Retired Military Nurse Perseveres to Complete Health Informatics Degree

After 18 years of service as a military nurse, Andrew Lo suddenly found himself faced with the reality of readjusting to the pace of civilian life. Unsure of what to do next, a friend and graduate of the Institute of Health Policy, Management and Evaluation encouraged him to consider applying to graduate school. With a little research, Lo came across IHPME’s Master of Health Informatics Program.

“I had always wanted to pursue a graduate degree, but my military career never allowed me to follow that path,” said Lo.

During his time in the military, Lo had undertaken a series of health informatics related projects including in 2011-12 where he provided leadership to his care delivery unit (CDU) as they transitioned from paper charts to electronic medical records. He also managed his unit’s rollout of a new module of the Canadian Forces Health Information System, helping to transform the way patients were scheduled and the way their medical charts were detailed electronically.

Despite his experience, it was difficult for Lo to return to the world of academia after almost 10 years away. The last time he had been in school as an undergraduate student, the internet had only just been emerging. Coupled with having to learn new tools that were not available when he was in school like Google Docs, Lucidcharts and Slack, Lo was also tasked with managing his mental health and chronic pain, making the completion of his program seem insurmountable at the start.

“The noise pollution in Toronto was a constant trigger for my PTSD, making it unbearable sometimes to even leave my residence,” said Lo.

Access to mental health services in Toronto also proved to be a challenge, and Lo was not able to see someone about his PTSD until the last four months of his program. Yet, Lo persevered.

“The faculty and the School were very supportive in terms of helping me manage both my mental illness and physical injuries,” said Lo. “I knew that I did not want to be defined by my illness or injuries.”

His adaptive and resilient attitude is something that Lo attributes to his training and time in the military. Just out of high school at the age of 18, Lo decided to enter the Canadian Reserves after witnessing one of his close friends sign-up. It was a decision that set the course for a truly interesting career path that included numerous roles, from Operations and Training Officer, to Primary Care and Patient Liaison Nurse.

“As a military nurse you must be a jack of all trades,” said Lo, “one day you may be on the surgical floor maintaining your clinical skills while on another you may be needed to manage the immunization clinic for the national capital region serving all personnel from the Governor General to the Chief of Defence Staff.”
But for Lo, one of the most challenging experiences in the military was his time as a Patient Liaison Nurse.

In 2014, Canada had officially ended its operations in Afghanistan and Lo was responsible for coordinating the care and repatriation of soldiers returning to Ottawa. Many had been involved in 2008’s Operation Medusa, a Canadian-led offensive and one of NATO’s largest land battles at the time.

Part of his role involved casualty repatriation, which included coordinating with receiving hospitals and ambulance services, as well as arranging accommodations for casualties’ families. During these encounters, Lo would often end up listening to the soldiers as they shared their experiences of their time in Afghanistan.

“Many of these stories were quite horrific and heart breaking, some of them suffered from physical injuries which included missing limbs,” said Lo. “Many suffered from psychological injuries after witnessing the death or injuries of their comrades who as a result of their experiences, had attempted or committed suicide.”

It wasn’t long before the weight of hearing these stories and the heavy demands of his role began to catch up to him.

“It sounds cliché, but when I was taking care of my patients their needs were more important than my own personal feelings,” said Lo. “We have a saying in the military, ‘stay mission focused and carry on,’ and that is what I did to provide the best care for my patients and their families.”

As a result, Lo was diagnosed with post-traumatic stress disorder and given medical release from the military.

A new chapter was unfolding for Lo, but he still had doubts.

“At the very start of my program, completing it seemed impossible to me,” said Lo. “But I learned to respect my limitations and came to recognize that asking for help is not a sign of weakness.”

Now, as a graduate, Lo is looking forward to applying his newly acquired skills, and is hoping to continue on a new career path. “I do see myself returning to the health care field in the future, and I’m confident I now have the skills to be successful wherever I go.”

A general surgery resident at the University of Toronto, Stephanie Mason did not have much experience as a researcher before she decided to complete a PhD in Clinical Epidemiology at the Institute of Health Policy, Management and Evaluation.

“I wasn’t sure if I would be good at it, or whether I wanted this to be a part of my career, but I was really encouraged and supported to pursue some research training,” said Mason.

Growing up there was little doubt that Mason would end up in the medical field, as a little girl her favourite game was Operation. Yet once in medical school, she worried about how she would be able to maintain a work life balance, knowing the grueling schedule that most surgeons keep.

“Surgeons wake up earlier than most people, and I am a person who highly values sleep,” she joked. “In spite of that, I found I not only enjoyed getting up for rounds, I also enjoyed participating in the care of critically ill patients.”

It wasn’t long before Mason’s dissertation came into focus. She began taking calls in the burn unit at Sunnybrook Hospital, and soon her research interests turned to burn patients and in particular their long-term outcomes.

“I was very inspired by the resilience of the patients in the burn unit,” said Mason. “Although we never set out to examine mental illness in these patients at the start of our study, it kept reappearing in our data and we knew we needed to tackle this head on.”

According to Mason’s research, mental illness is common both before and after burn injuries. Rates of self-harm events were found to double after a burn injury, and rates of mental illness actually spiked in the weeks before a burn injury.

“It was really interesting to see that in the three months before a patient suffered a burn injury, there was a spike in mental illness, suggesting that mental health crises might increase the chance of suffering a burn injury,” said Mason.

She also came to realize that many of the burn patients upon discharge had very different experiences with the health system. Some went through a period of post-traumatic growth, where they saw the burn as a positive turn in their life. Yet others could only see the burn as the worst thing that had happened to them.
“Through my research, I hope to find a way to close that gap between these patients,” she said.

Given that Canada has a universal health care system and theoretically all patients should be able to access the same services upon discharge, Mason wanted to find out why there were burn patients falling through the cracks.

After conducting a series of focus groups with burn survivors after discharge, a distinct difference emerged.

“What we thought patients needed as health care providers, was not always what the patients felt they needed,” said Mason.

She is hoping her research and the study she and her team conducted will inform the design of new ways to deliver mental health care to burn patients, particularly following their injury, in order to mitigate the impact of mental illness on their lives.

“Burn survivors are a relatively small group, but I hope our findings are also of interest to other surgeons, as they might be applicable to other groups of injured patients,” said Mason. That is why her recent award from the American College of Surgeons, Committee on Trauma, Resident Paper Competition has been a real marker of success.

“This is the first time burn research has won that award, and overall as surgeons, I’ve found that we’re becoming more and more interested in the impact of mental illness on patient outcomes,” she said.

Questions Unanswered: A Cardiologist’s Continued Pursuit of Knowledge

This is not Husam Abdel-Qadir’s first time at a University of Toronto convocation. In 2007 Abdel-Qadir graduated with a silver medal from U of T’s Faculty of Medicine before going on to complete his training in internal medicine and cardiology.

“Cardiology was not something I had intended to settle on at the start of medical school. I initially thought I was going to specialize in orthopedics because I loved sports, but I found it didn’t fit with my desire to maintain long-term relationships with patients,” said Abdel-Qadir.

In his search for a specialization Abdel-Qadir dabbled in neurology, pediatrics and nephrology, but none of these areas gave him the real sense of purpose he was looking for. As a physician he wanted to be able to build a relationship with his patients, keeping track of them for a long period of time, while also offering them hope and a chance at an improved and healthier life. Cardiology seemed liked the perfect fit.

“With Cardiology, you are dealing with a medical illness that is serious, yet you are often able to intervene on the patient’s behalf and provide them with the potential for a long-lasting good outcome,” explained Abdel-Qadir. “I was fascinated by the common presentation of a middle-aged man who comes in for a heart attack and, depending on the type of intervention he is given, could go on to live a productive life with good quality, or die unexpectedly.”

Yet while completing his training in internal medicine, Abdel-Qadir began to realize that most of his patients did not fit this common presentation. Many of them had complicated cases and their illnesses were not captured in the body of research work that Abdel-Qadir and his fellow physicians were using to make medical decisions.

“I realized I had more questions than answers,” he said.

During the last rotation of his internal medicine training, Abdel-Qadir spent time working with breast cancer oncologists, where he began to realize that the medications used to treat patients cancer were also affecting their cardiovascular health.

“I had been told by my research supervisors, that wherever you see a lot of variation in practice, that usually is indicative of a gap in knowledge,” said Abdel Qadir. “As I tried to search for answers, I realized I needed the skill sets of a researcher to answer these questions. I decided a PhD in Clinical Epidemiology at the Institute of Health Policy, Management and Evaluation was the best option for me.”

While many of his fellow trainees were heading off in pursuit of other career paths, Abdel-Qadir made the challenging decision to put that on hold as he continued as a PhD student, going to classes and completing assignments.

“It was difficult, too see others moving ahead, but I believed in what I was doing, and that was key,” he said.

Under the supervision of Geoffrey Anderson, professor at IHPME, Abdel-Qadir found that older women diagnosed with breast cancer, who had a pre-existing cardiovascular condition, were equally likely to die of cardiovascular causes or breast cancer. For most other women, the risk of death was driven by breast cancer, meaning that the focus should be on protecting the heart rather than withholding cancer treatment. His findings prompted him to develop a risk model for women with breast cancer that predicted their chance of developing cardiovascular conditions with a good degree of accuracy based on their medical details at the time of breast cancer diagnosis.

“This type of a model allows us to develop strategies to prevent cardiovascular issues, either by optimizing the treatment of pre-existing heart conditions, or less commonly advising about
alternate chemotherapy options,” said Abdel-Qadir.

His work in this area has earned him a few prestigious awards including the 2017 European Society of Cardiology Young Investigator Award in the Clinical Sciences Category and the inaugural Young Investigator award at the 2017 Global Cardio-Oncology Summit. He was also nominated by the University of Toronto School of Graduate Studies for the 2018 Polanyi prize, which is one of the country’s most prestigious graduate awards.

“This area in women’s health care is of great importance to me, and I’m grateful for the support I have received from my supervisor, thesis committee, and IHPME over the past four and a half years,” said Abdel-Qadir.

Now a cardiologist at Women’s College Hospital Abdel-Qadir is still in pursuit of answers. Future research he is hoping to undertake involves following breast cancer patients throughout their treatment in order to monitor them for early markers of cardiovascular disease as well as examining how a woman’s life experience and breast cancer treatment journey can impact her heart health.

TACKLING URBAN HEALTH CHALLENGES IN THE CITY OF BARRIE

Obesity, physical inactivity, diabetes, and opioids are just some of the prominent health issues facing modern cities. Often many of these challenges can lead to poor health outcomes and the development of chronic conditions. Healthy Barrie, a partnership between the City of Barrie, the Barrie and Community Family Health Team, the Family Medicine Teaching Unit at Royal Victoria Regional Health Centre, the Simcoe-Muskoka District Health Unit, and the University of Toronto, is looking to tackle some of these important urban health challenges in an effort to improve overall population health in the community.

“It is becoming apparent from a variety of studies that we need to be paying attention to population health and in particular social determinants of health, in our efforts to deliver quality health care to communities,” said Patrick Feng, project lead on the Healthy Barrie Initiative.

Barrie is an ideal community within which to test population health interventions. With a population of approximately 200,000 it is large enough to have a diverse population, but small enough that it is easy to bring together community partners. With a single Family Health Team (covering 90% of the city’s primary care physicians), one hospital, one public health unit, a single municipality, and Barrie being its own LHIN sub-region, the local health system is relatively simple.

This sets the city apart from large urban centers like Toronto, where multiple hospitals and health care organizations, service providers, and local health networks, makes coordination between groups more challenging.

Among the many advantages, a key aspect is that a single hospital system means a single electronic medical record for primary care. This makes it easier to not only obtain patient-level data but also combine data with other key partners to inform health systems planning.

“The collaboration between the family doctors in Barrie, the Public Health Unit, and the City allows us to attempt projects that would not be possible in other cities.” said Interim Dean Adalsteinn Brown who is also a project lead on the Healthy Barrie Initiative.

Currently Healthy Barrie has a number of active projects. One is the “Community Snapshot” which involves mapping the health of the community at the neighbourhood level. By looking at key health-related indicators, researchers like Ross Upshur, a faculty member at IHPME, can generate a snapshot of how health varies from neighbourhood to neighbourhood and indentify “hotspots,” or areas of need.

Data from this project will be used to inform future studies and strategies such as public health campaigns, city planning, or health and wellness interventions.

One early finding from this research has shown an increase in obesity in children of a certain age in some neighbourhoods. Matt Orara, a community physician in Barrie, is now analyzing this data and planning further studies to better understand the problem. Where in the city are these children located? Do they have limited access to parks or recreation programs? What role do socio-economic status and the built environment play?

Answers to these types of questions can help inform possible solutions, from better access to transit, to more green spaces to promote physical activity.

Healthy Barrie is also involving the community in its work. With a focus on increasing physical activity, Healthy Barrie is launching Active People for a Healthy Barrie, a series of
community forums that invites members of the public to voice their opinions and share their thoughts on what would help them be more active every day. This could include a redesign of the city, a change in infrastructure or better health promotion programs.

“We are really looking for ways to support physical activity that will transcend generational divides and be sustainable,” said Feng. “We want to get the citizens thinking about the future. What would Barrie look like in 30 years if it really supported and encouraged everyone to be physically active?” continued Feng.

Still in its early stages, the Active People for a Healthy Barrie forum series has received seed funding from the Ontario Trillium Foundation to further engage the community in developing a common vision. In the long-term, the hope is that these forums will change the fabric and design of the city whether that includes more bike paths, densification, an increase in after school programs or weekend programming facilitated by Parks and Recreation for the city.

“Healthy Barrie is a new type of grassroots level of change making,” said Feng. “With the support of the community, Public Health Unit, Family Health Team, and the City itself, real improvements in community health are very attainable.”

To learn more about Healthy Barrie or to get involved, contact Patrick Feng at patrick.feng@utoronto.ca

RESEARCH

by - Jeffrey Hoch

Professor Claire de Oliveira recently completed a study that calculated the economic burden of cancer care in Canada. The research was a population-based cost study using data from the Institute for Clinical Evaluative Sciences (ICES). The research team involved faculty from IHMPE as well as the Ontario Medical Association and Simon Fraser University. The study was funded by a grant from the Canadian Centre for Applied Research in Cancer Control which receives funding from the Canadian Cancer Society. The study concluded that the economic burden of cancer care in Canada is substantial. Further research is needed to understand how the economic burden of cancer compares to that of other diseases.

The research team used a case-control prevalence-based approach to estimate direct annual cancer costs from 2005 to 2012 and then attributed healthcare costs to cancer. They employed the net cost method (cost difference between patients with cancer and control subjects without cancer) to account for costs directly and indirectly related to cancer and its sequelae. Using average patient-level cost estimates from Ontario, they applied proportions from national health expenditures data to obtain the economic burden of cancer care for Canada.

The research team found that costs of cancer care rose steadily over the analysis period, from $2.9 billion in 2005 to $7.5 billion in 2012, mostly owing to the increase in costs of hospital-based care. Most expenditures for health care services increased over time, with chemotherapy and radiation therapy expenditures accounting for the largest increases over the study period. The cost estimates were larger than those in the Economic Burden of Illness in Canada 2005-2008 report for every year except 2005 and 2006.

More details are available in the paper online at http://cmajopen.ca/content/6/1/E1.full

“The economic burden of cancer care in Canada: a population-based cost study” by Claire de Oliveira, MA, PhD*, Sharada Weir, MA, DPhil*, Jagadish Rangrej, MSc, MMath, Murray D. Krahn, MD, MSc, Nicole Mittmann, MSc, PhD, Jeffrey S. Hoch, MA, PhD, Kelvin K.W. Chan, MD, PhD, Stuart Peacock, MSc, DPhil

AWARDS

Louise Lemieux-Charles former director of IHPME, appointed to Governing Council of the Canadian Institutes of Health Research (CIHR)

On May 30, Minister of Health Ginette Petitpas-Taylor announced six new members of the Canadian Institutes of Health Research Governing Council who are intended to provide key direction in shaping the health research that will impact the lives of Canadians. Members will serve a three year term. Congratulations to IHPME’s Louise Lemieux-Charles on her appointment. The full announcement can be found online.

Read the latest DLSPH Blog
Kamran Khan Receives Governor General’s Innovation Award

Congratulations to IHPME’s Dr. Kamran Khan on receiving the Governor General’s 2018 Innovation Award. Khan is the founder of BlueDot, a social enterprise that uses big data to track and predict infectious outbreaks and pandemics across the globe.

Alumni Malak Sidky Honoured by Business Women’s Network of York Region

Congratulations to IHPME Alumnus Malak Sidky who recently received the Community Impact Award and Business Woman of the Year award from the Business Women’s Network of York Region.

U OF T REMEMBERS PROF. JACK TU

- by Brianne Tulk, Department of Medicine

University of Toronto faculty, students and staff are mourning Prof. Jack Tu, an internationally-renowned cardiologist and professor in both the Department of Medicine and the Institute of Health Policy, Management and Evaluation, who passed away on May 30.

“The University of Toronto has lost a dedicated mentor and friend,” says Trevor Young, Dean of the Faculty of Medicine. “A tireless researcher and clinician scientist, Jack made significant contributions to measuring and improving the health and quality of care for Canadians with cardiovascular diseases.”

Tu was a world expert in medical epidemiology and health services research. His research advanced knowledge in critical areas of healthcare and had a tremendous impact on the healthcare system and patients.

“It is because of his research that we now know that where someone lives can have an impact on their cardiovascular health,” says Andy Smith, President and CEO of Sunnybrook Health Sciences Centre where Tu was a staff physician and senior scientist. “It is because of his research that we now know that ‘good’ cholesterol is not an effective marker for heart health. It is because of his research that there is now a tool to predict mortality in patients who present with heart failure in the emergency room.”

In 1996, Dr. Tu was appointed assistant professor in the Department of Medicine at University of Toronto, the same year he joined Sunnybrook as a staff physician in the division of internal medicine. He became a scientist in Evaluative Clinical Sciences and the Schulich Heart Program in 1999. He joined the Institute for Clinical Evaluative Sciences (ICES) as a scientist in 2000, where he led the cardiovascular and diagnostic imaging research program.

In 2004, he was promoted to professor in both the Department of Medicine and at the Institute of Health Policy, Management and Evaluation at U of T and to senior scientist at ICES. Two years later, in 2006, he became a staff physician in Sunnybrook’s Schulich Heart Centre. Across all these years and as an integral, highly respected member of all these families, he enriched many lives as a physician, researcher, mentor, colleague and friend.

“Jack was a giant in health services research, and a great teacher and mentor to our students,” says Adalsteinn Brown, Interim Dean of the Dalla Lana School of Public Health and Dalla Lana Chair in Public Health Policy. “He was constantly searching for innovative ways to improve the health system and the quality of health care for Canadians. His dedication to our field and his scholarship will be greatly missed.”

“Jack’s dedication to his work and contributions to the research community and the health outcomes of Canadians is undeniable,” adds Gillian Hawker, Chair of the Department of Medicine at U of T.

Tu held a Tier 1 Canada Research Chair in Health Services Research and published over 300 peer-reviewed journal articles in several highly ranked publications including The New England Journal of Medicine, Journal of the American Medical Association and Annual of Internal Medicine. A prolific researcher, he published more than 130 articles in peer-reviewed journals in the last five years alone.

Tu held several research grants from Canadian Institutes of Health Research and the Heart and Stroke Foundation and was the team leader of the CIHR-funded Canadian Cardiovascular Outcomes Research Team (CCORT), which links a network of over 30 leading cardiac outcomes researchers across the country. In 2015 Tu received Department of Medicine Researcher of the Year Award.
In addition to his extensive research activities, Tu also supervised students at all levels of training and lectures extensively across the world.

With files from Sunnybrook Health Sciences Centre

FACULTY APPOINTMENTS

New Faculty
- Guiseppe Cammisa - Adjunct Lecturer
- David Feeny – Adjunct Professor
- Aliya Gulamhusein – Assistant Professor, Status
- Samir Gupta – Assistant Professor, Status
- Nciole Kozloff – Assistant Professor, Status
- Dinesh Kumbhare – Associate Professor, Status
- Rayzel Schulman – Assistant Professor, Status
- Frank Silver – Professor, Status

Renewal Faculty
- Lawrence Paszat - Associate Professor, Status
- Charles Victor - Assistant Professor, Status

MSC/PHD DEFENSES

Clinical Epidemiology and Health Care Research

Kate Nelson PhD
Thesis Topic: Patient-Centered Interventional Outcomes for Children with Severe Neurologic Impairment  Date: May 7, 2018

Dan Lane PhD
Thesis Topic: The Identification and Management of Sepsis in the Prehospital Setting  Date: May 14, 2018

PUBLICATIONS


IHPME IN THE NEWS

Lyme Disease cases hit record highs across Canada as tick populations expand  Adalstein Brown discusses need for patient and health care provider support as chair of the Lyme Disease and Tick-borne Illness Task Force

How to Shorten Hospital Wait Times in Canada - David Urbach Op-Ed

Interview with Dr. Tedros, Director General World Health Organization - UN Special
Garry Aslanyan sits down with Dr. Tedros to discuss his first year in the role

The virtualization of Canada's health care system
Sacha Bhatia discusses the need to modernize the health care system with BNN

EVENTS

Patient Engagement Think Tank

June 7 | 8:30am - 6:00pm | Faculty Club | Free

IHPME faculty are invited to attend the IHPME Patient Engagement Think Tank, Engaging Patients, Caregivers and the Community: Co-Designing What the Future Holds for IHPME. We will discuss the goals and benefits of including patient and caregiver voices in decision making processes in our health system.

Registration is limited
The Nature Conservancy: Public Health, Health Systems and the Environment

June 8 | 9:00am - 12:00pm | HS 412 | Free

Please join us on Friday June 8th, 2018, 155 College Street, Room 412, 9:00 – 12:00 as we explore opportunities for collaboration with The Nature Conservancy via a Round Table Discussion with Barbara Merz, the Global Campaign Director.

RSVP to nicole.simms@utoronto.ca

View the Agenda

POHR Seminar: Steven Hill
Assessing the societal impact of research: lessons from the UK Research Excellence Framework

June 12 | 9:00am - 11:00am | HS 108 | Free

How does research lead to societal impact? Steven Hill, Director of Research Policy at Research England, will explore this question focusing on the experience of assessing research impact in the UK’s national research evaluation, the Research Excellence Framework. As well as considering the lessons and implications for evaluating impact, Hill will also discuss how the large-scale evaluation of impact can lead to insights into the processes of impact generation themselves.

Using MaxQDA for qualitative analysis: A (better) alternative to NVivo and AtlasTI

June 26 | 10:00am - 11:30am | HS100 | Free

Lecture given by Sarina Isenberg, PhD, MA; Scientist at the Temmy Latner Centre for Palliative Care at the Sinai Health System, and Assistant Professor in the Department of Family and Community Medicine, University of Toronto.

REGISTER NOW

SUPPORT IHPME

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 annette.paul@utoronto.ca or visit IHPME

Donate or Support/Campaign. Thank you for your support!

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IHPME OUR FIRST SEVENTY YEARS

ONLINE NOW: VIEW

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

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