Develop an EMR-based definition of medical complexity

[Methodology]

CPCSSN RCSSSP

CIHI ICIS
Canadian Institute for Health Information
Institut canadien d'information sur la santé

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- Defined primary care high use as top 10% according to number or encounters
- Defined medical complexity using # of conditions, # of body systems, # of medications

[Key findings]

[Finding 1]

- Users with more than 10 primary care encounters in a single year are high users
- This definition is consistent across time and provinces

[Finding 2]

- Defining medical complexity by medication counts offers a very different set of patients
- Medical complexity increases with age
- Medically complex patients consume more resources

[Finding 3]

- Primary care high-users are more likely to be female and younger
- Controls are similar with respect to age and sex
- 2x higher prevalence of depression in primary care high users (19.8% v. 10.9%)

[Finding 4]

Acute Care High Users (Top Diagnoses)

- CHF / COPD / Pneumonia / MI / Sepsis

Primary Care High Users (Top Diagnoses)

- Diabetes / mood disorders / hypertension / general symptoms / pregnancy related visits

Acute Care Controls (Top Diagnoses)

- Labour and delivery related

*note coding differences between the two sources (EMR vs. admin data)

[What does this mean for Patients?]

- Methods research implies that the impact to patients may be longer term

- High quality primary care is by design patient centered care
- Patients do not want to be hospitalized nor do we want them to be

- Leveraging the large volume of data across the care continuum can lead to a more tailored care experience

[What does this mean for Policy & Practice?]

- We [desperately] need data that is linked across all sectors of care
- We [desperately] need data from various sources (e.g. EMR, social)
- We need nationally coordinated data sources (e.g. CIHI and CPCSSN)
- Results regarding the impact of social complexity on this puzzle is very important (MCHP uniquely positioned to provide that)
- Now positioned to be able to directly investigate the impact of primary care use patterns on subsequent acute care high-system use
    - Linked data is required to make this possible

Research Team

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PIHCINSPARK:

Playing Telephone: Exploring the potential for interdisciplinary shared decision making for medication therapy in shared electronic health records

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
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PIHCINSPARK: Sharing Practical Advances in Research Knowledge

Translating Findings to Action from PIHCIN Research

[Title]

Playing Telephone: Exploring the potential for interdisciplinary shared decision making for medication therapy in shared electronic health records

[Background description]

- Shared decision making (SDM): patients and healthcare professionals (HCPs) make healthcare choices by working together
- SDM is often supported by tools such as decision aids, which help patients make choices more congruent with their values
- For medications, inter-disciplinary shared decision making (IP SDM) can include physicians, pharmacists and patients
- We need to understand how electronic health records (EHRs) can be designed to support IP SDM

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[Objectives]

1. To describe how patients, physicians and pharmacists perceive the sharing of medication decisions across a care team

2. To explore how EHRs can be designed support IP SDM with patients, physicians and pharmacists

[Methodology]

Qualitative methodology developed by a patient-engaged, multidisciplinary team. Participants included pharmacists, physicians and patients in Alberta, Ontario, Quebec, and Nova Scotia.

We collected data through workflow observations and semi-structured interviews. Data were analyzed using two approaches:

1) team coding to develop a multidisciplinary framework
2) a cognitive work analysis (systems design)

[Key findings]

[Shared Decision Making]

- Patient and HCPs had very little awareness of what SDM involves
- Patients value relationships with family physicians when making decisions
- Patients have little input from pharmacists when making decisions

[Inter-professional SDM]

- Pharmacists and physicians can work well together when co-located
- EHRs are not designed for pharmacists and physicians to make decisions together when not co-located

[Electronic Health Records]

- EHRs are designed as info systems not communication systems
- Most important medication info is missing (indication for treatment, adherence) leading to guesswork
- Patients do not have access to info they understand

[Cognitive Work Analysis]

- Pharmacists and physicians make decisions in different ways
- No mechanism to easily communicate thought processes
- Do not understand the other's context when not co-located

[What does this mean for Patients?]

- SDM can help patients make decisions they feel better about, but patients can't do it alone
- Participants did not experience SDM, nor IP SDM
- Patient is often relied upon as a messenger to communicate medication decisions between family physicians and pharmacists
- In lieu of access to an EHR, patients create ”shadow records” of their health data, frustrated when HCPs don't use it
- From what patients said, EHRs and IP SDM will need to be personalized to diverse patient profiles, expectations, and abilities
- EHRs have the potential to address these expectations and support personalized SDM with multiple HCPs

[What does this mean for Policy & Practice?]

- Difficult for family physicians and pharmacists to provide SDM in current workflow models
- Family physicians and pharmacists make decisions in different ways and do not understand the other’s decision making process
- The next generation of EHRs should include a mechanism for multiple HCPs and patients to participate in medication decision making
- To make decisions about medications, the most important piece of information for everyone is the INDICATION FOR TREATMENT
- Patients also need information with meaning and context (e.g., a TSH level connected to their thyroid medication)
- Pharmacists also need to be able to share information about non-adherence and adverse events with family physicians

http://www.cihr-irsc.gc.ca/e/45854.html

PIHCINSPARK:

Discutons Santé: Implementing a Website to Help Chronic Disease Patients Prepare Primary Care Consultations

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
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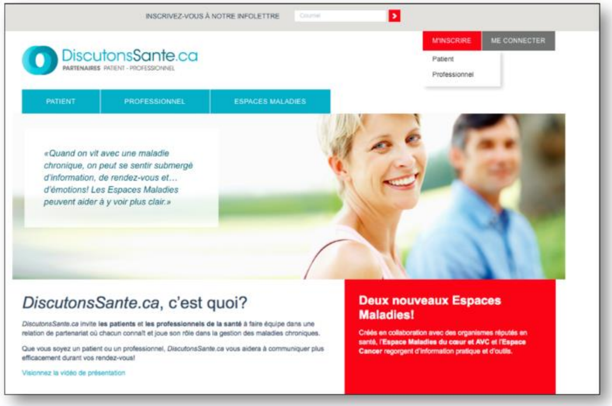
Discutons Santé: Implementing a Website to Help Chronic Disease Patients Prepare Primary Care Consultations



«Quand on vit avec une maladie chronique, on peut se sentir submergé d'information, de rendez-vous et… d'émotions! Les Espaces Maladies peuvent aider à y voir plus clair.»

DiscutonsSante.ca, c'est quoi?

DiscutonsSante.ca invite **les patients** et **les professionnels de la santé** à faire équipe dans une relation de partenariat où chacun connaît et joue son rôle dans la gestion des maladies chroniques.

Que vous soyez un patient ou un professionnel, *DiscutonsSante.ca* vous aidera à communiquer plus efficacement durant vos rendez-vous!

Visionnez la vidéo de présentation

Deux nouveaux Espaces Maladies!

Créés en collaboration avec des organismes réputés en santé, l'**Espace Maladies du cœur et AVC** et l'**Espace Cancer** regorgent d'information pratique et d'outils.

A web site that encourages and promotes collaboration between patients and healthcare providers

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Background

- Patient website interventions can increase patient participation in HC consultations
- As effective as face-to-face interventions
    - Less resource intensive
- Computer literacy
    - More than 70% of individuals aged 55-64 y. access the Internet
- Few patient communication educational websites are available in French
- Development and validation of the *Discutonssante.ca* website

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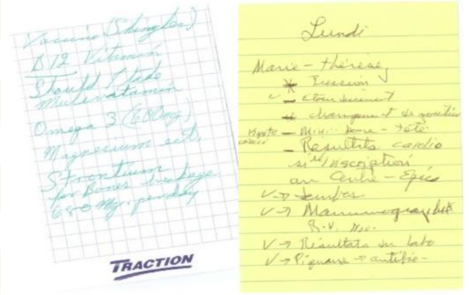
The study aim is to assess the potential for integration of *Discutons Santé* in routine PC visits

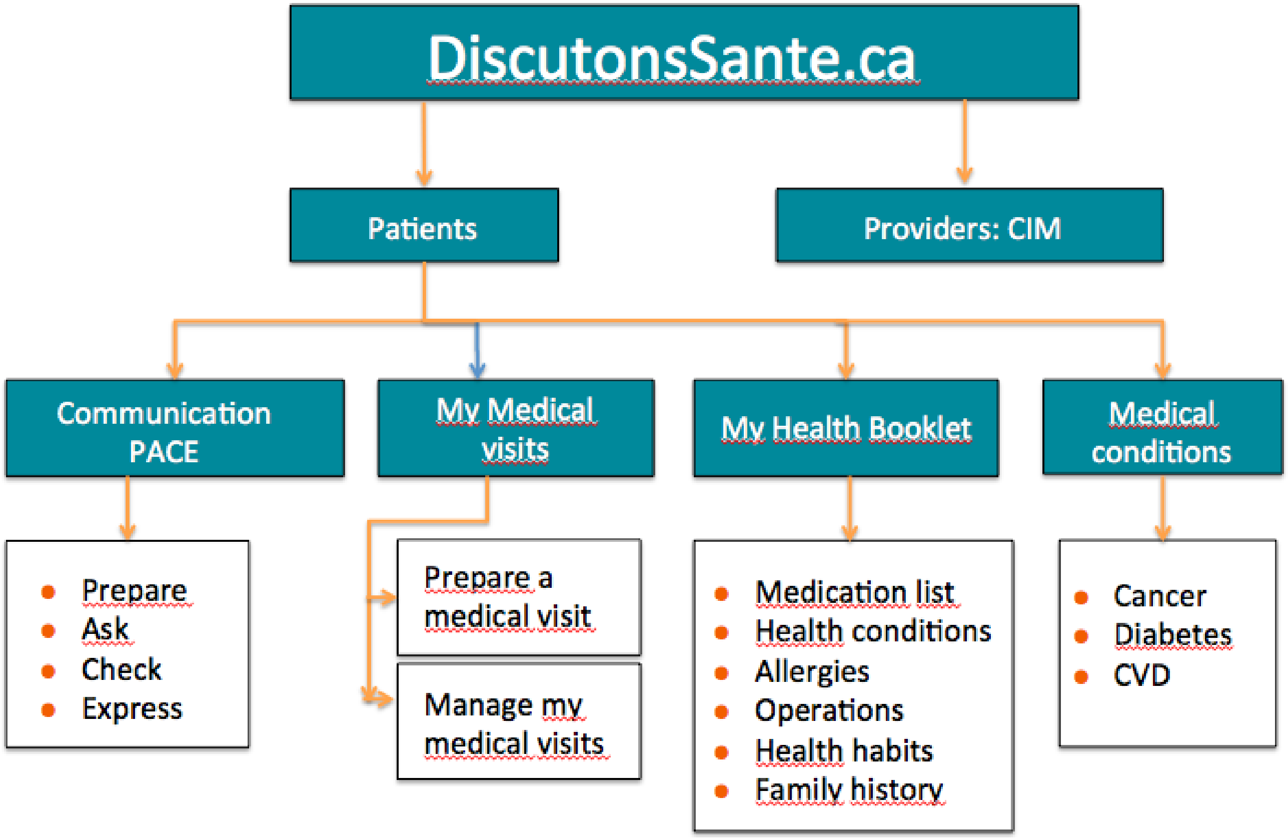
- Describe the adoption and implementation of Discutons Santé in PC routine visits
- Assess patient experience of the website and its impact on the consultation from both the patient and healthcare provider perspectives

Discutons Santé website builds on…



Methodology

- **Design** : Descriptive study using mixted methods
- **Setting** : 6 PC clinics in 2 French speaking provinces
- **Participants** : 10 HCP and 50 adult patients per site
  - Québec, New Brunswick
- **Intervention** : Introduction of *DS* in clinical routines
- **Measures** : Patient and HCP
  - Questionnaires
  - Focus groups (QDA Minor software)
- **Outcome variables** :
  - Uptake of *DS*
  - Perception of its usefulness and its impact on the healthcare encounter



DiscutonsSante.ca

Patients

Providers: CIM

Communication PACE

- Prepare
- Ask
- Check
- Express

My Medical visits

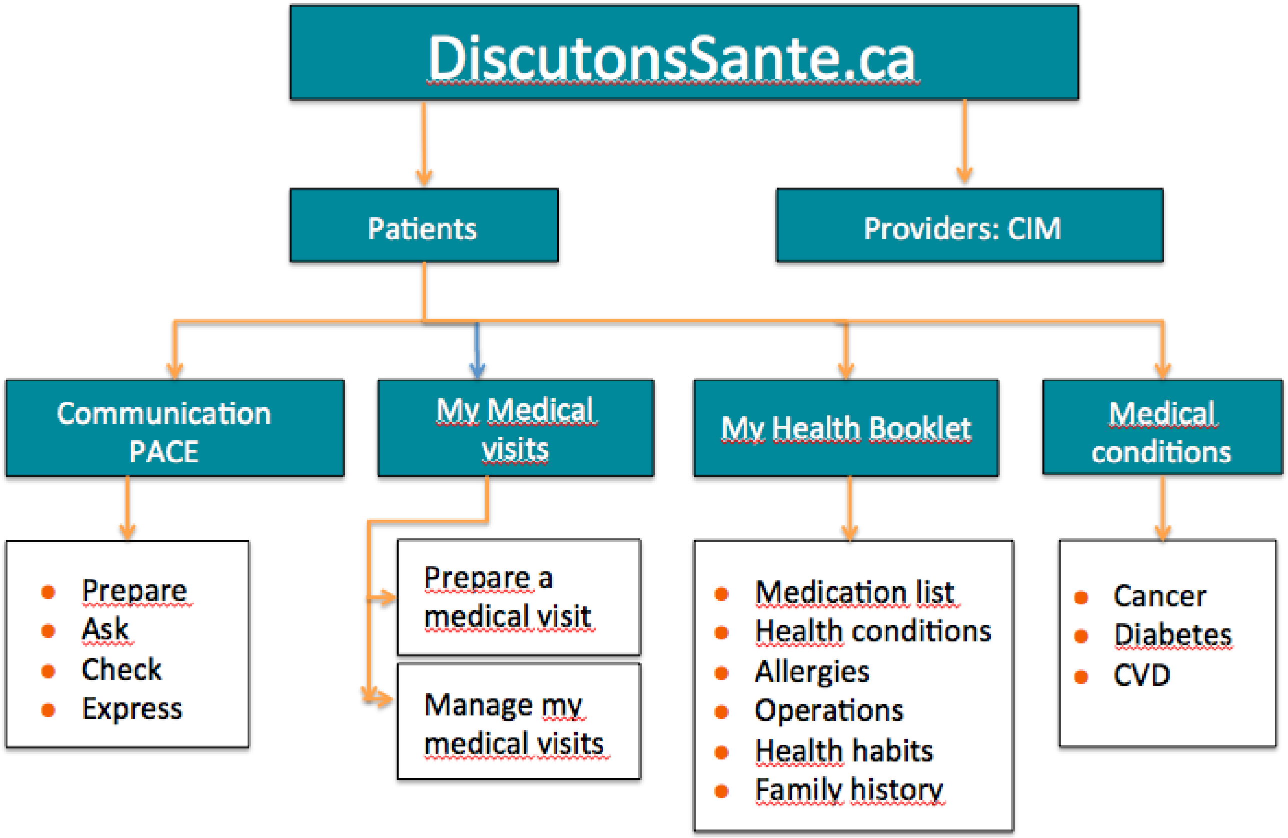
- Prepare a medical visit
- Manage my medical visits

My Health Booklet

- Medication list
- Health conditions
- Allergies
- Operations
- Health habits
- Family history

Medical conditions

- Cancer
- Diabetes
- CVD



DiscutonsSante.ca

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Medical conditions

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PIHCINSPARK: Sharing Practical Advances in Research Knowledge
Translating Findings to Action from PIHCIN Research

Key findings

Adoption rates

- **16.5%**
- Large variation per site
  - **8.0% to 37%**
    - Staff involvement
    - Research staff on site
    - Form of invitation

Pt experience of the website
(% agree or stongly agree)

Ease of Navigation	91%
Ease of understanding	93%
Credibility of Examples	95%
PACE:utility/intent to use in future	91%/89%
My visit:utility/intent to use in future	93%/88%
Summary sheet is useful	90%
My health booklet: structured/helps	94%

Impact of preparing with DS on the PC consultation

Patient perspective

Participated more actively	93%
Better follow-up	91%
Express/Checked	94%/88%
Motivated to prepare	90%

Provider perspective

Patients well prepared	87%
Clear reason(s) to consult	87%
Information complete	67%
Helped organize visit	56%
Expression of concerns	89%

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What does this mean for Patients?

Patient Focus group analyses reveal

- Using a web site such as *DiscutonsSante.ca*
  - Helps patients play a more active role in managing their consultations
  - Decreases their stress and worry about forgetting important information
    - limited time with HCP
  - Gives patients an increased feeling of partnership with their provider
    - Helping their provider by giving accurate and complete information
  - Contributes to their self management skills

What does this mean for Practice?

Provider Focus group analyses reveal

- Providers do not perceive much *added value*
    - Content
    - Structure
- The timing of presentation of the summary sheet is crucial
- Providers do not appreciate the value patients place on partnering with them

Lussier MT, Richard C, Gaser, Roberge D. The impact of a primary care e-communication intervention on the participation of chronic disease patients who had not reached guideline suggested treatment goals. Patient Educ Couns, 2016,99(4):530-41.
Glaser,E, Richard C, Lussier MT. The Impact of a Patient Web Communication Intervention on Reaching Treatment Suggested Guidelines for Chronic Diseases : a Randomized Control Trial.Accepted for publication May 12 2017.

What does this mean for Practice?

This study contributes to filling a knowledge gap on how best to implement the use of such tools in PC routines

- The use of the website by patients needs to be seen by all as part of the clinic's routine
- Need to get initial and continuous "buy in" from providers
  - Asking for summary sheet; reminding patients to prepare
- Need to involve clinic staff
- Need to get patients on board by repeating invitation to use website to prepare
  - Telephone, e-mail, receptionist, waiting room, volunteers etc.

- **We are implementing these recommendations in 2 academic FHT and with the support of CISSSL Foundation and Volunteer services**
- **Ten more FHT in Laval are planned (2017-2018)**
- **The implementation guide is under preparation and will be distributed through the website and other venues (2017)**

Lussier MT, Richard C, Gaser, Roberge D. The impact of a primary care e-communication intervention on the participation of chronic disease patients who had not reached guideline suggested treatment goals. Patient Educ Couns, 2016,99(4):530-41.
Glaser,E, Richard C, Lussier MT. The Impact of a Patient Web Communication Intervention on Reaching Treatment Suggested Guidelines for Chronic Diseases : a Randomized Control Trial.Accepted for publication May 12 2017.

PIHCINSPARK:

Evaluating the implementation and impact of an online tool in primary care to improve access to financial benefits: a multi-site trial in Ontario and Manitoba

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Andrew Pinto

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Evaluating the implementation and impact of an online tool in primary care to improve access to financial benefits: a multi-site trial in Ontario and Manitoba

Benefits Screening Tool

Supporting primary health-care providers in improving the health and income security of patients living in poverty

The Benefits Screening Tool can help you as a health-care provider in recommending income assistance benefits to your patients living on a low income. By asking a series of questions, the tool will generate a list of benefits and resources that your patient might be eligible for but may not yet be receiving including more information about how they can qualify and apply.

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Family & Community Medicine University of Toronto
Queen West Central Toronto Community Health Centre
Manitoba Centre for Health Policy
University of Toronto Dalla Lana School of Public Health
Mount Sinai Hospital Sinai Health System Joseph & Wolf Lebovic Health Complex
South East Toronto Family Health Team
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The Upstream Lab

Background

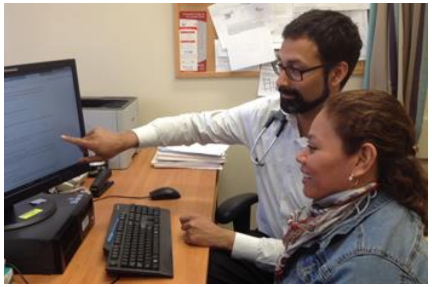
- **Poverty is a key health issue**: poor Canadians experience shorter lives, higher rates of chronic disease, less access to health care, which is of lower quality
- Poverty is a health system issue and predicts **high health system use**
- Many poor Canadians **don't access financial benefits** they are entitled to:
  - e.g. 1.6 million eligible Canadian children have not accessed $1.4 billion in Canada Learning Bond education grants
  - e.g. 10% of Canada's poorest seniors are not accessing GIS, leaving $650 million unclaimed
- **Evidence-based interventions to address social determinants in clinical care are needed**

PI: Dr. Andrew Pinto (ON); Ms. Anne Rucchetto (ON); Dr. Alex Singer (MB): Dr. Gayle Halas (MB); Dr. Gary Bloch (ON); Dr. Ritika Goel (ON); Dr. Danyaal Raza (ON); Dr. Ross Upshur (ON); Dr. Jackie Bellaire (ON); Co-PI: Dr. Alan Katz (MB);

What is PIHCI? PIHCI is the pan-Canadian SPOR Network in Primary and Integrated Health Care Innovations. PIHCI is a key CIHR initiative under the Strategy for Patient-Oriented Research and the Community-Based Primary Health Care Signature Initiative.

Objectives

- Develop new knowledge on how to address SDOH in clinical settings
- Evaluate implementation of an online tool as intervention on a key SDOH
- Help providers screen patients for income security and where necessary, recommend local benefit resources
- Assess perspectives on use of online tool in primary care
- Use findings to modify this new online tool



Methodology

- 7 site study (3 in Toronto, 4 in Winnipeg)
- Pragmatic implementation of the tool
- Multiple sources of data:
  - Surveys of patients and providers
  - Focus groups at each site
  - Telephone interview with patients at 1 month

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Translating Findings to Action from PIHCIN Research

Key findings

Provider views
- Addressing poverty should be central to primary care
- Support for addressing SDOH and not just lifestyle/behaviours
- Across professional designations, physicians are not the optimal staff to use the tool with patient: “I’m not sure I’m the best person to be doing this” – MB Physician
- Integration requires additional supports and resources to see ongoing use with clients

By the numbers:
- 381 patients opened the tool, 80% answering “yes” to *Do you have difficulty making ends meet at the end of the month?*
- 165 complete & generate list of benefits
- 7 focus groups
- 50 patients reached at 1 month (30 in Toronto, 20 in Winnipeg)

Patient views
- Very positive views of the tool
- >80% would recommend to a friend or family member
- Patients appreciate this tool as part of comprehensive primary care
- Many patients found the list of benefits quite long, and difficult to make actionable without supports

Impact on income security
- Approximately 26% of patients reached at 1 month had some improvement in finances
- Patients reported an intention to act on the list, but many had not done so yet
- Some patients already accessing all benefits, particularly in settings where staff were knowledgeable

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What does this mean for patients?

- Engage patients in the **co-creation of solutions** to social needs:
    - **Income and Health Advisory Group**: involved patients living on low incomes; a Community Engagement Specialist and other staff; representatives from several charities and institutions focused on financial literacy
    - Patients and representatives brought lived-experience to design of intervention and interpretation of findings.
    - Has lead to new ideas (e.g. peer-to-peer financial empowerment) and two grant applications

- Addressing social determinants at the **individual-level** can ensure patients receive the holistic primary care that they need

- Puts into practice our understanding of the bio-psycho-social roots of acute and chronic diseases, including depression, diabetes, COPD, HIV and chronic pain

What does this mean for Policy & Practice?

- Our findings can assist Ministries of Health in understanding the potential of the health system to **tackle the social determinants of health** and the role of technology
- Timely, given increasing interest in addressing health inequities and using data now available on socio-demographics of patients
- Interventions on poverty can shed light on potential connections with other Ministries, and the role of the health sector in the **Basic Income pilot**
- Dissemination wil be assisted by an Ontario **Health Providers in the Deep End** network, modeled on Scotland “GPs in the Deep End”
- Next steps: **Screening for Poverty And inteRvening to improve Knowledge of financial benefits (SPARK) Study**: a cluster randomized controlled trial of universal screening for poverty, integration of data into the EMR and compare moderate vs. intensive support and follow-up

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PIHCINSPARK:

R.E.S.P.E.C.T. Find out what it means to me: An algorithm for predicting death in older adults in the home care setting

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Amy Hsu

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[Title]

R.E.S.P.E.C.T. Find out what it means to me: An algorithm for predicting death in older adults in the home care setting

[Background description]

- Currently, palliative and end-of-life care is fragmented, limited, and largely unstructured.
- Patients who are approaching the end of life are under-served in relation to their need.
- Only half (52%) of all decedents in Ontario (between 2010-2012) received any palliative care in their last year of life.[1]
- Only 1 in 5 Ontario decedents (2010-2012) received a physician home visit in their last year of life.[1]
- Cancer patients were 2.5 times for likely to receive palliative care, compared to people dying from non-cancer causes.[1]

[Authors] Dr. Douglas G. Manuel (PI), ON; Dr. Frederick I. Burge (PI), NS; Dr. Peter Tanuseputro, ON; Dr. Amy T. Hsu, ON; Ms. Deborah Sattler, ON; Ms. Carol Bennett, ON; Dr. Susan Bronskill, ON; Dr. Christopher Klinger, ON; Ms. Beverly Lawson, NS; Dr. Jose Pereira, ON; Dr. Robin Urquhart, NS

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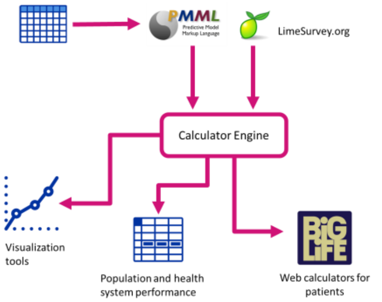
[Objectives]

- To develop and evaluate an web-based tool that informs the need for palliative/end-of-life care for older adults living in the community. Specifically, we will assess:
  - The acceptability and usefulness of web-based risk prognostic tools for identifying community-dwelling people nearing end-of-life.
  - Whether risk prognostication for mortality, conducted by home care case managers, improve the identification of individuals who would benefit from palliative care designation.



[Methodology]

What is RESPECT:

- RESPECT = Risk Evaluation for Support: Predicting Elder-life in the Community Tool[2]
- RESPECT was developed using home care data, from over 400,000 home care users, held at the Institute for Clinical Evaluative Sciences (ICES).
- Proportional hazard model was estimated for 6-month predictive risk.

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[Objectives]

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  - The acceptability and usefulness of web-based risk prognostic tools for identifying community-dwelling people nearing end-of-life.
  - Whether risk prognostication for mortality, conducted by home care case managers, improve the identification of individuals who would benefit from palliative care designation.

WECCC

[Methodology]

Evaluation of RESPECT:

- 2-8 pilot interviews.
- 4 focus groups (6-8 participants):
  - 2 Ottawa (patients/caregivers
  - 2 Windsor-Essex (home care practitioners)
- Sessions audio recorded, transcribed, coded, analyzed (Nvivo).

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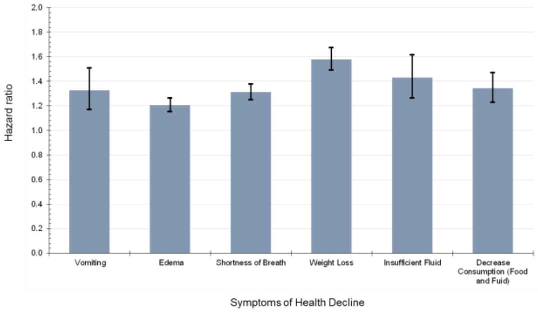
[Key findings]

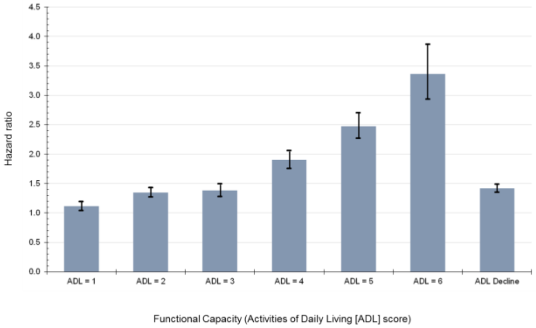
[Finding 1]

- Diagnosis of a terminal illness and symptoms of rapid health decline were strong predictors of 6-month mortality.



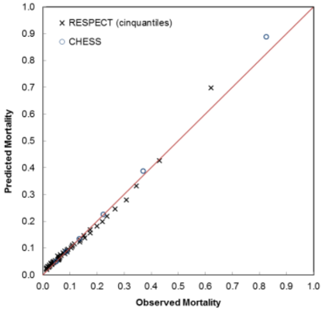
[Finding 2]

- Function impairment predictive of 6-month mortality and offers good discrimination of risk.



[Finding 3]

- RESPECT is well-calibrated and less susceptible to classification errors than existing tools (e.g., the CHESS scale)



[Finding 4]

- Evaluation through focus groups is on-going.

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[What does this mean for Patients?]

- RESPECT is patient-oriented:
  - Produces personalized risks.
  - Easily accessible via the web.
  - Undergoing evaluation with focus groups (Ottawa) and built on existing infrastructure in the community (Windsor-Essex).

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[What does this mean for Policy & Practice?]

- RESPECT is a system planning tool:
  - Developed and can be applied to routinely-collected data.
  - Can support "needs-based" identification and planning.
  - Future outcomes include time to long-term care admission and hospitalization.

[Reference]
(1) Tanuseputro P, Budhwani S, Bai YQ, Wodchis WP. Palliative care delivery across health sectors: A population-level observational study. *Palliative Medicine* 2017;31(3):247-57. doi: 10.1177/0269216316653524; **(2)** Hsu AT, Manuel DG, Taljaard M, et al Algorithm for predicting death among older adults in the home care setting: study protocol for the Risk Evaluation for Support: Predictions for Elder-life in the Community Tool (RESPECT). *BMJ Open* 2016;6:e013666. doi: 10.1136/bmjopen-2016-013666

PIHCINBITE:

A bite-sized summary of a piece of research supported by SPOR Primary and Integrated Health Care Innovations

PIHCINBITE:

Improving Outcomes for Youth with Type 1 Diabetes in Transition to Adult Care Through Strengthening Integration with Primary Care: An Exploratory, Cross-Provincial Study

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Roger E. Chafe

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PIHCINBITE: A bite-sized summary of a piece of research supported by SPOR Primary and Integrated Health Care Innovations

Improving Outcomes for Youth with Type 1 Diabetes in Transition to Adult Care Through Strengthening Integration with Primary Care: An Exploratory, Cross-Provincial Study

Chafe R, Gatto A, Guttmann A, et al. Improving Outcomes for Youth with Type 1 Diabetes in Transition to Adult Care Through Strengthening Integration with Primary Care: An Exploratory, Cross-Provincial Study

http://webapps.cihr-irsc.gc.ca/cfdd/db_results_submit

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[Methodology]:
Surveys of 36 pediatric diabetes centres in Ontario and nine pediatric diabetes clinics in Newfoundland;
Four focus groups with patients and interviews with primary care physicians;
Analysis of health system usage data in ON and NL.

[Background & description]

+ During the transition to adult care, patients with Type 1 Diabetes (T1D) risk loss to follow-up care, decreased frequency of clinic attendance, increased rate of diabetes-related hospitalizations, and poorer post-transition glycemic control, all of which can have negative long-term consequences for patients. Although well-coordinated health care services are crucial during this period of a patient's life, there is a good deal of variation in how the transition to adult care is structured across different centres in Canada, with little evidence supporting the adoption of any particular model of transition care. A topic not well explored in relation to diabetes transition is the potential role that primary care can play in improving the transition experience for emerging adults with T1D.

Project Team: PIs: Dr. Roger Chafe, NL / Dr. Astrid Guttmann, ON. Aryn Gatto (Principle Knowledge User), ON; Dr. Rayzel Shulman, ON; Dr. Kris Aubrey-Bassler, NL; Dr. Tracey Bridger, NL; Dr. John Knight, NL; Dr. Leigh Anne Newhook, NL; Dr. Baiju Shah, ON; Dr. Alene Toulany, ON.

Partners: The Hospital for Sick Children, the Janeway Pediatric Research Unit, the Janeway Children's Hospital Foundation, Priime SPOR, Eastern Health, Glenn's Helping Hand Foundation, and CIHR.

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[Key findings]

[Finding 1: Complicated to Grant Administer]

- Over a year since initial ethics approval, and we still do not have access to all of the data and to all sites for focus groups.

[Finding 2: Associations with adequate follow-up]

- Having a visit with your new adult diabetes provider before you transition is associated with adequate follow-up care in early adulthood.
- Having a visit with a family doctor during the transition age is associated with adequate diabetes care and a lower risk of DKA or death in early adulthood.

[Finding 3: Provider Interviews]

- Primary care providers are sympathetic to managing diabetes patients, but often do not see enough young adult patients with type 1 diabetes to feel comfortable completely taking over their care.
- Rural areas do not have same access to specialists, but may face fewer issues related to transition as the same providers often see patients as adolescents and adults.

[Effective Strategies]

- Builds on current work of Ontario Pediatric Diabetes Network;
- Involves a multidisciplinary team;
- Engagement of key decision maker partners as knowledge users on the research team;
- Patient and stakeholder engagement to review findings, to tailor dissemination messages and identify next actions;
- End of grant outreach to other provinces.

[Recommendations]

+ Encourage youth with T1D to maintain a connection and regularly visit their family physician.
+ Encourage new adult diabetes providers to meet as early as possible with their new patients.
+ Engage with institutional partners to improve the speed and efficiency of the process by which quick strike projects can be completed.

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PIHCINBITE:

A Comparative Analysis of Centralized Waiting Lists for Unattached and Complex Patients Implemented in Six Canadian Provinces

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Mylaine Breton

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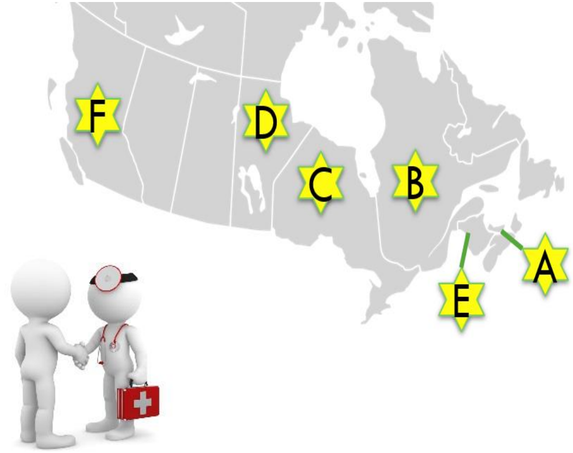
PIHCINBITE: A bite-sized summary of a piece of research supported by SPOR Primary and Integrated Health Care Innovations

A Comparative Analysis of Centralized Waiting Lists for Unattached and Complex Patients Implemented in Six Canadian Provinces

Methodology: Logic analysis approach
Step 1) Build logic models describing each list (n=34 interviews; grey literature)
Step 2) Develop a conceptual framework of centralized waiting list (realist reviews)
Step 3) Compare logic models to framework to make recommendations (symposium)



- **Background**: 4.6 million Canadians, approximately 15% of Canada's population, are unattached. Six provinces have implemented centralized waiting lists to help attach patients to primary care providers.
- **Objective:** To compare the six different Canadian models of centralized waiting lists to each other and to available scientific knowledge
- **Aim:** To make recommendations on ways to improve their design in an effort to increase attachment of patients to a primary care provider.

Team
Mylaine Breton (QC), Mike Green (ON), Sabrina Wong (BC), Jalila Jabilou (NB), Sara Kreindler (MB), Astrid Brousselle (QC), Jay Shaw (ON), Jason Sutherland (BC), Valerie Crooks (BC), Damien Contandriopoulos (QC), Mélanie-Ann Smithman (QC)

Partners
CIHR, Centre de recherche Hôpital Charles-LeMoyne, Chair in Applied Health Economics/Health Policy (Dr. Green)

Réseau-1 Québec, BC-PHCRN, MPN, BeACCoN, NB SPOR Network, PEI SPOR Network

MOHLTC, MSSS, FMOQ, Health PEI, MHSAL, Doctors of BC, Divisions of Family Practice, NB Health

Breton, M., Green, M., Kreindler, S., Sutherland, J., Jbilou, J., Wong, S. T., Crooks, V., Shaw, J., Contandriopoulos, D., Brousselle, A. (2017). A comparative analysis of centralized waiting lists for patients without a primary care provider implemented in six Canadian provinces: study protocol. BMC Health Services Research, 17(1), 60. doi:10.1186/s12913-017-2007-8

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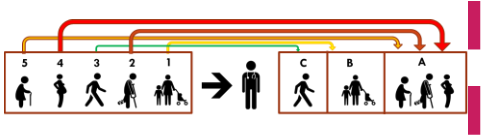
Key findings

Finding 1

- \+ Equity vs. equality
- \+ Queuing

vs. prioritization



Finding 2

- \+ Fragility of mechanism
- \+ Highly dependent on supply of primary care providers and capacity to attach new patients

Finding 3

- \+ Difficulty attaching complex/vulnerable patients
- \+ E.g. Drug addiction, mental health

Effective Strategies

- \+ Transitional clinics for complex patients.
- \+ Use of local care connectors.
- \+ Information linked with health insurance database.

Recommendations

- \+ Centralized waiting lists for unattached patients are one mechanism to help attach patients to primary care providers, but can be complex.
- \+ More resources are needed to support the attachment of complex patients.
- \+ Centralized waiting lists must update patient information.
- \+ Provinces expressed a need to continue to learn and exchange.

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PIHCINBITE:

Connecting primary health care, social services, public health and community supports for children & youth and older adults: A comparative policy analysis

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Jeannie L. Haggerty

Connecting primary health care, social services, public health and community supports for children & youth and older adults: A comparative policy analysis

[Methodology]:
Delphi identification of essential services
Key policy informant interviews – governance and policy structures for each service
Identification of exemplar programs – characterize implementation and integration
In-depth comparative policy analysis of 2 successful and 2 failed programs.

[Background & description]

- Two patient populations are particularly dependent on multiple providers to prevent or mitigate functional disability: 1) children & youth with complex needs; 2) older adults in functional decline.
- To describe and compare provincial/territorial policies that govern the linkage of primary health care with social services, public health and community supports and that govern data linkage and information sharing.
- To analyze design and policy elements in exemplar programs that integrate information systems.
- All provinces

Patients with complex needs require services beyond the formal health system. Separate governance and information systems are barriers not only to integrated delivery but also to monitoring and evaluation.

[Project team]
PIs: Jeannie Haggerty (QC): Shelley Doucet (NB); Bill Montelpare (PEI); Robin Urquhart (NS); Yves Couturier, Réjean Hébert, Amélie Quésnel-Valée (QC); Tara Stewart (MB); Cathie Scott (AB); Leanne Currie (BC).
+ 18 co-investigators, 8 policy leads; 6 clinicians; 2 patients.

[Partners]
Research Manitoba; NB Health Research Foundation (NB); Janeway Childrens Foundation (NL); Réseau-1 Québec; Policy Wise for Children & Families (AB); McGill Research Chair in Family Medicine (QC); Axe Société, populations et services, Centre de recherche sur le vieillissement CIUSSS de l'Estrie-CHUS (QC); Institut universitaire de première ligne en santé et services sociaux - CIUSSS de l'Estrie-CHUS; Canada Research Chair in Policies and Health Inequalities (QC); Robin Urquhart research team (Dal, NS); Department of Family Medicine, University of Calgary (AB)

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[Deliverables]

[Deliverable 1]

- Evergreen data base by province of legislation and macro policies that govern:
  - Primary health care
  - Social services
  - Community Services
  - Public health

Deliverable 2]

- Searchable and dynamic database of publicly-funded programs that integrate services for children & youth with complex needs and for older adults in functional decline

[Deliverable 3]

- Macro and program policies that support data linkage and information sharing requirements for cross-services integration as well as monitoring and evaluation of service delivery models

[Effective Strategies]

- May 2017 – Dec 2018
- A hub and spoke organization for the research supports parallel work teams for timely results.

[Implications]

- The databases will be a resource for planning cross-jurisdictional research and evaluation
- The program analysis will inform the design of integrated service delivery models.
- Recommendations to enhance data linkage for future comparative effectiveness research, comparative policy analysis, and information sharing for integrated clinical services

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PIHCINBITE:

Evaluation of geriatrician-led models of care: A systematic review and network meta-analysis

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Charlene Soobiah

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[Title]

Evaluation of geriatrician-led models of care: A systematic review and network meta-analysis

[Methodology]:

Randomized controlled trials of adults (≥65 years old) that examine geriatrician-led CGA models compared to any intervention (including usual care) were included.

[Background & description]

- Comprehensive geriatric assessment (CGA) conducted by geriatricians can help prioritize and manage complex health needs of older adults.
- There are a limited number of geriatricians and CGA models vary across healthcare settings and it is unclear which model is most effective.
- Our goal is to conduct a systematic review and network meta-analysis to examine the effectiveness of geriatrician-led CGAs.

[Project team] PI: Dr. Sharon Straus, ON; Dr. Jayna Holroyd-Leduc, AB, Dr. Jenny Basran, SK; Dr. Barbara Liu, ON; Dr. Andrea Tricco, ON; Charlene Soobiah, ON; Dr. Ainsley Moore, ON; Dr. Sharon Marr, ON; Harold Braithwaite , ON; Dr. Jennifer Watt, ON, Gayle Manley, ON; Lee Ringer, ON; Dr. Jemila Hamid, ON; Dr. Heather Colquhoun, ON; Dr. Heather Armson, AB; Sylvia Teare, AB, Dr. Duncan Robertson, AB; Dr. Donna Goodridge, SK, Elliot PausJenssen, SK.

1. Engage with stakeholders to select outcomes for systematic review.
2. Conduct systematic review and network meta-analysis
3. Engage with stakeholders to create the key messages for target audiences

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[Key findings]

[Finding 1]

- Established a steering committee with 3 patient leads and 2 clinicians to guide conduct of review.
- 17,221 citations were identified by searching electronic databases.

[Finding 2]

- 223 studies fulfilled inclusion criteria.
- Over 35 outcomes were used in trials of geriatrician-led CGAs.

[Finding 3]

- The most frequent outcomes were: functional ability, mortality, and admission to acute care.
- Recruiting stakeholders for a Delphi to select outcomes to include in review.

[Effective Strategies]

[Recommendations]

- Identifying optimal geriatrician-led models of care will allow us to target geriatric services effectively
- Active involvement of patients, caregivers, primary care clinicians, geriatricians and policymakers allows us to tailor the review to their decision making needs.

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Creating a Comprehensive Children Health Profile (CHP) and Intra-provincial Population-based Birth Cohorts in NB and PEI

The Canadian Association for Health Sciences and
Policy Research (CAHSPR) pre-conference SPOR
PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Carole Tranchant

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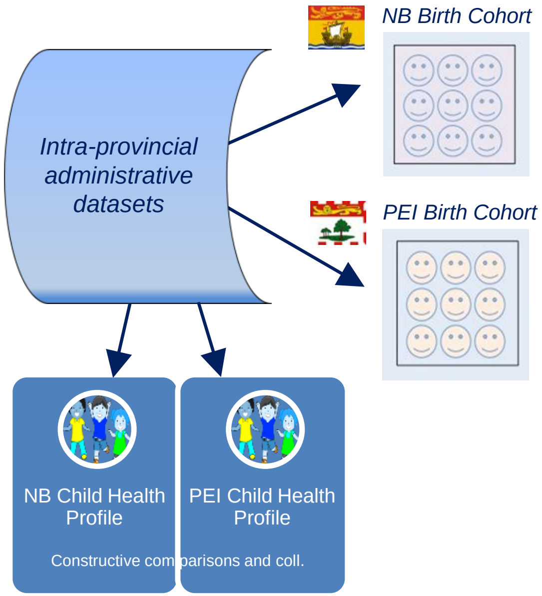
PIHCINBITE: A bite-sized summary of a piece of research supported by SPOR Primary and Integrated Health Care Innovations

Creating a Comprehensive Children Health Profile (CHP) and Intra-provincial Population-based Birth Cohorts in NB and PEI

Methodology

- Identify pertinent administrative datasets available in NB and PEI
- Identify the variables for the NB and PEI Child Health Profiles and Birth Cohorts
- Data extraction, descriptive and correlational analyses (CHPs)
- Integrated KT and environmental scan of current CHPs in other jurisdictions



Research questions

- How are young children doing in NB and PEI, what is the health profile of 18-month toddlers?
- What are the challenges/solutions for creating a CHP and BC using administrative datasets?

Background & description

A child's first 1,000 days are her or his biggest chance for a healthy life. This research intends to be a demonstration of the power of administrative data collected in NB and PEI, but currently not analyzed to produce evidence on the effectiveness of early years primary prevention strategies.

Objectives

+ To produce a provincial-level Child Health Profile in NB and PEI, based on administrative data available and informed by KU needs
+ To develop a system for database integration that will enable the creation of a Population-based Birth Cohort Database in NB and PEI

Project team

NPI: Carole Tranchant, Université de Moncton (UdeM), NB

Co-PI:

William Montelpare, UPEI

Mathieu Bélanger, NB Medical Training Centre - UdeM

Co-Applicants: Knowledge users (health care professionals, families), decision-makers and researchers from institutions across the Maritimes: UdeM, CFMNB, UNB, UPEI, Dal, CBU

Partners

GNB Health Department
GNB Child and Youth Advocate
GNB Perinatal Program
PEI Public Health Practice and Population Branch
NB & PEI Family Resource Centres
NB & PEI PIHCI SPOR Networks
Maritime SPOR Support Unit, including NB-IRDT
CIHR
NB Health Research Foundation
Margaret & Wallace McCain Family Foundation through UPEI

Quick Strike II Project

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Preliminary findings

Finding 1

- \+ Core health system and early years databases of special interest
- \+ For the CHPs, data at birth and 18 months
- \+ Data access, prep and extraction in progress

	Age at entry	NB	PEI
Children Health Profile Data			
1. Healthy Toddler Assessment, including:	18 months	☒	
1.1 Ages & Stages Questionnaire	18 months	☒	☒
1.2 NutriSTEP (Nutrition Screening Tool)	18 months	☒	☒
2. Physician Billing	Variable	☒	☒
3. Hospital Discharge Abstract Data	Newborn	☒	☒
4. Citizen Database	Newborn	☒	☒
Birth Cohort Data			
1. Healthy Toddler Assessment, including:	18 months	☒	
1.1 Ages & Stages Questionnaire	18 months	☒	☒
1.2 NutriSTEP (Nutrition Screening Tool)	18 months	☒	☒
1.3 Edinburgh Postnatal Depression Scale, mothers	18 months	☒	☒
2. Physician Billing	Variable	☒	☒
3. Hospital Discharge Abstract Data	Newborn	☒	☒
4. Citizen Database	Newborn	☒	☒
5. Public Health Priority Assessment	Newborn	☒	
6. Perinatal Database, includes parental & newborn info	Newborn	☒	
7. Reproductive Care Perinatal Database	Newborn		☒
8. Early Years Evaluation (EYE-DA, EYE-TA)	3 to 5 years	☒	☒

Finding 2

- \+ Children health reports in other jurisdictions vary in scope and content, e.g.,

BC Health and well-being of children & youth

ON Measuring the health of infants, children & youth for public health

QC Portrait of 0-5 year olds

NB Children & youth rights and well-being snapshot

Effective Strategies (iKT)

- \+ Engage & inform about the value of administrative data for establishing CHPs and population-based BCs
- \+ Establish partnerships and help build bridges: R, PH, other departments, NGOs
- \+ S&KU Advisory Committee

Recommendations

- \+ Sustain over the long term the development of CHPs & population-based Birth Cohorts from administrative datasets in the Maritime provinces
- \+ Keep building the capacity for (intra-provincial) data sharing and database integration to enable the development of these tools

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[PIHCI Network]
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PIHCINBITE:

Dimensions of Quality for Mobile Applications in Chronic Disease Management: A Scoping Review

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Payal Agarwal

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PIHCINBITE: A bite-sized summary of a piece of research supported by SPOR Primary and Integrated Health Care Innovations

Dimensions of Quality for Mobile Applications in Chronic Disease Management: A Scoping Review

Methodology: scoping review of reviews of apps from the app store to summarize the current methods for identifying high quality patient facing apps for chronic disease management.

[Reference]

- \+ What **criteria are used to determine quality** in articles reviewing mobile applications intended to support chronic disease management in reviews of mobile applications (as opposed to prospective studies of their effectiveness)?
- \+ Review the literature assessing mobile applications via direct reviews of application function, and assess how these criteria compare to (a) principles of user-centered design and (b) frameworks for the implementation and adoption of mobile applications
- \+ Identify the key indicators of quality of mobile applications for clinical use in the management of chronic conditions that have been identified in research literature

[Project team]
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Dr. S. Bhatia,
Mr. B. Clark,
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CIHR, OTN, and WIHV

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[Key findings]

[What we know]

- We know there are lots of RCTs of mobile applications, but there are too many apps to study this way - and these apps are constantly changing
- **We wanted to know how people are evaluating apps in the absence of experimental studies**

[Example]

- Mobile Apps for Bipolar Disorder: A Systematic Review of Features and Content Quality
- In this study, 32/82 apps provided information and 50/82 apps focused on management, which included **screening and assessment, symptom monitoring, community support, and treatment**
- Less apps addressed **privacy** and **security** and few cited their **information source**

[Next steps]

- We want to get a better sense of **which of these criteria help clinicians, patients and policymakers identify good apps from bad apps**
- After we find out what criteria are being used to evaluate these apps, we'll **compare them against criteria from design and from evidence-based principles to build guidance for real-life, real-time evaluation** of what makes a good app for chronic disease management

What is PIHCI? PIHCI is the pan-Canadian SPOR Network in Primary and Integrated Health Care Innovations. PIHCI is a key CIHR initiative under the Strategy for Patient-Oriented Research and the Community-Based Primary Health Care Signature Initiative.

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PIHCINBITE:

Improving Care and Outcomes for Patients with Chronic Kidney Disease Managed in Primary Care

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Aminu Bello

PIHCINBITE: Improving Care and Outcomes for Patients with Chronic Kidney Disease Managed in Primary Care

Project team: Bello, A., Ronksley, P., Tangri, N., Singer, A., Grill, A., Nitsch, D., Queenan, J., Lindeman, C., Soos, B., Freiheit, E., Mangin, D., & Drummond, N.

Introduction

- There is dearth of a nationally-based data on practice pattern in the management of chronic kidney disease (CKD) in the Canadian primary care.
- We have leveraged data from the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) for **a nationally-based study on epidemiology and management of CKD in Canadian primary care.**
- We have outlined here the comprehensiveness and richness of this primary care database for quality improvement (QI) studies in CKD.

AIMS

- Evaluate the current practice patterns on CKD risk identification based on existing guideline recommendations.
- Investigate variation in patient, provider and regional level characteristics in CKD care delivery using established quality indicators.
- Identify opportunities for improving quality CKD care.

Methods:

- CPCSSN extracts electronic medical record (EMR) data from over **1,100 physicians** from 7 provinces and 1 territory and captures information on over **1.5M Canadians.**
- This represents a huge opportunity for quality improvement projects on CKD management at national level.
- We used validated algorithms, case definitions and guideline-concordant quality of care metrics to develop a cohort of CKD patients managed in primary care between January 1, 2010 and December 31, 2015.

RESULTS

A comprehensive set of measures of kidney function and albuminuria and with variable distribution by clinical status (**Table 1**):

- 2,329,245 serum creatinine (SCr)measurements
- 450,345 urine albumin measurements.
- Good spread overall, and by clinical status (diabetes and/or hypertension) (**Figure 1**).
- Temporal tend in the number of urine albumin tests (**Figure 2**) and SCr measurements overtime (**Figure 3**).

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CPCSSN RCSSSP

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Finding 1

- The CPCSSN database was used to develop a cohort of CKD patients being managed in primary care between January 1, 2010 and December 31, 2015.
- In this cohort, we identified 3,060,836 and 534, 823 available serum creatinine and urine albumin measurements respectively.

Finding 2

- The availability and spread of the measures of kidney function (serum creatinine) and albuminuria that defined CKD are comprehensive across multiple timeframes and disease conditions

Finding 3

There were ~381,000 urine albumin measurements in individuals with diabetes compared to ~154,000 measures in those without diabetes.

Strategic direction

To our knowledge, this represents the largest cohort to estimate the burden and quality of care of CKD care in primary care.

•The coverage and representativeness of the measures for CKD represents huge opportunity for understanding the current practice pattern in CKD management

Recommendations

This date represents an important resource that could be leveraged to define the current state , practice variation and quality of care for CKD in primary care at a national level.

This has implications on:

1. closing the gap between observed and expected burden and risk of CKD
2. mapping the standard of care achieved
3. providing opportunities for focused and effective population-level quality improvement initiatives to enhance CKD care in Canada and beyond.
4. Our work will provide opportunity for the first national audit on CKD management in primary care in Canada and offer opportunities for comparison with other initiatives of a similar nature, e.g. UK Quality and Outcomes Framework, US CDC CKD Surveillance system, etc.

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PIHCINBITE:

Identifying and Understanding the Health and Social Care Needs of Older Adults with Multiple Chronic Conditions (MCC) and their Caregivers: A Scoping Review

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Martine Puts

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Identifying and Understanding the Health and Social Care Needs of Older Adults with Multiple Chronic Conditions (MCC) and their Caregivers: A Scoping Review

Image from [http://www.chcs.org/topics/social-determinants-of-health/

[Methodology]:

We are conducting a scoping review of the peer-reviewed and grey literature using the updated Arksey and O'Malley framework.

[Background & description]

1. What are the health and social care needs, priorities and preferences of community-dwelling older adults with MCC and those of their caregivers?
2. How do social and structural determinants of health impact these needs?
3. What (research) approaches have been used to ascertain these needs and preferences?

+ A multi-database search strategy developed by a health sciences librarian
+ Grey Literature will be included
+ Ongoing patient/stakeholder consultation

[Project team] PIs:
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[Partners]
Health Sciences North; MOHLTC; Saskatchewan Health Research Fund Sinai Health Systems; Toronto Rehabilitation Institute-UHN; VHA Home Healthcare

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[Key findings]

[Finding 1]

+ 34391 abstracts to review
+ Training session for screening held for all team members including patients
+ Review is in progress

[Finding 2]

+ Not yet…

[Recommendations]

+ Coming later this year

[Finding 3]

[Effective Strategies]

+ Using Covidence software facilitates the participation of patients in research processes

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PIHCINBITE:

Case management in primary care among frequent users of health care services with chronic conditions: preliminary findings from a realist synthesis

The Canadian Association for Health Sciences and Policy Research (CAHSPR) pre-conference SPOR PIHCIN Research Day: May 23, 2017

Contact person:
Dr. Kris Aubrey-Brassler

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PIHCINBITE:

A bite-sized summary of a piece of research supported by SPOR Primary and Integrated Health Care Innovations

Case management in primary care among frequent users of health care services with chronic conditions: preliminary findings from a realist synthesis

Methodology:

Realist synthesis (RS) is conducted.

Five steps are planned: 1) Focusing the scope of the RS ; 2) Searching for the evidence (ongoing); 3) Appraising the quality of evidence (ongoing); 4) extracting the data (ongoing) and; 5) synthesizing the evidence.

Background & description

Frequent users of health care services (FU) are more at risk for disability, loss of quality of life and mortality.

Case management (CM) is the most promising intervention for FU, but the causal mechanisms underlying CM and how contextual factors influence the link between these causal mechanisms and outcomes remain unknown.

This review conducted by representatives from 4 different provinces of Canada aims to develop a middle range theory explaining how CM in primary care improves outcomes among FU with chronic conditions, for what types of FU, and in what circumstances.

Project team

Dr Catherine Hudon, QC; Dr Maud-Christine Chouinard, QC; Dr Kris Aubrey-Bassler, NL; Dr Nazeem Muhajarine, SK; Dr Fred Burge, NS; Dr Pierre Pluye, QC; Dr Paula L Bush, QC; Dr Vivian R Ramsden, SK ; Dr France Légaré, QC; Dr Line Guénette, QC; Dr Paul Morin, QC; Mrs Mireille Lambert, QC; Mr Antoine Groulx, QC; Mrs Martine Couture, QC; Mr Cameron Campbell, NL; Mrs Margaret Baker, SK; Lynn Edwards, NS; Mrs Véronique Sabourin, QC; Mr Claude Spence, QC; Mr Gilles Gauthier, QC; Mr Mike Warren, NL; Mrs Julie Godbout, QC; Dr Breanna Davis, SK; Mrs Norma Rabbitskin, SK

Reference

Hudon C, Chouinard MC, Aubrey-Bassler K, et al. Case management in primary care to improve outcomes among frequent users of health care services with chronic conditions: a realist synthesis of what works, for whom and under what circumstances? . PROSPERO: International prospective register of systematic reviews 2017. https://www.crd.york.ac.uk/PROSPERO/display_record.asp?ID=CRD42017057753.

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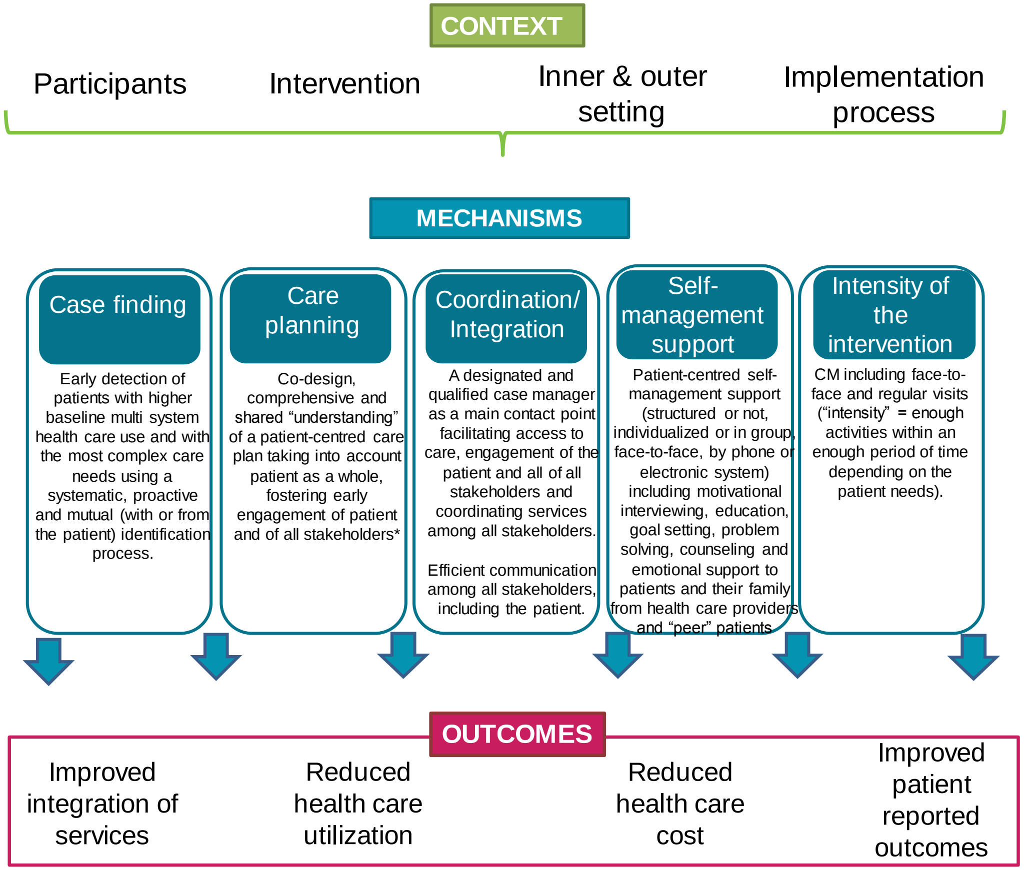
Preliminary findings

Development of the initial middle range theory about CM in primary care for FU



CONTEXT

Participants

Intervention

Inner & outer setting

Implementation process

MECHANISMS

Case finding

Early detection of patients with higher baseline multi system health care use and with the most complex care needs using a systematic, proactive and mutual (with or from the patient) identification process.

Care planning

Co-design, comprehensive and shared “understanding” of a patient-centred care plan taking into account patient as a whole, fostering early engagement of patient and of all stakeholders*

Coordination/ Integration

A designated and qualified case manager as a main contact point facilitating access to care, engagement of the patient and all of all stakeholders and coordinating services among all stakeholders.

Efficient communication among all stakeholders, including the patient.

Self-management support

Patient-centred self-management support (structured or not, individualized or in group, face-to-face, by phone or electronic system) including motivational interviewing, education, goal setting, problem solving, counseling and emotional support to patients and their family from health care providers and “peer” patients

Intensity of the intervention

CM including face-to-face and regular visits (“intensity” = enough activities within an enough period of time depending on the patient needs).

OUTCOMES

Improved integration of services

Reduced health care utilization

Reduced health care cost

Improved patient reported outcomes

* Stakeholders include all required health care providers, community resources, patient coach, family, caregivers and patient’s entourage.

Recommendations

Tailored messages based on the RS findings to various relevant stakeholder groups will allow the development of knowledge transfer material that provides guidance on the design and the implementation of CM in health organizations.

Review is still in progress: the next steps include identification of patterns in context-mechanism-outcomes (CMO) configurations within and across identified studies.

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SHRF Saskatchewan Health Research Foundation

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Newfoundland and Labrador Medical Association

Centre de recherche CHUS

Université de Sherbrooke

Dalhousie University

UQAC Université du Québec à Chicoutimi

University of Saskatchewan

Memorial University

IRSC CIHR