

The *Publication* *Fall 2016*

Newsletter of the University of Saskatchewan **School of Public Health**



Interim Executive Director's message

Happy new year! The fall term was a very busy one at the SPH.

We once again hosted a successful poster day, to celebrate the hard work of our MPH students during their practicum placements, and the research projects of our thesis-based students. It was a very enjoyable event and we were delighted to be joined by colleagues from the department of Community Health and Epidemiology, to help us judge the winning posters.

We welcomed guest speaker Dr. Nnamdi Ndubuka in November, who made a very enlightening presentation on the devastating impact of HIV in northern Saskatchewan's Indigenous communities (see story on page 4). The SPH plans to get involved in finding long-term solutions to the problem through research, teaching and engagement with communities in the coming year.

Our second seasonal networking event on December 2 at TCU Place was a big success, and gave our students a valuable opportunity to chat with local health professionals and U of S faculty. My thanks to all who attended.

Looking back, 2016 has had many highlights for the SPH. We launched our MPH thesis option, one of our professors was presented with a YWCA Saskatoon Women of Distinction award, and we graduated 70 students, to name a few. Perhaps our most significant accomplishment for 2016 was the creation of our three-year action plan, which includes a renewed vision, mission and values, and our priorities and objectives.

Our top priorities for 2017 are to continue indigenizing our programs and research, to increase engagement with local communities and encourage more Indigenous students to enrol in our programs. We will also be reaching out to our alumni, as their ideas and input are incredibly valuable in helping us to shape and develop our School and programs.

George Mutwiri, DVM, PhD
Interim Executive Director



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Stay in touch

As part of the SPH community, share your news, events and success stories with us to help celebrate our achievements!

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SPH research profile: Patrick Seitzinger



MPH thesis student Patrick Seitzinger

in food-borne outbreak investigations.

“Depending on the scale of the outbreak, it can take anywhere from several days to several weeks after the onset of illness to collect a patient’s food history through questionnaires,” Seitzinger explained. “This can make it difficult for people to remember exactly what they ate, but epidemiologists rely on this information to identify the contaminated food sources making people sick.”

The study was possible thanks to an android smartphone app called Ethica iEpi, developed by U of S professors Nathaniel Osgood and Kevin Stanley. Seitzinger used the app, which acquires, stores and analyzes data on human behaviour, to track the food consumption of 96 university students who created comprehensive daily food diaries from photos, written descriptions, audio recordings and micro-surveys to produce a record of what they were eating.

Seitzinger measured the data collected from the instant food diaries against questionnaires completed seven and 18 days after the food was consumed. The questionnaires were modelled on those used by Canadian public health officials to collect food consumption histories.

The results showed that even after a week, the accuracy of the food history data was significantly lowered by people’s limited ability to remember exactly what they had eaten. The scale of the recall bias varied by food type - for example, it was more difficult for people to remember eating foods which are typically served as a garnish, such as sprouts, rather than as part of a meal.

From a public health perspective, recall bias presents a distinct barrier to the timely and accurate identification of contaminated food sources, which is critical to preventing cases of food-borne illness from spreading.

For this reason, Seitzinger’s study serves as an important first step to identifying and quantifying the threat of recall bias in food-borne outbreak investigations, so it can be accounted for in future studies.

One of the first students admitted to the MPH thesis option, which was introduced to the SPH earlier in the year, Seitzinger is working under the supervision of U of S professor and award-winning researcher Cheryl Waldner, which he describes as a great match.

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Most of us have experienced food-borne illness at some point in our lives.

What we may not realize is that it is a serious public health concern.

The Government of Canada estimates that food-borne illness affects a total of four million Canadians annually, of which approximately 11,000 are hospitalized and over 200 die.

SPH student Patrick Seitzinger’s research is exploring innovative ways to support investigation into outbreaks of food-borne illness, and he is winning awards for it.

A student in the Master of Public Health (MPH) thesis option, Seitzinger’s study on the effects of recall bias on food-borne outbreak investigations claimed first prize in his program at the SPH Poster Day in October, and the Saskatchewan Epidemiology Association (SEA) student research award at the organization’s fall symposium in early November.

Funded by the Saskatchewan Health Research Foundation and the iTraP NSERC CREATE grant, Seitzinger’s study shows how recall bias, which reflects the limited ability of the human memory to remember exact information as time passes, has a significant impact on the accuracy of food consumption data collected to establish sources of infection

It was an interest in Waldner's research and the uniqueness of the MPH thesis option that drew him to the U of S.



Dr. Cheryl Waldner

Seitzinger describes the program, which offers students the opportunity to study for an accredited MPH degree while simultaneously pursuing research interests, as 'the best of both worlds'. "It's like getting an MPH and an MSc at the same time," he said.

It has also opened up a number of exciting research and development opportunities for Seitzinger, including a practicum with the Outbreak Management Division of the Public Health Agency of Canada, and an upcoming internship with the World Health Organization (WHO) in Geneva, Switzerland.

"So far, I've had the chance to do award-winning research, gain practical experience in my field and combine it all with studying for a professional MPH degree," he said. "It's been busy, but extremely rewarding."

Hope for maternal health in rural Tanzania



The Maasai TBA team in Tanzania. Photo by Dr. Mickey Rostocker.

MPH distance student and Dr. James Rossiter MPH Practicum Award recipient Desneige Meyer spent her summer with Green Hope Organisation in Tanzania, Africa, working to improve maternal health outcomes in the nomadic Maasai tribe.

Article continues on next page.

This summer I completed my practicum at the Green Hope Organisation in Arusha, Tanzania. As the Social Determinants of Health are fundamental to health improvements in this developing nation, Green Hope bridges practical economic and training gaps with vulnerable populations. Street-engaged youth, HIV and AIDS patients, early school-leavers and poor women and children are all clients of this NGO.

One indigenous group, the Maasai tribe of the Ngorongoro Conservation Area (NCA), are at particular risk. They live highly nomadic, pastoral lifestyles, building temporary mud homes around seasonal water sources. As a whole, they are marginalized and suffer poor health due to a variety of factors including severe food insecurity, transportation and economic poverty, a strict adherence to traditional practices, and a grave lack of educational and health services in their isolated, rural region. Of particular concern are poor maternal and child health (MCH) outcomes.



Desneige Meyer

As the Maasai typically do not access mainstream medical service, Green Hope provides annual midwifery health training to the Maasai traditional birth attendants (TBAs) in the NCA. In preparation for the workshop we delivered this summer, we conducted an informal needs assessment. We interviewed three consulting doctors, Maasai cultural experts and the district medical officer entrenched in the community, in addition to the TBAs themselves. Ultimately

we developed and delivered a workshop to the TBAs consistent with their most urgent training needs.

Throughout the workshop we identified numerous barriers to improved Maasai MCH care, chiefly maternal malnutrition and, to our surprise, TBA poverty. Training alone cannot address these impairments.

To further champion MCH goals with this population, I was given the privilege to research, collaborate and build a program model to link and potentially mitigate both challenges. The resulting proposed program, a TBA-run agri-health cooperative business, would help empower the impoverished TBAs while incentivizing mainstream antenatal care by distributing whole food baskets to maternity patients. Being entrusted to use my entrepreneurial background to design and propose a new program was by far the most enriching project of my practicum. My practicum supervisor and I have submitted the program proposal to several funding agencies, and should financing be granted, I will return to Tanzania to help implement the program.

International health programming does not always follow the same path as our more bureaucratic Canadian methods. In my practicum this often caused frustrations, but very frequently meant greater responsibility and a richer, deeper, learning experience. Furthermore, because there are so many parallels between the Maasai and our Canadian First Nations communities, I believe this practicum has greatly strengthened my credibility in building a public health career here in Canada.

Receiving the Dr. James Rossiter MPH Practicum Award allowed me the freedom to focus on my work in Africa rather than my bills in Canada. Mitigating much of the costs I incurred during the practicum has allowed me to continue full-time studies this academic year rather than stalling to repay debt. I hope this scholarship opportunity encourages future students to pursue their biggest practicum aspirations, as it did for me.

Written by Desneige Meyer, MPH candidate.

In other news

SPH teams up with Nursing for Warman project

The SPH is collaborating on an innovative College of Nursing-led partnership project with the City of Warman to enhance the community's health care services.

SPH Interim Executive Director George Mutwiri and Assistant Professor Alexander Crizzle are members of the project's steering committee, along with representatives from the Warman community and U of S faculty and staff. The steering committee is co-chaired by Mayor of Warman Sheryl Spence and College of Nursing Interim Dean Beth Horsburgh.

Warman is a city of approximately 10,500 people to the north of Saskatoon. Difficulty in attracting and retaining health care providers, and a lack of core services such as laboratory testing, after hours care and chronic disease management, has significantly limited the care that residents can access within the community, meaning that many have to travel to Saskatoon.

The project hopes to address these deficiencies by introducing a Nurse Practitioner (NP)-led clinic into the community, providing much-needed enhanced primary health care services.

Working closely with the City of Warman and residents, Crizzle is leading a team conducting an assessment of the community's current and future health care needs.

Initial findings from the assessment showed that both physicians and residents would prefer a health centre that offered a full range of services, especially laboratory testing. It also showed that many residents don't have a family physician in Warman, with those that do facing long wait times for appointments.

Early indications are that there is support for an NP-led clinic in Warman as a desirable solution to improve access to primary health care services in the community.

Learn more about the project at the [College of Nursing website](#).

SPH Prof picked for provincial government panel

Dr. Janice MacKinnon will co-chair the Manitoba Government's Advisory Panel on Fiscal Performance.

MacKinnon is a former Saskatchewan finance minister and was a member of the province's cabinet between 1991 and 2001. She specializes in fiscal policy, health policy and federal-provincial relations.

The Manitoba Government's Advisory Panel on Fiscal Performance will be responsible for assessing value-for-money within key government programs and services, and provide recommendations to the province's minister of finance as part of developing the 2017 budget.

Poster Day, networking event success

The SPH held its annual Poster Day on October 28, showcasing the work of 63 students.

30 MPH students presented their findings fresh from summer practicum placements with health agencies in Saskatoon and beyond.

The impressive range of projects presented by 33 students in the four thesis-based programs showed the wealth of research taking place at the SPH.



Thesis-based winners at the 2016 Poster Day

The winners were:

MPH: 1st - Rachel Bethune, 2nd - Shaileja Rajagopal, 3rd - Edris Haghir

MPH online: 1st – Desneige Meyer

MPH thesis: 1st - Patrick Seitzinger

Collaborative Biostatistics: Joint 1st - April Liu and Masud Rana

Epidemiology: 1st - Dana Ramsay, 2nd - Razi Mahmood, 3rd - Khrisha Alphonsus

Vaccinology and Immunotherapeutics (science stream): 1st – Liu Guanqun, 2nd – Mingjie Hao, 3rd – Alyssa Chaffey.

On December 2, the SPH hosted a second seasonal networking event at TCU Place. Students had the opportunity to mingle and chat with health professionals from a range of local organizations, including Saskatoon Health Region, Saskatchewan Heart and Stroke Foundation, Saskatoon Council on Aging and SWITCH. After the networking event, SPH students and faculty enjoyed dinner and dancing at the annual Snow Ball, organized by the Students' Association.

MITACS grant for Dr. Cindy Feng

SPH Assistant Professor Cindy Feng has been awarded a MITACS grant with Ergo Lab Director for the Canadian Centre for Health and Safety in Agriculture (CCHSA) Catherine Trask.



Dr. Cindy Feng

The pair secured the grant, titled *Modelling Fatal and Non-fatal Occupational Injuries in Saskatchewan: Identifying the Leading Risk Factors* in partnership with the Workers' Compensation Board of Saskatchewan.

Workplace fatalities and injury rates in Saskatchewan are persistently high. The grant will support a project to better understand fatalities and injuries, so they can be addressed and ultimately prevented. It will examine questions such as when and where fatalities and injuries are happening, and whether leading indicators exist that can help identify possible increases in occurrences.

New faces: Sarah Werner

Sarah Werner joined the SPH as the MPH Program Assistant in November.



Sarah Werner

Sarah was most recently employed with the Ontario Native Women's Association where she worked as a policy analyst developing internal policies with the organization and consulting with the Provincial Government on policies that directly affect Indigenous women and their families.

Sarah has a B.A. in Indigenous Studies and Anthropology from Trent University. She moved to Saskatchewan to explore more job opportunities. She is very excited to join the SPH team and looks forward to working at the U of S.

Welcome Sarah!

Interested in our upcoming events?

Visit www.usask.ca/sph

Seminar stresses Saskatchewan's Indigenous HIV epidemic

On Nov. 24, 2016, the SPH welcomed Dr. Nnamdi Ndubuka to the U of S to deliver a public presentation which underlined the HIV crisis facing Indigenous populations in the province's northern communities.

Dr. Ndubuka is a medical health officer with the Northern Inter-Tribal Health Authority (NITHA), a partnership organization made up of four Indigenous health partners which provide nursing, public health and primary care treatment services to 33 northern Saskatchewan communities, serving an on-reserve population of approximately 35,000. NITHA actively works with Indigenous communities to provide HIV testing, awareness, education and treatment services.

The presentation, titled *HIV Epidemiology in Northern Saskatchewan*, showed how differences in determinants such as values and beliefs, work, the legacy of Indigenous residential schools, living and social environments, and personal health practices in Indigenous communities leave its populations more vulnerable to high rates of HIV infection than non-Indigenous groups, with a disproportionate concentration of cases occurring in the province's northern communities.

Lack of knowledge about the disease, poor access to mainstream health services, and a basic mistrust of non-Indigenous healthcare practices are just some of the challenges these communities face.

Where health facilities are available, fear of the stigma associated with having HIV and the subsequent social isolation prevent many from accessing testing services or seeking treatment.

'Third World rates in a First World country'

Saskatchewan's HIV rate has continued to make headlines for all the wrong reasons this year, revealing a dire situation. The rate of HIV infection in the province is comparable to Third World countries, with new cases at twice the Canadian national average.

For a wealthy and developed country, this is shocking. Global healthcare professionals have suggested that Saskatchewan is failing its Indigenous peoples, with local physicians calling for the provincial government to declare a public health state of emergency.

Prevention is better than cure

For this reason, NITHA's work with Indigenous communities in northern Saskatchewan is more important than ever. Dr. Ndubuka explained how NITHA has been successful in increasing testing rates through community-based 'know your status' campaigns and routine primary care clinic visits that aim to test people for HIV early on.



Dr. Nnamdi Ndubuka

NITHA is also successfully expanding physician services available in the communities, and has formed strong collaborative partnerships with agencies such as the Northern Healthy Communities Partnership (NHCP), which works to improve the health of northern Saskatchewan's population by influencing everyday living conditions.

Creating 'ethical space'

Gaps in Indigenous population surveillance data currently present a formidable challenge to developing the culturally-focussed health interventions, policies and programs needed to address Saskatchewan's HIV epidemic, and Indigenous communities' mistrust of non-Indigenous academia can form barriers to much-needed community-based research.

Which is why, Dr. Ndubuka explained, it is vital for researchers to create 'ethical space' between academia and Indigenous belief systems, by promoting teamwork and equality among all research partners.

Involving highly respected community Elders at an early stage, honouring Indigenous principles of data ownership, control, access and possession, and being upfront about how research data will be used are a critical part of this process.

Respecting Indigenous knowledge, value and belief systems is key to building trust and successful research relationships with northern Indigenous communities, and developing the innovative solutions desperately needed to alleviate Saskatchewan's HIV crisis.

Moving forward

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Dr. Ndubuka's presentation concluded that there is significant work to be done in Saskatchewan to meet the United Nations Program on HIV/ AIDS (UNAIDS) goal of ending HIV as a public health threat by 2030.

NITHA continues to develop community-driven strategies to meet that goal, including working with Elders and health partners to increase the number of Indigenous communities offering HIV testing, and to deliver consistent messaging to enhance awareness of the disease. Challenging the mistrust and fear of stigma and discrimination that exists in many of these communities will take continued engagement and careful relationship building.

Integrating traditional Indigenous health practices into mainstream HIV prevention and care programs is essential to successfully moving forward in creating culturally-relevant programs and policies, as is respecting that each Indigenous community operates differently, and is moving towards tackling HIV at its own pace.

Changing the HIV trend will not be a simple task, nor one that Saskatchewan's health services can achieve alone. It will require a level of commitment and involvement from many different sectors to come up with a long-term, sustainable solution.

Q & A with SPHSA President Megan Steeves

The SPH Student Association (SPHSA) executive represents the SPH student body, connecting students in all five programs by organizing social events, developing new initiatives, and facilitating professional development opportunities. The *Publication* caught up with current President Megan Steeves.

(Photo shows the 2016-17 SPHSA executive)

P: What do you think has been the highlight of the year for the SPHSA so far?

MS: In my opinion, the Snowball event hosted in December 2016. It was a huge success, and showed the engagement of SPH students and faculty. The planning and preparation allowed the SPHSA executive to grow its relationships both internally and externally.



P: What new initiatives has the SPHSA executive been working on during fall term?

MS: We focused on launching a mentorship program to provide first year MPH students with the opportunity to learn about the MPH program and actively participate in student life at the U of S through partnerships with second year MPH students. We have also begun conceptualizing an alumni association to connect current students with former students serving as public health practitioners across Canada.

P: What's planned for 2017?

MS: We will be organizing the Gradball, which is an opportunity for students to socialize outside of the university, and to recognize the contributions of those who are graduating. We will continue to develop the mentorship program and alumni association, and would like to explore providing further opportunities to students for professional development.

P: What is top of your list of things to achieve with the SPHSA before the end of the academic year?

MS: I hope to continue to build connections with the community-at-large, and allow for myself and my fellow students to become active learners outside of the classroom. I think that broadening our perspectives in this way will better our ability to serve as effective public health practitioners.

Student success stories

Devan Tchir

First year MPH student and University of Alberta (U of A) alumnus Devan Tchir was honoured with the 2016 U of A Students' Union Centenary Award for Outstanding Community Leadership on October 21, for his exceptional contributions to community leadership during his time as a student with the university.

Among many community projects, he volunteered with Canadian Blood Services and the Stollery Children's Hospital in Edmonton, where he progressed to a leadership role and to mentor incoming volunteers.

Inspired by his community leadership work in Edmonton health agencies and the transformative impact his volunteering has had on patients, Devan journeyed across the prairies to study his MPH degree with the SPH.

Read Devan's story on the [SPH website](#).



Devan Tchir receives his award from U of A Chancellor Douglas Stollery. Photo by Janelle Dudzic, JND Photography.

Muzi Li

Epidemiology student Muzi Li successfully published a high-impact research article in major international scientific journal Psychological Medicine, alongside her supervisor SPH Professor Carl D'Arcy, and Adjunct Professor Xiang Fei Meng.

The article shows that child maltreatment significantly increases the risk of mental illness in adulthood, and that the risk of having depression and anxiety as an adult was more than doubled for people who had been abused as a

child. This is the first research to provide estimates on the impact that reducing abuse in childhood would have on the number of people with mental illness worldwide.

Molly Trecker

Molly graduated from the School's PhD in Epidemiology program in June 2016.

As a student, she had significant publication success with five first author publications in her field of research, epidemiological approaches to understanding gonorrhoea transmission dynamics and the development of antimicrobial resistance.

She credits much of her success to her co-supervisors SPH Professor Cheryl Waldner, and College of Medicine Professor Jo-Anne Dillon.

Molly is currently working at the Saskatchewan Cancer Agency as an epidemiologist. She was hired as part of an initiative funded by the Canadian Partnership Against Cancer to improve cancer control for First Nations, Inuit, and Métis in Canada.

The initiative has given Molly the opportunity to work directly with First Nations and Métis communities, to support collaborative approaches to making improvements in cancer control and the cancer care experience.



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The SPH newsletter was written and compiled by Catherine Bonner, Executive Assistant and Communications Officer, School of Public Health, University of Saskatchewan.

The Publication would like to thank everyone who has shared their stories and successes for publication in the newsletter and our website, www.usask.ca/sph.