This is our first newsletter of 2011 and as in the past it is an opportunity to highlight our Primary Care Research Day which was held February 24th. This day is one of the best professional development events we hold. It is an opportunity for 2nd year residents to present their academic projects. This year the topics ranged from sterile techniques during office-based surgical procedures, to pregnancy during residency, to an iPhone App that writes prescriptions.

We also had 2 invited plenary speakers- Dr. Stewart Harris who presented on improving chronic disease care with a focus on diabetes.

And Dr. Karen Schultz, our new postgraduate program director who gave a very inspiring talk about her development as an education researcher.

The quality of the resident presentations was outstanding. The award winners this year were, Aruna Dhara for Best Research, Lorraine McDonald for Best Poster, Sarah Pearce for Best Critical Appraisal and, Ziny Yen for Best Critical Appraisal.

The staff at the CSPC is changing. I would like to thank Carly Kelly for her work on the Early inflammatory arthritis project which has finished as well as her involvement in the CPCSSN project. Also thanks to Christine Haines who has finished her contract as a research assistant. Best of luck to both in their future endeavors!

The CPCSSN project is growing. Dr. David Barber has taken the role of local network director for Kingston and we have expanded the network to include 17 physicians and 2 nurse practitioners in the Picton Family Health Team. We are really pleased that they have joined the network and look forward to working with this group.

In addition, Tyler Williamson has joined the CPCSSN project as a Senior Epidemiologist and Christine Cobbler an MPH student will be doing her MPH practicum with us over the summer.
Identifying research opportunities that impact our community and target populations at risk is one of the Centre’s primary objectives. In 2009, the Centre along with its current Advisory Board Chair, John Wilson, organized focus groups with key community support organizations including the Kingston-Frontenac Council on Aging (COA) represented by Christine McMillan, to learn about the needs of our senior patient populations. As a result of these discussions the CSPC was invited to work with the COA to develop an innovative program, now known as “OASIS,” designed to help seniors continue to live independently in their homes through on-site support services.

OASIS is a demonstration project now funded through the SE LHIN, to assess the long term benefits and feasibility of adding onsite assisted living services in public apartment complexes where a high percentage of the tenants are seniors. The evaluation will look at whether providing services onsite reduces the use of emergency services; alternative level of care beds in hospitals; and pre-mature admission to long-term care.

Currently 52 seniors living in the Bowling Green II apartment building are taking part in the project, which has three personal support workers working shifts to provide onsite day and night time support. Bi-monthly meetings are held with the seniors to address ongoing issues and to ensure services are participant centred. Services currently available onsite include: the VON SMART exercise program, congregate dining with nutritious meals provided by St Lawrence students, regular health and well being education programs, social programs, and fall prevention programs run by Occupational Therapy students from the Queen's University School of Rehabilitation Science.

This collaborative project combines private and public stakeholders. The key partners are the seniors who give suggestions and feedback to the program. Other key members include:

- Centre for Studies in Primary Care,
- Community Care Access Centre,
- Council on Aging,
- Homestead Holding Ltd.
- Kingston Public Health Agency,
- Queen’s School of Rehabilitation
- St Lawrence College, Culinary Program
- Victorian Order of Nurses

When the CSPC joined the COA in 2009, little did we know what an important program OASIS would turn out to be for seniors in our community. The program is championed by the MOHLTC, and the Minister of Health Deb Mathews attended the official opening of the demonstration site on February 1st 2011.

The Centre’s early evaluation data has been accepted for poster and oral presentation conferences that include: FMF 2009-10, NAPCRG, 2009-10, Trillium conference, 2011 and 2011 Society of Academic Primary Care Conference in the UK.
Our overall aim is to increase our understanding of the causes of mobility loss in aging, including those that arise from life circumstances such as vulnerability, poverty, or social isolation, or that are linked to individual biology (chronic disease, inflammation, etc) and, especially to understand sex/gender differences in mobility loss. This knowledge will help to develop programs to prevent mobility loss at individual and population levels.

As an aside, our project received a CIHR ranking of 4.6/5, the highest ranking of all those submitted!

The PIs are: Maria-Vitcoria Zunzunegui and Ellen Freeman (both from the U of Montreal), and Susan Phillips, Beatiz Alvarado and Angeles Garcia from Queen’s. The project, itself, will be carried out in Ontario, Quebec, Brazil and Colombia.

Why our project matters to Canadians? Existing research suggests that mobility loss could be preventable mainly through lifelong physical activity. Gender differences in mobility and the factors that predispose to immobility, as with other health outcomes in old age, may be linked to societal characteristics and therefore, amenable to intervention. From pioneering research to recent papers on characteristics of non-disabled people with poor lower extremity function it appears that mobility disability prevention must happen at the community, as well as the individual level. By looking at the interactions between individual circumstances and environmental triggers we may be able to prevent declines in underlying capacity that lead to mobility disability. Our research will help to elucidate potential prevention interventions at community and individual levels.

What we'll be doing: The 1.5 million dollar project will recruit a cohort of 1600 people age 65-74 in Kingston, Quebec, Colombia and Brazil. Each will be interviewed, and will have testing of mobility and of markers for chronic disease and inflammation, including lipids, blood sugars, cortisol levels, and telomere length. This process will be repeated 3 times over the 5 years.

To the best of our knowledge this will be one of the first cohort studies to ever include measures of gender equity, effects of gender roles and of violence, and to collect individual level biomarkers (eg blood tests, measures of mobility) as well as community level indicators of SES, safety, connectedness, to look at how all of these contribute to maintaining mobility and health in the elderly. Our findings will be central to shaping public policies on healthy communities.
Primary Care Research Day 2011—Huge Success!

Primary Care Research Day (PCRD) was held in a new venue this year, the Donald Gordon Centre and it received extremely high reviews from all who attended (especially in regards to the food)! 136 people attended this year, leaving standing room only during our keynote speaker presentations.

Winning Resident Projects

**Best Research**: Aruna Dhara

“Household gender equality and health outcomes: Towards an index of gender equality”

**Best Poster**: Lorraine McDonald

“Does Thai Chi prevent falls in the Elderly”

**Best Critical Appraisal**: Sarah Pearce

“The use of sterile technique for office-based surgical procedures”

**Best Critical Appraisal**: Ziny Yen

“Procedural skills modules: A tool for Queen’s Family Medicine residents”
Dr. Stewart Harris is a professor at the Schulich School of Medicine & Dentistry and the University of Western Ontario, in London, Ontario. He holds the Canadian Diabetes Association Chair in Diabetes Management as well as the Ian McWhinney Chair of Family Medicine Studies, and has appointments in the Division of Endocrinology and Metabolism, the Department of Epidemiology and Biostatistics, and the Department of Family Medicine. With a research focus in type 2 diabetes, Dr. Harris is extensively published and has served as a board member of numerous national and provincial diabetes-related organizations.

Dr. Karen Schultz is an associate professor at Queen’s University and is the Curriculum Coordinator in the Department of Family Medicine. Her research interest is in medical education. She has received grants to study in the areas of ambulatory teaching, continuity of care, and program evaluation.
Primary Care Research Day — Oral Presentations

“The use of sterile technique for office-based surgical procedures”
Dr. Sarah Pearce

“Prevalence and cost effectiveness of routine Chlamydia and Gonorrhea screening during routine PAP exam at Queen’s Family Health Team”
Dr. Getachew Mazengia

“Do diabetic patients miss out on PHEs and preventive health?”
Dr. Ciara Brown

“Diagnostic software for dermatology”
Dr. Reza Yaghini

“Melanoma detection: More than meets the naked eye?”
Dr. Andrea Herschorn

“Screening for alcohol use disorders in the adolescent population”
Dr. Elizabeth Lawrence

“Pharmacotherapy for the prevention of chronic pain after surgery”
Dr. Shane Smith

“Development of an opioid management application for android”
Dr. Sukhjeen Nandra

“Barriers to treating chronic non-cancer pain: What do the Doc’s say?”
Dr. Yadwinder Chuhan & Dr. Orlando Passerin

“Double dipping? The fine print of opioid contracts”
Dr. David Beaver

“Venlafaxine and Desvenlafaxine in the management of hot flashes: A review”
Dr. Susanne Naoum

“Household gender equality and health outcomes: Towards an index of gender equality”
Dr. Aruna Dhara

“Identifying the factors that contribute to the decision to utilize urgent-air medical transport in a remote community”
Dr. Kristin Vaga

“Characteristics of Canadian physicians engaged in international volunteer work”
Dr. Danyaal Raza

“Pregnancy during residency: A literature review of the pertinent issues”
Dr. Sara Porter

“Procedural skills modules: A tool for Queen’s Family Medicine residents”
Dr. Ziny Yen

“The experience of a miscarriage: A review of the literature”
Dr. Lisa Harman

“Portable monitoring for diagnosis of obstructive sleep apnea”
Dr. Erin Jamieson

“Development of a fully functional mobile prescription writer: An iPhone app”
Dr. Larbi Benhabib

“Is it time for a holiday? Exploring the feasibility of a drug holiday from long-term oral Bisphosphonate therapy in the treatment of osteoporosis”
Dr. Ericka Defoort

“Rotavirus vaccine: A review”
Dr. Erin Sandilands
“Avoiding the plaque like it’s the plague”  
**Dr. James Larmer**

“The IUD makes a comeback? The latest scientific knowledge and guidance”  
**Dr. Ioana Tita**

“Analysis of a vaccine for prevention of herpes zoster: Is it time to consider public funding for Canadian seniors?”  
**Dr. Melissa Tyler**

“Agomelatine: A new hope in depression”  
**Dr. Michelle Lin**

“Derm Basics”  
**Dr. Shawn Amyot**

“The effectiveness of omega-3 fatty acids in the primary prevention of cardiovascular disease”  
**Dr. Louise Wong**

“Does the use of proton pump inhibitors cause osteoporosis or hip fractures?”  
**Dr. Gurpreet Sahota**

“Metformin in PCOS”  
**Dr. Tharsika Sivasubramaniam**

“Warfarin anticoagulation: A cost analysis at the Queen’s Family Health Team”  
**Dr. Thomas O’Brien**

“The utility of PSA measurement in family practice”  
**Dr. Matt Wonnacott**

“Psychotropic medications in pregnancy”  
**Dr. Ellen Lee**

“Secondary prevention strategies addressing suicide in First Nations’ communities – A review”  
**Dr. Katherine Turner**

“Five evidence-based elements for an effective medical education elective during residency”  
**Dr. Erin Beattie**

“A side order of 360 calories please: The impact of nutritional labels on our patients’ fast food restaurant choices”  
**Dr. Ullanda Niel**

“A case report of ecstasy and myocardial infarction”  
**Dr. Adena Gutstein**

“Should cervical cancer screening start at 21 years of age: A critical appraisal of cervical cancer screening guidelines”  
**Dr. Asmitha Gangani & Dr. Manisha Sharma**

“Lost to follow up? Improving continuity of care between the emergency department and the family physician”  
**Dr. Megan Smith**

“Does Thai Chi prevent falls in the elderly?”  
**Dr. Lorraine MacDonald**

“Hemoglobin A1c for Diabetes screening”  
**Dr. Andrew Kennedy**

“The role of prenatal classes”  
**Dr. Shauna Tsuchiya**

“Growing healthy children”  
**Dr. Christina Quinlan**

“Running with hippies: Is barefoot running a good idea?”  
**Dr. Warren Michalski**

“Environmental estrogen exposure in breast cancer development”  
**Dr. Courtney Maskerine**
CPCSSN Update—Ken Martin, Senior Date Manager

Highlights of the past 6 months:

- new epidemiologist, research associate, & local network director
- more EMRs being supported in CPCSSN
- more networks, sites and sentinels
- increased data holdings
- 3 neurological diseases added to CPCSSN
- research proposals arriving
- threat risk analysis completed
- evaluation framework created
- collaboration with partners increased

The last 6 months have been an exciting time in the CPCSSN project.

Tyler Williamson, PhD (in public health epidemiology from U. of Calgary recently), joined the team in April as the full-time Senior Epidemiologist and will be located at Queen’s University. Tyler brings a fresh approach, enthusiasm and new expertise to the CPCSSN team. He is currently immersing himself in all things CPCSSN, working with Shahriar Khan our Senior Data Analyst, and is already having an impact in the analysis and research area.

Suzanne Biro, MPH, has joined the CPCSSN Queen’s University local team as a part time Research Associate. She will be working on local data analysis and research projects with local sentinel physicians and other CSPC researchers using CPCSSN data, and is our local representative on the Research Associates and Assistants Group on CPCSSN’s Research Committee.

Dr. David Barber has assumed the mantle of local Network Director responsibilities from Dr. Richard Birtwhistle. Dr. Barber is currently getting up to speed on research and CPCSSN while Dr. Birtwhistle remains active as CPCSSN’s Principal Investigator and CEO of the CPCSSN board.

Over the last 6 months, Lorne Kinsella, our local Kingston Data Manager, has refined the data extraction procedures for the OSCAR EMR for CPCSSN and participated in development work groups, while also providing data extraction and reporting services to Queen’s FHT residents and staff. We are currently developing procedures for x-wave, Purkinje and Practice Solutions EMRs. By the end of 2011, we expect to be doing data extractions from 11 different EMRs.

CPCSSN recently added a new regional network from British Columbia, headed by Associate Professor Sabrina Wong, who is busy recruiting Sentinels practices and we expect to have their data flowing into CPCSSN by 3rd quarter of 2011. We also hope to be expanding into New Brunswick and expect to have NB sentinels recruited and data extracted by end of 3rd quarter of 2011.
Having mastered the EMR data extraction and processing for our 5 (initial) diseases of interest: Diabetes, Hypertension, Depression, COPS and Osteoarthritis, CPCSSN recently acquired additional funding to add support for dementia, epilepsy, and Parkinson’s. Currently, this project is working as disease case criteria definition by analysing data available in our regional networks’ EMR systems. Once the detection criteria are confirmed, algorithms required to support these diseases will be added to the standard CPCSSN data processing functions (coding, cleansing, case detection, de-identification).

The Research Committee has started receiving proposals for research and access to CPCSSN data. A variety of projects (e.g. drug sensitivity network, disease co-morbidity studies, referral patterns, smoking risk factor analysis) are being reviewed for scientific validity and CPCSSN’s ability to provide the data and/or services required to satisfy project needs. Dr. Michael Green is leading a data quality project to measure/confirm the results of CPCSSN’s case detection approach and algorithms, which will lead to future improvements in that area.

As directed by our Privacy Impact Assessment (completed in 2009), CPCSSN has recently completed a Threat Risk Analysis (performed by an external privacy consultant) for its data and processes. Overall, the assessment was extremely favourable with no major weaknesses/inadequacies found. The assessment did, however, recommend several areas where CPCSSN could improve its security procedures. The recommendations will be implemented by the end of 2011.

CPCSSN is currently working with an external consultant to develop a logic model and an program evaluation and assessment framework, which will be applied on a regular basis, to provide (a) our funder (Public Health Agency of Canada) with appropriate reporting on our performance and (b) CPCSSN management with measurements to guide future planning.

Over the last 6 months, senior CPCSSN members has been working hard to increase our collaboration with Canada Institute of Health Information (CIHI) and Canada Health Infoway (CHI) government agencies, College of Family Physicians of Canada (CFPC), as well working with other academic institutions, including U. of Victoria and Dalhousie U.

All in all, the last 6 months have been very exciting and productive and we are looking forward to more of the same as we continue into the 2nd year of the 5 year Phase III of the CPCSSN project. CPCSSN is starting to deliver on the promise of quality and timely data for public health surveillance and a source of data for primary care research!

### CPCSSN data holdings (as of 31-Dec-2010):

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Recent Publications


Posters Accepted at Upcoming Conferences

Trillium conference 2011
- The Strengths and Limitations of the External Practice Facilitator (PF) Role in Supporting Primary Care Quality Improvement in Ontario, Canada.
- OASIS model and evaluation data (Oral Presentation)

2011 Society of Academic Primary Care Conference in the UK
- OASIS model and Evaluation data

Special Thanks

We wish to extend a special thanks and give recognition to Wendy Gollogly who organized Primary Care Research Day. Without her many hours, hard work, and exceptional effort the day would not have been the great success that it was.
Welcome to new staff

**Suzanne Biro** joined CSPC in January 2011. She has experience with community based programming and research, public health research with a focus on priority populations, as well as critical care research. Her research skills include both quantitative and qualitative design and methodology. Suzanne has a BSc(Hons) in Psychology and a Masters in Public Health, both from Queen’s University. She works as the Research Associate with the Canadian Primary Care Sentinel Surveillance Network (CPCSSN).

**Dr. Tyler Williamson** is the Senior Epidemiologist with Canadian Primary Care Sentinel Surveillance Network (CPCSSN). CPCSSN is Canada’s first multi-disease electronic record surveillance system. Tyler co-chairs the CPCSSN research committee with Dr. Walter Rosser. Tyler received his graduate training in the Department of Community Health Sciences at the University of Calgary with a specialization in Biostatistics. His PhD dissertation examined methods for analyzing health research data using log-binomial models. He has been actively involved in health research for 10 years in various capacities and fields. He has published work in obstetrics and gynecology, hematology, emergency medicine, medical statistics, aboriginal health, immunization, and primary care. Currently his statistical research interests include the analysis of correlated and uncorrelated binary data, interim analyses in clinical trials and numerical optimization methods. His clinical research focuses on chronic disease burden in Canada, from a primary care perspective, particularly as it pertains to the CPCSSN project.

**Christine Cobbler** is our MPH summer student. Christine has joined CSPC to complete her practicum. She will be working on the “Quality Improvement and Innovation Partnerships Learning Collaboratives” project and looking at hypertension prevention using collected EMR data from the CPCSSN project.