

**Hotel Dieu Hospital Kingston Research Institute**

**Activity Report 2016-2017**

**Research Excellence in Ambulatory Care  
and Health Care Systems**

## **Introduction**

The Hotel Dieu Hospital (HDH) Kingston Research Institute (RI) enjoyed increasing productivity in fiscal 2016-17. The RI continues to provide ongoing support to HDH researchers at all stages of research, including ethics and hospital approval submissions, literature searches, proposal development, statistical analysis, and dissemination of results. As new TRAQ DSS online applications for research projects at HDH are submitted, the RI provides timely review and approval decisions. Further, the RI continues to take an active role in set-up of new research projects and clinical trials and problem-solving in existing projects.

The following summaries are linked to the six Enabling Directions of the RI's Strategic Plan for 2015-19:

### **Enabling Direction 1: Raising our profile**

#### **CAHO HWS tour:**

The RI was pleased to host a successful CAHO tour of Kingston's hospitals, with HDH research "stops" in May 2016. Stops included a demonstration of breast cancer surgery piloted at HDH with the use of real-time navigation technology, now in clinical trials here; a demonstration of the 3-D printer in the Ophthalmology Surgical Simulation lab and an overview of research in the department of Ophthalmology; demonstrations in the Human Mobility Research lab and a view of the planned High Speed Skeletal Imaging lab; demonstrations of the KINARM and eye tracker in the Neurosciences Clinical lab; and a roundtable discussion of projects in youth mental health. Feedback on the HDH portion of the tour from CAHO guests was very positive.

#### **CAHO health research showcase at Queen's Park:**

In December 2016, the HDH RI was pleased to partner with KGH RI in presenting NaviKnife. This cost-effective, GPS-enhanced approach to breast-conserving surgery is now in clinical trials at HDH and KGH and is showing evidence of significant reduction of the need for repeat surgery for breast cancer patients. The system was first piloted in 2014 at HDH.

#### **Tours for the Mayor of Kingston, MP, Chief Health Innovation Strategist, PARTEQ Innovations and Sister Theresa Shannon:**

The RI hosted brief but informative tours of HDH research and teaching facilities for Bryan Paterson, Mayor of Kingston; MP Mark Gerretsen; Bill Charnetski, Chief Health Innovation Strategist for Ontario; PARTEQ staff, and Sister Theresa Shannon.

#### **Ophthalmology tour with University Hospitals Kingston Foundation:**

In April 2016, the RI and Dr. Rob Campbell hosted a tour of Ophthalmology clinics and labs at HDH for the Women's Giving Circle, a group of donors interested in advancing research,

education and clinical practice at HDH. The RI worked with UHKF and HDH Public Relations, and *snap'd Kingston* was present to photograph and publicize the event.

**Queen's Ophthalmology Research Day:**

The RI was pleased to attend Ophthalmology Research Day in May 2016 where Kingston Ophthalmic Training Centre students presented their research projects, which are guided by the RI over their school year, in a poster session along with ophthalmology residents' research. The RI looks forward to the next Ophthalmology Research Day in May 2017.

**Patient & Family-Centered Care (PFCC) grant:**

In July 2016, the Research Institute (RI) was pleased to receive a PFCC grant, and has purchased a bulletin board. The board is used to display research publications and posters from HDH-based projects, materials related to the RI such as its strategic plan, and research recruitment notices. It is located in a highly visible area where it is likely to foster ongoing recruitment of patients for clinical trial and other types of research, as well as increased collaboration among clinicians in patient-oriented research.

**HDH Board presentation:** In September 2016, the RI was pleased to present its activities over the previous year, as well as research revenues, to the HDH Board. Dr. Sarosh Khalid-Khan (Psychiatrist, Child & Adolescent Mental Health) spoke briefly about the help that the RI has provided to her in setting up clinical trials at HDH and in ongoing troubleshooting, particularly with the Sandbox Youth Mental Health Initiative. This project with TELUS Health Solutions received funding of \$488,749 in 2015. It will assess the utility of a novel mobile and web-based mental health self-care, education and therapeutic intervention for young people in need of mental health care for common challenges (primarily depression, anxiety disorders, and ADHD).

**Enabling Direction 2: Building capacity by increasing external funding – including industry**

**Second clinical trial with Idiopathic Pulmonary Fibrosis (IPF) patients at HDH:**

Dr. Onofre Moran-Mendoza was approached again by Hoffmann-LaRoche, sponsor of his first clinical trial (Inspiration Plus) at HDH, to be site investigator for a second clinical trial involving IPF patients. This Phase II study will compare the safety and efficacy of adding a second medication, sildenafil, to pirfenidone as treatment in patients with IPF as well as pulmonary hypertension. The RI assisted with trial set-up including the pre-activation site visit in January 2017, worked to secure HSREB and TRAQ DSS approvals, and helped with budget negotiations, contract review and finalization. Roche will award up to \$116,396 for this study, with additional funding possible if more than 3 participants are recruited. Funding from the first clinical trial (Inspiration Plus), which awarded \$138,870, may now increase to up to \$334,050 due to an increase in potential participants.

**Health Care Delivery to Indigenous Patients:**

The RI was pleased to assist Nelson Alisappi (Referral Coordinator, in new Patient Services) with

an application to the National Indian Brotherhood Trust Fund for a research and education project in health care delivery to indigenous patients. The proposal will be submitted in the next fiscal year.

### **Enabling Direction 3: Developing partnerships to enable collaborative research**

#### **Hand hygiene and vaccine compliance research:**

The RI continues to work with a Queen's Master's of Psychology student, Daniel Hargadon, and Ian Kudryk (Infection Control) on a project on hand hygiene compliance among health care workers. Daniel's project originates out of a Public Health Ontario (PHO) workshop, *Applying Behaviour Change Strategies in IPAC*, which was co-hosted by the RI and Queen's in October 2014.

#### **Research projects involving students:**

With the guidance of the RI, two projects fulfilling MBA course requirements were conducted, as follows:

1. Under the supervision of John Hope, Advanced Practice Physiotherapist (APP), two Queen's MBA students, Natalie Ilkiw & Laura Gibson, completed a cost-effectiveness analysis of orthopedic surgeons providing lower extremity injection therapy, compared to an APP providing the same therapy through a Delegated Controlled Act here at HDH. The study demonstrated that this proposed model of care is both cost-effective and adoptable, minimized wait times and enhanced patient care.
2. The RI had the opportunity to assist Dr. Jason Beyea (Otolaryngology) in initiating a pilot study involving patients from Native Patient Services who present with a primary ear complaint. A telemedicine visit will include images of their ear captured by an otoscope with a camera attached. The outcome measures included diagnostic accuracy and wait time to see a specialist. Dr. Rahul K. Garg, a physician and an MBA student at Queen's Smith School of Business, found that telemedicine visits for primary ear complaints were cost-effective and transferrable. The procedure will be implemented with patients in Moose Factory.
3. A Queen's undergraduate Epidemiology student, Monica Morison, worked with the data gathered in the hand hygiene (HH) study led by the RI. Her project investigated differences in HH knowledge, attitudes, and self-reported behaviours by year of study for Queen's medical students.

### **Enabling Direction 4: Moving research into practice**

#### **Breast Assessment Program (BAP) Telemedicine project:**

The RI has been involved in development of a research project, led by Jane Warner (Director of Professional Practice & Breast Assessment program), on the use of telemedicine in nursing consults for patients with new breast cancer diagnoses. The objective of this project is to compare the effects of telemedicine and face-to-face consultations on anxiety reduction and

knowledge retention in these patients, and to use the results to potentially expand the offer of telemedicine to patients in distant locations. This project received HSREB approval in June 2016. The RI and BAP group engaged in process mapping and working with Telemedicine Ontario over the summer, and recruitment began in early September.

**Rapid Access Chronic Disease Management clinic:**

The RI had the opportunity to assist Nurse Practitioners Michelle Springgay and Katherina Choka with setup of metrics collection for the South East Local Health Integration Network (SE LHIN) when the Rapid Access Chronic Disease Management clinic at HDH/KGH was established in January 2017. It is hoped that funding for this clinic will continue as of April 2017 with proof of improved efficiency to the health care system.

**Enabling Direction 5: Transparency and openness through the engagement of researchers**

**CAHO metrics/financials:**

Again this fiscal year, the RI worked with Kingston General Hospital Research Institute (KGHRI), Providence Care (PC), Queen's University Research Services (URS) and HDH Finance to submit research financial and metric data to CAHO by the October 2016 application deadline.

**Model of care:**

The RI assisted Jane Warner with submission by July 1, 2016 of a summary report on model of care implementation at HDH to the South East Local Health Integration Network. The RI will continue to assist Jane Warner and each of the program managers in further work on model of care changes.

**Enabling Direction 6: Supportive infrastructure that enhances research and knowledge translation**

Individual project and clinical trial setup assistance. Many researchers from inside and outside of HDH approach the RI for assistance with setup. Over the past year, the RI was involved with a SPOR project led by PI Dr. Nora Fayed (Queen's School of Rehabilitation) to develop patient-reported outcomes for parents of children who are technology dependent (G-tubes, central lines, etc.). The RI connected Dr. Fayed's research group to the Child Outpatient Care Centre, and guided the group through the required approvals and credentialing. The RI also assisted Dr. Emily Hawken (Queen's Psychiatry) with positioning for potential site selection of the HDH Mental Health clinic on a pharmaceutical-sponsored trial involving a new medication for suicidal individuals. An evaluation project involving the Early Intervention in Psychosis (EPI) program across sites has involved RI assistance with ethics approvals and credentialing. Evaluation of the EPI program implementation is set to occur in HDH Mental Health on March 22 and 23. Jennifer Jackson, OT, has led our site's involvement. Ongoing involvement with Strategy for Patient-Oriented Research (SPOR) funding for the HDH Chronic Pain Clinic has

included meetings and teleconferences to deal with contract negotiations, funding set-up, and collaborations for our research group.

**Guidance in data collection for various purposes:**

The RI is often approached by individuals who would like assistance in data collection. For example, the RI advised Tabitha Morton, Data Analysis Coordinator for KidsInclusive, on how to estimate the need for Augmentative and Assistive Communications Services (ACS) for the adult population in the SE LHIN region, in order to secure potential funding for which KidsInclusive has been approached.

**Predictors of diabetic remission project (funded by Nestlé Health Science Canada):**

The RI worked with Ryan Stallard, RD, Principal Investigator, and Dr. John Drover (Medical Coordinator, Kingston Bariatric Regional Assessment & Treatment Centre) to address feedback on the manuscript which was accepted pending revisions to the *Journal of Parenteral and Enteral Nutrition*. The final version has now been re-submitted. Ryan's research project was conducted with RI guidance in our Bariatric Centre of Excellence.

**Clinical Trials Ontario (CTO) education sessions:**The RI was pleased to work with KGHRI and Queen's URS to host education sessions in June 2016 regarding the new CTO ethics approval system for multi-centre trials in Ontario and related changes in Queen's HSREB procedures. In addition, the RI was involved in finalization of agreements with CTO.

**Queen's-HDH Affiliation agreement:**

The RI worked with Queen's, KGHRI and PC to update Schedule B: Research and Intellectual Property of the Queen's-HDH Affiliation agreement, in line with HDH research policies and values. The agreement has now been finalized.

**HDH-KGH Integration:**

The RI has been working with its own lawyer, Mr. David Arntfield, and the hospital integration lawyer, Mr. Nick Pasquino, to ensure that all required amendments, motions and documents pertaining to the HDH RI are in place before hospital integration on April 1, 2017, for a smooth transition of the HDH RI to the Kingston Health Sciences Centre (KHSC).

**Research policies:**

The RI updated and revised 6 research-related policies over the past year, for consistency with KGH policies and current practice. The HDH RI is now working with the KGH RI to create unified KHSC policies. Policies involving intellectual property required a new agreement between PARTEQ and HDH, which the RI worked to establish.

**Competency-Based Medical Education (CBME):**

Over the past year, the RI supported the implementation of Competency-Based Medical Education (CBME) at HDH. The Queen's School of Medicine is planning to begin using CBME as its educational model in July 2017, and will be one of the first medical schools to meet this requirement of the Royal College of Physicians and Surgeons of Canada. The RI is working with

the School of Medicine as well as departmental leads to ensure the necessary infrastructure and resources, as well as staff engagement, for successful implementation.

**Research Hospital Appointments (RHAs):**

The RI continues to assist individuals with the RHA process, reviews and approves applications, and works with Education and Medical Administration to ensure that Orientation requirements are met for those who are granted RHAs. The RI is often approached for credentialing situations with specific requirements, as in the case of Diana Hopkins-Rosseel, a retiring staff member who will be continuing her research program at the Cardiac Rehabilitation Centre.

**Tools for Research at Queen's Data Summary & Signature (TRAQ DSS) applications:**

The RI continues to meet with the Queen's TRAQ team as well as its partner hospitals to streamline the TRAQ DSS application procedure for researchers. This has recently included revision of the Hospital Impact & Information form in order to improve efficiency of approvals. RI staff work with Jane Warner, Director of Professional Practice, who has signing authority for several HDH departments, as well as program managers, to collectively review TRAQ DSS applications.

The HDH RI looks forward to continuing its contributions to the culture of research at the Kingston Health Sciences Centre as of April 1, 2017, and within the future integrated Kingston Research Institute.