



Queen's
UNIVERSITY

Centre for Studies in Primary Care

Annual Report
2013-2014

Department of Family Medicine
Queen's University
Kingston, Ontario, Canada

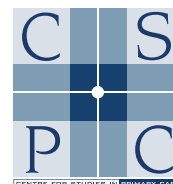


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VISION *To improve the health and well-being of people in Southeastern Ontario and beyond through research, surveillance and education in primary care*

MISSION *The Centre for Studies in Primary Care is dedicated to the conduct of primary care research, surveillance and education that extends our understanding of health, health maintenance, disease and its treatment, care delivery, and the assessment and dissemination of evidence*

OVERVIEW The Centre for Studies in Primary Care (CSPC), the research arm of the Department of Family Medicine, was created by the Senate of Queen's University in November 2000. The CSPC provides faculty in the Department of Family Medicine with research support, directs the department's resident research teaching program, and helps to build capacity in primary care research by providing an environment that supports research training and academic excellence.

The centre's research activities are in areas relevant to the practice of primary health care, primary care chronic disease surveillance, population health, health promotion, family medicine education research, program evaluation and evidence assessment for clinical practice. Additionally, many of the centre's research activities respond to community needs and funding opportunities.

The CSPC's director, associate director and assistant director report to the head of the Department of Family Medicine and the dean of the Faculty of Health Sciences. The centre has an advisory council that is chaired by a respected community member and has membership from across Queen's University and community-based primary care practitioners, with resident representation. The advisory council supports the development of the CSPC and advises on opportunities that fall within the mission and vision of the centre.

MESSAGE FROM THE DIRECTOR



Dr. Richard Birtwhistle, MD, MSc, FCFP
Director, Centre for Studies in Primary Care
Queen's University

During 2013, the CSPC has been focusing on initiating a number of activities that support the achievement of our two strategic priorities.

Growth of the Centre's Research Activities: We have expanded our research and scholarly activities to build on current assets and capitalize on the shifting research landscape through:

- Support of education research and evaluation work of faculty.
- Focusing research on the CSPC's areas of strength, including: 1) chronic disease surveillance and research through the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) and 2) Evaluation and community engagement research for health promotion and community-based programming.

Building Research Capacity: Establishing a talent management approach to build and maintain research capacity through:

- Investing in research mentorship of faculty members
- Investing in key staff members in the Centre for Studies in Primary Care

With respect to building capacity, we have provided opportunities to research faculty through a competitive research initiation grant, and have recruited a research associate to support new and junior research faculty in the development of their research portfolios. Many of these activities are outlined in this year's report, and I am delighted at the growth and success of our research faculty and staff. I would especially like to thank the centre's staff members, whose hard work and contributions are vital to our success.

MESSAGE FROM THE DEPARTMENT HEAD



Dr. Glenn Brown, BSc, MD, CCFP(EM), FCFP, MPH
Head, Department of Family Medicine
Queen's University

This year has highlighted some of the greatest strengths of the Centre for Studies in Primary Care, not only in conducting primary care research that will improve the delivery of health care in our region, but also in resident research education.

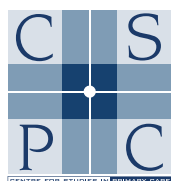
In particular, through the CSPC the department had the opportunity to showcase resident research at this year's Primary Care Research Day (PCRD), a day that celebrates and shares research findings among residents, faculty, peers and the community. Each year, the quality of these presentations has grown; this year was no exception.

Three out of the four awards presented this year at PCRD were awarded to residents who attend our satellite education sites. This really speaks to the success of our expansion; these research activities and the establishment of a scholarly approach to learning is a tribute to the leadership within the DFM. I am continuously impressed by the level of dedication and professionalism that this day brings about, and I am glad to see the bar has been raised again for the next round of presentations in 2015.

This year, the department has also invested in infrastructure and support for the CSPC to ensure the continued growth of our faculty's research projects. This has allowed us to maintain the high level of quality we have come to expect from the centre and the department, which is reflected in the research we have put forth this year.

I look forward to another successful year of research for the centre.

EXECUTIVE SUMMARY



During this year, the CSPC has focused primarily on building research capacity within the Department of Family Medicine by providing research initiation grants to faculty through a competitive granting competition. Through this competition, the CSPC was able to fund seven projects, as outlined in the table below.

RESEARCH INITIATION GRANT-FUNDED PROJECTS

PRINCIPAL INVESTIGATOR

| | |
|--------------------------------------|---|
| Dr. David Barber & Dr. Brent Wolfrom | Adding Patient-Reported Measures of Behavioural and Social Data to Electronic Medical Records, and Assessing the Demographics and Healthcare Perceptions of Veterans: A Pilot Project |
| Dr. Lawrence Leung | Use of Bitter Melon as a Nutritional Supplement for Improving T2DM – A Feasibility Study |
| Dr. Jonathan Kerr | Evaluation of New Practice Management Curriculum at a Distributed Family Medicine Residency Site |
| Dr. Susan Phillips | Screening for Youth at Risk: A Feasibility Study |
| Dr. Karen Schultz | Evaluating the Effectiveness of the Innovative “Nightmares FM” Course Approach to Teaching Acute Care Skills to Family Medicine Residents |
| Dr. Karen Hall Barber | The Wait-One Project: A Quality Improvement Project to Reduce Wait-One Time for Referrals from QFHT to KGH/HDH Urology |
| Dr. Elizabeth Grier & Dr. Ian Casson | Evidence Based Patient Centred Health System Intervention for Individuals with Development Disability |

One of the major projects within the CSPC is the Canadian Primary Care Sentinel Surveillance Network (CPCSSN). Led nationally by Dr. Richard Birtwhistle, this network is Canada's first multi-disease primary care electronic record surveillance system, and has secured more than \$11.8 million in funding from the Public Health Agency of Canada. Essentially, CPCSSN is a database of de-identified patient information on chronic illnesses and their associated indicators. CPCSSN collects and validates longitudinal primary care health information relating to hypertension, diabetes, depression, chronic obstructive lung disease and osteoarthritis, plus three neurological conditions (Alzheimer's including dementia, epilepsy, and Parkinson's). This original work provides a rich source of primary care health information for the advancement of patient care and chronic disease management in Canada. For future researchers, the CPCSSN-created platform for multi-level research will facilitate and encourage innovation and excellence in primary health care research across Canada.

As a result of CPCSSN's vast contribution to primary care research, Dr. Birtwhistle was awarded with a Queen's University Prize for Excellence in Research Award in 2013. This award is given for excellence in scholarly research, research mentorship and research leadership.

Current funding for CPCSSN ends next year; however, discussions with key stakeholders are underway regarding ongoing funding. Among the key existing national stakeholders, new this year is Health Canada, which has provided additional funding up to \$660,000 to test the feasibility of using CPCSSN data to monitor drug adverse events in primary care. The principal investigator for this new project is Dr. Tyler Williamson.

In addition to CPCSSN, there are a number of research projects underway led by the centre's research. Some of these include:

- **Dr. Michael Green** – Dr. Green is a co-principal investigator of an international five-year CIHR-funded study that will examine and develop education models for health professionals that aim to reduce disparities in chronic disease care training and lead to improved health outcomes in indigenous populations.
- **Jyoti Kotecha** – Ms. Kotecha, along with Drs. Birtwhistle and Green, is a co-principal investigator on a successful CIHR Meeting and Planning Dissemination grant application. This successful application was one of seven funded among 114 submitted and was ranked second in the competition. The funds received will be used to conduct knowledge translation activities using the results of the CSPC's completed evaluation of the Quality Improvement and Innovation Partnership (QIIP) Learning Collaborative program. This work will be conducted with colleagues at Western University.
- **Dr. Glenn Brown** – Dr. Brown continues to work with research colleagues in Australia and New Zealand on a project that is evaluating primary health care organizations. Additionally, Dr. Brown is a co-applicant on a successful CIHR Planning Grant, "Defining Priorities and Creating a Network for Prisoner Health Research in Canada." There were 138 applications in the competition in which this grant was awarded, and this team submission was ranked second.
- **Dr. David Barber** – Dr. Barber is collaborating with the Queen's School of Business and School of Computing to develop projects that will leverage the health data collected through CPCSSN to develop prediction models for risk of hospitalization. Dr. Barber is also the principal investigator of a number of new studies, one of which will attempt to understand the impact on the health of patients who will have access to HealtheSteps®. HealtheSteps® is an electronic system that provides patients with tools and information that support improvement in their health behaviours.

EXECUTIVE SUMMARY

- **Dr. Susan Phillips** – Dr. Phillips is working on a variety of research looking at gender issues on health outcomes, and is a co-principal investigator on a six-year CIHR New Emerging Team Grant – “Gender Differences in Mobility.” A new area of research focus for Dr. Phillips will examine one’s life and, particularly, social circumstances such as gender or poverty to determine how they shape health. The findings from this research will be applied to the development of interventions that will facilitate the strengthening of resilience in children and youth.
- **Dr. Lawrence Leung** – Dr. Leung continues to undertake evidence-based reviews on a variety of topics and supports resident research projects. Two of his reviews were published in the Journal of American Board of Family Medicine (JABFM), and these have been recognized as “most read” in their respective categories in the Journal for 2013. These include: First-Most Read – in the Clinical Reviews section, his paper on Chronic Constipation: An Evidence-Based Review. Leung L, et al. Jul 2011; 24: 436-451 (accessed 8,934 times) and Second-Most Read – under Special Communications, Cannabis and Its Derivatives: Review of Medical Use. Leung L. Jul 2011; 24:452-462 (accessed 3,879 times).
- **Dr. Karen Hall Barber** – Dr. Hall Barber is working with Kingston General Hospital to look at improving wait-one times (T1) for referrals from primary care to specialists. Primarily, her work will assess the effectiveness of a standardized algorithmic approach to booking primary care referral patients into outpatient urology clinics during the pilot phase. Dr. Hall Barber is also working on a variety of Quality Improvement research projects, many of which have been presented at provincial and national conferences.
- **Dr. Elaine Van Melle, Dr. Karen Schultz and Dr. Jane Griffiths** – These faculty members are leading a number of new education research projects that seek to evaluate the family medicine competency curriculum across regional teaching sites. Some of these ongoing projects include: 1) Developing a Call to Care: Understanding How Family Medicine Residents’ Values Shape their Practice of Patient-Centred Care; 2) Impact of a Portfolio Assessment System (PAS) on Faculty and Resident Views of Assessment: Are We Changing the Culture of Assessment? and 3) Assessing Competency Curriculums and Ensuring Educational Equity: Program Evaluation of the Queen's University Department of Family Medicine Distributed Sites.
- **Dr. Ruth Wilson** – Dr. Wilson is conducting an external evaluation of a provincial project that is focused on determining the impact of high performance, high quality and innovations in family practices on the overall cost of the health care system.
- **Dr. Ian Casson** – Dr. Casson, along with **Dr. Elizabeth Grier**, is implementing tailored health checks for individuals with developmental disabilities across the lifespan. These tailored health checks will be evaluated, and the work will be used to develop evidence-based patient-centred health system intervention for individuals with developmental disabilities across Ontario.

The centre also contributed to the development of the region’s seven Health Links, and **Drs. Brown, Birtwhistle and Barber** are members of the Primary Health Care Council of the South East Local Health Integration Network, which is chaired by **Dr. Jonathan Kerr**, also a research faculty member within the CSPC.

The CSPC annual Primary Care Research Day (PCRD) is an important and exciting event for residents and faculty. The day provides an opportunity for both the centre and the Department of Family Medicine to share research findings with our peers and the community at large. The objective of the conference is to allow family medicine residents to present a research project, clinical audit or clinical review findings that they would have conducted as part of their residency training in the Department of Family Medicine. Each year the conference includes two plenary sessions led by distinguished keynote speakers, oral and poster presentations given by the residents and an awards ceremony.

This year's event was held at the Holiday Inn Kingston Waterfront on February 27, 2014. This year we registered over 170 attendees including residents from the four Queen's Department of Family Medicine sites, community health providers, family physicians from across the South East Local Health Integration Network and faculty from various disciplines within Queen's University.

During the event, 55 second-year residents presented the results of their research and scholarly projects. Residents chose to showcase their research either in poster format or as an oral discussion. This year, residents delivered 17 oral presentations and 34 poster presentations.

The next Primary Care Research Day is scheduled for Thursday, February 26, 2015. We hope you can join us.



Dr. Christopher Baker presenting "A review of diesel exhaust toxicity and patient health: looking down the road"



Dr. Aran Balachandran presenting "Topical analgesic therapy in osteoarthritis"



Dr. Richard Reznick
Dean of the Faculty of Health Sciences,
delivered greetings from Queen's
University

Two keynote addresses were delivered by: Dr. France Légaré and Dr. Joan Tranmer



Dr. France Légaré – “Combining family medicine, KT research, and fun!”

Dr. France Légaré practises family medicine in Quebec and is a full professor in the Department of Family Medicine and Emergency Medicine at Université Laval. Her research interests include shared decision making, knowledge transfer and decision support tools.



Dr. Joan Tranmer – “Optimizing the care of patients with complex chronic health conditions: Do we optimize nursing contribution?”

Dr. Joan Tranmer is a professor in the School of Nursing and the Department of Public Health Sciences at Queen's University. Her research interests include systematic examination and development and testing of nurse-led delivery systems.

PRIZE WINNERS FOR 2014 IN EACH CATEGORY INCLUDED:

Best Research Presentation: Dr. Colin Cochrane and Dr. Shawna Comstock, “The experience of pregnancy during family medicine residency”

Best Critical Appraisal/Audit: Dr. Corey Boimer, “Digital nerve block techniques – a systematic review and meta-analysis”

Best Poster Presentation: Dr. Chemanthi Kalen, “Approach to acne scar management for the family physician”

Best Information Technology Project: Dr. Jesse Zroback, “Development and evaluation of a mobile device application for the history and physical”



**Dr. Colin Cochrane and
Dr. Shawna Comstock (KTI site)**



Dr. Corey Boimer (QBOL site)

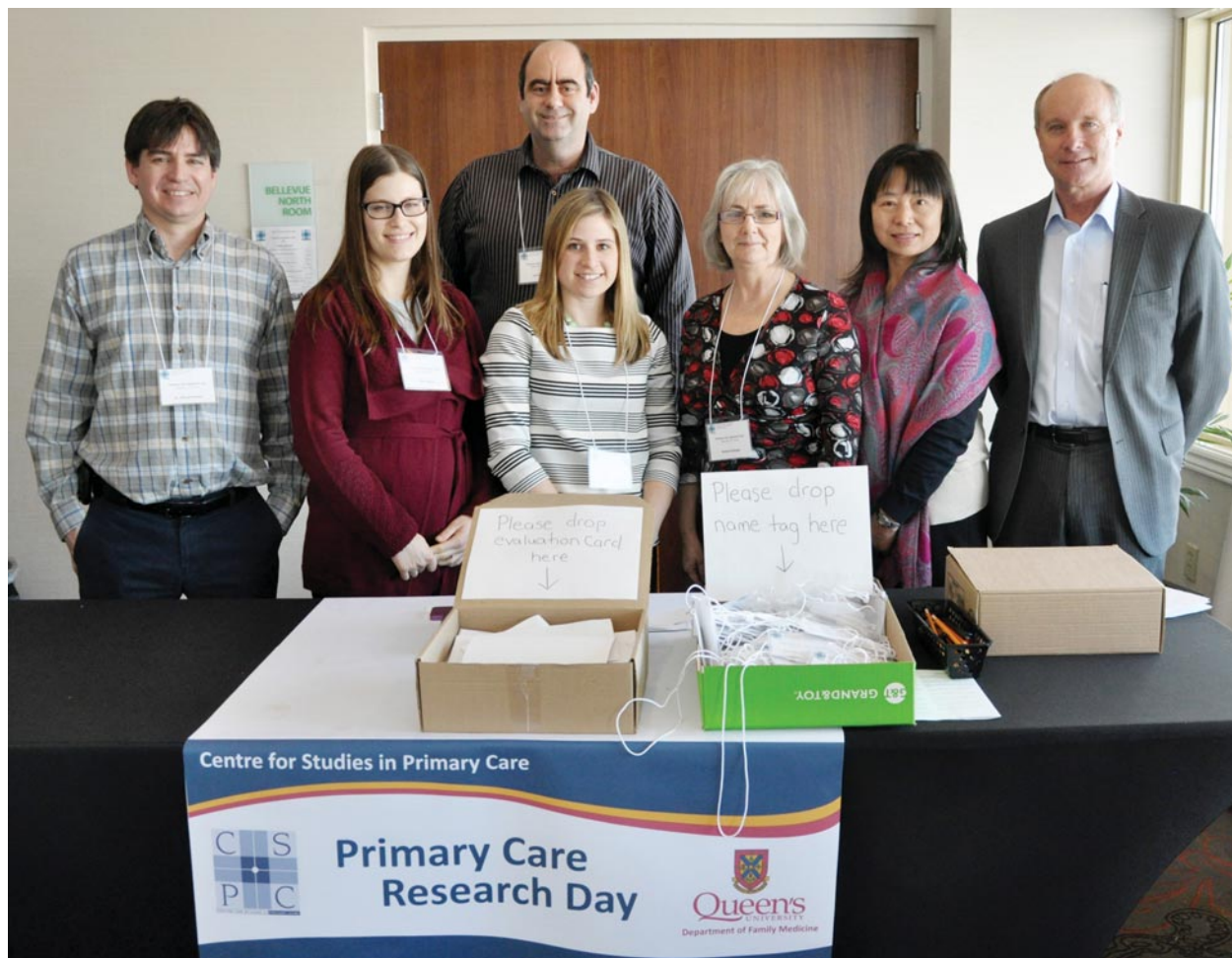


**Dr. Chemanthi Kalen
(QBOL site)**



Dr. Jesse Zroback (PQ site)

PRIMARY CARE RESEARCH DAY 2014



CSPC faculty and staff: Left to right: Dr. Michael Green, Mary Martin, Lorne Kinsella, Emily Pollock, Wendy Gollgoly, Han Han, Dr. Richard Birtwhistle

FACULTY ACCOMPLISHMENTS

The centre's success in research has resulted in our faculty being invited to participate as members of various national and provincial committees. Some of these appointments and achievements in primary health care include the following:



Dr. Richard Birtwhistle
Professor – Director CSPC

Dr. Birtwhistle was one of five recipients of this year's Queen's University Prize for Excellence in Research Award from the Faculty of Health Sciences. This award is presented to an outstanding researcher who is nominated by his peers. Dr. Birtwhistle received this award for his leadership in the formation and success of the Canadian Primary Care Sentinel Surveillance Network (CPCSSN), as well as for his contributions in scholarly research in the management of hypertension, and for the important research mentorship he provides to his junior colleagues.

Dr. Birtwhistle is also an invited member of the board of directors for Technology Evaluation in the Elderly Network (TVN), which is a Centre of Excellence at Queen's University, and the vice-chair of the Canadian Task Force on Preventive Health Care.



Dr. Michael Green
Associate Professor – Associate Director CSPC

Dr. Green is a leader in Health Policy Research, and was appointed by Alan Harrison, Provost and Vice-Principal (Academic), as the director of the Centre for Health Services and Policy Research (CHSPR) at Queen's University. This appointment will be for an initial five-year term from July 1, 2013 to June 30, 2018. In addition, Dr. Green was invited to participate as an advisor on the Ministry of Health and Long-Term Care Advisory Group on immunization services, which are offered by both primary care and public health services.



Dr. Susan Phillips
Professor, Research Faculty CSPC

Dr. Phillips has been an appointed visiting professor at the Institute of Gender Studies at Umea University in Sweden. Her work on gender and health disparity is well recognized both nationally and internationally. Dr. Phillips currently has three CIHR-funded research projects underway and one that is funded through the World Bank.



Dr. Lawrence Leung
Associate Professor, Research Faculty CSPC

Dr. Leung has continued his forward momentum as an active research faculty member at the CSPC, maintaining his output of publications in peer-reviewed journals on topics in both Western and Traditional Chinese Medicine. Two of the many papers he has published this year were recognized as "most read" in their respective categories in the Journal of American Board of Family Medicine (JABFM) for 2013. These include: First-Most Read – in the Clinical Reviews section, his paper on Chronic Constipation: An Evidence-Based Review. Leung L, et al. Jul 2011; 24: 436-451 (accessed 8,934 times) and Second-Most Read – under Special Communications, Cannabis and Its Derivatives: Review of Medical Use. Leung L. Jul 2011; 24:452-462 (accessed 3,879 times).

FACULTY ACCOMPLISHMENTS



Dr. Ian Casson
Professor, Research Faculty CSPC

Dr. Ian Casson has been a champion for improving the care for adults with developmental disabilities. As a result of his research, the Department of Family Medicine has been implementing health checks and training programs for residents in the care of adults with developmental disabilities. Dr. Casson is serving on a provincial committee that will be establishing best practices for primary care in this patient population.



Dr. Ruth Wilson
Professor, Research Faculty CSPC

Dr. Wilson is the invited external evaluator for a research project examining the impact of high performing family health teams on the overall cost of the health care system in Ontario. As the external evaluator, Dr. Wilson will be reviewing the evaluation report and will be making policy recommendations to the Ministry of Health and Long-Term Care.



Dr. David Barber
Assistant Professor – Regional CPCSSN Director, Research Faculty CSPC

Dr. Barber has been invited to be a member of the South East Local Health Integration Network Primary Health Care Council. As the regional director for the CPCSSN project, he is appointed to the CPCSSN National Board of Directors and is also a member of the CPCSSN Surveillance and Research Standing Committee. Dr. Barber is actively engaged at the provincial level in EMR implementation in primary care and has been appointed chair of the Queen's University Department of Family Medicine IT committee.



Dr. Walter Rosser
Professor Emeritus, Research Faculty CSPC

Dr. Rosser is the chair of the CPCSSN Surveillance and Research Standing Committee and is an invited member of a number of national and international academic and research committees. Dr. Rosser is also a past recipient of the Diamond Jubilee Medal for significant achievement and remarkable service.



Dr. Karen Hall Barber
Assistant Professor, Research Faculty CSPC

Dr. Hall Barber is the lead physician of the Queen's Family Health Team and is a leader in Quality Improvement (QI) in Primary Health Care. Her QI research has been presented at numerous primary care conferences in Canada, and this year she was invited to be part of the lecture team for the new Queen's University Master's in Quality Improvement program. Through her leadership in QI, the QFHT has been the recipient of a number of excellence awards presented by the Association of Family Health Teams of Ontario.

CURRENT PROJECTS

| FUNDING ORGANIZATION | CSPC RESEARCH LEAD | PROJECT |
|--|--|--|
| Canadian Institute of Health Research (5 years) | Dr. Michael Green | Educating for Equity: Exploring How Health Professional Education Can Reduce Disparities in Chronic Disease Care and Improve Outcomes for Indigenous Populations |
| Canadian Institute of Health Research Team Grant (6 years) | Dr. Susan Phillips | Gender, Mobility and Disability in Aging |
| Canadian Institute of Health Research | Dr. Susan Phillips | Gender, Sex, Violence and Mobility Disability in Old Age |
| Canadian Institute of Health Research | Dr. Susan Phillips | Emerging Team Grant: CIHR Team in Gender, Environment and Health: Development of New Methodologies |
| Canadian Institute of Health Research | Dr. David Barber | The Feasibility of Using Patient Controlled Health Record To Monitor The Safety and Effectiveness Of Medications In Older Adults |
| Canadian Institute of Health Research Knowledge Transfer – Quality Improvement and Innovation Partnership (QIIP) | Jyoti Kotecha Dr. Richard Birtwhistle Dr. Michael Green | Evaluation of the QIIP Learning Collaborative in Ontario – Joint Evaluation with Western University |
| Public Health Agency of Canada | Dr. Richard Birtwhistle Dr. David Barber Dr. Walter Rosser | The Canadian Primary Care Sentinel Surveillance Network for Chronic Disease (CPCSSN) |
| Public Health Preventive Medicine, Queen’s University | Dr. Susan Phillips | Fostering Resilience In Children |
| Health Canada | Dr. Richard Birtwhistle Tyler Williamson, PhD Ken Martin | Canadian Primary Care Sentinel Surveillance Network (CPCSSN) Pharmacovigilance Demonstration Project |
| Ontario Ministry of Health and Long-Term Care | Dr. Richard Birtwhistle Dr. Michael Green Dr. David Barber Ken Martin | Linkage Study Using CPCSSN and ICES Data to Monitor Type 2 Diabetes Management In Ontario Primary Care |
| Ontario Ministry of Health and Long-Term Care | Dr. Glenn Brown | Lessons Learned for Ontario Primary Health Care (PHC) System Reform from Australia and New Zealand Primary Health Care Organizations (PHCOs) |

CURRENT PROJECTS

| FUNDING ORGANIZATION | CSPC RESEARCH LEAD | PROJECT |
|---|--|--|
| Ontario Ministry of Health and Long-Term Care | Dr. Ruth Wilson | Determining the Impact of High Performance, High Quality and Innovations in Family Practice on the Overall Cost of the Healthcare System |
| Ontario Ministry of Health and Long-Term Care | Dr. Susan Phillips | A Systematic Review of Literature on Healthcare Case Management and Community Care |
| Prince Edward Family Health Team | Jyoti Kotecha | Environmental Scan of Virtual Wards and Hospital-at-Home Programs for Delivering Non-Critical Hospital Care in the Community and Home |
| South Eastern Ontario Academic Medical Association Education Endowment Fund | Dr. Jane Griffiths Dr. Elaine Van Melle | The Impact of a Portfolio Assessment System (PAS) on Faculty and Resident Views of Assessment: Are We Changing the Culture of Assessment? |
| South Eastern Ontario Academic Medical Association Education Endowment Fund | Dr. Jane Griffiths | Multisource Feedback on Canmed Roles – Neurology, Paediatrics, and Family Medicine |
| South Eastern Ontario Academic Medical Association Education Endowment Fund | Dr. Karen Schultz | Assessing Competency Curriculums and Ensuring Educational Equity: Program Evaluation of Queen's Department of Family Medicine Distributed Sites – Belleville, Kingston and Peterborough |
| South Eastern Ontario Academic Medical Association Educational Innovation and Research Fund | Dr. Jane Griffiths Dr. Elaine Van Melle Dr. Karen Schultz Dr. Geoffrey Hodgetts | How Residents Learn: Understanding the Role of Cues in Self-Regulated Learning |
| South Eastern Ontario Academic Medical Association Educational Innovation and Research Fund | Dr. Geoffrey Hodgetts Dr. Elaine Van Melle Dr. Karen Schultz Dr. Jane Griffiths | Preparedness for Practice as a Critical Transition in Residency Education: An Exploratory Study |
| South Eastern Ontario Academic Medical Association Educational Innovation and Research Fund | Dr. Ian Casson | Evaluation of Curriculum in Primary Care of Adults with Developmental Disabilities: Teaching Family Medicine Residents about Comprehensive, Continuing Care for Complex and Vulnerable Populations |
| South Eastern Ontario Academic Medical Association Educational Innovation and Research Fund | Dr. Birtwhistle Dr. Barber Dr. Hall Barber | AsthmaLife: Integrating Performance Evaluation into the Process of Asthma Care |

CURRENT PROJECTS

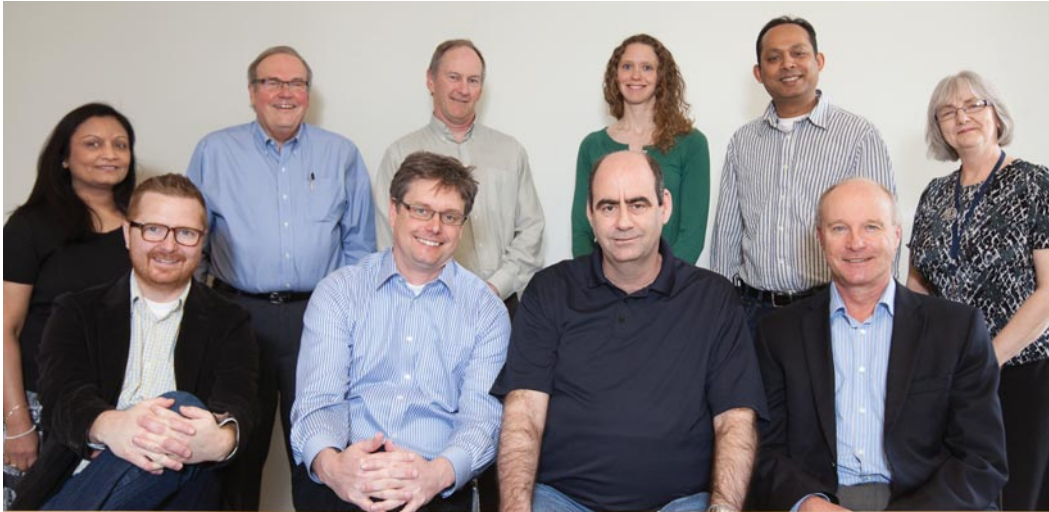
| FUNDING ORGANIZATION | CSPC RESEARCH LEAD | PROJECT |
|--------------------------------|---|---|
| CSPC Research Initiation Grant | Dr. Lawrence Leung | Use of Bitter Melon as a Nutritional Supplement for Improving T2DM – A Feasibility Study |
| CSPC Research Initiation Grant | Dr. Susan Phillips | Screening for Youth at Risk: A Feasibility Study |
| CSPC Research Initiation Grant | Dr. Karen Hall Barber | Reducing Wait-One (T1) Times: Assessing the Effectiveness of a Standardized Algorithmic Approach to Booking Primary Care Referral Patients into Outpatient Urology Clinics |
| CSPC Research Initiation Grant | Dr. David Barber Dr. Brent Wolfrom | Adding Patient-Reported Measures of Behavioural and Social Data to Electronic Medical Records, and Assessing the Demographics and Healthcare Perceptions of Veterans: A pilot project |
| CSPC Research Initiation Grant | Dr. Jonathan Kerr Dr. Robert Webster | Evaluation of New Practice Management Curriculum at a Distributed Family Medicine Residency Site |
| CSPC Research Initiation Grant | Dr. Karen Schultz Dr. Ian Sempowski | Evaluating the Effectiveness of the Innovative “Nightmares FM” Course Approach to Teaching Acute Care Skills to Family Medicine Residents |
| CSPC Research Initiation Grant | Dr. Elizabeth Grier Dr. Ian Casson | Study of a Clinical and Educational Program to Implement the Canadian Consensus Guidelines for the Primary Care of Adults with Developmental Disabilities |
| World Bank | Dr. Susan Phillips | Quality of Medical Education and Care in Albania, Georgia and Tajikistan |
| Phoenix Project (AMS) | Dr. Elaine Van Melle Dr. Susan Phillips Dr. Kelly Howse | Developing a Call to Care: Understanding How Family Medicine Residents’ Values Shape Their Practice of Patient-Centred Care |
| Bruyère Research Institute | Dr. David Barber Dr. Richard Birtwhistle Jyoti Kotecha | Using CPCSSN Data Extraction Approaches to Evaluate the Community Based Intervention for the Cardiovascular Health Awareness Program (CHAP) |

CURRENT PROJECTS

| FUNDING ORGANIZATION | CSPC RESEARCH LEAD | PROJECT |
|---|---|--|
| Pfizer Canada Inc. | Dr. Lawrence Leung | Temporal Summation of Pain In Fibromyalgia Investigated By Means of fMRI Of The Entire Human CNS |
| Within the CPCSSN Project | Dr. David Barber Tyler Williamson, PhD | Healthy Weight Surveillance (HWS) |
| School of Computing & Business | Dr. David Barber | Evaluating How Increased Broadband Affects Rural Healthcare |
| South East LHIN, Kingston Health Links | Dr. David Barber Dr. Kathryn Brohman Dr. Farhana Zulkernine | Preventing More to Treat Less: Identifying High HealthCare Users Using EMR data |



Canadian Primary Care Sentinel Surveillance Network (CPCSSN)



CPCSSN Team at CSPC: Front row left to right: Tyler Williamson, PhD, Dr. David Barber (Regional Director), Lorne Kinsella, Dr. Richard Birtwhistle (chair & PI). Back row left to right: Jyoti Kotecha, Dr. Walter Rosser, Ken Martin, Rachael Morkem, Shahriar Khan and Wendy Gollogly

National CPCSSN

The CSPC is proud to be the lead academic institute of the Canadian Primary Care Sentinel Surveillance Network (CPCSSN). In addition to serving as the centre's director, Dr. Birtwhistle is chair of CPCSSN. Many CSPC staff members also hold key positions within the network. CPCSSN is Canada's first and largest primary care electronic medical record (EMR) database, holding de-identified clinical data for more than 600,000 patients from eight provinces and one territory within Canada. CPCSSN's primary purpose is chronic disease surveillance. However, over the last year the scope of what CPCSSN offers to the Canadian medical system has grown to include revolutionary work in both practice feedback and pharmacovigilance.

CPCSSN's IT infrastructure and processing that extracts, codes and cleans EMR data is enabling family physicians within Canada to change the way they care for their patients. Traditionally, primary care practice has been about the individual relationships between family physicians and their patients. While that remains fundamental to the practice of family medicine, now CPCSSN sentinels are able to view their practice at the population level and compare key characteristics for their patients to others within their clinic, at others sites, and even at provincial and national levels. This is being accomplished through the use of custom querying, reporting and data analytic tools within the practice environment. Wider deployment of CPCSSN processing and tools for quality improvement is being tested in a project funded by the Association of Family Health Teams of Ontario. Health Quality Ontario and eHealth Ontario have also expressed interest in this work.

PROJECT HIGHLIGHTS



On the technology front, a project funded by Canada Health Infoway is underway to develop and evaluate the integration of EMRs with CPCSSN as well as a clinical decision support tool that helps physicians and patients quantify and collaboratively manage specific health risks. The project will help CPCSSN reduce turnaround time on EMR data extractions, processing and reporting to less than a week.

An exciting new development within CPCSSN is the establishment of a partnership between CPCSSN and the Marketed Health Products Directorate at Health Canada. This partnership is exploring the opportunities for leveraging the CPCSSN database for post-marketing surveillance of health products. Currently, the vast majority of pharmacovigilance in Canada relies on a passive surveillance system that is known to under-report adverse reactions to drugs. CPCSSN sentinels, however, routinely collect this type of information as part of their clinical practice. The first phase of the demonstration project concluded on March 31, 2014, showing considerable utility of the CPCSSN database for the purpose of adverse reaction surveillance. If this demonstration project is successful, the future expansion opportunities are considerable.

Other milestones for CPCSSN include the completion of the validation work relating to the eight chronic conditions for which CPCSSN has developed case definitions. This work will be published in the *Annals of Family Medicine* in 2014.

Over the last year, CPCSSN data has been increasingly used for research purposes. To date, there have been 113 presentations, 63 posters, 19 publications at a variety of provincial, national and international forums, three e-newsletters and more than 30 requests for data from the national CPCSSN database.

For CPCSSN's innovative approach to developing a pan-Canadian privacy and security protocol, it's Research Privacy and Ethics Officer has been recognized as a Privacy by Design Ambassador by Ontario's Privacy Commissioner. As well, CPCSSN's privacy program has been awarded the 2013 Innovation Award by the International Association of Privacy Professionals (IAPP).

CPCSSN is currently holding meetings with current/potential stakeholders to secure funding and growth post March 2015. It is becoming increasingly clear to many organizations that CPCSSN has created valuable assets, including its primary care database, processing tools and analysis capabilities, to help improve the health care provided to Canadians.



Regional CPCSSN

As CPCSSN enters its fifth year, the Kingston regional network has worked to outline a number of strategic and capacity-building activities to facilitate the success of its research program. We have recently rebranded ourselves as the Eastern Ontario Network (EON) to reflect the large geographical scope that our regional network encompasses. EON's mission is to leverage data to transform primary care through cutting-edge research that impacts patients.

One of the largest projects that EON is working on is the Healthy Weight Surveillance project. After presenting at various national conferences, including Trillium Primary Care Research Day and the North American Primary Care Research Group (NAPCRG) Conference, we are excited to send out a paper for publication on BMI and social deprivation. Another project that is gaining momentum is on depression and antidepressant use, with results being presented at this year's Canadian Public Health Association Annual Conference. In terms of local collaborations, EON has been working closely with Queen's schools of computing and business, as well as the Local Health Integration Network (LHIN) to use CPCSSN data to identify patients that are at high risk for a hospital admission. In addition, we are evaluating how groundbreaking technology, such as natural language processing, can be used to make the most of the EMR data within CPCSSN.



DR. MICHAEL GREEN

Educating for Equity (E4E): Exploring How Health Professional Education Can Reduce Disparities in Chronic Disease Care and Improve Outcomes for Aboriginal Populations

Educating for Equity (E4E) is an international collaborative research project aimed at developing Indigenous health professional education capacity as a vehicle for improving care and health outcomes. The Canadian team, composed of researchers from Queen's University, the University of Calgary, Northern Ontario School of Medicine and the University of British Columbia, is focused on improving diabetes care in Aboriginal populations through a research- and evidence-informed Aboriginal health continuing medical education intervention for family physicians. In Phase 1, focus groups and interviews were conducted with Aboriginal patients and health care providers to understand needs and gaps in health services. This knowledge was used to generate a care framework that was translated into an E4E CME program. In Phase 2, the E4E CME program will be delivered to family physicians in Ontario who provide health care to Aboriginal patients with type 2 diabetes, and its impact on Aboriginal patients' outcomes and health care experience will be evaluated.

The E4E CME, titled "Addressing social drivers of Aboriginal type 2 diabetes," is accredited with Mainpro-C (8.0). It consists of a one-day workshop with pre-workshop needs assessment and post-workshop reflective components. Family physicians will be invited to participate in this E4E CME and learn (a) key social factors that affect Aboriginal diabetes outcomes, (b) culturally attuned approaches to building therapeutic relationships with Aboriginal diabetic patients, (c) methods to address discord in the doctor-patient relationship and (d) culturally informed ways to support Aboriginal people in health care and society.

A mixed-method, multi-measure, controlled design will be used to evaluate the E4E CME intervention. Participants will be randomly assigned to intervention and delayed intervention control groups. Data collection includes patient chart reviews, patient experience surveys and interviews. Co-primary outcomes are HbA1C and a summary patient experience score. Chart reviews prior to and post intervention will indicate impact of physicians' participation on clinical outcomes. Patient surveys and interviews will reflect changes perceived by patients in physician care delivery. Primary and secondary outcomes and the theoretical framework underpinning the intervention will be described.



MS. JYOTI KOTECHA

Hospital at Home

Rooted in primary care, the Hospital at Home (H@H) pilot project in Prince Edward County is the first at-home hospital program to serve a rural population. An individualized, multidisciplinary team provides seamless care to frail elderly and palliative care patients and supports caregivers for up to one week. The objective is to reduce hospital admissions, re-admissions and emergency room visits and, more importantly, improve patient and caregiver health care experiences. The role of the CSPC team is to conduct a mixed-method evaluation of the pilot program. The objective of our evaluation will be to: 1) describe the patient and caregiver satisfaction and confidence with care provided, 2) measure the impact of care on reducing hospitalization, repeat admissions and emergency room visits and 3) compare the cost of delivering the program to that incurred during hospitalization for a similar group of patients not participating in the H@H project.

Led by the Prince Edward County Family Health Team, the program's partners include the South East Community Care Access Centre (SECCAC), Quinte Health Care and the Ontario Ministry of Health and Long-Term Care.



DR. RUTH WILSON

Determining the Impact of High Performance, High Quality and Innovations in Family Practice on the Overall Cost of the Healthcare System

Family Health Teams are a team-based model of primary care that has been developing over the past nine years, building on a more than decade-long foundation of new physician compensation and organization models in Ontario. Funded by the Ministry of Health and Long-Term Care, this intensive mixed-method study examined 20 family health teams across Ontario. This report highlights some of the successes of these teams, identifies ongoing challenges, and suggests future policy directions. Recruitment and selection of primary health care teams for this project was done ensuring geographic and other variation of practice types. Selective quantitative indicators of quality were assessed, and further qualitative assessments included practice site interviews with team members of each practice group and on-site patient surveys focusing on perception of patient-centred care and access to care. Costs per patient were determined using administrative data collected via ICES. This study categorizes FHTs as high, medium or low performers according to the Triple Aim of better health outcomes, improved experience of health care, at lower cost. The study also suggests some characteristics and enablers of high achievement. Overall, the study provides encouraging evidence of benefits from improved access and quality of care in FHTs, and underlines the need to keep investing in this model.



DR. IAN CASSON and DR. ELIZABETH GRIER

Study of a Clinical and Educational Program to Implement the Canadian Consensus Guidelines for the Primary Care of Adults with Developmental Disabilities

The aim of this study is to assess a program of educational and clinical practice enhancements currently being introduced in the Queen's Department of Family Medicine (DFM) postgraduate medical education (residency) program and Queen's Family Health Team (QFHT) teaching clinic. The enhancements involve the adoption and implementation of the Canadian Consensus Guidelines for the Primary Care of Adults with Developmental Disabilities – clinical practice guidelines recently published in the journal of the College of Family Physicians of Canada (Canadian Family Physician, 2011). The program involves two components: 1) Clinical encounters of patients with developmental disability (DD) with their physicians, nurse practitioners and other QFHT staff for the purpose of a comprehensive health review including physical examination, as recommended by the guidelines and 2) An educational experience for family medicine residents in the context of providing this care.

The primary objective of the clinical component is to offer QFHT patients from this population optimal care based on the current recommendations. The primary objectives of the education component are to familiarize residents with the guidelines and guide them through their implementation, with consideration given to making effective use of available tools, community resources and interprofessional relationships. An evaluation of both the clinical and educational components will be conducted to assess the extent to which the objectives are met. Both are evaluated through medical record reviews, surveys and interviews. The educational component also includes evaluation of case reflections written by the residents and a resident assessment tool used by their teachers.

This project is part of a multi-centre study funded by the Ontario Ministry of Health and Long-Term Care, the “Health Care Access and Research in Developmental Disabilities” program, led by Dr. Yona Lunskey of the Centre for Addiction and Mental Health. Queen’s Department of Family Medicine and the Centre for Studies in Primary Care are taking a leading role in the primary care implementation component of this larger research program.



DR. LAWRENCE LEUNG

Temporal Summation of Pain in Patients with Fibromyalgia Investigated by Functional MRI (fMRI)

Fibromyalgia syndrome (FM) is a chronic pain syndrome characterized by widespread stiffness in the muscles or joints, accompanied by hyperalgesia and allodynia. Clinically, it remains one of the biggest challenges to manage, and treatment with opiate narcotics is often unsatisfactory. Previous studies indicate that patients with fibromyalgia showed a stronger and longer response to a second painful stimulus after the first painful stimulus was given – a phenomenon called temporal summation. No studies, however, have investigated this phenomenon in terms of functional MRI (fMRI) imaging of the human spinal cord. As co-investigator, funded by Pfizer Canada Inc., Dr. Leung has collaborated with the Department of Neurosciences and Department of Physics to look into patterns of spinal cord fMRI signal changes that can correlate with the abnormal temporal summation that elucidates the chronic status in patients with fibromyalgia.



DR. KAREN HALL BARBER

The Wait-One Project: A Quality Improvement Project to Reduce Wait-one Time for Referrals from QFHT to KGH/HDH Urology

Primary care physicians must have an awareness of both the status of a referral request and the wait times for care in order to ensure that a patient is receiving timely, appropriate care. Though various categories of “wait times” within the health care continuum are currently under review within Ontario, the “Wait One” or T1 (period from referral request until appointment) has not garnered much attention or funding. Following an audit from Queen’s Family Health Team that revealed deficiencies in these referrals, a partnership was formed between the Departments of Family Medicine and Urology. The objectives of this study are to improve referral pathways between QFHT and Urology, reduce T1 times and reduce the time to receipt of consultation reports. Mutually agreeable process improvements will drive change in a scalable fashion and allow expansion to other primary care and specialty entities within the SELHIN. Leveraging support from the SEAMO Deliverables Committee, and given the push to prove improvements within the realm of interconnectedness as part of the newly launched Kingston HealthLinks, this topic is germane to an area garnering future funding enabling expansion. We anticipate that this pilot between two relatively small departments within Queen's University will be able to develop an optimized model of patient referral from primary care to secondary care, thus reducing T1 without adding more providers.



DR. BRENT WOLFROM and DR. GEOFFREY HODGETTS

Family Medicine Residency Programs and Military Residents: a Satisfaction Survey



In Canada, military family medicine practitioners are trained in non-military university medical schools and family medicine residency programs. In most cases, there is no formal differentiation between the curricula delivered to military and civilian residents. Currently, there is little evidence available on the necessary content of a tailored residency program for those that will be serving in the military. The purpose of this study is to understand the level of satisfaction of medical officers currently serving in the Canadian military forces with the training they have received, and to learn about gaps in training that may exist. Data is collected using an online survey that was distributed to currently serving military medical officers in the Canadian Armed Forces. This survey was reviewed by the office of the Surgeon General for relevance and acceptability. Demographic information and length of training in various specializations is collected, as well as ratings of satisfaction with training using a five-point Likert scale. Survey data will be analyzed using descriptive statistics. The results of this study will not only inform the pilot military family residency program at Queen's University but will also provide reference for similar residency programs in other educational institutions.

EDUCATIONAL PORTFOLIO

Education research in the Department of Family Medicine at Queen's has been steadily growing over the years. This year, the CSPC had a number of faculty members, including some residents, engaged in education research. In particular, we are pleased to see the engagement of Kate Newton, a PGY2 resident from the QBOL site, who conducted and presented her project on "Assessing Factors that Influence Choice of Distributed Sites in Queen's Family Medicine Residents: Does Curriculum Organization Matter?" at Primary Care Research Day.

Faculty involved in education research are Drs. Karen Schultz, Jane Griffiths, Geoff Hodgetts and Kelly Howse and Elaine Van Melle, PhD. Below are highlights of some of the education research that is currently underway at CSPC.



DR. KAREN SCHULTZ

Assessing Competency Curriculum and Ensuring Educational Equity: Program Evaluation of the Queen's University Department of Family Medicine Distributed Sites - Belleville, Kingston, Peterborough

This project is funded by the SEAMO Innovation Fund for \$15,000. The study was designed to look at the educational equity across the distributed DFM sites. Given the varying makeup of the programs at the distributed sites, as well as the different learning environments, these sites provide a natural laboratory to look at a wealth of educational questions. Co-investigators on this project include Drs. Richard Birtwhistle, Jonathan Kerr, Jane Griffiths and Laura McEwen, PhD. Final data will be gathered for this project in July 2014 when the first group of QBOL residents finishes its program in Oshawa.



DR. JANE GRIFFITHS

The Impact of a Portfolio Assessment System (PAS) on Faculty and Resident Views of Assessment: Are We Changing the Culture of Assessment?

Competency Based Medical Education (CBME) is the new curricular approach mandated by the College of Family Physicians of Canada. CBME represents a paradigm shift from the traditional time- and process-based training framework. The Portfolio Assessment System (PAS) has been designed and implemented here in the Department of Family Medicine at Queen's University to promote and facilitate this new CBME approach. This work will provide information regarding the impact of the PAS on Academic Advisors (AAs) and their approach to assessment. It questions to what extent AAs have incorporated the central tenets of Competency Based Education into their view of assessment, and makes observations about the shift in culture in the Department of Family Medicine since the PAS has been instituted. The results from this study will inform and shape the implementation and further refinement of the PAS. The results may be relevant for other departments as they face the challenges associated with changing the culture of assessment in their programs.



DR. ELAINE VAN MELLE

Developing a Call to Care: Understanding How Family Medicine Residents' Values Shape Their Practice of Patient-centred Care

Patient-centred care (PCC) has been espoused for decades, yet ensuring that learners enter practice well prepared to practise PCC remains elusive. What seems to be missing is the recognition that PCC is not just a method to be taught and measured, it is a mindset steeped in values; values that shape evolving expertise in PCC as one develops a call to care. Indeed, it does appear that the ability to implement PCC varies amongst family practitioners. Consequently, the purpose of this research is to explore how family medicine residents' values shape their approach to PCC. This study will draw from the 50 Queen's University family medicine residents situated at the Kingston-Thousand Islands site located in Kingston, Ontario. This is an exploratory research study and will employ a qualitative approach. Under the rubric of qualitative research, phenomenology, which allows for an understanding of the phenomena from the participant's own perspectives including the assumptions that guide perceptions, is our methodology of choice. The results of this study will illuminate how family medicine residents' values shape their practice of patient-centred care thereby contributing to the development of effective teaching strategies.

The CSPC has an advisory council that meets regularly to advise and steer the centre's research activities. During 2013-2014, the council held three meetings. The board members currently include:



Ms. Margaret Alden
Chair

Members:

| | |
|-------------------------|--|
| Dr. Richard Birtwhistle | Director, CSPC |
| Dr. Michael Green | Associate Director, CSPC |
| Ms. Jyoti Kotecha | Assistant Director, CSPC |
| Dr. Glenn Brown | Head, Department of Family Medicine |
| Dr. Walter Rosser | Core Research Faculty, CSPC |
| Dr. Karen Schultz | Program Director, Postgraduate Education |
| Dr. Joan Tranmer | School of Nursing |
| Dr. Dana S Edge | School of Nursing |
| Dr. Pattie Groome | Community and Epidemiology |
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1. Barber D, Morkem, R. A pilot study to develop processes for using the CPCSSN to build a health weight surveillance system. Trillium Primary Care Research Day; 2013 Jun 19; Toronto, ON.
2. Biro S, Morkem R, Barber D, Moore K, Williamson T, Jaansen I, Birtwhistle R, Belanger P, Khan S, Mosley B, Kinsella L. Healthy weight surveillance pilot study. 41st NAPCRG Annual Meeting; 2013 Nov 9-13; Ottawa, ON.
3. Birtwhistle R, Williamson T, Martin K. The Art of the Possible: Using CPCSSN data for primary care research. Family Medicine Forum (FMF) Research Day; 2013 Nov 6; Vancouver, BC.
4. Carpenter J, MacDonald S, Meyer E, Willows K, Howse K, O'Neill P. The wellness passport: a tool for self-assessment and self-reflection. Annual Celebration of Teaching, Learning and Scholarship in Health Sciences Education; 2013 Jun 19; Queen's University, Kingston, ON.
5. Casson I, Griffiths JM. An EPA for assessment of residents in their care of adults with developmental disabilities. Workshop at: Family Medicine Forum; 2013 Nov 7-9; Vancouver, BC.
6. Christmas C, Mahmud A, Langley H, Brown G, Biagi J, Watson S, Niblett J. An audit of regional cancer websites in Ontario. Canadian Association of Radiation Oncologists Annual Scientific Meeting; 2013 Sept 18-21; Montreal, QC.
7. Gilic F, Sempowski I, Blagojevic A, Schultz K. Teaching acute care skills to family medicine residents using the simulation-based Nightmares FM course. Scholarship in Health Sciences Education Showcase; 2013; Queen's University, Kingston, ON.
8. Green M, Harris S, Kotecha J, Webster-Bogaert S, Han H, Belle Brown J, Russell g, Roberts S, Fournie M, Thind A, Stewart M, Reichert S, Birtwhistle R. Impact of a provincial QI program on access to care. Family Medicine Forum (FMF) Research Day; 2013 Nov 6; Vancouver, BC.
9. Green ME, Wong ST, Lavoie J, Kwong J, McWilliam L, Patterson S, Liu G and Katz A. Admission to hospital for pneumonia and influenza attributable to pandemic H1N1 Influenza in First Nations communities in 3 provinces of Canada. Health Services Research Association of Australia and New Zealand Biannual Meeting; 2013 Dec; Wellington, New Zealand.
10. Green ME, Crowshoe L, Jacklin K, Calam B, Walker, Kotecha J, Han H, Ly A, Walker L. Evaluation of Educating for Equity intervention: How health professional education can reduce disparities in diabetes care and improve outcomes for indigenous populations. Poster accepted for presentation at: The Canadian Conference for Medical Education; 2014 Apr 28; Ottawa, ON.
11. Green ME. Primary care transformation in Ontario: making sense of alphabet soup. AHRQ Great Lakes Practice Transformation Meeting; 2013 Sept 13; Buffalo, NY.
12. Green ME. North, south, east and west: my journey from secondary school to academic medicine. Keynote Speech at: Discovery Day, Canadian Medical Hall of Fame; 2013 May; Queen's University, Kingston, ON.

CONFERENCE PRESENTATIONS 2013 – 2014

13. Green M, Williamson T, Khan S, Birtwhistle RV, Wong S, Natarajan N, Manca D, Drummond N. Validating the CPCSSN algorithms for eight chronic diseases. Trillium Primary Health Care Research Day; 2013 Jun 19; Toronto, ON.
14. Green M, Williamson T, Khan S, Birtwhistle RV, Wong S, Natarajan N, Manca D, Drummond N. Validating the CPCSSN algorithms for eight Chronic diseases. Annual CAHSPR Conference; 2013 May 28-30; Vancouver, BC.
15. Griffiths JM, Schultz K. Developing family medicine EPAs – measuring critical competencies across time and contexts. Poster presented at: Family Medicine Forum (FMF); 2013 Nov 7-9; Vancouver, BC.
16. Griffiths JM, Schultz K. Developing EPAs (Entrustable Professional Activities) for family medicine. International Conference on Residency Education (ICRE); 2013 Sept 26-28; Calgary, AB
17. Harris SB, Green ME, Belle Brown J, Roberts S, Russell G, Fournie M, Webster-Bogaert S, Kotecha J, Han H, Thind A, Stewart M, Reichert S, Birtwhistle R. The quality improvement and innovation partnership learning collaborative program: a mixed-method evaluation. Ontario Ministry of Health and Long Term Care Primary Health Care Research Rounds; 2013 Nov 1; Toronto, ON.
18. Harris S, Green M, Belle Brown J, Roberts S, Russell G, Fournier M, Webster-Bogaert S, Kotecha J, Han H, Thind A, Stewart M, Reichert S, Birtwhistle R. Impact of a quality improvement program on primary healthcare in Canada: a mixed-method evaluation. Paper presented at: 41st NAPCRG Annual Meeting; 2013 Nov 9-13; Ottawa, ON.
19. Harris S, Green ME, Webster-Bogaert S, Fournie M, Belle-Brown J, Thind A, Kotecha J, Roberts S, Reichert S, Han H, Russell G, Stewart M and Birtwhistle RV. The Impact of the QIIP Learning Collaboratives on diabetes management. Paper presented at: Canadian Diabetes Association Annual Conference; 2013 October; Montreal, QC.
20. Hodgetts PG. Conflict and health. Queen's University MPH program EPID 829. 2013 February; Kingston, ON.
21. Hodgetts PG. Primary care in areas of conflict: Bosnia and Afghanistan. University of Toronto Global Health Education Institute; 2013 February; Toronto, ON.
22. Hodgetts PG. Afghanistan: rebuilding a health care system in the midst of war. Queen's Summer Institute on Global Health; 2013 June; Kingston, ON.
23. Hodgetts PG. Conflict and Health. University of Toronto, Markham Program Grand Rounds; 2013 September; Toronto, ON.
24. Hogg W, Dolovich L, Kaczorowski J, Wong S, Birtwhistle R, Godwin M, Irving H. Developing the Canadian Primary Health Care Research and Innovation Network (CPHCRIN): progress to date. 41st NAPCRG Annual Meeting; 2013 Nov 9-13; Ottawa, ON.

25. Hutchison B, Glazier R, Birtwhistle R, Heick Caroline, Forster B, Casalino M. Hutchison S. Building a primary health care information infrastructure: linking and governing data-outline. AFHTO Annual Conference; 2013 Oct 22-23; Toronto, ON.
26. Kahn S, Williamson T, Green ME, Birtwhistle RV, Wong S, Nataranjan N, Manca D. Validating the CPCSSN algorithms for eight chronic diseases. Canadian Society for Epidemiology and Biostatistics Annual Meeting; 2013 Jun 25-27; St. John's, NL.
27. Keshavjee K, Martin K, Williamson T, Birtwhistle RV. CPCSSN: an architecture for chronic disease surveillance in Canada. e-Health 2013: Accelerating Change; 2013 May 26-29; Ottawa, ON.
28. Keshavjee K, Martin K, Williamson T, Birtwhistle RV. Using CPCSSN data for primary care research: The art of the possible. NAPCRG PBRN Conference; 2013 Jun 18-19; Bethesda, MD.
29. Keshavjee K, Truant R, Jackson D, Martin K, Williamson T. Modernizing the electronic medical record infrastructure in Canada. e-Health 2013: Accelerating Change; 2013 May 26-29; Ottawa, ON.
30. Kotecha J, Belle-Brown J, Han H, Harris S, Russell G, Green M, Webster-Bogaert S, Roberts S, Fournier M, Thind A, Stewart M, Reichert S, Birtwhistle R. Does participation in a quality improvement (QI) program improve primary healthcare team (PHC) functioning? A qualitative Study. Paper presented at: 41st NAPCRG Annual Meeting; 2013 Nov 9-13; Ottawa, ON.
31. Kotecha J, Belle-Brown J, Han H, Harris S, Russell G, Green ME, Webster-Bogaert S, Roberts S, Fournie M, Thind A, Stewart M, Reichart S, Birtwhistle RV. Does participation in a quality improvement (QI) programs improve primary healthcare team (PHC) functioning? A qualitative study. Paper presented at: Trillium Primary Care Research Day; 2013 Jun 19; Toronto, ON.
32. Leung L. Family practice in Canada. 2014 IMG Symposium; 2014 Jan; Toronto, ON.
33. Leung L. Fire over ice – use of hyfrecation for recalcitrant wart. Paper presented at: Family Medicine Forum (FMF) Research Day; 2013 Nov 7-9; Vancouver, BC.
34. Mahmud A, Langley H, Brown G, Biagi J, Watson S, Niblett J, Christmas C. Patterns of practice in follow up care for cancer survivors. Paper presented at: Canadian Association of Radiation Oncologists Annual Scientific Meeting; 2013 Sept 18-21; Montreal, QC.
35. McEwen LA, Luhanga U, Griffiths JM, Schultz K, Spiller A, Acker A. Queen's multisource feedback rubrics: operationalizing frames of reference for raters and residents. Poster presented at: American Association of Medical Colleges; 2013 Nov 1-6; Philadelphia, PA.
36. McEwen LA, Spiller A, Acker A, Griffiths JM, Schultz K. Multisource feedback rubrics. Poster presented at: Annual Celebration of Teaching, Learning and Scholarship in Health Sciences Education; 2013 Jun 19; Queen's University, Kingston, ON.

37. Morkem R, Barber D, Biro S, Moore K, Williamson T, Jaansen I, Belanger P, Birtwhistle RV, Kotecha J, Khan S, Mosely B, Kinsella L. Healthy weight surveillance pilot project. Trillium Primary Health Care Research Day; 2013 Jun 19; Toronto, ON.
38. Natarajan N, Van Aarsen K, Varatharasan N, Sabri S, Putnam W, Williamson T. Validating the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) case detection algorithm for hypertension using Nova Scotia electronic medical record data. CSEB Biennial Conference; 2013 Jun 25-27; St. John's, NL.
39. Natarajan N, Van Aarsen K, Varatharasan N, Sabri S, Putnam W, Williamson T. Validating the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) case detection algorithm for hypertension using Nova Scotia electronic medical record data. Annual CAHSR Conference; 2013 May 28-30; Vancouver, BC.
40. Paul D, Ewen S, Jones R, Kamaka M, Curtis E, Green ME. Common ground: graduate outcomes in Indigenous health across the oceans. Accepted for presentation at the Canadian Conference on Medical Education (CCME); 2014 Apr 25-29; Ottawa, ON.
41. Patricio A, Guerra R, Phillips S. Life course adversity and physical performance in older populations living in Canada, Brazil, Colombia and Albania. Geriatrics Society Annual Scientific Meeting; 2013 Nov 20-24; New Orleans, LA.
42. Phillips S. Bodies of law: women's health and equality. Law Conference: Medical Education Regarding Abortion: From Illegal to Invisible; 2013 May 1; Kingston, ON.
43. Phillips S. Women, worth and health. Invited lecture at: Women's Worth Week; 2013 Nov 20; Queen's University, Kingston, ON.
44. Phillips S. Integrating gender into research education. Workshop (1.5 hr) at: Gender Summit; 2013 Nov 15; Washington DC, USA.
45. Phillips S. Gender, aging and health. Workshop (2 hr) at: Department of General Practice at Umea University; 2013 Sept 11; Sweden.
46. Phillips S. Chair at: Mobility in Older Adults, Improving Care of Your Patients (1/2 day workshop). Queen's University Faculty of Health Sciences CME; 2013 May 15; Kingston, ON.
47. Phillips S. The fall of science, the winter of our discontent. Lecture (1 hr) at: Queen's University Faculty of Health Sciences Public Health Interest Group; 2013 Apr 3; Kingston, ON.
48. Phillips S. Adversity, resilience and masculinity: why men die young and what we can do about it? Lecture at: Queen's Institute of Lifelong Learning; 2013 Jan 13; Kingston, ON.
49. Rigobon A, Birtwhistle R, Biro S, Barber D, Morkem R, Roberts K, Williamson T. Can CPCSSN data be used to measure adult obesity in Canada? NAPCRG PBRN Conference; 2013 Jun 18-19; Bethesda, MD.

50. Schultz K, Griffiths JM. Developing family medicine EPAs. National Evaluation Director's Meeting, FMF; 2013 Nov 7-9; Vancouver, BC.
51. Schultz K, Griffiths JM. An interactive workshop to understand and design Entrustable professional activities (EPAs). Association of Medical Education in Europe (AMEE); 2013 Aug 24-28; Prague, Czech Republic.
52. Schabert I, Phillips S. Networking workshop – teaching IMGs. Family Medicine Forum (FMF). 2013 Nov 7-9; Vancouver, BC.
53. Trouton K, Phillips S. Can we leave our baggage at the door? Equity and diversity. Family Medicine Forum (FMF); 2013 Nov 7-9; Vancouver, BC.
54. Williamson T, Affleck E, Birtwhistle R, Drummond N, Jayaraman G, Rigobon A. A Canadian Primary Care Sentinel Surveillance Network (CPCSSN) workshop: Using electronic medical record data for public health purposes. CPHA 2013 Annual Conference; 2013 Jun 9-12; Ottawa, ON.
55. Williamson T, Belanger P, Moore K, Birtwhistle R. Using geographical measures of socioeconomic status to assess CPCSSN's representativeness: a pilot study. NAPCRG PBRN Conference; 2013 Jun 18-19; Bethesda, MD.
56. Williamson T, Eliasziw M, Fick G. Log-binomial models: concavity and estimation. Annual Meeting of the Statistical Society of Canada; 2013 May 26-29; Edmonton, AB.
57. Williamson T, Eliasziw M, Fick G. Failed convergence with log-binomial models. CSEB Biennial Conference; 2013 Jun 25-27; St. John's, NL.
58. Williamson T, Khan S, Green M, Birtwhistle RV, Wong S, Natarajan N, Manca D. Validating the CPCSSN algorithms for eight chronic diseases. CSEB Biennial Conference; 2013 Jun 25-27; St. John's, NL.
59. Williamson T, Green M, Birtwhistle R, Khan S, Garies S, Wong S, Natarajan N, Manca D. Validating the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) algorithms for eight chronic diseases. 41st NAPCRG Annual Meeting; 2013 Nov 9-13; Ottawa ON.
60. Wong ST, Green ME, Lavoie J, Wu L, Kadhim AJ, Katz A. Variation in approaches to the management of pandemic H1N1 Influenza in First Nations communities in 3 provinces of Canada. Health Services Research Association of Australia and New Zealand Biannual Meeting; 2013 Dec; Wellington, New Zealand.

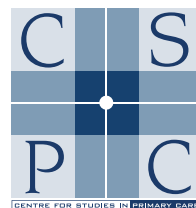
FINANCIAL STATEMENTS

FINANCIAL STATEMENT May 1 2013 - April 30 2014

| REVENUE | ACTUAL AMOUNT |
|--------------------------|------------------------|
| Carry Forward | \$ 565,977.05 |
| Annual revenue | \$ 1,280,386.96 |
| Total Revenue | \$ 1,846,364.01 |
| EXPENSES | |
| Salaries | \$ 528,192.72 |
| Benefits | \$ 136,467.76 |
| Office supplies | \$ 14,235.79 |
| Printing | \$ 3,162.61 |
| Telephone/communications | \$ 3,747.00 |
| Equipment/It/computer | \$ 16,348.74 |
| Travel & Accommodation | \$ 8,524.04 |
| Food | \$ 3,142.18 |
| Other | \$ 9,860.63 |
| Overheads | \$ 46,740.00 |
| TOTAL EXPENSES | \$ 770,421.73 |
| Surplus/(Deficit) | \$ 1,075,942.28 |

FINANCIAL STATEMENT
May 1 2012 - April 30 2013

| | ACTUAL AMOUNT |
|------------------------|------------------------|
| Total Revenue | \$ 1,225,235.16 |
| EXPENSES | |
| Salaries and Benefits | \$ 694,249.43 |
| Equipment and Computer | \$ 7,270.36 |
| Supplies | \$ 17,214.65 |
| Travel | \$ 27,874.44 |
| Professional Fees | \$ 51,597.80 |
| Overhead | \$ 21,428.38 |
| Miscellaneous | \$ 16,181.29 |
| TOTAL EXPENSES | \$ 835,816.35 |
| NET INCOME | \$ 389,418.81 |



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