## IHPME CONNECT 12.2017

## IMPROVING HEALTH OUTCOMES IN CANADA'S NORTH: A PRACTICUM EXPERIENCE

With the summer sun shining an average twenty-two hours a day in Yellowknife, capital of the Northwest Territories, alongside its scenic and rural landscape and slightly cooler temperatures, it would be easy for one to think of this northern region as vastly different from Southern Ontario's urban city centers. Yet when it comes to healthcare, one Master of Health Informatics student found that the two regions are far more similar than she had first expected.

"When I first arrived in Yellowknife, I expected to face a completely new set of healthcare challenges but as I delved into my project, I realized that many of the challenges my patients faced in Ontario were similar to those of the Northwest Territories. Access to the right medical care at the right time is an incredibly universal issue," said Allie Margaret May who embarked upon her practicum placement with the Northwest Territories government this past summer. As part of the Master of Health Informatics degree at the Institute of Health Policy, Management and Evaluation, students are expected to complete a four month practicum placement with a healthcare organization and report on their experience.

Working with the Chief Medical Information Officer, Dr. Ewan Affleck, May sought to bring a vision of equitable access to life through analyzing effective communication models like eConsultation in order to improve health outcomes.



Being open and adaptive was a key part of this process that May soon learned as she participated in the team's shift in focus to an entirely different model of communication; health information exchange. It had been determined that this type of foundation and network would allow for better communication between clinicians and patients.

"It became clear to us that eConsultation was one piece of a much bigger puzzle," said May, "we realized that we needed to first implement a system that would be able to function on a more robust level as the territory expanded its programs." Having this type of communication network in place restructures the way the health system works and would give clinicians the ability to access more patient-centered technology solutions that will ultimately improve the patient experience.

One example of this would be the implementation of secure mobile devices. If a patient needing assessment was cut off from treatment or access to a health care provider, due to extreme weather in a rural area of the territory, they would not need to be medically evacuated into the city in order to receive treatment. Instead, by utilizing portable technology, they would be able to speak with or have their symptoms assessed by a care provider remotely.

With this new framework in mind, May was given the task of spearheading a health information exchange strategy that would restructure the way clinicians communicate with each other. Conducting an environmental scan, she surveyed people from all over the Northwest Territories and its surrounding jurisdictions, from nurses in remote rural regions to neurologists in Edmonton, Alberta. This type of inter-province collaboration not only provides strong leadership, but also ensures that patient advocacy groups and patients themselves are able to have their voices heard throughout the change process.

More on the next page ...

One of the many unique aspects of working in the Northwest Territories according to May was the dedication she saw from her colleagues to their fellow citizens and the healthcare system. "They were also very open in allowing me to participate in the decision making process," said May. "It was empowering for me as an emerging professional and made me even more passionate about universal access to care as well as more cognizant of barriers that inhibit that, such as the social determinants of health, which are not always identified."

Moving forward, May will build what she has learned into a business case to make recommendations for next steps in the development of an information network platform. This experience is one she is quick to say was "eye-opening." Though it was challenging to move outside of her comfort zone, and beyond the familiarity of her surroundings, choosing to accept this practicum in Yellowknife was an exercise in personal development.

"Health Informatics is a dynamic field," said May. "If you are willing to become an adaptive person with an ability to enter a new environment and succeed, your chances of performing successfully as a health informatician are that much greater."

#### IN CASE YOU MISSED IT:

As part of her practicum experience, Allie Margaret May has documented her time in the Northwest Territories via a blog for IHPME. Her very last post, "Two Words," is up online, be sure to check it and her other posts out, they are worth the read.

Into the North: A Health Informatics Experience

## U OF T VISITING SCHOLAR:

**Evaluating the Health Impacts of Brazil's Physical Education Programs** 



Se Bole Olinda Participants in Recife, Brazil

In the city of Recife in the Brazilian state of Pernambuco, physical activity programs are on the rise as part of a health promotion strategy supported by both the Federal and Municipal governments. But are they working effectively to manage population health? Flavio da Guarda a Professor of Public Health at the Federal University of Pernambuco is looking to determine just that, by evaluating the cost-effectiveness of such programs and determining their impact on the population, from preventing chronic disease and rates of hospitalizations, to improving overall quality of life. "If we determine the physical education program is effective, investment in it will become a health benefit for the population, and if we find it ineffective, it will guide future policy and action around changing these types of programs," said Dr. da Guarda.

As a visiting professor at the University of Toronto's Institute of Health Policy, Management and Evaluation, in the Dalla Lana School of Public Health, Dr. da Guarda is looking to learn from health economists and establish a partnership that helps to qualify the impact of physical activity and educational programs in Brazil.

"I was one of the first physical education professionals to obtain a master's degree in public health in my state," said Dr. da Guarda, "and since then I have been trying to persuade my students and colleagues to investigate the importance of these physical education programs, and the impact of these types of interventions."

Currently, there are areas of research focused on physical activity epidemiology in Brazil, but there is there is still a gap in progress when it comes to public health policy research and program evaluation. Dr. da Guarda is determined to show others in his field that this type of research is not only necessary but valuable.

Prior to pursuing a degree in public health, Dr. da Guarda had every intention of using his background in physical education to become a swimming coach. Yet during his studies he saw early on the importance of physical education and physical activity as a health promoter. "My wife, Elisabeth Amorim, a manager of public health programs, and my supervisor, Dr. Mauro Barros, were both instrumental in setting me on the path towards public health promotion and physical education research," said Dr. da Guarda.

In 2007, he led the implementation of a physical activity

program called Se Bole Olinda, which was deemed a considerable success by the Ministry of Health. Part of this, Dr. da Guarda notes, was due to



the significant participation of the community in activities such as supervised gym classes in public parks, or bike tours throughout the city. "People from other neighbourhood's saw or heard about these activities and they took it upon themselves to ask the mayor to extend the program throughout the entire city of Recife," says da Guarda.

Se Bole Olinda also made it possible for ordinary people to play a part in community health without the formal participation of the health department. Cyclists for example, who participated in the bike tour, took it upon themselves to expand the program to three times a week.

"In my opinion, it showed that the more exposure individuals had to these programs, the more inclined they were to incorporate physical activity into their lives."

For now, Dr. da Guarda and his research team are looking at developing an action protocol for the city's physical activity program as well as continuing to monitor and evaluate this intervention. As a consultant to the Ministry of Health in Brazil, Dr. da Guarda is also developing a course of evaluation and surveillance of other health programs, which allows him to contribute to the decision-making process around the implementation of physical activity and education programs in Recife and other surrounding cities.

## AWARDS

### Improving Quality of Care: Dr. Shaan Chugh Wins Harry and Rose Perlstein Award



Dr. Shaan Chugh with QIPS Program Director Prof. Christine Shea, photo by Rebecca Biason

The Harry and Rose Perlstein award for the most outstanding project supporting quality and safety in long-term or acute care hospitals was awarded this year to Dr. Shaan Chugh a recent graduate of the MSc in Quality Improvement and Patient Safety (QIPS). His project "Reducing Inappropriate Urine Cultures at a Veterans Centre," sought to shift the way physicians think about enhanced care for the elderly population leading to a reduction in orders for urine culture tests and subsequently a decrease in the treatment of asymptomatic bacteria.

## Read the DLSPH Bulletin

"As physicians, it is our duty to be driven to improve the quality of care we provide," said Chugh. Striving to improve the quality of care of patients at <u>Sunnybrook Health Sciences</u>. <u>Veteran's Centre</u> involved creating an online assessment tool that would help physicians and nurses determine whether sending a urine culture was a necessary course of action, thereby reducing the possibility of treating asymptomatic bacteruria, which can in itself lead to various adverse effects. However, there were some challenges that arose in the implementation of this new tool, completion rates were not always consistent, and it was difficult to ensure the tool was always used.

Learning from such challenges and making iterative changes are a key educational component of the MSc concentration in Quality Improvement and Patient Safety, it was also something that Chugh took in stride. "You learn throughout this process that it is okay to be incorrect, that in fact, you often end up learning a great deal from your own failures," said Chugh. In this instance, a medical directive was implemented as a result of the first stage of observations from his analysis, allowing RN's to send for a urine culture if the assessment tool suggested to do so. Secondly, it became clear that providing further education through e-modules for both physicians and RN's around the impact of the assessment tool, would be necessary in order to ensure further usage.

Choosing to focus on this particular project was something Chugh says he considered because of the mentorship he received from his supervisor Jerome Leis, also a former graduate of the MSc QIPs program. "Jerome really helped me to understand the battles we face in quality improvement," said Chugh, "the best indicator of how successful your project will be, I believe, is directly related to how dedicated your research supervisor is as well."

Chugh owes much of his success to the mentors in his life who have helped shape his career path thus far. Chugh's mentors helped encourage him to seek out a career as a physician and to pursue further graduate studies. "Originally, I had wanted to become a teacher and eventually a principal," said Chugh who found he had a passion for collaborating with other people, "my mentors helped me to see that combining my skills in the sciences with my love for people in the medical field, would be the perfect marriage of my two interests."

Chugh offers his thanks to Kaveh Shojania and Jerome Leis as well as his entire cohort of the MSc in Quality Improvement and Patient Safety. Grateful for the recognition the Harry and Rose Perlstein award bestowed upon his research and his project, Chugh is now eagerly looking toward the future, his new role with Credit Valley Hospital as an internal medicine physician, and further initiatives that he will lead in quality improvement and patient safety.

### PhD Student wins Inaugural VHA Home HealthCare Award Supporting Children with Medical Complexity in the Homecare Setting

The field of family centered care for children with medical complexity is an area of research that has yet to be fully examined as it relates to our health system, but Francine Buchanan, the inaugural winner of the VHA Home Healthcare Graduate Student Award supporting Children with Medical Complexity, is ready and willing to take on that challenge.

When Buchanan's son was in the hospital for the first year and a half of his life, dependent on a feeding tube and ventilator, she encountered firsthand many of the communication and information problems that can plague health systems. "Sitting next to my son in the ICU, I was often trying to figure out why or how the physicians used the information we as parents provided them, and how we were incorporated as a member of our son's care team," said Buchanan who is also a PhD candidate in Health Services Research at the Institute of Health Policy, Management and Evaluation. "Watching nurses take notes on patient charts might not be searchable was a glaring problem for me, and part of the reason why I chose to pursue my research in the Health Informatics stream."

As a mother of a child with medical complexity, Buchanan's research is focused on improving the healthcare system for this population, and for the parents who spend the majority of their time caring for their children. The challenge of communication between physicians and the use of information provided by the paitent's parents, are areas that Buchanan is eager to focus on to research ways to bring about real change. "I have a background in business strategy helping decision makers use the vast amounts of information available to them, and I figured I could transfer these skills and my knowledge in this area in an effort to improve the health system."

The VHA Home Healthcare Graduate Award aims to recognize and sponsor emerging scientists and researchers like Buchanan who are engaged in diversifying research and expertise in the home and community sector. In addition to funding, recipients are provided with mentorship and partnership opportunities to enhance their research and impact in the health system.

For Buchanan winning this award means a great a deal, and it validates in way the importance of her research and goals in improving our health system for children with medically complex needs. "As a parent who is caring for their child with medical complexity, it is difficult to juggle a job, academics, and my son's care," said Buchanan, "this additional financial support will allow me to continue with my research, and help me make an even greater impact."

## IHPME IN THE NEWS

Motorcycle crashes cause 5 times as many deaths as car accidents, 6 times the health care costs- Study led by IHPME PhD student Daniel Pincus <u>http://ihpme.utoronto.ca/2017/11/</u> motorcycle-crashes-cause-5-times-as-many-deaths-as-caraccidents-6-times-the-health-care-costs-study-led-by-ihpmephd-student-daniel-pincus/

Why Canadians Deserve Better, Earlier Palliative Care Op-ed by Jennifer Im and Leah Steinberg in Healthy Debate: http://healthydebate.ca/opinions/palliative-care-2

Delaying hip fracture surgery more than one day associated with increased risk of death

IHPME PhD student Daniel Pincus publishes study in JAMA:\_ https://www.utoronto.ca/news/u-t-phd-student-publishes-hipsurgery-research-major-us-medical-journal

Higher-risk groups should get greater access to HIV drugs, new guidelines say: Assistant Prof. Darrell Tan authors new guidelines published in CMAJ: <u>https://www.theglobeandmail.</u> com/life/health-and-fitness/high-risk-groups-shouldget-greater-access-to-hiv-drugs-new-guidelines-say/ article37079803/

## PUBLICATIONS

<u>Chan AW</u>, Pello A, Kitchen J, Axentiev A, Virtanen JI, Liu A, Hemminki E. Association of Trial Registration With Reporting of Primary Outcomes in Protocols and Publications. JAMA. 2017 Sep 11. <u>doi: 10.1001/jama.2017.13001</u>. [Epub ahead of print]

Association Between Wait Time and 30-Day Mortality in Adults Undergoing Hip Fracture Surgery. Pincus D, Ravi B, Wasserstein D, Huang A, Paterson JM, Nathens AB, Kreder HJ, Jenkinson RJ, <u>Wodchis WP</u>. JAMA. 2017 Nov 28;318(20):1994-2003. <u>doi: 10.1001/jama.2017.17606</u>.

Direct medical costs of motorcycle crashes in Ontario.Pincus D, Wasserstein D, Nathens AB, Bai YQ, Redelmeier DA, <u>Wodchis WP</u>. CMAJ. 2017 Nov 20;189(46):E1410-E1415. <u>doi:</u> 10.1503/cmaj.170337.

Primary care and health inequality: Difference-in-difference study comparing England and Ontario.Cookson R, Mondor L, Asaria M, Kringos DS, Klazinga NS, <u>Wodchis WP</u>. PLoS One. 2017 Nov 28;12(11):e0188560. <u>doi: 10.1371/journal.</u> <u>pone.0188560. eCollection 2017</u>. Use of hospital-related health care among Health Links enrollees in the Central Ontario health region: a propensitymatched difference-in-differences study. Mondor L, Walker K, Bai YQ, <u>Wodchis WP</u>. CMAJ Open. 2017 Oct 12;5(4):E753-E759. <u>doi: 10.9778/cmajo.20170054</u>.

Effect of socio-demographic factors on the association between multimorbidity and healthcare costs: a populationbased, retrospective cohort study. Thavorn K, Maxwell CJ, Gruneir A, Bronskill SE, Bai Y, Koné Pefoyo AJ, Petrosyan Y, <u>Wodchis WP</u>. BMJ Open. 2017 Oct 6;7(10):e017264. <u>doi:</u> 10.1136/bmjopen-2017-017264.

What works in implementation of integrated care programs for older adults with complex needs? A realist review. Kirst M, Im J, Burns T, Baker GR, Goldhar J, O'Campo P, Wojtak A, <u>Wodchis WP</u>. Int J Qual Health Care. 2017 Oct 1;29(5):612-624. <u>doi: 10.1093/intqhc/mzx095</u>.

# SUPPORT

The Institute of Health Policy, Management & Evaluation, as part of the Dalla Lana School of Public Health, is the first Canadian public health school to launch its own fundraising campaign. With the support of our generous donors, our Boundless Campaign will enable IHPME to continue shaping training and research in health systems, management and policy.

For more information on how you can get involved, give annually, create a named fund, or consider the School in your estate planning, please contact **Annette Paul**, **Director of Advancement** at <u>annette.paul@utoronto ca</u> or visit <u>IHPME</u> <u>Donate</u> or <u>Support/Campaign</u>. Thank you for your support!

## **EVENTS**

### **CCHE Seminar Series**

Fridays | 10:00am - Noon | HS 108 | Free

Terence Cheng - December 8

### Health Services, Systems and Policy Research Seminar Series

December 6 | 4:00pm - 5:30pm | HS 412 | Free

Amanda M. Beacom of the Carroll School of Management, Boston College, presents on "Multilevel Perspectives on the Diffusion of Healthcare Best Practices." Webinar also available, details at: <u>http://ihpme.utoronto.ca/events/healthservices-systems-policy-seminar-series-amanda-m-beacom/</u>

### Save the Date: IHPME Faculty Retreat

### January 30 | 12:00pm - 5:00pm | Faculty Club | Free

Join Acting Director Rhonda Cockerill, and your fellow IHPME faculty at the annual IHPME faculty retreat. This half-day event will be held at the University of Toronto Faculty Club, 41 Willcocks Street, Toronto, ON with lunch beginning promptly at 12:00pm and a reception to conclude the day's event at 5:00pm.

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## WE'D LIKE TO HEAR FROM YOU

We're pleased to receive submissions of 400 words or less for consideration in upcoming editions. If you'd like your event listed, please send full details.

Contact: rhonda.cockerill@utoronto.ca and rebecca.biason@utoronto.ca

