

Bringing Research to LIFE

In brief

Caring about Healthcare

It's no secret some patients fall through the cracks of our healthcare system. Community health sciences professor Sara Kreindler wants to reverse this trend.

She recently received a prestigious award – given to only two Canadians annually – that will have her discussing this hot topic with more than a dozen researchers from the United Kingdom, Australia, New Zealand, the Netherlands, Switzerland and Germany.

As a recipient of the Harkness Associate Award, Kreindler has earned entrance to the Harkness Fellowships in Health Care Policy and Practice, a core program of the Commonwealth Fund's International Program in Health Policy and Practice.

The fellows spend up to one year in the United States doing original research and working with leading American health policy experts.

"This is a unique opportunity to become part of a community of scholarship that is grappling with the big issues in healthcare reform," says Kreindler, who is also a researcher with the Winnipeg Regional Health Authority's Research and Evaluation Unit.



"Gaining a broader, international perspective will increase the contribution I can make to health-system improvement here in Manitoba."

The Harkness Associate Awards, distributed by the Commonwealth Fund in partnership with the Canadian Health Services Research Foundation, are given to mid-career health services or health policy researchers, decision makers (such as health-system managers, clinical leaders, and government policymakers), or journalists.

These are individuals who are interested in gaining an in-depth understanding of the U.S. healthcare system and developing a broader expertise on international health policy. They get a chance to establish an international network with leading experts in the field.

Kreindler will be studying some of the newest models to promote integration and coordination of health services. She'll hear directly from health ministers, senior government officials, key stakeholders and established health policy experts.

"Healthcare is a team effort involving numerous healthcare professions, programs and sites. Unfortunately, a lack of cooperation between these different groups can result in a poorly coordinated system in which patients fall through the cracks," she says. "For years, health planners in Canada as well as the United States have been asking 'What does it take to create a real system that is organized around the needs of the patient?' I hope to address this question by taking a critical look at what makes integration efforts succeed or fail."

Piece of the Puzzle

New research links antibiotics during infancy to heightened risk of inflammatory bowel disease diagnosis in childhood



Photo by Katie Chalmers-Brooks

Faculty of Medicine research associate Souradet Shaw says new findings could make doctors think twice about prescribing antibiotics to babies before age one.

BY KATIE CHALMERS-BROOKS

University of Manitoba researchers have uncovered a major clue about which children may be more at risk for developing inflammatory bowel disease (IBD), a life-long condition that continues to mystify scientists.

Their findings suggest infants given antibiotics before age one may be three times more likely to develop this chronic and painful disease. Comprised mainly of two ailments—ulcerative colitis and Crohn's disease—IBD attacks the gastrointestinal tract, causing fatigue, reoccurring diarrhea, and bloody stool, and takes a significant toll on the quality of life of those affected.

Led by Charles Bernstein, professor of medicine and director of the university's IBD Clinical and Research Centre, the study compared the antibiotic prescription rates during the first year of life of children who were eventually diagnosed with IBD, and the rates among children who don't have IBD.

Bernstein, along with Souradet Shaw, a research fellow at the centre, discovered 60 per cent of kids with IBD had received at least one antibiotic prescription before their first birthday, compared to 39 per cent of children who don't have IBD.

"I think that we've basically

emerged from a period where there was over prescription to infants and children," says Shaw, who is also a research associate at the Centre for Global Public Health. "Clinicians are moving away from that model, and I think that this study does two things: it gives pause to clinicians to maybe think twice about prescribing antibiotics, and illustrates that infants are different beings than adults or children."

There are two hypotheses about why antibiotics during infancy increases the risk of IBD during childhood, both relating to changes in the flora located in the bowel. The first suggests that since antibiotics kill off bacteria that co-exist normally in the bowel, it doesn't allow the developing organ to build up a tolerance for these bacteria, causing an irregular response to their presence. The other suggests that antibiotics, in killing off bacteria that normally co-exist in the bowels, create an environment where 'bad' bugs are able to thrive.

Researchers gathered the data for the study from the University of Manitoba IBD Epidemiological Database, which houses information on all Manitobans diagnosed with IBD and is the most comprehensive database of its kind in North America. They cross-referenced the records of the 36 children age 11 and younger diagnosed with IBD between 1996 and 2008 with the provincial prescription database. They did the same for a control group

of 360 children without IBD, and compared antibiotic prescriptions between the two groups.

Shaw acknowledges there are limitations to the study, given its smaller sample size since pediatric IBD is rare, but says the findings "open the door for others to explore this association."

"We haven't proved causality, but we've proven a link."

The sample size will continue to grow as more children are diagnosed. The researchers also plan on looking at specific types of antibiotics prescribed, antibiotics exposure later in life, and possible compounding factors such as a family history of the disease.

There is no cure for IBD but there are drugs to control the condition. These drugs are particularly costly so any advancement in this field could ultimately have a positive impact on the healthcare system, says Shaw.

Manitoba has one of the highest rates of reported IBD in the world, he notes. Shaw suspects this likely has something to do with genetics but the causes of the disease remain unknown. Scientists believe a genetic predisposition accompanied by "some sort of triggering factor" plays a role.

"What that factor is, nobody really knows and what genetics are involved nobody really knows," says Shaw. "It's kind of a big mystery. We're just putting in one piece of the puzzle."