

IHPME CONNECT 05.2018

RISING RATES OF DIABETES AMONG YOUNG PEOPLE INSPIRE INTERNATIONAL PHD PROJECT

Once thought of as a disease that only affected older adults, diabetes is now being diagnosed increasingly in young people under the age of 30, and the implications of this have yet to be fully studied.

"It is a global phenomenon occurring not just in Canada, but also in places like Hong Kong and India," said Calvin Ke, an endocrinologist and a clinical epidemiology PhD student at the Institute of Health Policy Management and Evaluation (IHPME).

Ke is in the process of completing a three part international PhD project looking at the rising rates of diabetes in South and East Asian populations in Toronto – the world's most multicultural city – and in India and Hong Kong. It is a unique approach that combines data from international partners to develop new insights into the management of the disease that have yet to be discovered.

"Ke's PhD research is a wonderful blend of clinical epidemiology and global health. I suspect his findings will tease out and tremendously advance our understanding of influential factors on patient and population outcomes with respect to this disease," said Dr. Rob Fowler, program director of the clinical epidemiology program at IHPME.

The first part of Ke's project took him to India, where he worked with renowned epidemiologist Prabhat Jha to determine how diabetes increases the risk of mortality from heart disease and stroke.



Dr. Calvin Ke (right) and Prof. Juliana Chan (left) at the Prince of Wales Hospital, Hong Kong (Photo credit: Amelia Yung)

While in Hong Kong, Ke has been researching the rising rates of hospitalizations among young people with diabetes, under the guidance of Dr. Juliana Chan, a leading diabetes researcher in China.

"Diabetes is a global epidemic that cannot be fully addressed by one country alone," said Chan, "over the last 2 decades, we have been building a collaborative international diabetes management and research platform that includes over 80000 patients spanning 13 countries across Asia. These efforts are an essential first step to managing the global diabetes epidemic, and they necessitate the coordinated involvement of many international researchers."

"This is a big change from previous decades," adds Ke, "We are learning more and more about what happens to people when they get type 2 diabetes at such a young age, and we urgently need to develop better solutions for young people facing this growing epidemic on a global scale."

A combination of factors, from genetic predisposition, to rapid economic development, and food abundance are thought to be contributing to the rates of earlier diagnoses. Add in a sedentary lifestyle, and you have the perfect recipe for the development of this chronic condition.

Data that Ke is studying, has also shown that young people with diabetes are being diagnosed with and hospitalized for further complications of the disease, such as kidney disease and heart attacks. Each hospitalization costs the health system and the economy in terms of lost wages and productivity to society, but there is also an indirect cost placed on the families and caregivers of patients.

More on the next page...



“One of our main goals is to reduce the rates of hospitalization, and help those diagnosed better manage their condition over the course of their life, by improving their knowledge of the disease,” said Ke.

Better recognition from health care providers about the level of risk associated with type 2 diabetes at a younger age is also needed.

“While many assume that youth confers good health, we need to understand that this is not true when it comes to young



Dr. Calvin Ke (centre right) and Prof. Juliana Chan (centre left) with the nursing team at The Chinese University of Hong Kong-Prince of Wales Hospital International Diabetes Federation Centre (Photo credit: Amelia Yung)

people with diabetes. In fact, we found that the overall risk of suffering complications is actually higher for young people, because they are exposed to diabetes for a much longer period of time,” said Ke.

An international experience like this has added an interesting perspective to Ke’s research, and has allowed him to integrate data from three different countries in a meaningful way.

“Studying how diabetes affects people in different global contexts reveals unique aspects of this complex disease. Each study adds an important piece to the puzzle, and lessons learned in one country can be incredibly valuable to informing interventions in other settings,” he said.

As it becomes more important to have an international research network, Ke highly encourages other students to think about the global aspects of the projects they are working on.

“I didn’t know coming into my graduate studies that my work would look like this, but to see it come together and to reflect on it, it’s quite amazing.”

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NOT A ‘MIRACLE’ TEST:

IHPME expert explains the true costs of genetic testing



From [23 and Me](#) and [Ancestry DNA](#) to research laboratories, genome sequencing has become more widely available, and many would have you believe it’s an affordable option for just about anyone to get themselves tested for the risk of a variety of diseases, from various cancers to Alzheimer’s.

“On the one hand it’s great to see the public becoming more aware of options for genetic testing, but one downside is that people start to think of sequencing as a “miracle” test, and that we should screen for every possible future disease no matter what the cost,” said Wendy Ungar a professor of health economics at U of T’s Institute of Health Policy, Management and Evaluation.

The technology has advanced rapidly in recent years, and policy has yet to keep up. Should all genetic testing be covered by our provincial health plans or just a few? Health care systems like Ontario’s have constrained budgets, so understanding what types or topics of genetic testing are cost-effective, is of major interest to the Ministry of Health and Long-term Care (MOHLTC).

“We have to look at what makes sense in terms of value, and not simply whether a test costs \$100 or even \$1000,” said Ungar, who is also Director of [Technology Assessment at Sick Kids \(TASK\)](#). “Is the test supported by scientific and economic evidence and will it truly help patients and clinicians in terms of treating or preventing disease? These are the types of questions we need to consider, not just the dollar amount.”

Ungar is Chair of [Health Quality Ontario’s Ontario Genetics Advisory Committee](#), also known as OGAC, where she and her colleagues are working to help the province and the ministry gain a better understanding of the value of different genetic tests and how or if they should be funded.

“We prioritize different topics of testing, such as carrier screening and non-invasive prenatal testing among others,

and look at where there is the most need or demand,” said Ungar. “Once these tests are prioritized, a health technology assessment and budget impact analysis are conducted and the results are deliberated by the committee.”

One topic of testing currently under deliberation is non-invasive prenatal screening, or NIPT. “A pregnant woman actually has fetal DNA circulating in her bloodstream, so a simple blood draw can be analyzed to look at whether certain conditions may be present in the fetus,” said Ungar.

This test can identify chromosomal abnormalities related to trisomies such as Down syndrome and is currently only funded for women who are pregnant and considered high risk such as those over the age of 40 or those with a family history of trisomies and other chromosomal abnormalities, but it is not publicly funded for everyone.

“Amniocentesis and chorionic villus sampling are other testing options available, but they pose a risk to the fetus and the pregnancy because they are much more invasive,” said Ungar.

The committee also needs to consider the care pathway for prenatal care and how it might change if the decision was made to make the test available to all pregnant women.

“At what stage of care should we offer the test? At the first ultrasound or as part of the first blood test? These are further questions we are taking into account as part of the review,” said Ungar.

A funding recommendation for NIPT is expected to be posted to the [HQO website](#) for public feedback in May.

[Watch Wendy Ungar's Genome Discussion at the Royal Canadian Institute of Science](#)

Should we be more cautious about newer generations of genetic testing such as genome sequencing?

Ungar explains that patients can have several potentially pathogenic variants appear that are not related to the original reason for undergoing a genetic test. These variants can show risks for breast cancer or colon cancer or even Huntington's disease, and once disclosed to the patient, they can trigger further costs to the health system as patients seek care from specialists to reduce their risks for such diseases.

“It is not just a single test, a single result, or a single patient – there are a whole host of cascading effects that we need to consider, including effects on the patients themselves and their family members.”

U of T Helps Launch Health Informatics Program for Nurses in Israel



Nurses from the JCT Health Informatics Program

The University of Toronto's Institute of Health Policy, Management and Evaluation (IHPE) has helped launch a Certificate in Health Informatics program at Israel's Jerusalem College of Technology (JCT), the first of its kind in the country.

The program is aimed primarily at nurses studying on the women's campus, and provides them with advanced knowledge in the field of health information technology, as well as opportunities for new leadership roles in health care.

“We have contributed to a remarkable milestone in our health informatics field,” said Julia Zarb, Program Director of the Master of Health Informatics program at IHPE. “By building a bridge with faculty at the Jerusalem College of Technology, we have been able to help transfer knowledge and support the development of this discipline.”

Health informatics is a relatively new field that bridges clinical, information, and communication technology expertise. It encompasses the design, implementation, and evaluation of technologies supporting health care delivery. It includes institutional and mobile health applications, clinician users' design experiences, the evaluation of the impact of specific technologies on clinical care and communication and much more. Many technological advances in health care are significantly changing how health professionals including nurses, interact with patients in a hospital setting.

“We needed a program that would help us put health informatics research into practice and use this knowledge to create better health care beyond technological support of administrative functions” said Dr. Judith Shamian, former President of the International Council of Nurses and board member at JCT.

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DLSPH Bulletin

Following a series of campus visits between IHPME and JCT, and the exchange of syllabi and curriculum ideas, the program was first launched as a joint certificate program with U of T in late 2017.

“When I first met with some of the faculty at JCT, they weren’t convinced that health informatics was different from other courses in health, engineering or computer science already being offered; my initial efforts were focused on helping them to see the knowledge gaps and the opportunities”, said Dr. Lynn Nagle, assistant professor at IHPME and the Lawrence S. Bloomberg Faculty of Nursing, and a lead partner in the development of this program.

Many nurses are often left to navigate changes in health technology with no formal training or instruction.



The certificate program invited in lecturers from industry leaders like IBM, Intel and other large tech companies to provide advanced knowledge of how information technology is being applied in health care settings.

“This sort of program allowed us to partner with international colleagues to build capacity well beyond Toronto and to do so in a way that shares the intellectual capital built at the School,” said Interim Dean of the Dalla Lana School of Public Health, Adalsteinn Brown. He along with Julia Zarb, Lynn Nagle, and faculty members at IHPME were instrumental in ensuring this program was a success.

Upon the first cohort’s completion of the certificate in April 2018, Israel’s council of higher education finally approved the creation of Master of Health Informatics degree which will evolve from the newly minted certificate program.

“The link to U of T has really helped our cause in creating this program,” said Shamian, “the faculty there went the extra mile to support us, and it has truly benefited our students.”

A PhD nursing student who recently completed the certificate program was nearly in tears when she thanked the U of T collaborators, “I have no words to thank you all for making this possible,” she said, “In spite of the fact that I have been self-taught for many years, I have learned so much, and I know now that those who come after me will no longer have to struggle in the future.”

“We have come to the realization that nurses carry the main burden of patient care under challenging conditions,” the students wrote as a group upon completion of their certificate program. “We should be leading and participating in the development of digital changes in our health system. Our voices need to be heard!”

AWARDS

Robin McLeod Receives Presidential Citation from the American Head and Neck Society

Having led a number of multi-center clinical trials & quality initiatives IHPME's Robin McLeod has been awarded a presidential citation from the American Head & Neck Society. Congratulations Robin!



IHPME Research Day Award Winners

Congratulations to all of our student presenters at this year's IHPME Research Day. Our award winners this year for best presentation in their group or topic area are:

Best Oral Presentations:

AI & Big Data - Nadia Roumeliotis
Advancing Knowledge of Cancer Care - Dominika Bhatia
Insights Using Economic Modeling - Stephen Mac
Challenges in Older Adult Care - Nathan Stall
Issues in Child and Youth Mental Health - Alene Toulany
Factors Influencing Mental Health in Adults - Calvin Ke
Policy & Practice Behaviour - Keiran Quinn
Unintended Outcomes in Health Care - Lauren Lapointe-Shaw
Cancer Care Outcomes - Hamid Raziee
Patient Literacy & Provider Education - Nicholas Howell
Surgical Work Outcomes & Environments - Fahima Dossa

Best Poster Presentations:

G.B. Rosenfeld Poster Award - Daniel Rosenfield
IHPME GSU Poster Award - Doreen Ezeife
Eugene Vayda Poster Award - Kayleigh Gordon
IHPME GSU Poster Award - Tony Jin
Gillian Hawker Poster Award - Haifa Mtaweh

Special Awards:

Robert Duff Baron Award - Nicholas Howell
Maureen Dixon Award - Melissa Roy

Additional Named Awards:

Thomas and Edna Naylor Memorial Award

An award for best paper based on a thesis in Health Services and Health Care Research.

Recipient - *Victoria McCredie*

Kevin J. Leonard Award

An award for students who engage and empower patients through the use of technology to become partners in their own healthcare.

Recipient - *Patrick Ware*

Health Equity and Social Justice Award in Honour of Diana Moeser

An award for students whose work is guided by the goal of health equity and social justice.

Recipient - *Crystal Milligan*

Esta Wall Award of Excellence in Gerontology

An award for students who have provided outstanding leadership and made the most significant contributions in the field of geriatrics, gerontology or long-term care. This is a merit-based award.

Recipient - *Husayn Marani*

Ted Goldberg Award

Award for academic excellence and promise for doctoral candidates in Health Services Research.

Recipient - *Andrew Mendolwitz*

Claire Bombardier Award

Most promising student in Clinical Epidemiology & Health Care Research concentration.

MSc Recipient - *Abhijat Kitchlu*

PhD Recipient - *Nicholas Howell*

PhD Recipient - *Lauren Lapointe-Shaw*

Harold Livergant Award

Outstanding Year 1 student in the field of Complex Continuing Care Management and/or Policy.

Recipient - *Ryan McGuire*

FACULTY APPOINTMENTS

New Faculty

Giuseppe 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

Mikael Katz-Lavigne MSc
Thesis Topic: *Priority Setting in Pediatric Preventative Care Research* Date: April 6, 2018

Melissa Roy MSc
Thesis Topic: *Universal Precautions (Measures of Support) are Needed: A Cross-Sectional Study of Health Literacy in Patients with Dupuytren's Disease* Date: April 24, 2018

Health Services Research

Ghazal Fazli, PhD
Thesis Topic: *Ethnic Variation in Prediabetes Incidence and Outcomes among Immigrant and Long-Term Residents in Canada* Date: April 3, 2018

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Krystina Waler, MSc

Thesis Topic: *Systematic Review - the Effectiveness, Efficacy and Safety of Giraffe Omni Beds* Date: April 5, 2018

Kathryn Hodwitz, MSc

Thesis Topic: *The Influence of Assessor Training on Scoring and Feedback: A Qualitative Study of Assessor Perceptions* Date: April 10, 2018

Congratulations to our first EMHI graduating Cohort!



IHPME is proud to announce that our first Executive Master of Health Informatics cohort has successfully completed their program and will be graduating this November.

“Looking back there were so many assumptions I had about the industry and field. I am personally so glad I joined the program as it has widened my perspective, my thinking and confidence as a professional in the industry.” - Siam Javeid
EMHI Candidate 2018

PUBLICATIONS

[Mark J. Dobrow](#), Victoria Hagens, Roger Chafe, Terrence Sullivan and Linda Rabeneck. *Consolidated principles for screening based on a systematic review and consensus process* CMAJ April 09, 2018 190 (14) E422-E429; DOI: <https://doi.org/10.1503/cmaj.171154>

[Farmanova E](#), Bonneville L, Bouchard L. Organizational Health Literacy: Review of Theories, Frameworks, Guides, and Implementation Issues. *Inq J Heal Care Organ Provision, Financ.* 2018;55:4695801875784. doi:10.1177/0046958018757848.

[Farmanova E](#), Bouchard L, Bonneville L.

Success Strategies for [Linguistically Competent Healthcare : The Magic Bullets and Cautionary Tales of the Active Offer of French-Language Health Services in Ontario](#). *Healthc Q.* 2018; 20(4):24-30.

IHPME IN THE NEWS

[Many Medicines Are Considered Essential. Not All Are Effective](#) Nav Persaud is featured in U of T Magazine for leading a review of over 2,200 prescribed medications.

[Doctors call on Ottawa to launch criminal investigation into opioid marketing in Canada](#)
- Nav Persaud on drug marketing strategies.

[At the Liberal convention, Dr. Danielle Martin argued a national pharmacare program is long overdue: ‘No rational person would design a healthcare system this way’](#) - Danielle Martin on the need for a universal pharmacare plan.

[Before voting, understand these facts about health care](#)- Op-ed by Sacha Bhatia.

EVENTS

[Story Slam 2018](#)

May 15 | 6:30pm - 8:30pm | Mount Sinai Hospital, 18th Floor | Free

Story Slams are events that celebrate storytelling. Participants verbally share brief stories (5-minute maximum) with an audience who vote on their favourite story. The Department of Medicine organized its first story slam event in 2017, featuring 15 storytellers. Each story was published in the *Annals of Internal Medicine*.

[RSVP](#)

[Health Services, Systems and Policy Seminar Series: Douglas Luke](#)

May 23 | 400pm - 5:30pm | HS 412 | Free

Many of the most pressing public health challenges are types of ‘wicked problems.’ These problems are complex, resistant to change, and require new types of transdisciplinary scientific investigation to address. Systems science methods, particularly system dynamics, social network analysis,

and agent-based modeling show promise for these types of challenges. This talk will suggest how systems science can be applied to these types of problems, introduce these three common systems science methodologies (focusing particularly on network analysis and agent-based modeling), and provide examples of their application drawn from a variety of public health areas, including obesity, tobacco control, HIV/AIDS, healthcare delivery, and dissemination & implementation.

Webinar Available: Visit: <http://ihpme.utoronto.ca/events/health-services-systems-policy-seminar-series-douglas-luke/>

IHPME GSU Lunch and Learn: Associate Deputy Minister Nancy Naylor

May 24 | 12:00pm - 1:00pm | HS 208 | Free

Doughnuts with the Dean

June 2 | 9:00am - 12:00pm | HS 6th Floor | Free

Join Interim Dean Adalsteinn (Steini) Brown for a morning mixer with your fellow alumni and their families at our first-ever alumni reunion event.

- Enjoy mini lectures from our world class faculty on a variety of health policy and public health issues.
- Learn about emergency preparedness at our interactive exhibit
- Revisit the rich history of the Dalla Lana School of Public Health through our timeline exhibit.

[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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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

