

Beyond frozen ground

Climate change and health

Story by Sarah de Leeuw

Maybe it happens *when* another life jolts your own into a space ruled by the rhythms of Nature. The realization that every being has an effect on every other and that the rivers and tributaries of our own bodies echo those of the only home we will ever know: planet Earth.

“I was breastfeeding and looking over Great Slave Lake,” recalls Dr Courtney Howard. “My first daughter and I were not the world’s most natural nursing buddies. I went from running an emergency department to nursing this tiny fierce being and contemplating the frozen lake.

Then a friend sent an article showing Yellowknife was 2.5 degrees warmer than it was in the early 1940s. I started to wonder—how did evidence match up with stories I’d heard from patients about climate change affecting their ability to gather food from the land? So I booked child care. I started an extensive lit review on climate change and health.”

Howard’s passionate focus as a family physician on climate change being the single greatest challenge to human health on the globe—which she is quick to point out is now the position of the World Health Organization—didn’t exactly *begin* with

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those days of breastfeeding. But her daughters are certainly a recurring theme in her work: “A few months later when I finished off Bill McKibben’s ‘Global Warming’s Terrifying New Math,’ I found myself curled up in the fetal position around my 6-month-old. I hadn’t really realized we were on track to drastically exceed the goal of keeping climate change within 2 degrees of worldwide warming within her lifetime. It felt like someone had just given her a terrible diagnosis.”

Not one to remain in the fetal position, Courtney decided, in her words, “action is better than anxiety.”

So action began. She has presented on climate change and health throughout the Northwest Territories and at medical conferences across Canada. She has helped local community non-governmental organizations access and understand the medical evidence base around hydraulic fracturing and passed motions at the Canadian Medical Association General Council promoting the health benefits of carbon pricing and committing it to divest its organizational funds from fossil fuels. She represented the Canadian Association of

Physicians for the Environment at health meetings in Paris, France, around the COP21 climate negotiations, and is proud to report that the Canadian Association of Physicians for the Environment is now a founding board member of the Global Climate and Health Alliance. While in Paris she also presented an open letter signed by more than 140 Canadian physicians and medical learners to federal Minister Catherine McKenna asking that the government act urgently for a healthy climate.

Howard recalls, “I couldn’t believe I’d gone through an entire medical course of training without one mention of climate change.”

The potential effect of climate change on health first became palpable for Howard during the 6 months she spent working on a Médecins Sans Frontières pediatric malnutrition project. “It was May. It was so hot. The malnutrition emergency in Djibouti had more to do with an international food price spike than climate change, but it was clear that the area was extremely dry. You could count the ribs on the goats and the camels in the countryside. That same year, poor rainfall led to

BACKGROUND PHOTO Many lakes, ponds, rivers, and tributaries, like this one that flows into the Mackenzie River, have been affected by drought and forest fires over the past few years in the Northwest Territories.

PHOTOGRAPHER Patrick Kane, Yellowknife, NWT

COVER STORY

widespread crop failure and loss of livestock in the Sahel, with another malnutrition emergency in that area. The potential for climate change to affect food security, and thereby contribute to conflict and population displacement, as we have seen in Syria, is staggering.

“Pediatric deaths affect everyone. You always rail against them. But I remember when this particular little baby died, died for lack of food and clean water, and the mother actually thanked me. Just for being with her child. The mother was displaced. No papers, not officially a refugee. Right at that moment, right then, I told myself that when I got back to Canada I was going to do *everything* possible to stop this kind of thing.”

Dr Howard is the opposite of a naïve woman. She knows, almost innately it seems, that nothing can be done alone—that everything and everyone is connected. “I know I’m only one person, but I promised myself I would not let that stop me. I felt from that moment on it was my responsibility to work for other women around the world who are not in the position to as easily be heard in the hallways of power.”

Although Canada’s far north, and cities like Yellowknife where she lives, might seem inconceivably far away from a tiny nation on the Horn of Africa, Dr Howard argues that thinking about global climate change requires connecting such places. She says in both places, people are deeply and inseparably connected with land: their lives depend on it. There’s no urban buffer: “When people [especially indigenous peoples] talk about the land up here, it’s almost like they’re talking about a family member. And they’re worried and confused about that family member. There are practical issues. Like if there’s no ice, there are no winter roads. People are terrified their children will fall through the ice during winter fishing. Caribou herds are affected and community members are less able to hunt, which impacts food security, sharing rituals, and people’s sense of self-sufficiency. People are adapting, but it has real impacts on culture and on people’s mental health.”

In other words, climate change directly affects the health and well-being of individuals and communities, from Djibouti to the Northwest Territories.



This can be daunting and overwhelming to contemplate, observes Dr Howard. She points out, though, that once you pick a target and assemble a team, the vastness shrinks to concrete discussions about strategy. “The *Lancet* recently said tackling climate change is the biggest health opportunity of our time. Our generation is up to the plate. We need to simultaneously transition to a low-carbon way of life and build resilience into the system so we can weather the storms we can’t now avoid. Physicians have tremendous connections to their communities—our voice is needed to help unify various disciplines to take climate action.”

Targets are becoming clearer and successes are being scaled and exported to other locales. “We developed a ‘Cardiac Commute’ pamphlet that MDs can use to attend their local council meetings and support cycling infrastructure initiatives. Healthy energy is another big one. Phasing out coal-fired power plants decreases air pollution and greenhouse gases. Ontario has accomplished this and Alberta has committed to a phaseout—now we’re aiming for a coal-free Canada. The health care sector itself has a huge


PHOTOS Dr Howard working with the Médecins Sans Frontières’ Balbala Slum Pediatric Malnutrition Project in Djibouti in 2010: (top) resuscitation of a recently arrived, severely malnourished child in the intensive care unit; (bottom) the day a severely malnourished child becomes well enough to reach for your stethoscope is a great day (photos taken by Abdelkadir Osman Omar).



carbon footprint—we can work to green health care and lead by example. Protecting freshwater is critical. Research, too, is very important. Up here [in Yellowknife] wildfires burning in the summer of 2014 created one of the most significant urban smoke events in Canadian history. Asthmatics were coming in for [inhaler] refills. Everyone was cranky from a summer indoors. In partnership with the Yellowknives Dene First Nation and the Ka'a'gee Tu First Nation and Ecology North, and with supervision by Dr James Orbinski and Dr Ashlee Cunsolo-Willox, we received a Health Canada grant and are conducting a mixed-methods project to look at the impact of those fires.”

Still, so much about climate change for Courtney Howard eventually touches down at the most intimate of scales, in the lived and everyday realities of women and children and their families. In 2013, Courtney Howard and her husband, pediatrician Darcy Scott, supported a national staff team member of Courtney's from Djibouti to come

live with them in Yellowknife. Ayan, whose name means *good luck* or *good charm* now assists in raising their daughters. Geographies from around the world are touching and connecting with each other, converging.

As Dr Howard laughs with Ayan, as she calls to her daughters, as they all look out across Great Slave Lake, she circles back to where she began: “I am hearing across the country that we have moved beyond CO₂ graphs. We are now *feeling* the changing climate in our bodies. The diagnosis is clear. Our response will determine the health of our children. As physicians, we must be central to this transition. It's a question of survival.” 

Dr Courtney Howard has an emergency medicine–based practice in Yellowknife, NWT, and is the climate-health lead board member for the Canadian Association of Physicians for the Environment.

The Cover Project The Faces of Family Medicine project has evolved from individual faces of family medicine in Canada to portraits of physicians and communities across the country grappling with some of the inequities and challenges pervading society. It is our hope that over time this collection of covers and stories will help us to enhance our relationships with our patients in our own communities.

PHOTOS (LEFT TO RIGHT) Yukon in the spring. Dr Howard and Fahima (Ayan) Waiss Chirdon after a cardiopulmonary resuscitation training session in Djibouti—long before they knew that Ayan would come to Canada. (Top) Dr Howard meeting with the Summer of Smoke Study Community Coordinator, Berna Martin. Dr Howard with daughter Vivi in the *amauti* out on an adventure around Great Slave Lake in Yellowknife (photo taken by Tara Marchiori). Dr Howard with colleagues Dr James Orbinski and Craig Scott, Executive Director of Ecology North, on Great Slave Lake.

BACKGROUND PHOTO Sunset over Great Slave Lake near Drybones Bay, a culturally significant area for the Dene people in the region.

PHOTOGRAPHER Patrick Kane, Yellowknife, NWT

