



might also be exacerbated if the benefits of artificial intelligence (AI) are only realized by patients and populations in high-income countries. We need to minimize inequities while maximizing benefits.”

Last fall, the JCB launched the Ethics and Artificial Intelligence for Health project, started planning an Ethics and AI for Health symposium and are agenda setting with local and international researchers.

In the middle of this, the JCB is expanding its scope and becoming an Ethics Observatory to drive innovation in bioethics by developing research capabilities to advance knowledge in priority areas.

“We’re proactively thinking about emerging ethics issues, building capacity and responding to bioethics challenges,” Gibson said. “As an Ethics Observatory, the JCB will serve as home for AI ethics research in health systems and population health at DLSPH and will monitor related research globally.”

Using Public Health Data to Make a Case for Bloor Street Bike Lanes

SEEING YOUR RESEARCH HAVE an immediate impact on public policy doesn’t happen often, but Lee Vernich, DLSPH’s research manager, had that opportunity when Toronto City Council used results collected for the Toronto Centre for Active Transportation (TCAT) economic impact study to inform their decision to make experimental bike lanes on Bloor Street permanent.

“It often takes years of research to get a policy approved, so to have a short-term project and see its results accepted was gratifying,” said Vernich, who attended the November council session where the vote was taken.

The DLSPH Office of Research worked in partnership with TCAT, U of T’s School of the Environment and Department of Human Geography to conduct the research and prepare the report, looking at the economic impact of this pilot project, which covered a stretch of Bloor Street near the St. George campus. Vernich contributed to the interpretation of the results in the final report.

The Office of Research also helped train a cadre of students to do primary data



AI

The Joint Centre for Bioethics is leading the way in bringing ethical issues related to artificial intelligence to the forefront.

Above: Professor Jennifer Gibson

Below: Research Manager Lee Vernich uses public health data to make a case for Bloor Street bike lanes

Section 2 Research Impact & Excellence

“Usually, any research I take part in takes place in the lab. I like public health because you get a macro perspective. This made me feel like I’m on the right track.”

— Gabrielle Di Sapia Natarelli,
second-year immunology
student

collection, both on Bloor Street and on the Danforth, which served as the control area. The students carried tablets loaded with survey questions about mode of transport and spending at local businesses and were taught to intercept every third person on the street in order to randomize the sample. They also interviewed the local merchants, both before and after the bike lanes were installed.

Gabrielle Di Sapia Natarelli, a second-year student majoring in immunology, health and disease, enjoyed collecting the data and said the experience confirmed her interest in pursuing a master’s degree in public health after graduation, concentrating in epidemiology.

“Usually, any research I take part in takes place in the lab and provides a microscopic perspective,” she said. “I like public health because you get a macro perspective. This made me feel like I’m on the right track.”



(LMIC), involving 1.4 million residents. The intervention is now under consideration by China’s National Committee on Antibiotic Use and Antimicrobial Resistance for a national policy update.

“Antibiotic misuse is high because parents demand care for their children, and for many, care equals medicine,” said Wei, Associate Professor of Health Systems and Clinical Public Health in Asia.

“Evidence is urgently needed in LMIC’s primary care settings where both doctors and patients have poor knowledge and antimicrobial stewardship is weak.”

Inappropriate antibiotic prescribing contributes to antimicrobial resistance, which makes infections and illnesses more difficult to treat and puts strain on the healthcare system. Most research on reducing antibiotic use is conducted in Europe, the United States and Canada, which limits their application to LMICs.

The intervention included clinician guidelines and training on appropriate prescribing, doctor-patient communication, monthly peer-review meetings to measure guideline adherence, and caregiver education

Widespread Antibiotic Misuse Reduced in Rural China

AN INTERNATIONAL TEAM led by Professor Xiaolin Wei has significantly reduced the widespread practice of prescribing antibiotics to children with common colds in rural China.

The study, “Effect of a training and educational intervention for physicians and caregivers on antibiotic prescribing for upper respiratory tract infections in children at primary care facilities in rural China: a cluster-randomised controlled trial,” was published in the October 2017 edition of *The Lancet Global Health*.

Researchers examined the effectiveness of implementing an antimicrobial resistance stewardship program in primary care facilities in a low-and-middle-income country

Above left:
Professor Xiaolin Wei

Above right:
Professor Emily Seto

Below: Naloxone kit image
by Jeff Anderson via Flickr