**Our Impact: By The Numbers**

1,509,891  Patients in the CPCSSN database

1,180   Primary care physicians recruited to CPCSSN

191   Primary Care Research Day attendees

42   Conference presentations

35   Peer-reviewed publications

23   Research faculty

7   Research initiation and community grants

6   Ongoing research portfolios

**Number of original resident research projects by year**

- 2013: 16
- 2014: 22
- 2015: 25
- 2016: 34

**Presentations**

- Canada (n=26)
- International (n=26)
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Our vision and mission

**Vision**
Improve the health and well-being of people in Southeastern Ontario and beyond through research, surveillance and education in primary care.

**Mission**
CSPC is dedicated to the conduct of primary care research, surveillance and education that extend our understanding of health, health maintenance, disease and its treatment, and care delivery, and the assessment and dissemination of evidence.

**Overview**
The CSPC conducts high-quality research that is focused on the improvement of primary health care practice, delivery and education. As part of the Department of Family Medicine, the CSPC provides clinical faculty members with research support and directs the department’s resident research program. Our research activities draw on a wide range of disciplines through collaborative academic partnerships, and include involvement of practicing physicians who participate in our research program through our Practice-Based Research Network (PBRN). The centre’s current 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 leadership is supported by an advisory council that oversees the centre’s development and advises on opportunities that fall within its mission, vision and goal. Chaired by a respected community member, the advisory council comprises members from across Queen’s University, community-based primary care practitioners and residents.
This year was another successful year for the Centre for Studies in Primary Care (CSPC). We welcomed Dr. Colleen Grady as our new Research Manager and she very quickly was able to attract project support from the Maudsley Scholarship fund to do a scoping review and environmental scan on teaching and learning leadership skills in family medicine. This initial project has led to further work related to curriculum development in leadership for family medicine residents led by Colleen and Dr. Brent Wolfrom and funded by the Department through the CSPC Research Initiation Grant call. Physician leadership is a new and topical area of family medicine education of which you will be hearing more in the future. We were also pleased to welcome Dr. Nancy Dalgarno to work with the CSPC as an educational research consultant. She has been instrumental in helping faculty develop innovative research around competency based education and with manuscript writing.

The Canadian Primary Care Sentinel Surveillance Network (CPCSSN) central office, housed at the Centre, continues to grow in size and scope. It is a ‘network of networks’ comprised of 11 primary care research networks across Canada. It has grown to include approximately 1200 primary care practices and 1.5 million patients on whom we collect deidentified health data for practice quality improvement, research and chronic disease surveillance. CPCSSN has a partnership with the College of Family Physicians of Canada and newly established partnerships with Diabetes Action Canada and the Canadian Frailty Network. Locally the Eastern Ontario Network (EON), led by Dr. David Barber, has been expanding their patient numbers to include almost one third of the Southeast LHIN. They have also been successful in studying depression in children and adults and the use of medication in children with ADHD.

We had a very successful Primary Care Research Day, which showcases resident scholarly projects and research. This year we had almost 200 people attend. I want to extend thanks to Marissa Beckles and Emily Johnston for the organization and success of the event.

The Centre continues to provide literature searches and research methods advice and analysis through Mary Martin and Dr. Han Han. This service has been instrumental in the research productivity of faculty members.

This is my last Director’s report since I will be stepping down this year. I have enjoyed the last 12 years as Director and have seen both the Centre and faculty involvement in research increase. I am immensely proud of the Centre and our staff for their hard work, dedication and the quality achievements we have been able to make as a small research centre. The Centre’s success has been very much dependent on the support of both the Department and Department Heads since the Centre was established in 2001.

I look forward to watching the Centre continue to grow and the creative research that is done by our faculty and staff.

Cha Gheill!
Under the leadership of Dr. Richard Birtwhistle, the CSPC is an organizational structure that gives its work in primary care visibility throughout the university community. The centre has enhanced its reputation as an important contributor to our understanding of diseases; analysis of different health-care systems and medical education; and advancement of knowledge in the area of family medicine and primary care.

The CSPC continues to house the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) – a major national initiative co-ordinated in the Queen’s Department of Family Medicine – to increase our knowledge about the diagnosis and management of chronic diseases. The CPCSSN data is now recognized as an integral piece that will help drive continuous improvement in the primary-care setting.

Our thanks to the centre’s research associates, who comprise a gifted group. Dr. Colleen Grady, Research Manager, has provided new leadership, and Dr. Mike Green, Associate Director, has continued to co-ordinate research activities at all of our sites.

As CSPC director, Dr. Birtwhistle has been honoured as the inaugural recipient of the Walter Wylie Rosser Chair of Family Medicine. This endowed chair will support research activity in the department, which will help achieve the department’s mandate. The chair also honours Dr. Walter Rosser, an internationally recognized researcher in primary care and a former head of Queen’s Department of Family Medicine.

We extend our deepest thanks to Dr. Birtwhistle for his leadership, and anticipate working together in the years to come as he continues in his role as director of the CPCSSN project.
The Centre for Studies in Primary Care (CSPC) acts as the research arm of the Department of Family Medicine (DFM) at Queen’s University. As such, the CSPC provides the DFM with support for research development, coordinates faculty-led portfolios, directs the resident research-teaching program, convenes Primary Care Research Day, and helps to build capacity in primary care research by providing an environment that supports research training and academic excellence. The CSPC’s research activities are diverse, and a number of strong portfolios have emerged throughout the years. These portfolios include: The Canadian Primary Care Sentinel Surveillance Network (CPCSSN) and its local entities, Educational Research, including assessment, and competency-based medical education, Community and Program Evaluation, Global Health Research, and Intellectual and Development Disabilities Research. The CSPC supports all topics relevant to the practice of primary health care, primary care chronic disease surveillance, health services research, population health, health promotion, use of electronic medical records, and evidence assessment for clinical practice.
Over the last few years, the CSPC has focused on building research capacity within the DFM. The Centre oversees the peer-reviewed Research Initiation Grant competition and provides research support for DFM faculty members. Through this year’s competition, the CSPC funded three new projects. Project investigators are from across the regional teaching sites and include allied health professionals within the Department. Details of these projects are highlighted in the following table.

<table>
<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR</th>
<th>CO-INVESTIGATORS</th>
<th>TITLE</th>
<th>AMOUNT FUNDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kelly Howse MD</td>
<td>Nancy Dalgarno PhD</td>
<td>Residents’ perception of well-being and dealing with burnout: Resident ice cream rounds.</td>
<td>$6,345</td>
</tr>
<tr>
<td>Eva Purkey MD</td>
<td>Susan Bartels MD, Tracey Beckett MSW, Colleen Davison PhD, Meredith MacKenzie MD</td>
<td>Adverse childhood experiences and frequent emergency department use: opportunities for improved care in emergency departments and primary care.</td>
<td>$19,960</td>
</tr>
<tr>
<td>Brent Wolfrom MD</td>
<td>Karen Schultz MD, Michael Green MD, Karen Hall Barber MD, Kelly Howse MD, Paige Hacking MD, Colleen Grady DBA, Nancy Dalgarno PhD</td>
<td>Integrating a formal leadership curriculum into the Department of Family Medicine residency program.</td>
<td>$15,886.34</td>
</tr>
</tbody>
</table>
New this year, the CSPC held another innovation grant competition specifically for community research projects. This competition will be aimed at faculty members at the DFM's three distributed sites in Belleville-Quinte, Oshawa-Bowmanville-Lakeridge, and Peterborough-Kawartha. Details of these projects are highlighted in the following table.

<table>
<thead>
<tr>
<th>PRINCIPAL INVESTIGATOR</th>
<th>CO-INVESTIGATORS</th>
<th>TITLE</th>
<th>AMOUNT FUNDED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jessica LaDouceur MD</td>
<td>Nicole Bobbette OT Reg (Ont.), Abby Leavitt, Liz Grier MD, Meg Gemmill MD, Ian Casson MD</td>
<td>Applying the Health Links approach for adults with dual diagnosis and complex need in the Quinte Health Link.</td>
<td>$19,803.81</td>
</tr>
<tr>
<td>Catherine Donnelly PhD</td>
<td>Joan Tranmer PhD, Simon French PhD, Stephanie Lynch PharmD, Abby Leavitt BBA, Michael Green MD, Richard Birtwhistle MD, Patrick Esperanzate MD, Rachael Morkem MSc</td>
<td>Linking electronic medical records with administrative data: The impact of interprofessional primary care teams on Diabetes and health care utilization.</td>
<td>$19,665</td>
</tr>
<tr>
<td>Sarah LeBlanc MD</td>
<td>Susan MacDonald MD, Daniel Zimmerman MD, Karen Schultz MD, Nancy Dalgarno PhD</td>
<td>Developing, implementing and evaluating an integrated medical assistance in dying (MAID) curriculum into a Family Medicine residency training program.</td>
<td>$19,730</td>
</tr>
<tr>
<td>Mike Ward MD</td>
<td>Karen Schultz MD, Jane Griffiths MD, Nancy Dalgarno PhD</td>
<td>Faculty perceptions of scholarship in the Queen's Department of Family Medicine community-based distributed sites.</td>
<td>$12,587</td>
</tr>
</tbody>
</table>

**Farewell to Dr. Birtwhistle**

This year marks the last year with Dr. Birtwhistle as Director of the CSPC. As the Director for the past 12 years, Dr. Birtwhistle has been instrumental in the growth of primary care research in Canada and developed the CSPC's presence as a research centre through his work with CPCSSN. Throughout these years, Dr. Birtwhistle has received numerous awards for his work in primary care research. In 2013, Dr. Birtwhistle was awarded a Queen's University Prize for Excellence in Research. Dr. Birtwhistle was named one of the Top 20 Pioneers of Family Medicine Research in Canada in 2015 by the College of Family Physicians of Canada (CFPC) for his accomplishments in advancing technology through the development of CPCSSN and was also given a lifetime achievement award by CFPC in 2015.

Going forward, Dr. Birtwhistle will continue to direct CPCSSN and has a new role as Interim Executive Director of the Canadian Institute for Military and Veteran Health Research. His excellent leadership will be missed by faculty and staff at CSPC. We wish him well.

To learn more about the CSPC's research activities and project highlights, consult the CSPC's website at www.queensu.ca/cspc/ and follow along on Twitter @CSPC_QueensU.
HONOURS AND AWARDS

Dr. Richard Birtwhistle

The CSPC is pleased to announce that our Director, Dr. Birtwhistle, has been named as the recipient of the inaugural Walter Wylie Rosser Chair in Family Medicine Research. The responsibilities of the Chair include conducting, supporting and developing research in the Department of Family Medicine. The Chair will also foster and support education, supervision, and mentorship of research students and trainees at the undergraduate through to postdoctoral levels.

Dr. Glenn Brown

The CSPC is proud to share that Dr. Brown has been formally appointed as the 61st President of the Ontario College of Family Physicians (OCFP). As President, Dr. Brown will champion the vital role that family physicians play in the delivery of care to patients and families in Ontario. In his inaugural address, Dr. Brown emphasized the importance of collaboration and need for strong physician-patient relationships.

Dr. Michael Green

The CSPC is honored to announce that Dr. Green who, along with the Indigenous Health Working Group, coauthored a national fact sheet on systemic racism in healthcare, called “Health and Health Care Implications of Systemic Racism on Indigenous Peoples in Canada.” This report is an appeal to physicians to address what has been documented as a pervasive and harmful issue. Presented as a guide for physicians, the document defines systemic racism, describes how it affects population and patient health, and recommends ways physicians can build trust and form lasting relationships with Indigenous patients by providing culturally safe care.
Primary Care Research Day is CSPC’s biggest event of the year. The day brings together Department of Family Medicine faculty members, Queen’s Family Health Team staff, residents from all four distributed sites, faculty from across Queen’s University, community healthcare providers, and members from the South East Local Health Integration Network. The objectives for the day are to learn from and discuss research and scholarly projects conducted by family medicine residents and to enhance understanding of topics related to family medicine practice through two keynote addresses. The theme of this year’s Primary Care Research Day was Indigenous Health Research. We were joined by an Elder from the Four Directions Aboriginal Student Centre who performed a traditional Opening and Closing Ceremony.
Indigenous health researchers, Dr. Lindsay Crowshoe and Dr. Michael Green presented the two keynote addresses. Dr. Crowshoe is a Piikani Nation band member and First Nations Physician. Dr. Crowshoe is Assistant Professor at the Department of Family Medicine at the University of Calgary. His research interests focus on chronic disease, social equity and Indigenous health within the domains of primary care systems, population health and medical education. Dr. Green is an Associate Professor in the Departments of Family Medicine and Community Health and Epidemiology at Queen’s University. He is the Associate Director of Research at the Centre for Studies in Primary Care. His research interests include a broad range of health services and policy research areas with an emphasis on primary care, quality of care, equity in health, and aboriginal health.
Dr. Justin Logan presenting his poster on "Impact of a simulation-based acute care course on resident experience and choice of practice"
A total of 191 guests attended Primary Care Research Day. Postgraduate year-two family medicine residents presented their research as either a poster or oral presentation. This year there were 14 oral presentations and 44 poster presentations; each were evaluated by two judges. Projects were assessed based on topic relevance, quality of presentation, and integration of new knowledge. The four projects chosen as the “Best Academic Research Projects” were:

Dr. Justin Bell (Kingston) “Trans identified individuals’ experience in primary care”

Dr. Lindsay Griffith (Kingston) “Where are they now? ‘No show’ rates for initial mental health appointments in a collaborative care academic primary care centre”

Dr. Paige Hacking (Kingston) “Queen’s Family Medicine resident teaching nights”

Dr. Amanda Murdoch (Peterborough) “Shared care model between psychiatry and family medicine”

Dr. Tiffany Chow from the Peterborough site presenting her work on “Improving the management of alcohol withdrawal in the emergency department”
Left to right: Drs. Lindsay Griffith, Amanda Murdoch, and Justin Bell (missing: Paige Hacking)

Thank you to all speakers, judges, moderators and guests for making the day such a success. Our next Primary Care Research Day is tentatively scheduled for Thursday February 22nd, 2018. We hope you can join us!
Left to right: John Queenan, Ken Martin, Nancy Dalgarno, Behrouz Ehsani, Han Han, Dr. David Barber, Colleen Grady, Mary Martin, Lorne Kinsella, Emily Johnston, Dr. Richard Birtwhistle, Marissa Beckles, Dr. Michael Green, Dr. Walter Rosser (missing: Rachael Morkem)
### Current Projects

<table>
<thead>
<tr>
<th>Organization</th>
<th>Funding</th>
<th>Investigators</th>
<th>Project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Institute of Health Research</td>
<td>$80,213</td>
<td>Michael Green</td>
<td>Educating for Equity</td>
</tr>
<tr>
<td>Canadian Institute of Health Research</td>
<td>$3,750</td>
<td>Richard Birtwhistle</td>
<td>Program for the identification of actionable atrial fibrillation in the family practice setting (PIAAF-FP)</td>
</tr>
<tr>
<td>Canadian Institute of Health Research</td>
<td>$8,200</td>
<td>Richard Birtwhistle</td>
<td>Home-based screening for early detection of atrial fibrillation in primary care patients aged 75 years and older: the SCREEN-AF randomized trial</td>
</tr>
<tr>
<td>Public Health Agency of Canada</td>
<td>$1,077,163</td>
<td>Richard Birtwhistle, David Barber, Walter Rosser</td>
<td>Enhanced surveillance for chronic disease program (PHAC-DPT)</td>
</tr>
<tr>
<td>Ministry of Health and Long Term Care</td>
<td>$36,132</td>
<td>Richard Birtwhistle, Michael Green</td>
<td>Linking Canadian Primary Care Sentinel Surveillance System (CPCSSN) data with administrative data from ICES for complex patients to better understand utilization patterns and care requirements</td>
</tr>
<tr>
<td>Ministry of Health and Long Term Care</td>
<td>$40,075</td>
<td>Jyoti Kotecha, Susan Phillips</td>
<td>A review of home services offered by seniors associations across Ontario to support healthy aging in the home and how these services can be leveraged by primary care</td>
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</table>
## CURRENT PROJECTS

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<tbody>
<tr>
<td>Frontenac Paramedic Services</td>
<td>$81,055</td>
<td>Jyoti Kotecha, Richard Birtwhistle</td>
<td>Environmental scan and a needs assessment to support the development of a paramedic wellness program for frail older adults</td>
</tr>
<tr>
<td>TVN Impact Grant</td>
<td>$85,120</td>
<td>Jyoti Kotecha, Richard Birtwhistle</td>
<td>Enhancing the primary healthcare system’s ability to identify and plan with seriously ill frail elderly</td>
</tr>
<tr>
<td>Health Canada</td>
<td>$49,856</td>
<td>Richard Birtwhistle, Linda Levesque</td>
<td>Evaluation of depersonalized adverse reaction data collected in national, primary care electronic medical records for its use in pharmacovigilance activities-phase II.</td>
</tr>
<tr>
<td>Queen’s University Endowed Chair</td>
<td>$53,000 (Interest only part year)</td>
<td>Michael Green</td>
<td>Clinical teachers’ association of Queen’s chair in applied health economics/health policy</td>
</tr>
<tr>
<td>Queen’s University Undergraduate Medical Education</td>
<td>$10,000</td>
<td>Lawrence Leung</td>
<td>UGME diversity panel project grant</td>
</tr>
<tr>
<td>SEAMO Education</td>
<td>$13,000</td>
<td>Geoffrey Hodgetts, Jane Griffths, Elaine Van Melle, Karen Schultz</td>
<td>Preparedness for practice as a critical transition in residency education</td>
</tr>
</tbody>
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<tbody>
<tr>
<td>SEAMO Education</td>
<td>$14,945</td>
<td>Shayna Watson</td>
<td>Mapping reflective practice – thematic analysis of family medicine clerkship case reflections</td>
</tr>
<tr>
<td>SEAMO Innovation Fund</td>
<td>$97,343</td>
<td>Meg Gemmill, Ian Casson, Liz Grier</td>
<td>Implementation and evaluation of Health Links’ coordinated care plans tailored for adults with intellectual and developmental disabilities</td>
</tr>
<tr>
<td>Calian Group Ltd.</td>
<td>$105,000</td>
<td>Richard Birtwhistle</td>
<td>Identifying military families and veterans in the Canadian Primary Care Sentinel Surveillance Network (CPCSSN) database to study the health of military families and veterans.</td>
</tr>
<tr>
<td>Merck</td>
<td>$123,500</td>
<td>Richard Birtwhistle, John Queenan</td>
<td>Exploring the prevalence of zoster amongst patients with diabetes in a Canadian primary care dataset in comparisons to other high-risk and low-risk patients</td>
</tr>
<tr>
<td>Eli Lilly Canada</td>
<td>$53,600</td>
<td>Richard Birtwhistle, John Queenan</td>
<td>The prevalence, burden and management of dementia in Canadian primary care</td>
</tr>
<tr>
<td>CSPC Research Initiation Grant</td>
<td>$20,000</td>
<td>Brent Wolfrom, Eric Sauerbrei, David MacPherson, Jyoti Kotecha</td>
<td>Diagnostic ultrasound in family medicine (Pilot Project)</td>
</tr>
</tbody>
</table>
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</thead>
<tbody>
<tr>
<td>CSPC Research Initiation Grant</td>
<td>$17,812</td>
<td>Meg Gemmill, Liz Grier, Ian Casson, Nicole Bobbette</td>
<td>Primary care physician and allied health care provider attitudes and perceptions of the identification of adults with suspected mild intellectual disability</td>
</tr>
<tr>
<td>CSPC Research Initiation Grant</td>
<td>$16,999</td>
<td>Eva Purkey, Rupa Patel, Tracey Beckett, Francoise Mathieu</td>
<td>Women's experience of trauma-informed care in the context of chronic disease management in family medicine</td>
</tr>
<tr>
<td>CSPC Research Initiation Grant</td>
<td>$16,000</td>
<td>Michael Green, Colleen Savage, Richard Birtwhistle, Heather Stuart, Evelyn Bowring, David Barber</td>
<td>Validity of CPCSSN depression diagnostic algorithm incorporating patient reports</td>
</tr>
<tr>
<td>CSPC Research Initiation Grant</td>
<td>$8,200</td>
<td>Susan Phillips, Diane Batchelor</td>
<td>Assessing resilience among children and youth in primary care</td>
</tr>
<tr>
<td>CSPC Research Initiation Grant</td>
<td>$4,600</td>
<td>Robert Webster, Catherine Donnelly, Abby Leavitt, Cindy Adams, Nicole Bobbette, Stephanie Lyn, Yan Cao, Judith Proulx, Katrina Levasseur, Andrea DiGiovanni</td>
<td>Multidimensional outcomes in primary care</td>
</tr>
<tr>
<td>CSPC Research Initiation Grant</td>
<td>$12,588</td>
<td>Robert Webster, Catherine Donnelly, Abby Leavitt, Cindy Adams, Nicole Bobbette, Stephanie Lyn, Yan Cao, Judith Proulx, Katrina Levasseur, Andrea DiGiovanni</td>
<td>Multidimensional outcomes in primary care: Part 2</td>
</tr>
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<th>FUNDING</th>
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<tbody>
<tr>
<td>CSPC Research Initiation Grant</td>
<td>$13,103</td>
<td>Jane Griffiths, Nancy Dalgarno, Catherine Donnelly</td>
<td>Monitoring and evaluation of neonatal Hepatitis B immunization project in Karenni State, Myanmar</td>
</tr>
<tr>
<td>CSPC Research Initiation Grant</td>
<td>$15,886.34</td>
<td>Brent Wolfrom, Karen Schultz, Michael Green, Karen Hall Barber, Kelly Howse, Paige Hacking, Colleen Grady, Emily Johnston, Nancy Dalgarno</td>
<td>Integrating a formal leadership curriculum into the Department of Family Medicine residency program</td>
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<tr>
<td>CSPC Research Initiation Grant</td>
<td>$19,760</td>
<td>Eva Purkey, Susan Bartels, Tracey Beckett, Colleen Davidson, Meredith MacKenzie</td>
<td>Adverse childhood experiences and frequent emergency department use: opportunities for improved care in emergency departments and primary care</td>
</tr>
<tr>
<td>CSPC Community Projects Research Initiation Grant</td>
<td>$19,803.81</td>
<td>Jessica Ladouceur, Nicole Bobbette, Abby Leavitt, Liz Grier, Meg Gemmill, Ian Casson</td>
<td>Applying the Health Links approach for adults with dual diagnosis and complex need in the Quinte Health Link</td>
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<tr>
<td>CSPC Research Initiation Grant</td>
<td>$6,345</td>
<td>Kelly Howse, Nancy Dalgarno</td>
<td>Residents perception of well-being and dealing with burnout: Resident ice cream rounds</td>
</tr>
<tr>
<td>Maudsley Scholarship Grant</td>
<td>$4,962.66</td>
<td>Colleen Grady, Brent Wolfrom, Karen Schultz, Nadia Knarr, Emily Johnston</td>
<td>Establishing learning objectives for a leadership skills development curriculum in family medicine</td>
</tr>
<tr>
<td>Maudsley Scholarship Grant</td>
<td>$4,900</td>
<td>Richard Birtwhistle, Colleen Grady, Karen Schultz, Emily Johnston</td>
<td>CanMEDS roles and Leadership in Medical Education</td>
</tr>
</tbody>
</table>
The CSPC houses the central office of the Canadian Primary Care Sentinel Surveillance Network (CPCSSN). The network extracts patient health data from the electronic medical records (EMRs) of participating physicians (sentinels) across Canada. This anonymized data is used to conduct public-health surveillance and research focused on (but not limited to) eight key chronic conditions: diabetes, high blood pressure, depression, arthritis, COPD, dementia, epilepsy and Parkinson’s disease. It also provides practitioners with information on their practice population.

Since its inception in 2008, the network has recruited 1,189 primary care physicians and is extracting and processing EMR data at 217 practice sites that span seven provinces and one territory. As of January 1, 2016, CPCSSN contained the detailed health information of 1,573,548 patients.

Over the last seven years, CPCSSN has become an award-winning leader in the extraction and use of EMR data in Canada. The network continues to provide all participating physicians with feedback reports, comparing information about their patient population and key health indicators with their colleagues at the site and at regional, provincial and national levels. In 2016 the data that CPCSSN holds was used to produce 16 peer reviewed academic papers.

CPCSSN’s main source of funding continues to be the Public Health Agency of Canada. We have successfully rolled out a multi-site implementation and evaluation study entitled “The implementation of the CPCSSN Data Presentation Tool’ in primary care clinics to enhance the surveillance, prevention and management of chronic disease.” The CPCSSN Data Presentation Tool (CPCSSN-DPT) provides users with ready access to their data (for querying and reporting) after it has undergone processing and cleaning. The aim of the project is to further develop, implement and evaluate the CPCSSN-DPT across Canada. To date we have successfully installed the CPCSSN-DPT in 40 sites across Canada and have implemented several improvements such as the addition of deprivation indices, a mapping function, and an improved case finder search function. Funding from this study has been partially used to perform a major upgrade to CPCSSN’s information technology infrastructure.

CPCSSN is participating as an active partner in the 5-year CIHR-funded project Diabetes Action Canada. CPCSSN will be providing primary care data on diabetes patients across Canada and critical IT components & processing as a service to the project. The objective is to create a diabetes registry for practices as well as research infrastructure for clinical trials. Other partners include the Canadian Frailty Network and the Canadian Institute for Military and Veterans Health Research.

CPCSSN is currently upgrading its regional and central IT infrastructure to use newer technology, hosted at Queen’s Centre for Advanced Computing.
This will enable CPCSSN to enhance and expand on its EMR data extraction, processing and reporting capabilities, as well as offering on-line portals for researchers using CPCSSN data.

CPCSSN continues to place priority in finding sustainable long-term funding. A substantial amount of effort was placed in applying for a Canadian Institutes of Health Research SPOR Networks in Chronic Disease grant with a proposal centered on research on multimorbidity and eHealth solutions to improving care. Although the proposal was not funded, we were successful in raising the $12.5 million in matching funds and some of this funding will be used to maintain and extend CPCSSN research.

CPCSSN is exploring other funding opportunities by working with the private sector, such as funded research grants from Pharmaceutical Companies. For these partnerships, only aggregate data and a report is provided and all projects conform to the ethical partnership framework which the CPCSSN Steering Committee has developed for working with industry.
CPCSSN Regional

Eastern Ontario Network

The Eastern Ontario Network (EON), the Department of Family Medicine’s Practice Based Research Network (PBRN) has been hard at work developing collaborations with colleagues and partners here at Queen’s and at other institutions across Canada. While originally founded as one of 11 networks across Canada that comprise the CPCSSN project, the EON has since developed into an independent PBRN with a goal to leverage electronic medical record data to transform primary care through cutting-edge research that impacts patient care and management. In the last year EON has also been exploring opportunities with alternate funders to sustain the PBRN.

The EON team is collaborating with the Queen’s School of Rehabilitation to evaluate the management of low back pain in primary care. The QFHT providers have generously agreed to participate in this study and it is hoped that this pilot project can be leveraged to conduct a larger randomized control trial.

The EON team, in collaboration with Kingston Frontenac Lennox & Addington (KFL&A) Public Health, published an article on obesity and socioeconomic status in the KFL&A region in the March issues of BMC Medical Informatics and Decision making as well as an article on the prevalence of toddler, child and adolescent who are overweight and obese in the June 2016 issues of CMAJ Open. The team also presented several projects at the 2016 North American Primary Care Group conference in Colorado Springs, Colorado, including research on ADHD medication prescribing in primary care.

The EON collects data on over 200,000 patients in the Eastern Ontario region, and using this data for research and quality improvement is integral to improving the efficiency of Ontario’s healthcare system and increasing the quality of care to its residents.

Principal Investigator: Dr. David Barber, MD, CCFP
**Evaluation of the patient experience in Health Links**

In 2012, the Ontario Government launched Health Links as a key commitment to the Ministry of Health and Long-Term Care’s Action Plans for Health Care report. The Health Links program aims to transform the healthcare system through improved integration and coordination of care for patients with complex health and social care needs who were high users of hospital and emergency services. Currently, there are 83 Health Links across 14 Local Health Integration Networks (LHINs). Their primary roles include helping to attach patients to primary care providers, improving coordination of care, and engaging patients in their own care.

This year, an evaluation of the Health Links program was commissioned by the Ontario Government. Its purpose is to evaluate the Health Links model and its impact on creating patient and system value. As part of a multi-site collaborative effort, the CSPC was tasked with examining the impact of the Health Links model on the experience of the patients taking part in the program. To achieve this, a cross-sectional patient survey was conducted to better understand patient healthcare utilization and outcomes (i.e. access to care, care coordination, comprehensiveness of care, continuity of care, patient engagement, patient reported health outcomes, and out of pocket costs). Both established Health Link patients and new referrals were surveyed. The survey was conducted both in-person and via the telephone to reach a variety of Health Link patients across the province. Three Ontario Local Health Integration Networks were chosen as a representative sample with a total of nine Health Links engaged.

Early results indicate that established Health Link patients were more likely to cite their family doctor as their most responsible provider as compared to newly referred patients and were more likely to have had their family doctor or nurse propose a treatment plan. On average newly referred patients cited more difficulties in accessing healthcare or advice in the past two months, as compared to established Health Link patients.

Recruitment and analysis are still ongoing with anticipated completion by summer 2017.
Developing, implementing and evaluating an integrated medical assistance in dying (MAID) curriculum into a Family Medicine residency training program.

Medical assistance in dying (MAID) became a reality in Canada in 2015 with the landmark Supreme Court decision in Carter v. Canada (Attorney General) and the decision to legalize MAID on June 6, 2016. The introduction of MAID marks a change in the culture, practice and teaching of medicine in Canada. The problem is that medical educators are now directly faced with the challenge of determining how to effectively educate residents in this new aspect of medicine. The purpose of this research is to develop an integrated Family Medicine (FM) MAID residency curriculum.

This mixed method study first involved conducting an exploratory FM preceptor (n = 71) and resident (n = 63) online survey to determine their interest in and knowledge about MAID, experiences with MAID, willingness and readiness to learn and or teach about MAID, anticipation of participating in MAID, and recommendations for curricular content for residents and faculty development (FD). Second, MAID learning objectives (LOs) will be developed through (a) a Delphi process with the four Site Directors, the Program Director and the five Chief Residents and (b) curriculum mapping. Third, a focus group with the Assessment Director and two FM physicians who are knowledgeable about MAID and the FM’s assessment system will be conducted to discuss the present assessment tools used in the DFM and potential revisions needed to ensure residents are achieving the MAID LOs. Finally, informed by the survey results, resident, faculty development and continuing professional development activities will be developed to help ensure the integrated MAID curriculum is taught as intended. This research is presently being duplicated for the 29 Royal College specialty programs here at Queen’s. The findings will inform resident learning both within and across academic programs.
Feedback on feedback: Improving preceptor feedback on electronic workplace-based daily assessments in a competency-based medical education world

The shift to CBME assessment requires more involvement by preceptors due to the increased use of workplace-based assessments to document formative feedback. Preceptors are essential to developing a resident’s competence, as they are primarily responsible for day-to-day direct observation, clinical teaching, and feedback. The components of effective feedback are well documented as is their importance in driving learning. Preceptors, however, lack opportunities to receive feedback on the usefulness of their feedback. The purpose of this study is to identify the qualities of feedback on workplace-based daily assessments that are most useful for Family Medicine (FM) residents’ learning and to provide preceptors with both positive and constructive feedback to optimize feedback for resident’s competency development.

This research is a phenomenological design based on FM residents’ and preceptors’ perceptions of the feedback from electronic Field Note (FN) assessments deemed most useful to learning. Data will be collected from three sources: (1) Five preceptors whose FNs were identified as useful during the FN competitions will be interviewed. We will explore, beyond the components of quality feedback identified in the literature, how preceptors frame feedback, what they observe for FN assessments, and how they tailor feedback to individual resident needs; (2) One focus group with eight residents will be conducted to determine how the feedback they receive in the FNs can be improved to support their learning needs, and to identify phrases that will provide constructive feedback to preceptors thereby developing feedback skills; (3) Data generated from the ‘thumbs up’ function within the electronic FN system will be collected to verify themes from the pilot, identify additional themes, and determine usability.

This study will affect change in the culture of competency-based assessments within our FM program and inform effective assessment strategies for other Queen’s PGME programs transitioning to a CBME environment.

Principal Investigator: Dr. Jane Griffiths
Co-Investigators: Dr. Karen Schultz, Dr. Nancy Dalgarno
Resident Ice Cream Rounds to support wellbeing and prevent burnout

Physician and resident stressors negatively affect the quality of our health-care system and patient care. The majority of studies conducted on resident wellness focus on identifying stressors and wellness strategies such as attending to healthy sleeping, eating and exercise patterns. There is a dearth of literature that guides effective curricular support for residents learning about stressors and wellness, and enacting the new knowledge and skills in practice. One facilitated discussion support initiative, called Ice Cream Rounds, has been recently implemented in a few residency programs in Canada over the past three years. In August 2016, a version of these Rounds was implemented in our Queen’s Family Medicine (FM) residency program through allocated dedicated time within the residency curriculum. The purpose of this study is to evaluate this innovative voluntary, resident-facilitated, discussion-based curricular learning initiative in our Family Medicine (FM) residency training program, called Resident Ice Cream Rounds (RICR).

Utilizing a mixed-method design, all Queen’s PGY-1 FM residents and resident facilitators who participate in one or more of the 11 biweekly RICR during their six-month core FM rotation will be invited to participate in the research. Quantitative data is being collected from confidential exit surveys following each RICR to address stress level, wellbeing, influence of RICR on stress, and likelihood to attend RICR again or recommend RICR to a colleague. Data collection will also include an end-of-program online survey that includes the Maslach Burnout Inventory. Qualitative data will be collected from semi-structured interviews with five RICR participants, five non-RICR participants and at least two resident facilitators. The findings from this study will be used to further develop and improve the RICR curriculum during its second year of implementation. Globally, this study may be of significant benefit to decision-makers in academic institutions concerned about burnout and the wellness of their residents, and inform those who are searching for curricular models that address resident wellbeing.

Principal Investigator: Dr. Kelly Howse
Co-Investigator: Dr. Nancy Dalgarno
Professionalism, professionalization, expertise and compassion: a qualitative study of medical residents

Formal and informal medical curricula convey expectations about professionalization, that is, the development of physician identity, and also about professionalism. However, what was unknown prior to our study was whether residents experienced any dissonance between these roles. We focused particularly on how these trainees negotiated conflicts between compassion, self-care, duty and medical expertise.

Our qualitative study of 21 first-year residents at Queen’s used an innovative technique and had participants listen to a five-minute audio-recording narrated in either male or female voice. Facing compassion fatigue after three obstetrical disasters over less than two days the resident narrator asks to go home. Participants reacted in writing to questions about this request and relevant teaching/modeling.

The themes that emerged were: i) empathy, self-doubt and fear of weakness, ii) the need for support from and communication with physicians and others, iii) education received, and iv) professionalization outranks professionalism. Participants agreed that under the circumstances the narrator’s care, compassion and request were appropriate. Nevertheless, many grappled with feeling that asking to be relieved of work demonstrated weakness and a shirking of responsibility. Respondents had received no formal teaching about balancing compassion for patients or self with professional duty. Preceptors’ informal teaching and modeling valorized scientific disengagement above all else. What emerged was participants’ drive to become detached clinicians who set aside emotional responses and interactions that could impede and be incompatible with professionalization. However, participants also recognized and lamented what was lost in their transformation from student to practitioner as they came to view compassion as a liability rather than an asset for an ‘invincible medical expert’.
The influence of childhood adversity on health and healthcare utilization

The Adverse Childhood Experiences Study (ACE) is a large American study by Vincent Felitti and Robert Anda of huge importance that highlights the deep and pervasive connections between child adversity (trauma, abuse, and neglect) and all kinds of adult disease, from psychiatric illness and addiction to coronary artery disease and cancer. In 2016 our small research group completed a study looking at the interface between women with chronic diseases and a high burden of childhood adversity (known as a high ACE score) and the primary care system. This study found, not surprisingly, that women would prefer a trauma-informed primary care system (and system at all levels) and that they feel this might improve their health seeking behavior.

In 2017 we will begin a study looking at the relationship between ACE, resilience, and frequent emergency department use. We hypothesize that people with a high ACE score are frequent users of emergency services, and that in general, their needs are not well met by this type of service. We will use qualitative methods to explore their experience of care and perceived barriers to accessing other healthcare services (such as a family doctor). We will also quantitatively assess their use of health services overall. We hope to use this information to advocate for a trauma-informed care intervention to see whether such an intervention might improve appropriate care seeking behavior, patients’ experience of care, and ultimately perhaps patient health outcomes.

Other proposed projects related to adversity include a project looking at human trafficking in Kingston, and a project looking at palliative care among the homeless.
GLOBAL HEALTH

Monitoring and evaluation of neonatal hepatitis B immunization project in Karenni State, Myanmar

The monitoring and evaluation of a hepatitis B immunization project in rural Myanmar continues. Findings include the realization that hepatitis B is not a hugely prevalent health concern among this population, but also that there is great community interest in immunization, that immunization is feasible despite challenges of distance and communication, and that there are many unintended benefits of immunization including better uptake of prenatal care and improved status of healthcare providers. This project should terminate in early 2018. A second project related to this for which we are seeking funding is a health systems research capacity development workshop for health workers, researchers and NGOs working on health system improvement in Eastern Myanmar and on the Thai border where hundreds of thousands of Myanmar refugees and migrants make their home.

Principal Investigator: Dr. Eva Purkey
Queen’s University Intellectual and Developmental Disabilities (QUIDD) Collaborative

The Queen’s University Intellectual and Developmental Disabilities (QUIDD) Collaborative is an initiative of Queen’s Department of Family Medicine and the Centre for Studies in Primary Care. The collaborative is composed of physicians, health-care providers, researchers and stakeholders who are committed to advancing research and education in intellectual and developmental disabilities (IDD) and to delivering quality health care to patients with an IDD and their families.

This year, QUIDD members worked with a panel of experts to update the ‘Primary care of adults with developmental disabilities: Canadian consensus guidelines’ which were originally published in Canadian Family Physician (CFP) in 2006 and last updated in 2011. The newly updated guidelines will be published this year in a special issue of CFP dedicated to developmental disabilities research. Locally, the DFM continues to work toward implementing these Primary Care Guidelines by ensuring faculty and residents work together to provide annual health checks for each of their patients with an IDD.

Another major focus this year was launching a pilot project to implement and evaluate the use of Health Links Coordinated Care Plans (CCPs) for adults with an IDD and complex health in the Kingston region, an inter-ministerial collaboration that was awarded a SEAMO Innovation Fund grant in the 2015-2016 competition. Additionally, researchers in Kingston will support an expansion of this pilot project to the Quinte Health Link in an investigation led by Dr. Jessica Ladouceur at the Belleville QFHT teaching site. Funded by the CSPC Community Projects Research Initiation Grant competition, the expansion will complete 6 CCPs for adults with complex health and a Dual Diagnosis (co-occurring IDD and mental health problems). Recruitment will begin in late spring or summer 2017.

Principal Investigators: Dr. Meg Gemmill, Dr. Ian Casson
Co-Investigator: Dr. Elizabeth Grier
Intellectual and Developmental Disabilities

Implementation and evaluation of Health Links' coordinated care plans tailored for adults with intellectual and developmental disabilities

Adults with intellectual and developmental disabilities (IDD) have poorer health status and experience more barriers to accessing health care compared to the general population. Multiple factors contribute to this including difficulties with communication, health literacy and navigating the system as well as lack of coordination among health care providers. Though there is some coordination of services through the Ministry of Community and Social Services (MCSS) for adults with IDD, health and social care systems have little interaction and there is no formal process to link MCSS case management with the client’s family physician, other specialists or the local hospital system.

To bridge this gap, researchers at the CSPC designed an intervention that combines the expertise of the patient’s MCSS care team with the health system-coordination expertise of the Ontario Ministry of Health and Long-Term Care’s Health Links program. Health Links is an approach to care coordination that involves the completion of a Coordinated Care Plan (CCP) by a Health Links nurse. The CCP helps to identify patient goals and aid the patient's family doctor in connecting with specialists and other health care providers to deliver coordinated care across health systems. Up to 30 patients with an IDD and complex health in the Kingston region will have a CCP completed as part of the intervention pilot study. Additionally, the study aims to increase the knowledge and skills of the patient’s primary care providers through the distribution of the ‘Consensus Guidelines for the Primary Care of Adults with Developmental Disabilities.’

Recruitment for the pilot project began in the fall of 2016, with members of a local MCSS committee aiding in the identification of patients. Eligible participants meet with a Kingston Health Links nurse to develop a CCP tailored to fit their unique need for health and social support. Using a mixed method approach, researchers will evaluate the implementation and outcomes of this pilot project. Pre-and-post intervention surveys and interviews with patients, caregivers, and care providers, as well as chart reviews at the primary care and hospital level will explore the experience of patients, family and professional caregivers, family physicians and other health and social care professionals. Additionally, health/social service usage of participants 12-months before and 12-months following the implementation of the CCP will be examined. We expect the CCPs to be completed by the winter of 2017 and early results to be available by spring 2018.
The CSPC has an Advisory Council that meets regularly to advise and steer research activities. The board members currently include:

- Margaret Alden Chair, CSPC Advisory Council
- Dr. Richard Birtwhistle Director, CSPC
- Dr. Michael Green Associate Director, CSPC
- Dr. Colleen Grady Research Manager, CSPC
- Dr. Glenn Brown Head, Department of Family Medicine
- Dr. Karen Schultz Postgraduate Education Program Director, Department of Family Medicine
- Dr. Walter Rosser Department of Family Medicine Representative
- Dr. Susan Phillips Department of Family Medicine Representative
- Dr. Joan Tranmer Queen’s Faculty Member, School of Nursing
- Dr. Dana S. Edge Queen’s Faculty Member, School of Nursing
- Dr. Pattie Groome Queen’s Faculty Member, Community and Epidemiology
- Dr. Catherine Donnelly Queen’s Faculty Member, School of Rehabilitation Therapy, Department of Family Medicine
- Dr. Jeffrey Sloan Community Physician
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**PUBLICATIONS AND PRESENTATIONS**

**Publications:**


Publications and Presentations


Presentations:


15 Griffiths J, Dalgarno N, Schultz K. Feedback on feedback: An innovative addition to electronic workplace-based daily assessment forms. Presented at the Celebration of Teaching, Learning and Scholarship, Faculty of Health Sciences, Queen’s University, Kingston, Ontario. June 2016. [Poster]


19 Griffiths J, Dalgarno N, Schultz K, Han H. How are we changing the culture of assessment? Presented at the International Conference on Residency Education (ICRE), Niagara Falls, Ontario. September 29 – October 1. [Oral]


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